



Analytical Report 2013/03

Urbanization in Central Asia: Challenges, Issues and Prospects

Tashkent 2013

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Abbreviations

CER	Center for Economic Research
CIA	Central Intelligence Agency
CIS	Commonwealth of Independent States
ESCAP	Economic and Social Commission for Asia and the Pacific
GDP	Gross domestic product
GRP	Gross regional product
IT	Information technology
NGO	Non-governmental organization
SMCs	Small and medium-sized cities
SMEs	Small and medium-sized enterprises
TIC	Territorial industrial complex
UNDESA	United Nations Department of Economic and Social Affairs
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
USSR	Union of Soviet Socialist Republics
UTS	Urban-type settlements

Foreword

The history of Central Asian cities goes back thousands of years. Located along the Great Silk Road, Tashkent, Osh, Khujand, Samarkand, Bukhara, Khiva, Tashkent, Mary and other cities in the region emerged as centers of intercontinental trade, diplomacy and cultural dialogue. In the more recent past, the cities of the region have undergone complex political, economic, social and cultural transformations that have affected their status and roles.

Under Soviet rule new cities and municipalities were created in Central Asia primarily to meet the needs of the USSR's national economy. Many of those urban settlements were established as "monocities" (or company towns). After 1991, many urban settlements in Central Asia underwent a decline in economic activity and hence a decrease in local budget revenues and deterioration of urban infrastructure. They also had limited capacity to manage urban development under market conditions.

Central Asian countries have taken different approaches to urban development in their effort to re-establish urban governance systems and support social and economic development in urban areas. Each country's record includes both successes and failures, which must be carefully studied to assist governments and development partners in streamlining their policies and addressing future challenges of urban development in Central Asia.

Since 2011, the Center for Economic Research, with support from ESCAP and UNDP Uzbekistan, has been implementing a "Sustainable Urban Infrastructure Development" Project. The first phase of the Project (2011) focused on issues of urban development in Uzbekistan and resulted in a comprehensive report, presented during the international workshop on July 5-6, 2011, in Tashkent.

This report is the product of the Project's second phase, which focused on urban development trends in all Central Asian countries. The research was conducted in 2012 by the CER team with support from local partners in Uzbekistan, Kazakhstan, Kyrgyzstan and Tajikistan. Country perspectives and preliminary results of the research were presented and discussed at the regional workshop in Tashkent on October 9-10, 2012. The workshop hosted 68 participants, including project coordinators and national consultants from Uzbekistan, Kazakhstan, Kyrgyzstan, Tajikistan and the Russian Federation; presenters from UNDP and the World Bank; representatives of parliaments, ministries, government agencies, research institutions, international organizations, bilateral organizations, diplomatic missions, independent experts and civil society in Uzbekistan.

Efforts undertaken as part of this Project constitute the first attempt in 20

years to launch an integrated regional dialogue on the challenges and prospects of urbanization, which is an inevitable but manageable process. Central Asia has a substantial but underutilized potential for economic growth. But this requires a successful transformation from an isolated region into a transport, industrial, and financial hub between emerging Asia and Europe. Based on the outcomes of the workshop, ideas, recommendations, and proposals are formulated in this report to improve urbanization policies in the Central Asian countries given current development priorities and long-term challenges, as well as the need to set up productive, sustainable, and inclusive cities, underpinned by their emerging role as growth poles.

Introduction

One-fifth of the world's population today lives in the 600 largest cities, which account for more than half of global GDP. By 2025, these cities will be home to a quarter of the world's population, and they will produce more than 60% of global GDP¹. The population of cities in emerging economies is expected to double between 2000 and 2030, from 2 to 4 billion people, and their built-up area will triple in size, from 200,000 to 600,000 square kilometers².

The rapid growth of cities and urban population bring both opportunities and challenges. On the one hand, cities are drivers of economic growth and development, concentrating opportunities for businesses and people. On the other hand, urban infrastructure often fails to keep pace with demand, leading to a deterioration of living conditions and such problems as environmental degradation, a shortage and poor quality of public services, the rise of disease and health risks, and so on. This is clearly apparent in the megacities of Asia and the world.

Urbanization is also becoming a major challenge for Central Asia, which is experiencing rapid economic and demographic growth. Today, the region's population exceeds 65.6 million, with 43.8% living in urban areas. According to UNDESA projections, the population of Central Asia will grow to 82 million by 2050, with 55.2% living in urban areas. Urban population growth could be even more substantial as a result of economic reforms, reclassification and other factors.

Most cities and towns of Central Asia were established under Soviet rule primarily to meet the needs of the USSR's national economy. When the Soviet Union broke up in 1991, the countries of the region (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan) had mostly agrarian-industrial economies with a predominantly rural population.

Since independence, the Central Asian countries have taken different approaches to urban development in their efforts to re-establish urban governance systems and support social and economic development in urban areas. The dynamics and underlying factors of these processes vary from country to country, as do the policies adopted by national governments to meet the challenges of urbanization. Yet the following challenges are shared by all Central Asian countries.

- Relatively high natural population growth and limited employment opportunities in rural areas, which produce migration to large and medium-size cities, as well as labor migration out of the country.
- Limited water and land resources, partly due to the landlocked nature of the region, which raise issues of food security and the need to increase efficiency in agriculture, particularly through mechanization and the introduction of new technology.

Urbanization is becoming a major challenge for Central Asia, which is experiencing rapid economic and demographic growth

¹ *Urban world: Mapping the economic power of cities*. McKinsey Global Institute Report. March 2011.

² *Planning, Connecting, and Financing Cities—Now: Priorities for City Leaders*. 2013. Washington, DC: World Bank.

Box 1. Defining a policy of urbanization

In this report, the policies of urbanization mean the following areas of government policy, which directly or indirectly affect the processes of urban development:

- *Drafting and implementing regional and territorial development programmes.*
 - *Reforming the system of local governance with a focus on cities and municipalities.*
 - *Reforming the system of city budgets and inter-budget relations.*
 - *Implementing sectoral programmes of industrial development.*
 - *Managing migration processes.*
 - *Tax policies aimed at incentivizing/disincentivizing the development of industry and services in urban areas.*
 - *Housing policies.*
 - *City-planning policies and urban development planning.*
- Growing pressure on urban infrastructure, which was established during the Soviet era and now, to a large extent, is nearing the end of its service life. It requires significant investment for a massive overhaul.
 - The vast land area of countries such as Kazakhstan, Uzbekistan and Turkmenistan, leaving Central Asian cities isolated from urban networks and overseas markets and resulting in high transportation and communications costs.

Every country in the region, to one degree or another, faces a plethora of issues related to territorial development and building up new spatial frameworks that would support their long-term social and economic growth.

Are the cities of Central Asia ready to absorb the influx of new residents in the medium and long term? What policy options and solutions are national governments considering in the region? Are there any clear, long-term urbanization visions and policies? How well suited are national institutions and instruments for the implementation of these policies?

In this report, a team of authors from Central Asia has attempted to address these and other questions. The research evaluates the state of urbanization in the region at the beginning of the 1990s, the successes and failures in urban development over the last twenty years, and the challenges facing the Central Asian countries in the medium and long term. This report is not intended to be a set of universal prescriptions for national governments or international development organizations. It is primarily aimed at stimulating further multi-lateral discussions on the issues of urban development in Central Asia.

This report was completed by the Center for Economic Research (CER), Uzbekistan, with the support of ESCAP and UNDP. The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area, or its authorities, or concerning the demarcation of its frontiers or boundaries. The content and views expressed in this publication are those of the authors and do not necessarily reflect the views or policies, or carry the endorsement of the United Nations. This document has been issued without formal editing.

Every country in the region faces an issues related to territorial development and building up new spatial frameworks that would support their long-term social and economic growth

Chapter 1. Urbanization in Central Asia in the Soviet and transition periods

1.1. Urbanization policies and outcomes in the Soviet period

During the Soviet period urban framework was dominated by single-industry towns, which were focused on narrow objectives and specific tasks

The Soviet period in Central Asia saw a significant increase in both total population and especially its urban share, the emergence of new cities, the expansion of urban infrastructure and the growth of agricultural and extractive industries. However, the urban framework was dominated by single-industry towns, which were focused on narrow objectives and specific tasks and were more connected with cities and industries in other republics of the former Soviet Union than with the local economy. This led to serious imbalances in the spatial development of Central Asia and limited the ability of cities to adapt to the conditions that emerged after the breakup of the centrally planned economic system.

1.1.1. Demographic trends

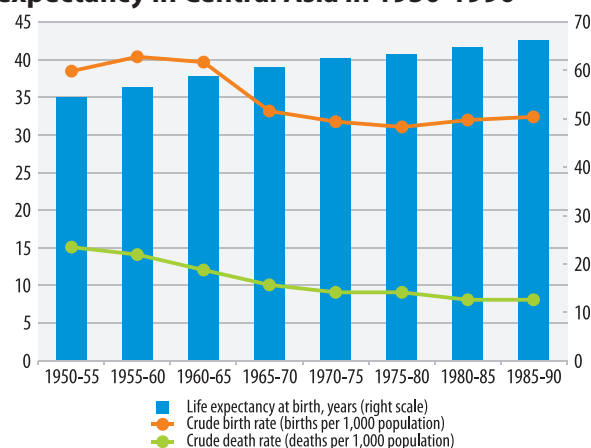
According to census data, the population of the Central Asian republics increased 3.6-fold from 13.7 million in 1926 to 49.4 million in 1989. The share of urban population also more than tripled (from 13.4% to 45.6%). From 1950 to 1990, life expectancy in the region increased by 12 years, mortality dropped by almost half, and birth rates averaged 34.8 per 1,000³.

Despite the general trend of population growth in Central Asia, each country of the region had its own patterns of demographic development.

Kazakhstan. From 1926 to 1989, the population of Kazakhstan increased 2.7-fold - from 6 million to 16.5 million people. From the 1950s through the 1980s, Kazakhstan's population growth was mainly driven by natural factors.

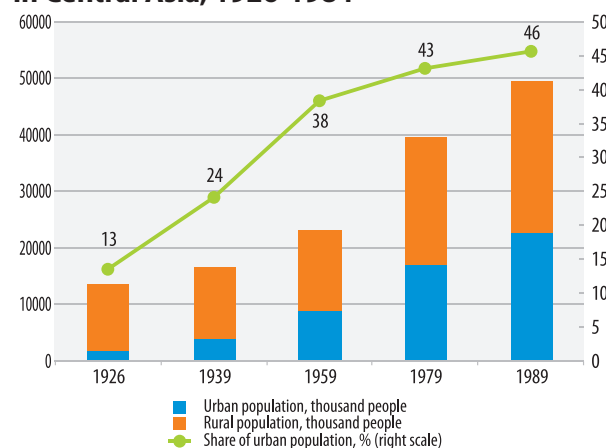
³ World Population Prospects: The 2010 Revision. UNDESA Population Division. New York. 2011

Figure 1. Birth rates, death rates and life expectancy in Central Asia in 1950-1990



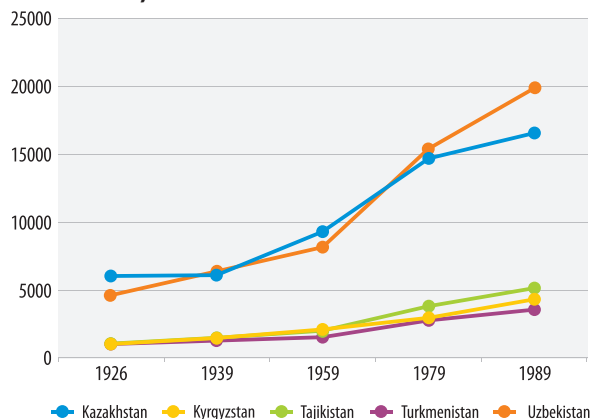
Source: UNDESA, World Population Prospects 2010

Figure 2. Urbanization dynamics in Central Asia, 1926-1984



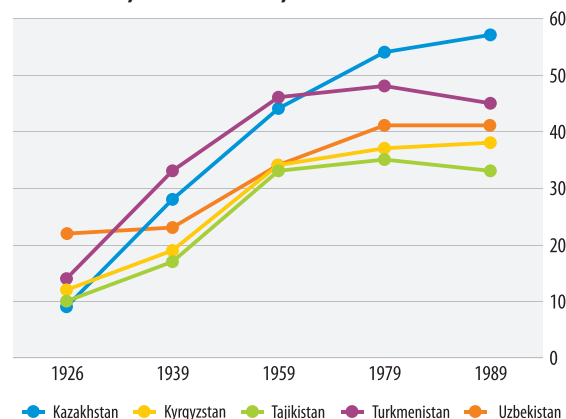
Source: USSR Census Data

Figure 3. Total population of Central Asia, 1926-1989, thousands



Source: USSR Census Data

Figure 4. Share of urban population in Central Asia, 1926-1989, %



Source: USSR Census Data

Beginning in 1968, the country had a negative migration balance, but high birth rates prevented a significant impact on total population growth until the early 1990s. The focus on extractive industries in Kazakhstan's economic development resulted in higher rates of urbanization than in the rest of the region. The share of urban population in Kazakhstan grew from 43.7% in 1959 to 50.3% in 1970, 53.5% in 1979 and 57.1% in 1989.

Kyrgyzstan's population in 1926-1989 increased fourfold – from 1 million to 4.3 million. The share of urban population tripled over the same period – from 12.2% to 38.2%. The period from 1926 to 1939 saw significant demographic growth (averaging 3.2% per year) and the highest annual urbanization rates in the history of Kyrgyzstan (around 6.8% per year). Between 1950 and 1960, population growth averaged 2.2% a year, while urban population increased by 4.3%, far exceeding the growth rate in rural areas (1.3%).

Between 1979 and 1989, Kyrgyzstan's population increased by 2.0%, with similar growth rates in urban and rural areas. There were notable differences, however, between the northern and southern parts of the country. In the north, the urban population grew faster than the rural population; in the south, the highest population growth rates occurred in several rural areas of the Fergana Valley and remote mountain villages. Except for a few old industrial towns and settlements, urban population growth was insignificant.

The population of **Tajikistan** grew rapidly, increasing fivefold – from 1 million in 1926 to 5.1 million in 1989. The Soviet period was also marked by an expansion of the country's urban population (from 9% in 1913 to 33% in 1989). Urbanization of the Tajik Soviet Socialist Republic was a result of the rapid concentration of production in large cities, the creation of numerous settlements in new development areas (in connection with the construction of the Nurek Hydroelectric Station and the flooding of rural areas) and the concomitant mass movement of population from villages to cities and urban-type settlements, as well as its concentration in large and major urban areas. However, after reaching a historic high of 37% in 1970, the share of urban population in Tajikistan began to decline and by the time of the USSR's collapse it had fallen to 32%.

Uzbekistan's population increased 4.3-fold, from 4.6 million in 1926 to 19.9 million in 1989, while the share of urban population almost doubled over the same period (from 22% to 41%). In absolute terms, the republic's urban population during these years grew even faster (by eightfold – from 1 to 8.2 million). In the period prior to World War II (1924–1941), the population growth rate averaged 2.5%; between 1959 and 1970 it reached 4.1%; and between 1970 and 1990 it dropped to 3.15%. Demographic growth was mainly driven by increases in the rural population, which by 1990 had grown 2.2-fold over 1959.

Urbanization in Uzbekistan was stimulated by industrialization and mass migration of people from other regions of the Soviet Union, both during war-time (1941–1945) and in the postwar period. During the 1966–1970 period, there was an increase in urban population (mainly in the city of Tashkent) due to an influx of people from the Russian Federation, the Ukraine and other Soviet republics. In the second half of the 1970s, however, external migration turned negative due to the outflow of nonindigenous (mainly Russian) population from the country – not only from cities, but also from rural areas.

Turkmenistan in the Soviet period also experienced high demographic growth. Its population increased 3.5-fold (from 1 million in 1926 to 3.54 million in 1989); urban population size grew 11.6-fold (from 0.14 to 1.59 million), while the share of residents living in urban areas tripled (from 14% to 45%). Urbanization in Turkmenistan, as in the other Central Asian republics, was attributable to so called 'socialist' industrialization. Urban population growth from 1930 to 1970 averaged 6.7% per year, and by the mid-1970s, some 49% of the country's population lived in urban areas. In subsequent years, this figure gradually declined (mainly due to the rapid growth of rural population), and by the time of the USSR's collapse the share of Turkmenistan's urban population was 45%.

1.1.2. Industrial policy and spatial development

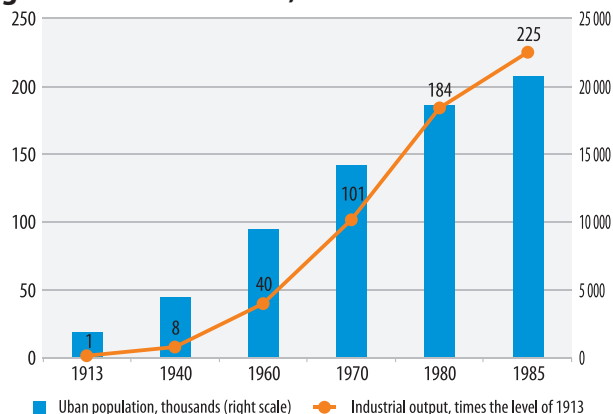
Soviet industrial policy in Central Asia resulted in significant economic and demographic changes, including the rapid creation of new cities and urban population growth. However, the placement of cities and industrial sites, however, was largely focused on serving the needs of the agricultural economy and the formation of urbanized zones with significant extractive industries and infrastructure in underdeveloped and remote areas with abundant natural resources.

As Figure 5 shows, Central Asia's urban population grew during the Soviet period in step with the region's industrial development. From 1913 to 1985, the industrial output of Central Asian republics increased by a factor of 225, while urban population increased more than tenfold⁴.

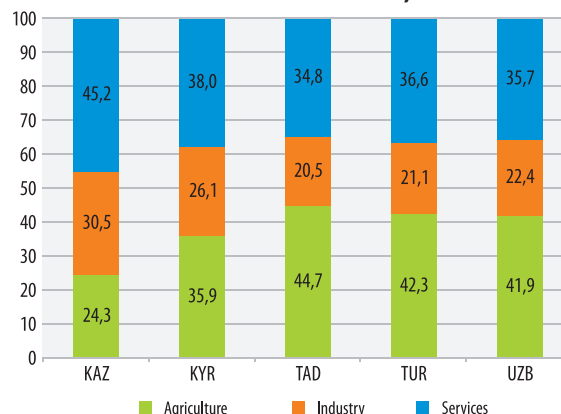
The urbanization and industrialization of Central Asia were boosted significantly by the evacuation of industrial enterprises from other Soviet republics during World War II. Between 1941 and 1943, 142 enterprises were relocated to Kazakhstan, 30 to Kyrgyzstan and 109 to Uzbekistan. In 1960, the region's urban population was twice as large as in 1940, with industrial output expanding fivefold over the same period.

Placement of cities and industrial sites was largely focused on serving the needs of the agricultural economy and the formation of urbanized zones with significant extractive industries

⁴ *National Economy of the USSR in 70 years: Anniversary Statistical Yearbook / USSR Statistics Committee. Moscow: Finance and Statistics, 1987. p. 17*

Figure 5. Industrial output and urban population growth in Central Asia, 1913-1985

Source: USSR Statistical Yearbook, 1987

Figure 6. Employment by sectors in Central Asian countries in 1991, %

Source: CIS Statistical Bulletin, 1999

Between 1960 and 1990, the following territorial-industrial complexes (TICs) were established: the South Tajik TIC in Tajikistan; the Navoi Mining and Metallurgical TIC, the Almalyk-Angren TIC and the Fergana Petrochemical Complex in Uzbekistan; and the Kustanai and Pavlodar-Ekibastuz TICs in Kazakhstan. The share of the extractive sector in the region's total industrial production was twice as high as the average for the USSR, while the share of the processing industry was much lower.

Urbanization in **Kazakhstan** was mainly driven by the creation of industrial areas. In 1939 the country had 28 cities and 53 urban-type settlements; by 1945 their numbers had risen to 38 and 100, respectively. The scale of urbanization continued to grow in the postwar period, resulting in 40 new cities.

Subsoil development, large-scale industrial and transport construction, and the development of virgin lands were the main drivers of urban development and growth. In particular, the development of mineral resources and the creation of petroleum, chemical, metallurgy, and coal mining industries led to the birth of cities such as Shevchenko, New Uzen, Kentau, Tekeli, Karatau and Zhanatas. In the Irtysh region and Central Kazakhstan, new towns included Abai, Saran, Shakhtinsk, Ekibastuz and others.

By the early 1980s, the share of urban population in Karaganda, Mangyshlak and Dzhezkazgan, reached 83-89% of total population⁵, a very high proportion compared with the rest of Central Asia.

In **Kyrgyzstan**, urbanization also followed industrialization. The latter, in turn, followed the railways, which were built to provide access to local resources. Railways appeared in Kyrgyzstan in the early 20th century, first in the south (for coal mines and oil fields) and then in the north. In 1941-1942, about 30 factories were moved to Kyrgyzstan and partly diverted to military production. They were located mainly in Chui Oblast and Bishkek. That period also saw the construction of first large irrigation channels, which led to an increase in agricultural production.

From 1913 to 1985 the industrial output of Central Asian republics increased by a factor of 225, while urban population increased more than tenfold

⁵ National Economy of Kazakhstan in 1983. p. 5. Quoted by Iskakov. The cities of Kazakhstan: Issues of Socio-economic Development. Alma-Ata, Nauka, 1985

By 1990, nearly 40% of Kyrgyzstan's population had changed their traditional occupations and were living in cities.. As in the rest of Central Asia, enterprises in Kyrgyzstan (mostly town forming companies) were set up as part of the division of labor within the Soviet Union, without regard to the needs of the internal market, transportation and labor costs or the availability of raw materials and components in the Kyrgyz Republic. A number of these enterprises did not survive in the marketplace after the collapse of the Soviet Union.

The development of cities and urbanization in **Tajikistan** in the Soviet period were also based on one-dimensional industrial policies. The industrialization of Tajikistan involved the mass resettlement of specialists from more industrialized regions of the USSR. As a result, between 1950 and 1960, the Tajik Soviet Socialist Republic, as well as other countries in the region, acquired a so-called binary system of population distribution. The urban population consisted primarily of nonindigenous residents who held key positions in the administration of industrial enterprises and organizations. The indigenous population lived mainly in rural areas. The urbanization of Tajiks remained negligible; between 1979 and 1989, the share of urban residents among Tajiks grew by only 1.2%, and Tajiks accounted for less than half of all of the country's city dwellers.

Uzbekistan inherited the framework of territorial development and distribution of productive forces that was focused mainly on meeting the needs of the agricultural and industrial economy. The basic principle of the former Soviet Union's spatial development was to create a unified national economic complex. Under this policy, industrial facilities in Uzbekistan were sited, above all, to ensure the exportation of the country's hydrocarbon and mineral resources, cotton and other raw materials. From 1976 to 1990 alone, Uzbekistan exported cotton fiber and gold worth more than \$35 billion⁶. The country's industrial product mix, apart from a number of value-added items (aircraft, excavators and others), was limited to construction materials, cotton fiber, and light industry goods.

Between 1980 and 1990, the share of light, cotton, textile and food industries in total industrial production in Uzbekistan was about 57.3%⁷. The small proportion of industrial production in regions with high demographic growth – Andijan, Namangan, Fergana, Tashkent, Samarkand, Kashkadarya, Khorezm and Bukhara oblasts – and the extremely small number of production facilities in Syrdarya, Djizak, Surkhandarya and Karakalpakstan paved the way for long-term imbalances.

The industrialization of **Turkmenistan** was largely associated with the evacuation of industrial facilities in World War II and the active development of hydrocarbon resources. After the war, the country developed natural gas production, oil refining and machine-building, and increased cotton production. To meet the needs of these industries, transportation and irrigation infrastructure were built. In particular, the construction of Karakum Canal between 1950 and 1970 gave a powerful impetus to the development of agriculture. At the beginning of 1976, major industrial centers in Turkmenistan were Ashgabat (population 297,000), Chardzhou (110,000), Tashauz (81,000), Mary (70,000), Krasnovodsk (54,000), Bairam-Ali (38,000) and Tedjen (31,000). Newly established cities over the Soviet period included Nebit Dag, Bezmein, Cheleken.

⁶ *Spatial Development and Effective Allocation of Productive Forces: Growth Poles in the Context of Industrialization and Urbanization in Uzbekistan*. CER, Analytical Report, Tashkent, 2010

⁷ *Uzbek SSR. Encyclopedia*. Tashkent, 1981

Table 1. Demographic indicators for Central Asian countries, as of January 1, 2012⁸

	Population, in thousands		Share of urban population, %	Population growth rates, 2006-2011, %		Density, population per sq. km
	Total	Urban		Total	Urban	
Kazakhstan	16,675.4	9,114.6	54.7	1.70	1.01	6.1
Kyrgyzstan	5,551.9	1,884.4	33.9	1.14	0.86	27.8
Tajikistan	7,800.5	2,063.3	26.5	2.00	2.12	54.5
Turkmenistan	5,054.8	2,527.4	50.0	1.14	2.20	10.4
Uzbekistan	29,559.1	15,069.6	51.0	1.96	9.11	66.1
Central Asia	64,641.7	30,659.3	47.4	1.59	3.06	16.1

1.2. Urbanization trends in the transition period

After the collapse of the Soviet Union in 1991, the Central Asian republics experienced irregular urbanization trends. Their development strategies and policies, including for cities, also showed greater diversity. Countries in the region chose different models of urbanization, economic and spatial development, depending on their demographic profile, settlement patterns, resource and socio-economic conditions.

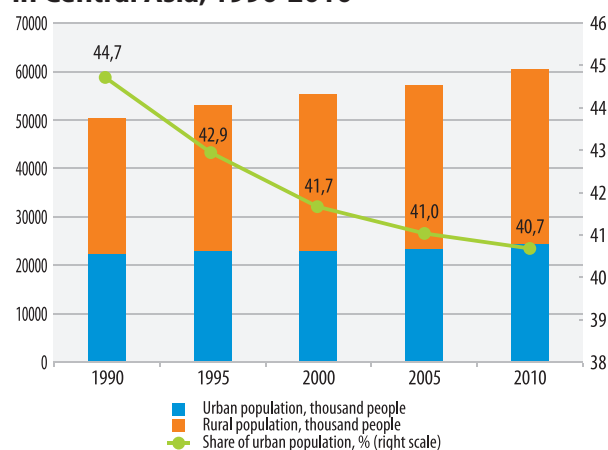
1.2.1. Demographic factors of urbanization

As of January 1, 2012, the total population of the five Central Asian states was 64.6 million, with urban population accounting for 47.4% (or 30.7 million). In all countries, the average urbanization rate (1.7%) exceeds the growth rate of the total population (1.21%). Although in the transition period the population of Central Asia as a whole continued to grow, some countries experienced depopulation (Kazakhstan) and de-urbanization (Kyrgyzstan, Tajikistan, Uzbekistan).

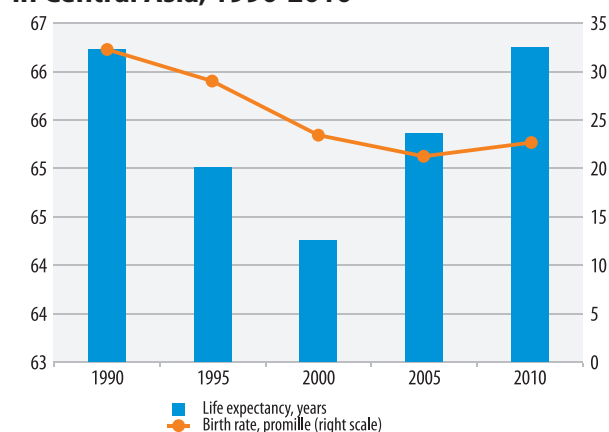
In the early 1990s, **Kazakhstan's** population started to decrease due to emigration, which was offset until 1993 by the natural growth of the popula-

After 1991 the Central Asian countries chose different models of urbanization, economic and spatial development, depending on their demographic profile, settlement patterns, resource and socio-economic conditions

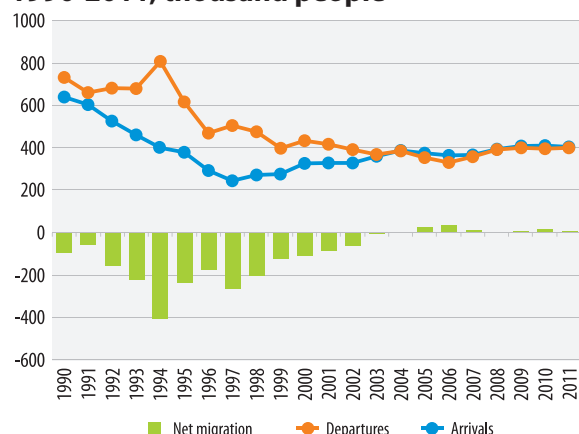
⁸ National statistics agencies of the Central Asian countries; The CIA World Factbook, Accessed on November 29, 2012

Figure 7. Urbanization dynamics in Central Asia, 1990-2010

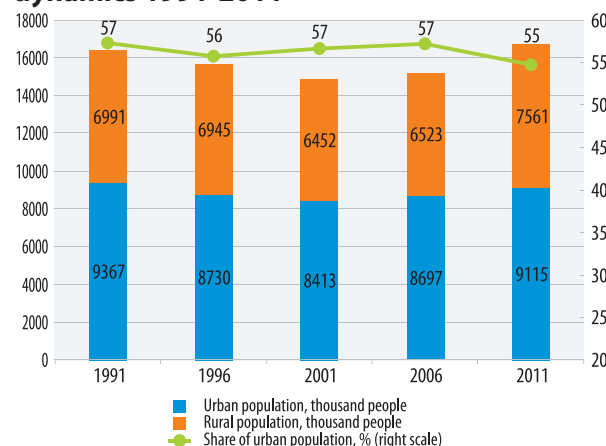
Source: UNDESA, World Population Prospects 2010

Figure 8. Birth rates and life expectancy in Central Asia, 1990-2010

Source: UNDESA, World Population Prospects 2010

Figure 9. Migration of Kazakhstan's population, 1990-2011, thousand people

Source: Kazakhstan's Statistics Agency

Figure 10. Kazakhstan's urbanization dynamics 1991-2011

Source: Kazakhstan's Statistics Agency

tion. From 1991 to 2010, 6.08 mln. people moved within the country and 3.39 mln. people emigrated, meaning that over the past two decades, 9.48 million people were involved in some form of migration, or nearly 58% of Kazakhstan's 1991 population⁹.

This demographic decline continued until 2002, resulting in a 12.7% decrease in Kazakhstan's population over ten years. However, Kazakhstan still had the largest share of urban population in Central Asia (around 55-56% in 1999-2000). In 2004 Kazakhstan's population began to increase again, due to natural increase and, to a large extent, immigration. The balance of external migration remains positive mostly in the southern and western parts of the country, as well as in the city of Almaty and Almaty Oblast. Over the past 20 years, 1,376,000 people have arrived in these regions to take up permanent residence; 810,000 of this total, or 59%, were repatriates (around 200,000 families, according to official statistics)¹⁰.

At the beginning of 2012, **Kyrgyzstan's** population was 5.6 million, with 1.9 million people, or 33.9%, residing in cities and towns. Between 1989 and 2009, the urban population increased by only 221,000. Particularly low rates of urban population growth occurred from 1989 to 1999 (3.2% in 10 years, or an

Table 2. Population change in Kyrgyzstan between the 1989, 1999 and 2009 censuses, by growth components

	Total increase, in thousands	Components			Average annual growth rate, %
		Natural increase	Net migration	Administrative and territorial changes	
	1989-1999				
Total	547.4	883.3	-335.9	0.0	1.2
Urban	72.4	234.7	-139.0	-23.3	0.3
Rural	475.0	648.6	-196.9	23.3	1.8
	1999-2009				
Total	542.2	739.2	-197.0	0.0	1.1
Urban	148.6	205.8	-113.4	56.2	0.9
Rural	393.6	533.4	-83.6	-56.2	1.2

⁹ Migration and employment. *Economics and Statistics Journal*. Issue #2, 2012. Almaty.

¹⁰ Ibid.

Table 3. Kyrgyzstan's urban and rural population, 1989-2012¹¹

	Resident population, in thousands				Share in total population, %			
	1989	1999	2009	2012	1989	1999	2009	2012
Total	4, 257.7	4, 822.9	5, 362.8	5, 551.9	100	100	100	100
Urban	1, 624.5	1, 678.6	1, 827.1	1, 884.4	38.2	34.8	34.1	33.9
Rural	2,633.2	3, 144.3	3, 535.7	3, 667.5	61.8	65.2	65.9	66.1

average of 0.3% per year). Moreover, due to the higher demographic growth rates in rural areas, the share of urban population declined from 38.2% in 1989 to 34.8% in 1999.

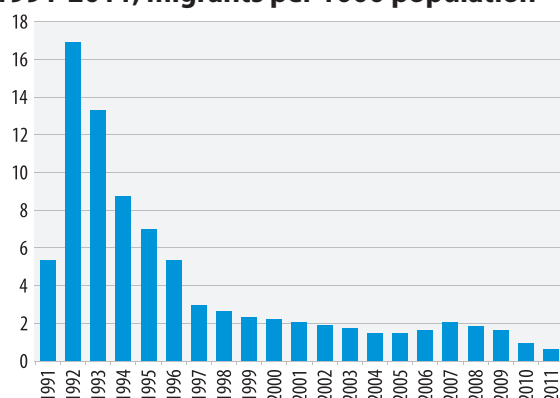
Kyrgyzstan has seen a significant exodus from the country since 1991. In the first years of independence, emigration affected industrial and mining towns in all parts of the country, as well as the oblast and district centers that were experiencing economic stagnation or decline. According to official statistics, over the past 20 years more than 500,000 people emigrated from Kyrgyzstan. Between 1999 and 2009, urbanization trends slightly recovered with a three-fold increase in the average rate of urban population growth, but given the faster growth of the rural population, urban residents account for only a third of the total population.

Today Kyrgyzstan has 25 cities, which account for more than 90% of the urban population, while the remaining 10% consist of those residing in urban-type settlements. About 60% of the urban population live in two cities: Bishkek (the capital) and Osh. In 1991 a process of de-industrialization began in the country, resulting in a decline of urban population. The transformation of rural communities into towns between 1991 and 2012 often was not followed by the creation of adequate urban infrastructure and conditions for their economic development.

Between 1989 and 1999, **Tajikistan's** population continued to increase despite significant emigration from the country (437,000 people in 11 years). Demographic growth was mainly driven by high birth rates. At the same time, the urban population has declined by 45,800 (2.7%), while the rural population

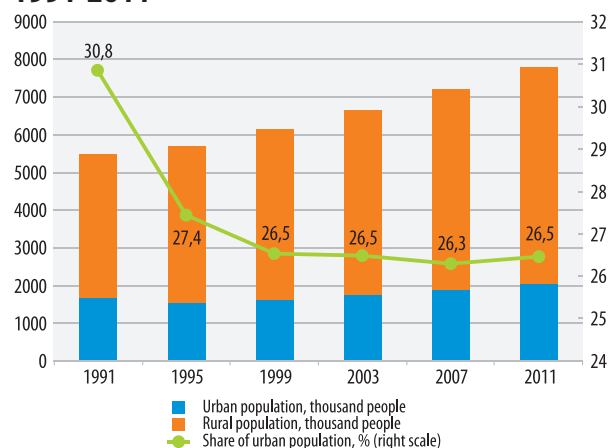
¹¹ Data for 1989, 1999, and 2009 were obtained from the census statistics. Data for 2012 is an assessment at the beginning of the year.

Figure 11. Outward migration from Tajikistan, 1991-2011, migrants per 1000 population

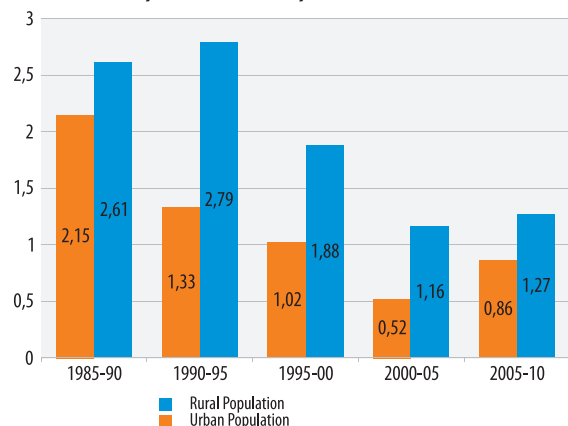


Source: Tajikistan Statistics Agency, 2011

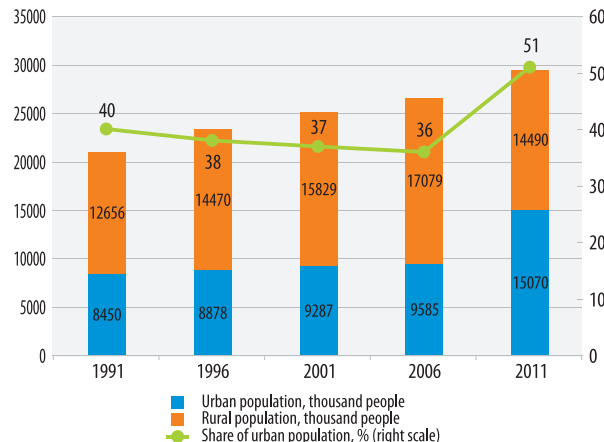
Figure 12. Tajikistan's urbanization dynamics, 1991-2011



Source: Tajikistan Statistics Agency, 2011

Figure 13. Average population growth rates in Uzbekistan, 1985-2010, %

Source: UNDESA, World Population Prospects 2010

Figure 14. Uzbekistan's urbanization dynamics, 1991-2011

Source: Uzbekistan Statistics Committee

has increased by 1,063,700 (30.9%). The share of urban population fell from 33% in 1989 to 26% in 2000. The decrease affected the population of most major cities in Tajikistan, including the capital.

De-urbanization in Tajikistan in the post-Soviet period is a consequence of the civil war and the deep socio-economic crisis, characterized by massive displacement of the population both within the country and leaving it. In particular, the period between 1991 and 2001 saw two waves of emigration of the Russian-speaking population – most of which lived in urban areas – from Tajikistan. The first wave took place in 1990-1991, following the collapse of the Soviet Union. The civil war in Tajikistan prompted the second wave of emigration in 1992-1995. The second wave was much more powerful than the first, as

Box 2. Administrative and Territorial Reform in Uzbekistan

One of the factors of Uzbekistan's urbanization in the transition period was an administrative-territorial reform. The Government's efforts in recent years have been focused on major infrastructure development projects in the cities of Tashkent, Samarkand, Andijan, Karshi, Namangan, Fergana, Margilan, Kokand and some others.

From 2005 to 2009, a list of rural communities with at least 2,000 residents was compiled and local government decisions were adopted to reclassify them as urban settlements according to the national law and UNFPA standards. On March 13, 2009, the Cabinet of Ministers adopted Resolution No. 68 "On Additional Measures to Improve the Administrative and Territorial Structure of Communities in the Republic of Uzbekistan," which granted 965 rural settlements – with a total population of 4.4 million people – the status of urban settlements.

In particular, 11 villages were reclassified in the Republic of Karakalpakstan; 79 in Andijan Oblast; 59 in Bukhara Oblast; 33 in Dzhijak Oblast; 117 in Kashkadarya Oblast; 29 in Navoi Oblast; 108 in Namangan Oblast; 75 in Samarkand Oblast; 106 in Surkhandarya Oblast; 15 in Syrdarya Oblast; 78 in Tashkent Oblast; 198 in Fergana Oblast; and 50 in Khorezm Oblast.

The regional authorities were instructed to implement social and economic measures arising from the reclassification of these settlements that comply with town planning requirements for the category of urban settlements.

On December 4, 2010, the Cabinet of Ministers adopted a resolution "On Measures to Improve the Design And Implementation of Master Plans for Cities and Urban-Type Settlements and Drafts for the Architectural Planning of Rural Citizens' Assemblies," which provides the development of master plans for 178 cities and urban settlements in 2011-2014.

almost 100,000 families, fearing the tragic consequences of the war, decided to permanently leave Tajikistan and move to Russian Federation, Ukraine, Belarus, Germany, Israel, Kazakhstan and Uzbekistan.

According to Tajik experts, the reasons that rural residents move to cities have dramatically changed over the past 20 years. Between 1991 and 2001 people moved to cities in search of security; in 2001-2010, the main motivation was socio-economic. However, this kind of growth of the urban population is unstable, because when they are faced with few job opportunities and high food prices the migrants often go back to their villages.

During the transition period **Uzbekistan's** population continued to grow at a steady pace (1.46% a year on average) and has increased from 20.5 million in 1990 to 29.5 million in 2012. However, the years of independence have seen a downward trend in the proportion of the urban population.

Thus, in 1991 the cities of Uzbekistan were home to 40% of the total population; in 2001 this figure dropped to 37% and in 2006 to 36%. This was caused by the faster growth of the rural population (due to higher fertility and birth rates), administrative constraints (such as the system of registration), as well as an exodus of urban population, especially in the early years after independence.

In 2009, the government of Uzbekistan made a decision to reclassify 965 large rural settlements into towns, which resulted in an increase in the country's urban population of 4.4 million. As of October 1, 2012, Uzbekistan's urban population totaled 15,269,400, or 51.1% of the overall population¹².

Urbanization issues are especially relevant for Uzbekistan, which is the most densely populated country in the region. Over the past 30 years, the average population density has almost doubled to 66.5 people per square km as of July 1, 2012. However, the population is distributed very unevenly across the country's territory, due to the diverse climate and terrain, the location of industries, transport and communications accessibility and other factors. The highest population density is in the developed oases and foothill areas, while desert and semidesert areas are very sparsely populated (ranging from 1 to 9 persons per square km).

1.2.2. Industrial policy and spatial development

After 1991, each Central Asian country has developed and implemented its own model of political and economic reforms that have affected the dynamics, forms and outcomes of urban and industrial development.

Over the past 20 years, the development of cities in **Kazakhstan** has gone through two stages. During the first decade, there was a sharp decline in their socioeconomic level of development. The second decade has seen economic growth driven by high prices for raw materials, which has enabled the government to provide considerable support to large cities and small towns through budget transfers.

Each country has developed and implemented its own model of political and economic reforms that have affected the dynamics, forms and outcomes of urban and industrial development

¹² Statistical Review of Socioeconomic Development of Uzbekistan in January-September 2012. Uzbekistan State Statistics Committee.

In 2011, almost half of the gross regional product (47.1%) was produced by four regions: the cities of Almaty and Astana and Atyrau and Karaganda oblasts. The lowest per capita GRP – less than 70% of the national average – was observed in Zhambyl, South Kazakhstan, Almaty, North Kazakhstan and Akmola oblasts, together accounting for 40% of the country's population.

Much of Kazakhstan's industrial capacity is concentrated in "mono-cities". For example, the city of Stepnogorsk provides almost a third of the oblast's industrial output. The city of Rudny has one major mining enterprise, which accounts for 57% of the region's industrial production and 62.4% of the taxes. There are a number of single-enterprise cities (Arkalyk, Tekeli, Zhitikara and others), where economic development prospects have deteriorated due to the depletion of mineral reserves and decline in demand for the products. A number of manufacturing firms in mono-cities are either idle or running at partial capacity. Their situation is exacerbated by worn-out and obsolete equipment and the loss of skilled workers.

The decline in production has affected the outlook for urban employment. For example, the share of light industry in industrial output in East Kazakhstan Oblast dropped from 23.5% in 1990 to 1.2% in 1997, and in Almaty – from 32.9% to 4.4%. Employment in light industry has declined by more than 70% (from 223,300 in 1990 to 63,900 in 1997). In contrast, between 1991 and 2011 the number of self-employed people grew from 327,000 to 2.72 million (or from 4% to 32.8% of the working population). In 64 small and middle-size towns, self-employed people make up almost a third of the economically active population. High rates of self-employed people prevail in the cities of Karatau (50%), Arkalyk (49%), Zhitikara (47%), Zhanatas (37%) and Kulsary (31%).

Over the past 20 years, the spatial dimension of Kazakhstan's industrial policy has undergone significant changes: from balanced development to clusters, from concentration of industrial capacity in the major cities and oil-fields to "axial development." In the short term, the policy of industrialization and regional development is being implemented in two ways. The first is the efficient allocation of the economy's priority sectors in the regions. The second way is the creation of rapid-growth zones based on megalopolises and their surrounding areas. Agglomerations will be key form of Kazakhstan's territorial arrangement.

Kyrgyzstan did not have a well-formulated policy on urbanization in the post-Soviet period. The government's main efforts were aimed at managing the economic crisis the country had found itself in after the rupture of ties within the unified Soviet economic complex.

Table 4. Key indicators of industry and agriculture in Kyrgyzstan, 1991-2010

	1991	1995	2000	2005	2010
Number of industrial enterprises, in thousands	3.2	2.4	2.2	2.0	2.0
Volume of industrial output, % of 1991	100	27.0	41.3	42.2	48.1
Number of persons employed in industry, thousands	271.7	200.1	126.5	217.6	268.6
Volume of agricultural output, % of 1991	100	63.1	100.4	114.3	123.7

¹³ 20 years of Independence of the Kyrgyz Republic. Facts and Figures. Kyrgyzstan National Statistics Committee. Bishkek. 2011

Unlike the period from 1920 to 1990, when industrialization was followed by urbanization, over the past 20 years Kyrgyzstan has undergone de-urbanization as a result of industrial decline. Between 1991 and 1995, the country's GDP declined by 45%, since 1996 it has increased by 58%. The structure of the economy has changed significantly, with the share of commodity production dropping and the share of services increasing. From 1991 to 2010, the proportion of industry in GDP decreased from 27.5% to 19.4%, and agriculture – from 35.3% to 18.5%; meanwhile, the share of trade grew from 4.2% to 16.1%, and transport and communications – from 3.7% to 9.1%¹³.

Significant structural changes have occurred in Kyrgyzstan's industry, which had been the economic backbone of the country's cities under the Soviet Union. In 1991-2000 the republic has lost 1,200 industrial enterprises, while the number of people employed in industry has fallen by 145,200. Physical industrial output over the 20-year-period reached only half of the 1991 level. Kyrgyzstan's agriculture, meanwhile, returned to Soviet production levels in 2000 and ten years later exceeded them by 24%.

Tajikistan. As a result of the Soviet Union's collapse, a protracted civil war, a massive exodus of qualified professionals and subsequent structural changes in the economy, Tajikistan's industrial sector plunged into a deep systemic crisis. There was a sharp decline in production levels caused by the disruption in external economic relations and reduced demand for traditional manufactured products. The scaled-back capacity of core enterprises has exacerbated the socioeconomic situation in urban settlements. Years of unresolved problems have caused painful social processes in the society, such as migration, degradation of infrastructure and unemployment. Between 2000 and 2010, the share of industry in Tajikistan's GDP dropped from 39% to 22%. About 45% of the country's total industrial output is produced by the Tajik Aluminum Plant alone.

Tajikistan's small towns, the largest group of the country's urban settlements, found themselves in the most critical position. Their underlying problem was a lack of financial resources, because more attention in the transition period was paid to the development of large cities. Meanwhile, a number of small towns had exhausted their growth potential based on their previous specialization in the 1960s and 1970s.

Table 5. Structure of Tajikistan's GDP, 1995-2010, %

Sector	1995	2010
Industry	34.09	12.6
Agriculture	36.7	18.7
Construction	3.15	10.2
Trade	7.59	19.1
Transport and communications	4.44	7.7
Logistics	0.29	0.1
Procurements	0.01	0.0
Other commodity production sectors	0.43	0.1
Market and non-market services	8.74	21.0
Indirect taxes	4.58	10.5
GDP	100.00	100.00

Table 6. Key Indicators of industry and agriculture in Uzbekistan, 1990-2010

	1990	1995	2000	2005	2010
GDP, % of 1990	100	81.1	98.1	127.3	191.5
Volume of industrial output, % of 1990	100	99.8	123.6	179.0	296.1
Volume of agricultural output, % of 1990	100	88.1	100.6	136.8	182.7
Number of industrial enterprises, in thousands	11.0	13.0	13.0	14.3	15.2
Number of employed in industry, thousand people	1201	1093	1145	1348	1553
Number of employed in agriculture, thousand people	3120	3485	3093	2967	2875

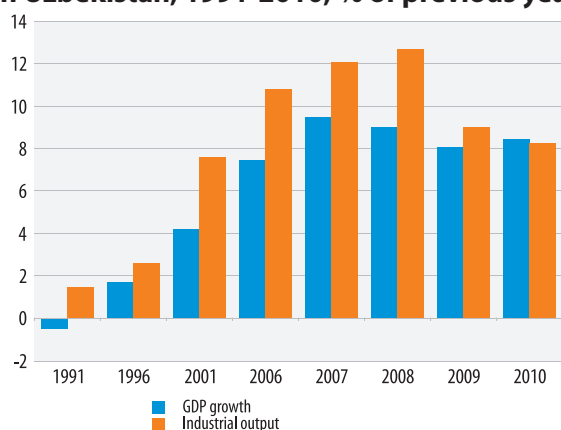
Due to the economic crisis, which was hurting core enterprises, the urban budgets in a number of single-industry towns received a large proportion of subsidies. In the transition period, these towns suffered from high levels of unemployment. Low levels of social, cultural, infrastructural and architectural development are evident not only in the vast majority of small towns, but in many larger cities with populations over 100,000. Most small and medium-size cities saw a decrease in the number of industrial enterprises, which had been the country's primary employers.

Uzbekistan. At the beginning of the 1990s, Uzbekistan had an unbalanced, bloated raw material-based economy, a monopoly on the production of cotton, underdeveloped industrial and social infrastructure, and the lowest per capita consumption in the former Soviet Union. In 1991, the share of light, cotton and food industries in total industrial output in Uzbekistan was about 57.3%.

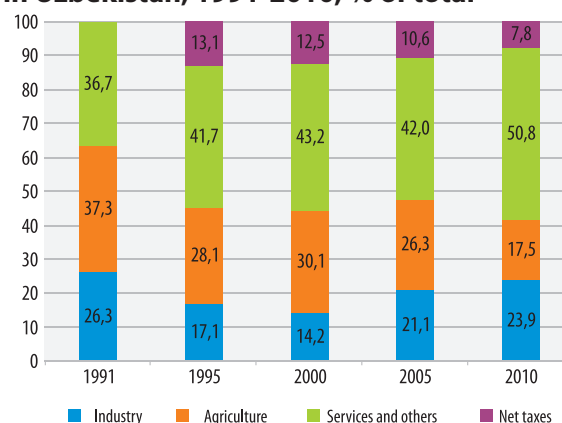
Industrial policy during the transition period was focused on the development of extractive industries, the oil and gas industry, ferrous and nonferrous metallurgy and energy generation, as well as the creation of light, textile, food and processing industries in the regions. Successful implementation of large industrial projects combined with measures to support small businesses, agricultural and banking reform have resulted in high rates of economic growth.

Uzbekistan's economy began to grow by 1996, and it averaged rates of over 4% from 1997 onwards. By 2001, its GDP had recovered to 103% of its 1989 level, making it the first former Soviet republic to regain its pre-transition level. Over the last 20 years, Uzbekistan's GDP has grown 3.5-fold¹⁴.

¹⁴ Uzbekistan State Statistics Committee.

Figure 15. GDP growth and industrial output in Uzbekistan, 1991-2010, % of previous year

Source: Uzbekistan Statistics Committee

Figure 16. GDP structure by sectors in Uzbekistan, 1991-2010, % of total

Source: Uzbekistan Statistics Committee

Spatial and urban development policies were aimed at eliminating disparities between regions and creating new import-substitution and export-oriented industries. This has led to the formation of “points of growth,” as in the Asaka auto plant, the Shurtan gas and chemical complex, the Bukhara oil refinery, the Samarkand auto plant and others.

1.3. Summary of findings

Urbanization in Central Asia in the Soviet period was subordinated to the overall Soviet economy, which resulted in the emergence of “mono-cities,” the domination of extractive industries and specialization in agricultural raw materials among the countries in the region. In the transition period, many Central Asian states faced major difficulties in reshaping urban centers due to their unbalanced economies. Socioeconomic disparities among regions became worse, and the problems of small and medium-size cities were exposed.

Over the past 20 years, the proportion of urban population in Uzbekistan increased by 10.2%; in Kazakhstan, by 5%; and in Turkmenistan, by 2%. At the same time, this indicator in Kyrgyzstan decreased by 2%, while in Tajikistan by 9%. The mixed urbanization patterns in Central Asia largely reflect the diverse social, economic and spatial transformation models implemented by the countries of the region. For example, Kazakhstan focused on the development of capital-intensive extractive industries, which has increased the role of large and medium-size cities as centers of mineral resources production. At the same time, there was a decrease in the proportion of urban population in small towns as well as the rural population (by 7% over 20 years).

The key urbanization problems in Tajikistan are a significant decrease in the urban population (from 37.1% in 1970 to 26.6% in 2010) due to de-industrialization and migration caused by unemployment, the asymmetrical and fragmented distribution of the population, and the lack of transport infrastructure in the countryside. Kyrgyzstan’s de-urbanization (from 38.2% in 1989 to 33.9% in 2012) was also caused by the structural shifts in the economy (lower industrial capacity, growth of the agricultural sector, rising unemployment).

Tajikistan and Kyrgyzstan during the transition period failed to implement a comprehensive industrial policy, which resulted in reduction decrease in industry’s share of their national GDPs. In fact, both Kyrgyzstan and Tajikistan have experienced so called “false urbanization,” when there is a sharp increase in the populations of major cities, driven by surrounding “poverty belts” where thousands of families live without being officially registered, but limited economic opportunity.

The situation in Uzbekistan and Turkmenistan is characterized by uneven urbanization across the country, the dominant role of agriculture in the national economy, and the fact that half of the population in these countries live in rural areas. Both countries, however, are now taking measures to shift from dependence on agriculture toward an industry oriented development model.

The mixed urbanization patterns in Central Asia largely reflect the diverse social, economic and spatial transformation models implemented by the countries of the region

Chapter 2. Issues of Urban Development in Central Asia

2.1. Structure and classification of cities in Central Asia

Today, the Central Asian region has 273 cities with population of 23.6 million, which accounts for almost 77% of the region's total urban population. The largest number of cities and urban residents are located in Uzbekistan (44% of cities and 38% of urban population of the region). The second-most urbanized country is Kazakhstan (32% and 38%, respectively), followed by Turkmenistan (9% and 10%), Kyrgyzstan (9% and 8%) and Tajikistan (6% and 6%).

From 2000 to 2010, the population of the capital cities and major cities in Central Asia grew by an average of 19.4%. There was also an increasing concentration of urban population in the capital cities, resulting in an average growth rate of major cities in the region from 9% to 11% over this period.

Each country in the region has adopted its own approach to defining the status and classification of urban settlements based on population, socio-economic and political significance, and other criteria.

Each country in the region has adopted its own approach to defining the status and classification of urban settlements

Table 7. Number and Population of Central Asian cities, as of 1 January 2012¹⁵

	Number of cities	Share of total, %	Population of cities, thousands	Share of total, %
Kazakhstan	87	31.9	8, 893.3	37.7
Kyrgyzstan	25	9.2	1,883.2	8.0
Tajikistan	17	6.2	1, 502.6	6.4
Turkmenistan	25	9.2	2, 348.1	10.0
Uzbekistan	119	43.6	8, 951.0	38.0
Central Asia	273	100.0	23, 578.2	100.0

Table 8. Population of major cities in Central Asia, 2000-2010¹⁶

	Major cities (capitals)	Major cities in 2000		Major cities in 2010		Increase in 10 years, %
		Population, thousands	Share in total population, %	Population, thousands	Share in total population, %	
Kazakhstan	Astana	381.0	2.5%	697.3	4.5%	45.3%
	Almaty	1,132.0	7.6%	1, 417.2	9.1%	20.1%
Kyrgyzstan	Bishkek	762.0	15.6%	846.5	15.1%	9.9%
Tajikistan	Dushanbe	562.0	9.2%	704.0	14.1%	20.2%
Turkmenistan	Ashgabat	590.0	11.3%	637.0	12.7%	7.4%
Uzbekistan	Tashkent	1 902.0	7.5%	2, 201.0	7.8%	13.6%

¹⁵ National statistics agencies of the Central Asian countries; The CIA World Factbook, Accessed on November 29, 2012

¹⁶ Alexandra Kazakova. *Urban Challenges in North and Central Asia*. Paper presented at the 5th Asia-Pacific Urban Forum organized by ESCAP, Bangkok, Thailand. 22-24 June 2011

Box 3. Typology of cities in Kazakhstan

Under the Law “On the Administrative and Territorial Structure of the Republic of Kazakhstan” dated December 8, 1993, cities are divided into the following categories:

- *National-level cities*— cities of particular national importance or those that have a population of over 1 million;
- *Oblast-level cities*—major economic and cultural centers that have a developed industrial and social infrastructure and a population of over 50,000;
- *District-level cities*— communities with industrial companies, utilities, public housing, a well-developed network of educational, cultural, educational, medical and commercial facilities, with a population of at least 10,000, in which industrial and office workers and their families make up more than two-thirds of the total population.

Kazakhstan currently has 87 cities, of which two cities have national status (Almaty and Astana); 40 are oblast-level cities, including 14 oblast centers; and 45 are district-level cities. The 16 oblast centers (including Almaty and Astana) are home to 67% of Kazakhstan’s total urban population.

Urban development in Kazakhstan is characterized by the predominance of small towns (with a population up to 50,000 people). Today, this group includes 59 cities (or 67.8% of total number of cities), but only 16% of the urban population (1.42 million people) lives in them. Another 11.3% of the urban population lives in 11 medium-size cities (with populations from 50,000 to 150,000). Most of Kazakhstan’s urban population (72.7%) resides in 17 major cities, which make up a fifth of the country’s urban centers.

¹⁷ Kazakhstan Statistics Agency June 2011

Table 9. Administrative and territorial division of Kazakhstan, as of 1 January 2012¹⁷

Provinces	Districts	Cities				Settlements	Villages
		Total	National level	Oblast level	District level		
Republic of Kazakhstan	175	87	2	40	45	34	6947
Astana city	3	1	1	-	-	-	-
Almaty city	7	1	1	-	-	-	-
Akmola	17	10	-	2	8	5	626
Aktobe	12	8	-	1	7	-	410
Almaty	16	10	-	3	7	1	759
Atyrau	7	2	-	1	1	2	173
West Kazakhstan	12	2	-	1	1	4	446
Zhambyl	10	4	-	1	3	-	379
Karaganda	11	11	-	9	2	10	421
Kostanay	16	5	-	4	1	3	636
Kyzylorda	7	4	-	2	2	2	263
Mangistau	5	3	-	2	1	-	58
South Kazakhstan	14	8	-	4	4	-	879
Pavlodar	10	3	-	3	-	4	408
North Kazakhstan	13	5	-	1	4	-	703
East Kazakhstan	15	10	-	6	4	3	786

Table 10. Structure of Cities in Kazakhstan as of January 1, 2012

City categories (by population size)	Number of cities	Share of total, %	Population, In thousands	Share of total, %
Fewer than 10,000	13	14.9%	85.5	1.0%
10,000 - 20,000	13	14.9%	184.7	2.1%
20,000 – 50,000	33	37.9%	1, 153.3	13.0%
50,000 – 100,000	7	8.0%	493.2	5.5%
100,000 – 150,000	4	4.6%	509.3	5.7%
150,000 – 500,000	14	16.1%	3, 631.4	40.8%
500,000 and more	3	3.4%	2, 835.8	31.9%
Total	87	100.00	8, 893.3	100.00

In **Kyrgyzstan**, a city is defined as “an administrative-territorial unit in the form of a city at the national, oblast or district level, in which the local community provides local governance in accordance with the Constitution and laws of the Kyrgyz Republic”¹⁸. As of January 1, 2012, the country had 25 cities, including two national-level, 13 oblast-level and 10 district level cities. Most of the oblast-level cities are located in the southern oblasts: Jalal-Abad (five cities) and Batken (three cities).

The 25 cities in Kyrgyzstan account for more than 90% of the country's total urban population, with less than 10% living in urban-type and other settlements. Kyrgyzstan is dominated by towns with populations under 50,000 (19 cities, or 76% of their total), but they are home to only 25.4% of the national population.

Four medium-size cities (with populations from 50,000 to 100,000) – Jalalabad, Karakol, Tokmok and Uzgen¹⁹ – comprise just over 15% of the urban population. Almost 60% of the urban population is concentrated in two major cities: Bishkek (the capital) and Osh. There are more than 40 new developments outside Bishkek, which began to spring up in the 1990s. The 2009 census recorded more than 100,000 people as new inhabitants of the capital. Five newly formed towns (Batken in 2000, Isfana in 2001, Kochkor-Ata and Nookat in 2003,

¹⁸ Law “On administrative-territorial system of the Kyrgyz Republic”, 2008

¹⁹ Uzgen was granted city status as a result of the 2009 Census. At the beginning of 2012, its population totaled 50.9 thousand people.

Table 11. Administrative and territorial division of Kyrgyzstan as of January 1, 2012

Provinces	Area, thousands of sq.km	Density, people per sq.km	Number of				
			Districts	Cities	Urban-type settlements	Settlements	Auls (local communities)
Kyrgyz Republic	199.9	28	40	25	28	3	440
Bishkek city	-	1	1	-	-
Osh city	-	1	-	-	-
Batken	17.0	26	3	4	5	-	29
Jalal-Abad	33.7	31	8	7	7	3	66
Issyk-Kul	43.1	10	5	3	5	-	58
Naryn	45.2	6	5	1	2	-	61
Osh	29.0	40	7	3	2	-	86
Talas	11.4	21	4	1	1	-	36
Chui	20.2	41	8	4	5	-	104

Table 12. Structure of cities in the Kyrgyz Republic, 1989-2012

City categories (by population size)	Number of cities				Population, thousands			
	1989	1999	2009	2012	1989	1999	2009	2012
Small (under 50,000)	15	15	20	19	366.4	379.7	444.7	478.9
Medium (50,000 – 100,000)	4	3	3	4	259.2	194.1	205.6	274.0
Large (more than 100,000)	2	2	2	2	821.4	958.8	1,054.7	1,130.2
Total	21	20	25	25	1,447.0	1,532.7	1,705.1	1,883.2

and Kerben in 2004) have joined the group of cities with populations of 10,000 to 20,000, resulting in an increase of 170 percent. But the transformation of these villages into towns was not driven by their industrial development; the reasons were more likely administrative.

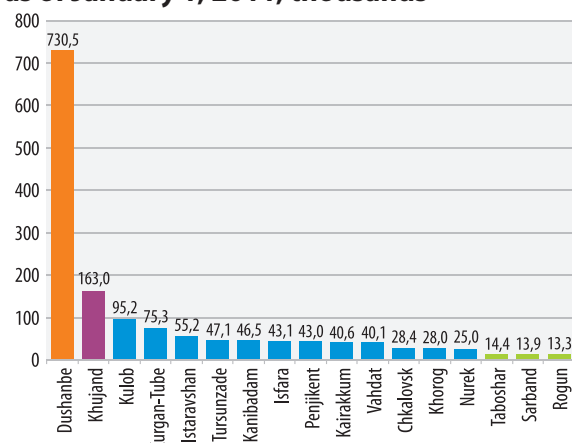
During the transition period the population of 12 out of 20 cities declined, mainly due to increased emigration from Kyrgyzstan in the 1990s. Since the emigrants were predominantly Slavs who traditionally lived in the industrialized cities and urban-type settlements, the decline was greater in urban rather than rural areas. The most significant population decrease occurred in small-size towns, primarily due to economic factors: cities and urban-type settlements saw a decline in industrial production and closings of social and cultural facilities. This process did not affect the capital, because emigrants were replaced by settlers from other parts of the country. As a result, over the last decade (from 1999 to 2009), urban population growth in Kyrgyzstan was mainly generated by an increase in the number of inhabitants of Bishkek and Osh, as well as rural-to-urban reclassification.

Tajikistan. As of January 1, 2012, Tajikistan had 17 cities with a total population of 1.5 million. One of them – the capital, Dushanbe – has the status of a primary administrative and territorial unit; three are national-level cities (Tursunzade, Vahdat, Rogun); and seven are oblast-level and six are district-level cities²⁰.

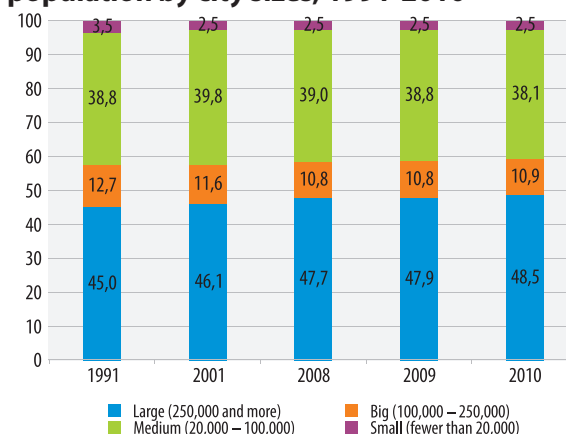
Table 13. Administrative and territorial division of Tajikistan as of January 1, 2012

Provinces	Area, sq.km	Density, people per sq.km	Number of			
			Districts	Cities	Settlements	Rural jamoats
Republic of Tajikistan	143,100	52.87	58	17	57	369
Dushanbe city	100	7,240.00	-	1	-	-
Gorno-Badakhshan Autonomous Province	64,200	3.21	7	1	-	43
Sughd	25,400	88.07	14	8	22	93
Khatlon	24,800	107.90	24	4	21	133
Districts of Republican Subordination	28,600	60.21	13	3	14	100

²⁰ In 1991, Tajikistan had 16 cities. In 1993, the former urban-type settlement Taboshar was granted city status, increasing the number of cities to 17.

Figure 17. Population of cities in Tajikistan, as of January 1, 2011, thousands

Source: Tajikistan's Statistics Agency

Figure 18. Distribution of Tajikistan's urban population by city sizes, 1991-2010

Source: Tajikistan's Statistics Agency

Table 14. Structure of Cities in Tajikistan, 1991-2010²¹

City categories (by population size)	Number of cities	Share of total urban population, %				
		1991	2001	2008	2009	2010
Small (under 20,000)	3	3.5	2.5	2.5	2.5	2.5
Medium (20,000 – 100,000)	12	38.8	39.8	39.0	38.8	38.1
Big (100,000 – 250,000)	1	12.7	11.6	10.8	10.8	10.9
Large (250,000 or more)	1	45.0	46.1	47.7	47.9	48.5
Total	17	100.0	100.0	100.0	100.0	100.0

Tajikistan has one major city with a population of over 250,000 (Dushanbe); one large city with a population of 100,000 to 250,000 (Khujand); 12 medium-size cities (20,000-100,000) and three small towns (up to 20,000 population).

In the post-Soviet period, Tajikistan's population became increasingly concentrated in only one city – Dushanbe – where nearly half (48.5%) of the country's urban population now lives. Another 11% live in Khujand, the administrative center of Sughd Oblast. Most cities in Tajikistan (12, or 70%) are medium-size, but they account for just over a third of the total urban population (38%). A small percentage of the urban population (2.5%) lives in small towns.

Uzbekistan has a total of 119 cities, of which two are national-level cities; 26 are oblast-level; 90 are district-level; and one is a municipal-level city. As of January 1, 2011, these cities a total population of 8,951,000, or 61.2% of the total urban population. The remaining 38.8% of urban dwellers were living in 1,079 urban-type settlements.

In terms of population, socio-economic development and administrative and economic functionality, cities in Uzbekistan are divided into the following groups: largest cities (with populations over 1 million), major cities (from 250,000 to 1 million), large cities (from 100,000 to 250,000), medium-size cities (from 50,000 to 100,000) and small cities (under 50,000).

²¹ Regions of the Republic of Tajikistan. Statistical reviews of 2001, 2007, 2010 and 2011. Tajikistan Statistics Agency

Box 4. Typology of cities in Uzbekistan

Under Republic of Uzbekistan law, a city is defined as a community with industrial enterprises, social and economic infrastructure, public utilities, public housing, an extensive network of culture, education, health care, trade, supply, service, communications, transport and other facilities. It must have at least 7,000 inhabitants. Urban-type settlements are defined chiefly as populated areas with at least 2,000 inhabitants, located near industrial plants, transportation hubs and other economically important enterprises.

According to Article 9 of the City Planning Code of the Republic of Uzbekistan, urban communities are divided into the following groups according to population.

City categories in the Republic of Uzbekistan

City categories	Population, people
Largest cities	over 1 million
Major cities	from 250,000 to 1 million
Big cities	from 100,000 to 250,000
Medium-sized cities	from 50,000 to 100,000
Small cities	under 50,000

Source: Town Planning Code of the Republic of Uzbekistan

Table 15. Development of cities and urban-type settlements in Uzbekistan, 1920-2011²²

Years	Number of urban settlements	Including	
		Major, large, medium and small cities	Urban-type settlements
1920	44	37	7
1939	48	28	20
1959	101	33	68
1979	188	93	95
1989	221	124	97
2000	233	119	114
2007	233	119	114
2011	1,198	119	1,079

Table 16. Structure of Cities in Uzbekistan as of January 1, 2011²³

City categories (by population size)	Number of cities	Share of total, %	Population, in thousands.	Share of total, %
Fewer than 10,000	5	4.20	43.9	0.49
10,000 – 20,000	30	25.21	439.9	4.91
20,000 – 50,000	48	40.34	1,428.9	15.96
50,000 – 100,000	19	15.97	1,229.6	13.74
100,000 – 150,000	12	10.08	2,072.2	23.15
150,000 – 500,000	4	3.36	1,482.8	16.57
500,000 and more	1	0.84	2,253.7	25.18
Total	119	100.00	8,951.0	100.00

As of January 1, 2011, Uzbekistan had 83 towns with fewer than 50,000 inhabitants, which were home to 21.4% of urban population. There were 19 medium-size cities (with 50,000-100,000 residents), accounting for 15.96% of the urban population; 17 large cities with population exceeding 100,000 constituted 14% of total number of cities and 65% of the country's urban

²² Population of the Republic of Uzbekistan: 2006-2009. Statistical reviews of Uzbekistan State Statistics Committee; Demographic Encyclopedia/Editorial Board.: Valentey and others. - M.: "Encyclopedia", 1985

²³ State Committee for Statistics of Uzbekistan

population. Therefore, Uzbekistan is dominated by small and medium-size cities (69.7% of the total number), but they account for only 35.1% of the urban population. The population growth rate of large cities over the last ten years was 107.6%; in medium-size cities, 109.6%; and in small cities, 107.2%²⁴. These numbers clearly show that the trend is not slowing down nor reversing, and that growth rates are fairly uniform among all categories of cities.

Turkmenistan. As of June 1, 2012, Turkmenistan had 57 etraps (districts), 25 cities, 78 settlements, 560 gengeshliks (rural municipalities) and 1,927 villages²⁵. Urban communities are divided into cities with province-level rights (with populations over 500,000), cities with district-level rights, (over 30,000), cities under district control (over 8,000), and settlements (over 2,000).

Table 17. Administrative and territorial division of Turkmenistan as of January 1, 2012

Provinces	Area, sq.km	Etraps	Cities	Settlements	Gengeshliks	Villages
Turkmenistan	491.21	57	25	78	560	1927
Ashgabat city	0.47	5	1	1	-	-
Akhal	97.16	9	5	12	104	278
Balkan	139.27	6	7	16	40	128
Dashoguz	73.43	9	2	8	140	654
Lebap	93.73	16	5	27	119	485
Mary	87.15	12	5	14	157	382

²⁴ Improving City Management System in Small and Medium Cities of Uzbekistan – Main Trends, Mechanisms and Instruments. CER, Analytical Report 2010/04. Tashkent, 2010.

²⁵ State Committee for Statistics of Turkmenistan

Box 5. Typology of Communities in Turkmenistan

Under the Turkmenistan law “On the Resolution of Issues Regarding the Administrative and Territorial Division Of Turkmenistan and the Naming and Renaming Of Public Enterprises, Organizations, Institutions And Other Facilities,” adopted on April 18, 2009, Turkmenistan is composed of provinces, cities with province-level rights, districts, cities with district-level rights,, cities under district control, settlements, gengeshliks (rural municipalities) and villages.

Settlements in Turkmenistan are divided into urban and rural types. Urban communities consist of cities and settlements; rural communities consist of villages. The territory of one or more villages comprises a gengeshlik.

Cities in Turkmenistan are classified into the following categories:

- Cities with province-level rights, with populations over 500,000;
- Cities with district-level rights, with populations over 30,000;
- Cities under district control, with populations over 8,000, that have industrial, construction and transport companies, public utilities, municipal housing stock, a network of social and cultural institutions, trade and services;
- Settlements with populations over 2,000 that have reached a certain level of development, with industrial, construction and transport companies, train stations, hydraulic structures, sanatoriums and other medical and health-improvement facilities.

Communities with concentrated development that have at least 50 permanent residents are considered villages.

Source: State Statistics Committee of Turkmenistan

According to official estimates as of January 1, 2012, 12.7% of the population of Turkmenistan lived in the capital, Ashgabat. However, the estimates of the country's total population are not officially published. These data will likely be made public upon completion of the latest census, which was held in the country in December 2012. The last official estimate for Ashgabat's population was 871,500 (in 2005)²⁶.

2.2. Role of cities in the region's economies

Typically, the populations and economies of Central Asian countries are concentrated in a small number of major cities, resulting in skewed spatial development of these countries. Small and medium-size cities, meanwhile, are poorly integrated into the region's economic and social development.

The most problematic category of Central Asian cities is small and medium-size towns, which are currently facing a number of socioeconomic issues: specifically a lack of effective policies, programmes and development funds, a dependence on core enterprises, worn-out production and transport infrastructure and environmental pollution. The unsatisfactory condition of transport and communication infrastructure is amplified by the remoteness of many towns from regional centers. Due to low living standards and high unemployment, small towns suffer from a lack of skilled workers and professionals in all segments of the economy.

Kazakhstan. The key problem of Kazakhstan's urban economy is the prevalence of single-industry cities and the insignificant contribution of small towns to the country's economic growth. Currently the country has 27 company towns with a total population of 1.53 million (16.8% of the country's urban population). The list of single-industry cities is mostly comprised of small towns with a populations under up to 50,000 people, with the exception of eight four medium-sized cities with populations between 50,000 and over 100,000, – Temirtau, Rudny, Zhanaozen, and Ekibastuz and one large city – Termirtau with population above 150,000.

Kazakhstan's industry is primarily concentrated in large cities and regional centers. Industrial production in small towns is represented mainly by food, the fuel industry and production of construction materials. The situation is prob-

The populations and economies of Central Asian countries are concentrated in a small number of major cities, resulting in skewed spatial development of these countries

²⁶ Statistical Yearbook of Turkmenistan 2000-2004, National Institute of State Statistics and Information of Turkmenistan, Ashgabat, 2005

Box 6. Addressing the Issue of 'Mono-cities' in Kazakhstan

On May 25, 2012, the Government of Kazakhstan approved the Programme for Development of Mono-Cities for 2012-2020 with a \$9.39 billion budget. According to the document, a mono-city is a town where a large portion (20% or more) of the industrial output and work force is concentrated at one or several core enterprises, which have a single specialty and/or resource orientation (mono-profile), and thus determine all economic and social processes that take place in the city. A mono-city status is assigned to urban settlements with populations of 10,000 to 200,000 that meet one of the following criteria:

- 1) more than 20% of the town's total output is produced by core enterprises of mostly mining sectors (mono-profile);
- 2) more than 20% of the town's work force is employed by core enterprises;
- 3) towns in which core enterprises have scaled down or suspended operations.

Furthermore, many mono-cities have administrative authority over suburban settlements and rural communities that have close economic links with the cities.

lematic in the towns specializing in processing agricultural products. They lack sufficient infrastructure, construction resources, and qualified personnel.

Almost all of Kazakhstan's small towns are suffering from a prolonged recession and high unemployment, a significant decline in living standards, outward migration, limited budgets and low investment, a failure to maintain social facilities, poor transport links, and a lack of electricity and heating due to low revenue streams. As of January 1, 2002, about 40% businesses in small and medium-size cities were idle for various reasons²⁷.

Kyrgyzstan. In 2011, the volume of industrial production in Kyrgyzstan totaled \$34.8 billion. The contribution of most cities to this figure was small, except for the capital, Bishkek, which accounted for 18.5% of the country's industrial output. Around 3% of industrial output was produced by Kara-Kul (Toktogul Hydroelectric Station); another 1.7%, by Jalalabad, while Osh accounted for 1.3%. The other 10 oblast-level cities collectively produced only 5.7% of national industrial output²⁸.

The contribution of the 10 district-level cities to Kyrgyzstan's industry is also very uneven. For example, at the beginning of 2011, the city of Kara-Balta alone in Chui province accounted for 27% of national industrial output. This was based on the fact that the city has major non-ferrous metallurgical enterprises (uranium, gold, molybdenum, etc.). Another 2.7% was provided by Kant. The combined share of the remaining eight cities in industry did not exceed 2%.

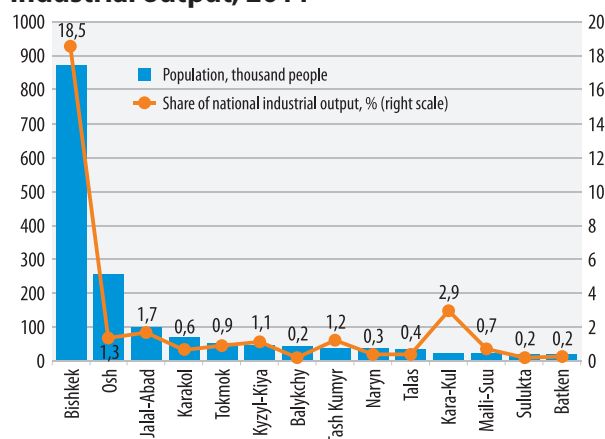
Towns and cities are undergoing significant changes in their status. A number of towns in Kyrgyzstan with declining populations cannot retain their city status, while some rural settlements going through urbanization should not retain their village status. An example of the former is Kok-Zhangak (with a population of 10,490), which was granted town status as a result of the opening of a coal mine (the core enterprise). An example of the latter is Belovodskoye village (with a population of 21,275), where industrial production constitutes as much as 68% of the local economy.

As in other countries of Central Asia, Kyrgyzstan is dealing with the problem of company towns and poor diversification of the urban economy. For example,

²⁷ Concept of Kazakhstan's Regional Policy for 2002-2006 (adopted at the end of 2001)

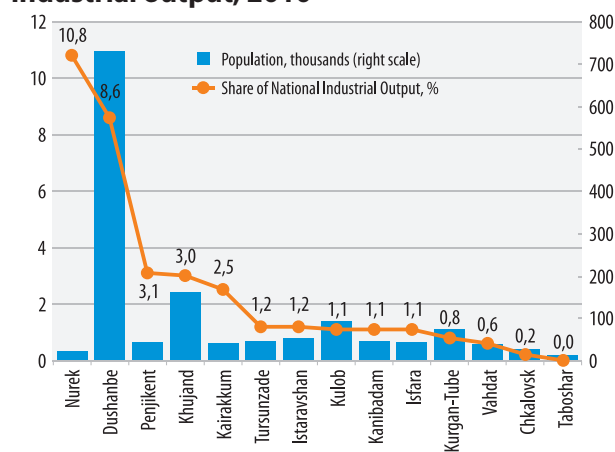
²⁸ Regions of the Kyrgyz Republic and Kyrgyzstan National Statistics Committee. 25 October 2012

Figure 19. Cities' share in Kyrgyzstan's industrial output, 2011



Source: Kyrgyzstan's Statistics Committee, 2012

Figure 20. Cities' share of Tajikistan's industrial output, 2010



Source: Tajikistan's Statistics Agency, 2011

Box 7. Issues of Small Towns in Kyrgyzstan

On December 31, 2001, the Government of Kyrgyzstan approved the State Framework for Development of Small Towns and Urban-Type Settlements in the Kyrgyz Republic. The document classifies small towns into three types according to criteria such as population, area, economic potential, infrastructure and distance from the political, economic and cultural center of the particular region.

1. First type: cities with established urban infrastructure (Kara-Balta, Kara-Suu, Tash-Kumyr, Kyzyl-Kiya, etc.). Their main problems are deteriorating infrastructure, economic recession, urban budget deficits, etc.

2. Second type: towns previously focused on farming (Kochkor-Ata, Shamaldy-Sai, Kemin, Kainda, Orlovka, Aydarken, Toktogul, etc.). Their key problems are a growing population, undeveloped urban infrastructure, and the lack of a balanced ecosystem.

3. Third type: settlements around major industrial facilities built during the centrally planned economy (Kadamjay, Kaji-Sai Ak-Tyuz, Kok-Zhangak, etc.). A shutdown or major slowdown of these enterprises resulted in the decline of their surrounding settlements (towns and nearby settlements).

The key challenges for almost all small cities and urban-type settlements in Kyrgyzstan are high unemployment, low living standards and growing migration. Because of their economic insecurity and lack of resources the small towns and urban-type settlements are more vulnerable to other adverse factors, such as the deterioration of the social infrastructure, remoteness from the district and oblast centers, and imbalances between commodity production and the work force.

six of the country's 25 cities emerged near resource development sites. They are Sulyukta, Kyzyl-Kiya, Kok-Zhangak, Tash-Komur (coal mines), Mailuu-Suu (uranium) and Kochkor-Ata (oil). They were created as settlements serving large-scale production and thus are highly dependent on these industries.

Although Kyrgyzstan's small towns also have enterprises for processing agricultural products, small mining enterprises, heavy industry, and machine building, their contribution to national GDP is meager.

Tajikistan. Though the structure of Tajikistan's urban economy took shape in the Soviet period, over the last 20 years it has undergone changes related to the closure of some industries and the appearance of new services (mobile communications, Internet, etc.).

In 2010, Tajikistan's industrial output totaled \$1.88 billion, with cities accounting for only 35% of this amount. The exceptions were Nurek, which alone contributed 10.8%, mostly with its hydroelectric station, and the capital, Dushanbe (8.6%). Other relatively industrialized cities include Penjikent, Khujand and Kairakkum, with industrial contributions averaging at 3%. The other nine Tajik towns collectively produced 7.3% of the country's industrial output. Major urban industries include mining, chemical, electricity generation, metallurgy, cotton and food processing, and machine building.

The service sector in Tajikistan's urban economy is even more unbalanced. In 2010, services worth \$569.1 million, or 43.6% of their national total, were provided in cities. The largest proportion of services was produced by Dushanbe (37.4%) and Khujand (4.3%), with other eight towns collectively providing a meager 1.9% of the country's services. These numbers once again indicate that economic activity is concentrated in Tajikistan's two biggest cities. The services sector in the cities is mainly represented by consumer services (with a 40% share), followed – in descending order – by transport, communications, housing and utilities, etc.

At the beginning of the 1990s, the countries of Central Asia possessed a relatively well-developed urban infrastructure, especially in large cities, though there were evident weakness and gaps

Uzbekistan. A key problem for Uzbekistan's cities stems from the fact that the country has 102 cities with populations under 50,000 that are continuing to grow. Most of these towns are administrative centers of districts with underdeveloped economies that are largely dependent on one or two core enterprises.

Today, small and medium-size cities (SMCs) account for 34% of the total urban population (not counting urban-type settlements). If company towns (Uchkuduk, Zarafshan, Angren, Mubarak, Asaka) are excluded, the remaining 97 SMCs produce just 17.5% of the country's industrial output. So there is an obvious imbalance: the population of small and medium-size cities accounts for more than one-third of the urban population (and growing), but they generate less than one-fifth of national industrial output²⁹. The potential of SMCs as centers of industrial development remains largely untapped.

By 2025 the population of small and medium-size cities in Uzbekistan is expected to reach 4 million³⁰. It is therefore essential to improve approaches to the formulation, implementation and monitoring of programmes for the socio-economic development of districts with a focus on small and medium-size cities.

2.3. State of urban infrastructure

At the beginning of the 1990s, the countries of Central Asia possessed a relatively well-developed urban infrastructure, especially in large cities, though there were evident weakness and gaps.

First, beginning in the 1970s, the growth rate of infrastructure development lagged far behind the growth rate of urban population and the urban economies. Second, the system of infrastructure maintenance was centrally financed and fully subsidized by the state budget. Electricity, gas, water, sewage, heating and other utilities were managed by different agencies, which remained under the strict control of the Communist Party. As a result, state investment in urban infrastructure was often used inefficiently, if not misused altogether. Third, the infrastructure was technologically obsolete and costly, yet public utility companies were more concerned about allocating the centralized investments, rather than upgrading the equipment or implementing energy saving measures. Fourth, the quality of infrastructure in most company towns hinged on one or two core enterprises that funded the construction and maintenance of the entire urban infrastructure.

Unsustainable in the long run, such a system was not ready for the new realities of a market economy, the pace of urban growth, the expansion of cities and agglomerations. These flaws became apparent in the first half of the 1990s, when the urban infrastructure in Central Asian countries started to show signs of stress and decay.

All countries in the region today suffer from failing infrastructure (gas, water, electricity, and sewage) and lack of investment in its upgrading and development.

In 2009, 73% of the electrical grids, 63% of the heat-supply networks and 54% of the gas distribution networks in **Kazakhstan** needed repair or replacement³¹. Losses of thermal energy reached 17.5% due to deteriorating facilities.

²⁹ *Improving City Management System in Small and Medium Cities of Uzbekistan – Main Trends, Mechanisms and Instruments*. CER, Analytical Report 2010/04. Tashkent, 2010.

³⁰ *Ibid.*

³¹ *Kazakhstan Statistics Agency*. 2009.

The state of infrastructure in small cities of Kazakhstan is even worse; between 60% and 95% of centralized heat supply, water supply and sewage networks are worn out. The share of abandoned housing in Zhitikar is 16%, while large proportions of the houses is found in Arkalyk (84.7%) and Abai (36.7%) are damaged. According to statistical data, two-thirds of urban electrical grids and half of the pipeline network in Kazakhstan's small and medium-size cities require urgent repair. Utilities in small towns are mostly unprofitable, so small towns need substantial annual subsidies from the budgets for the purchase of fuel oil, coal and gas for the heating season.

In **Kyrgyzstan**, the discontinuation in 1994 of centralized subsidies for the repair and rehabilitation of the housing and communal infrastructure has caused it to age more quickly. As much as 70% of urban infrastructure is either worn out or obsolete³². The most difficult situation prevails in major cities (Osh, Jalalabad, Karakol), where water-supply lines lose a great deal of water (up to 70%) and often break down (1.5 to 2 accidents per network kilometer per year). Clogging and breakdowns of sewage networks in Kyrgyz towns are also frequent (2.5 accidents per km per year)³³. Losses of natural gas in 2010 amounted to 57.6 million cu. m. (or 20.1% of its total intake)³⁴. The financial condition of utility companies is aggravated by large amounts of accounts receivable and payable³⁵. Municipal authorities, restrained by limited local budgets, fail to properly manage the urban infrastructure, which leads to increasing material costs and a decline in the quality of services provided to the public.

The same situation is evident in **Tajikistan**, where 75% of the infrastructure is worn out. According to various estimates, 50% of water supply systems and pumping stations in the cities are out of service. In Dushanbe, thermal energy is delivered to only 22.9% of urban facilities (640 out of 2,800) and 5.8% of apartment buildings (495 out of 8,500). In Kulyab and Kurgan-Tube the boiler plants are completely dysfunctional. As a result, radiators and hot-water and heating pipes have been dismantled in 80% of the apartments in these cities, as have other elements of the heating system in the basement. The situation in towns is also complicated by restrictions in electricity and gas supply. Annual shortages of electricity amount to 30% of its total consumption. In the fall and winter seasons, cities and districts cut off power supply for 14 to 20 hours per day. Since 2009, the population of Tajikistan has not received natural gas, except for some areas in the capital. The gas supply infrastructure in small and medium towns is being dismantled.

In **Uzbekistan**, the wear-out rate of water supply, sewage and heat supply networks is 39, 20 and 19%, respectively. More than 50% of underground gas lines are operated beyond their standard service life. Estimated losses of heating, drinking water and electricity amounted to 60, 40 and 25%, respectively, and losses of natural gas, to more than 500 million cu. m. At the current rate of population growth and urbanization, cities in Uzbekistan will require an increase by 2025 in the amount of drinking water supplied in towns to 1.2 billion cu. m./year; the replacement of 3,700 km of water pipes and 1,700 km of sewage pipes and half of urban underground gas lines; and increases of 23-25% in the electricity supply capacity; 10-12% in gas supply capacity; and 200% in urban waste disposal. The development of infrastructure requires

³² Kyrgyzstan's Association of Towns, November 25, 2007

³³ Indicators of Water Utilities in Kyrgyz Republic. Special Working Group on the Implementation of the EAP. Kyrgyzzhilkommunsoyuz. 2004

³⁴ <http://news.mail.ru/inworld/kyrgyzstan/economics/11662214/>

³⁵ By the end of 2010, total accounts receivable for electricity consumption in Kyrgyzstan reached \$564 million, of which the public failed to pay \$345 million (61%).

major government investment. More than \$8.4 billion is to be allocated to the public utilities sector from 2011 to 2015, in addition to urban improvements, telecommunications and roads. These benefit from these measures, however, will be limited unless the infrastructure management system is fundamentally reformed.

The social infrastructure in Central Asia's cities is also undeveloped. There is a shortage of preschool institutions, poor healthcare coverage of the population, and so on. For example, preschool coverage in Karatau, Kazakhstan, amounts to 34.8% and in Zhanatas, 35.4%, well below the national level (65.4% for children aged 3 to 6).

2.4. Issues in urban governance

Since the second half of the 1990s, the national governments have begun to pay more attention to improving the system, forms and methods of urban governance

Depending on the chosen transition model, two major approaches to urban governance have developed in the region: a centralized one (in Kazakhstan, Uzbekistan, and Turkmenistan) and a decentralized one (in Kyrgyzstan and Tajikistan). The first model provides for the appointment of city mayors and limits the fiscal and administrative powers of the local municipalities. Under the second model, heads of city administrations are elected and more autonomy is delegated to municipalities in terms of budgets and governance. But given the limited financial, human and other resources, the second model has, in many cases, not produced the desired results. Across Central Asia as a whole, models of representative, effective and responsive municipal institutions are still a work in progress.

2.4.1. Different approaches to urban governance reform

Before 1991, urban planning, budgeting, administration and governance in Central Asia were carried out in a centralized fashion with strict adherence to party guidelines. The past 20 years have seen a fundamental change in both the system as a whole, and the methods and forms of urban governance. During the recession of the early 1990s, the management of cities was primarily aimed at ensuring their survival and socioeconomic stability. Since the second half of the 1990s, the national governments have begun to pay more attention to improving the system, forms and methods of urban governance.

These measures have focused primarily on bolstering the vertical structure of executive power and forming representative and self-government institutions. It was assumed that the expanded rights and powers of local executive and representative bodies, in cooperation with self-government, would strengthen the urban economies and provide for the accelerated development of civil society.

Each country in the region, however, has adopted a different approach to reforming the system of urban governance, and the results have varied. Uzbekistan and Turkmenistan, for example, chose to retain state control of the economy (leading industries, finance, external trade, etc.) that led to the creation of strong local executive authorities dominating representative and self-government bodies (centralized model).

Under this model, the municipal administration is only accountable to higher authorities. In some countries the city executive even heads the representative body, and there are few effective and transparent mechanisms to ensure accountability of local authorities to the public. Another problem of centralization is inefficient distribution of functions, powers and competencies among central, regional and local levels of government. For example, the regional offices of ministries and departments, such as energy, water supply, sewage, and gas supply are under dual control. Duplication of powers and overlapping competencies result in blurred responsibility for decisions made and for outcomes. They also are a disincentive for local authorities to provide quality public services, leading to the inefficient use of resources and underfunding.

Kyrgyzstan and Tajikistan have implemented a different model of administrative reform, which may be described as broad decentralization. The key features of this model are:

- election of local government heads;
- the active role of local representative bodies in social and economic policies at the municipal level;
- the delegation of fiscal authority to local governments, including the right to establish types and sizes of municipal taxes, the control of revenue from property taxes, resource taxes (land, water, etc.) and the sale and rental of municipal property.

Simultaneously with the decentralization and transfer of broad powers to local government, the central authorities stopped subsidizing local budgets.

Kazakhstan's model of local government reform mixes elements of both centralization and decentralization. The heads of local administrations are not elected, but are appointed by higher authorities with the consent of a local representative body. There is also a division of local power, in which the head of the local administration does not also head the representative body. Despite giving broad budgetary powers to local administrations, the central government continued the practice of giving significant subsidies to local budgets, primarily for urban infrastructure maintenance.

2.4.2. The weakness of urban budgets

Over the past 20 years, the system of budgeting in Central Asian cities has evolved from a stagnant, highly centralized, and inflexible mechanism to a system focused on maximizing revenues and optimizing expenses. Efforts are under way in most countries to further enhance the rights and powers of local administrations in controlling budgets. The national governments use a variety of practices in this regard. However, the overall state of urban budgeting, particularly in small and medium-size cities, does not meet the new challenges of urbanization. The revenue side of the budget does not cover the costs of building, upgrading and maintaining urban infrastructure. City budgets in some countries (Uzbekistan and Turkmenistan) are nontransparent, i.e. information on the revenue and expenditure structure of urban budgets is not available to the public.

The overall state of urban budgeting, particularly in small and medium-size cities, does not meet the new challenges of urbanization.

Box 8. The powers of executive and representative authorities in the cities

Powers, rights and limits of responsibility of executive and representative authorities in the cities of Central Asia are similar or akin. State power in the towns, for instance in Kazakhstan, is represented by the head of the executive power with the apparatus. The only available budget in these cities is the district budget for the maintenance of the city.

This is a very similar situation in Uzbekistan, where the small towns are subordinates of rural district authorities and therefore they cannot afford to address urban development. For example, at the beginning of 2012, 88 towns and cities of Uzbekistan were included in the administrative apparatus of the rural district of executive power. At the same time, the regional offices of the executive power do not have a structure that was responsible for the planning and development of the city. They do not have a separate budget for the development of the city and are dependant of the achievements of the region in the field of agriculture.

The budgets of most cities in the region, especially small and medium-size ones, run a deficit, have limited sources of revenue and are usually subsidized by higher-level administrations. In these circumstances, even delegating more budgetary powers to towns does not improve the situation, as is evident in Kyrgyzstan and Tajikistan. As part of reforming local governance, Kyrgyzstan, for example, discontinued centralized financing of housing and utility services. Yet local budgets lacked adequate sources of revenue. The proceeds from local taxes and rental of municipal property do not cover the costs of urban maintenance and development. The chronic budget deficit results in underinvestment and accelerated deterioration of the urban infrastructure.

The system of local budgets in Kazakhstan consists of the oblast budget (including the city budgets of Almaty and Astana) and district budgets (including oblast-level cities). Small towns, as well as city districts, meanwhile, do not have their own budgets. Their fiscal plans are merged with the upper-level budgets. District budgets are largely subsidized. The existing mechanism for reallocation of funds among budgets of different levels makes the financial situation of small towns unstable and does not cover the expenses related to the operation of social infrastructure.

This is very similar to the situation in Uzbekistan, where small towns are subordinated to rural district authorities and therefore cannot address the issues of urban development. For example, as of the beginning of 2012, Uzbekistan's 88 small and medium-size cities were part of the district executive bodies' administrative apparatus. The latter, meanwhile, lack dedicated departments responsible for urban planning and development. They also do not have a separate budget for their towns and are totally dependent on the district's agricultural production.

2.5. Summary of findings

Urbanization patterns observed across the countries of Central Asia show that the urban population and economy are concentrated in a small number of large cities. Small and medium-size cities, despite their number and social importance as local and regional centers, make a lesser contribution to the economic development of the region.

Small and medium-size cities, despite their number and social importance as local and regional centers, make a lesser contribution to the economic development of the region

Although Kazakhstan has mostly small towns (70%), the government focuses on the development of two or three major cities with a potential to become leaders of national development. Regional centers are supported as engines of local development.

Tajikistan is dominated by mid-size towns (over 70%), which have inefficient structures and lack diversified economies. Urbanization policies are designed to support parallel development of townships, small, mid-size and large cities, transforming rural settlements into urban-type settlements and promoting local small-scale industries.

Despite their significance, most small towns in Kyrgyzstan are isolated from the main drivers of socio-economic activity due to the country's natural and environmental conditions. Meanwhile, a growing burden is falling on the capital city, Bishkek, where approximately 25% of the country's population lives

The region's urban infrastructure is straining under the demographic burden without the necessary fiscal support and investment. All Central Asian countries are dealing with the same set of issues related to urban infrastructure maintenance:

- Rapid deterioration of public utility networks and facilities;
- Low level of metered consumption of resources, limiting revenue for future investment;
- Technological backwardness of the sector, including poor implementation of innovative energy-saving technologies and measures;
- Inadequate non-budgetary funding of utility modernization projects.

Despite attempts at administrative reform, the Central Asian countries have not yet developed an effective system of urban governance. There is no clear division of authority, competence and responsibility between local government bodies. The powers of municipal executive bodies are often not backed by adequate financial, budgetary, administrative and legal resources. The principle of centralized control is still dominant, to the detriment of local self-government and responsibility. At the same time, the central government has neither an incentive nor desire to deal with problems at the city level.

In general, the lack of a comprehensive urbanization policy increases the risk of "false urbanization" in these countries: rapid urban population growth not accompanied by a similar rate of job creation, which in turn imposes excessive pressure on the urban infrastructure, employment and social capital, as well the environment.

Despite attempts at administrative reform, the Central Asian countries have not yet developed an effective system of urban governance

Chapter 3. Transforming the Cities of Central Asia

3.1. Medium and long-term challenges of urbanization in the region

The urban population in Central Asia will grow by an average of 1.51% a year until 2050, which exceeds the annual growth rate of the overall population

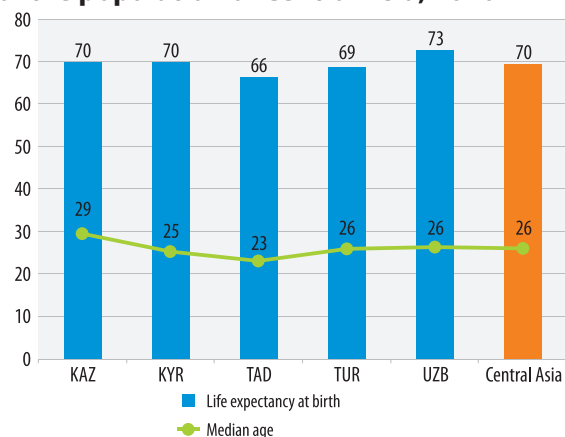
For most of the Central Asian countries, urbanization challenges derive mainly from high population growth concentrated in a few cities. These pressures are intensified by shrinking employment opportunities in rural areas due to limited land and water resources. Migrants from rural areas mostly settle in large cities, where urban housing, infrastructure and employment opportunities are not meeting the demand from new residents. These issues are aggravated by the limited electricity supply in most densely populated areas and high transportation costs for small and medium-size businesses located in rural areas.

3.1.1. Demographic growth

As of January 1, 2012, the population of the five Central Asian states totaled 64.6 million, with urban population accounting for 47.4% (or 30.7 million). According to UNDESA estimates, the region's population will reach 71.4 million by 2025 and 82 million by 2050. The percentage of people living in urban areas will grow correspondingly to reach 55.2% in 2050. The urban population will grow by an average of 1.51% a year until 2050, which exceeds the annual growth rate of the overall population. The growth rate of the rural population, meanwhile, is expected to decline from the current 1.1% to 0.46% in 2025 and negative 0.77% in 2050³⁶. The highest population growth rates will take place in Uzbekistan, Tajikistan, and the southern parts of Kyrgyzstan, while Kazakhstan will see relatively little change.

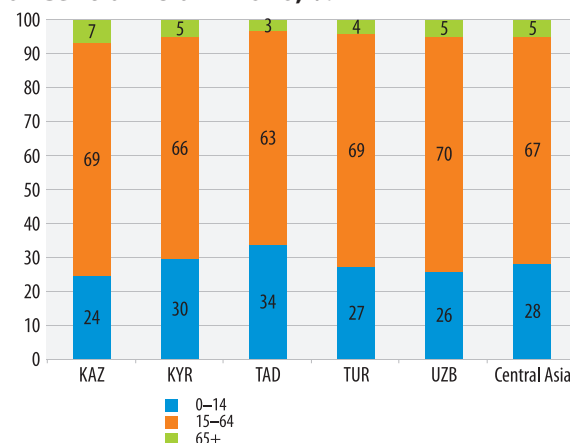
³⁶ UNDESA, Population Division (2011): *World Population Prospects: The 2010 Revision*. New York

Figure 21. Life expectancy and median age of the population of Central Asia, 2010



Source: CIA World Factbook, June 2012

Figure 22. Age structure of the population of Central Asia in 2010, %



Source: CIA World Factbook, June 2012

The population of Central Asia is relatively young, with a median age of 26. The share of working-age population – aged from 15 to 64 – was 67.4% in 2010. This proportion is expected to remain at 65-67% in the medium and long term, keeping the labor markets of the region under constant pressure.

3.1.2. Physical-geographical constraints

Another major challenge of urbanization stems from the limited supply of water, land and energy resources in most countries of the region, which makes extensive agricultural growth unfeasible in the long term. Kazakhstan, for example, has abundant land resources but not enough water, and therefore has few incentives to develop its agriculture. Kyrgyzstan and Tajikistan have vast water resources but little land for cultivation. The scarcity of arable lands and water resources is especially severe in Uzbekistan, which uses some 90% of incoming water for irrigation. To some extent Turkmenistan has a similar problem. By 2025, accessible agricultural land per capita in the region will decrease by an average of 19%.

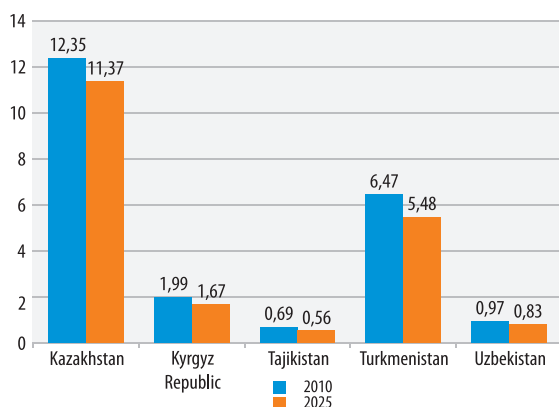
All of Central Asia's countries have managed to diversify their economies and resolve their food-supply issues to various degrees. However, the limited and uneven distribution of land and water makes it impossible for extensive development of agriculture. Moreover, economic policies aimed at increasing agricultural productivity result in fewer employment opportunities in rural areas. The region's countries of Central Asia face the task of transitioning from agrarian-industrial to an industrial-agrarian development model, which in turn requires cities to play a bigger role as drivers of economic growth and industrialization.

3.1.3. Increased migration

The limited opportunities for agricultural growth have resulted in high rates of internal and/or external migration in Central Asia. Internal migration consists mainly of the flow of surplus labor from rural to urban areas. Shrink-

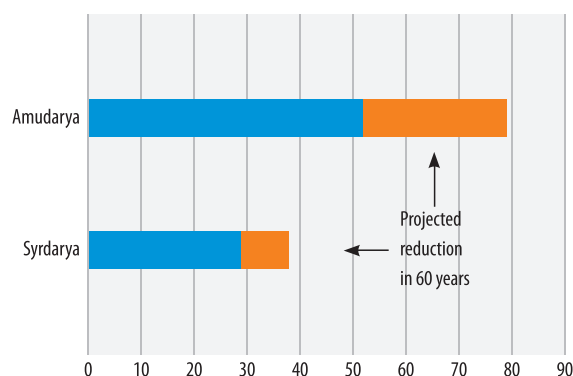
The limited supply of water, land and energy resources in most countries of the region, which makes extensive agricultural growth unfeasible in the long term

Figure 23. Agricultural land per capita in the countries of Central Asia, 2010-2025, hectares



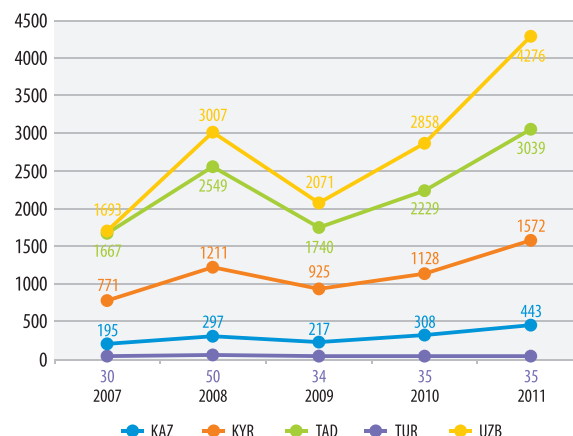
Source: Calculations based on World Development Indicators (World Bank) and World Urbanization Prospects-2011 (UNDESA)

Figure 24. Average annual flow of large rivers in Central Asia, 2009, cubic km



Source: Climate Change in Central Asia: overview and recommendations. Viktor Novikov, Zoi Environment Network, Almaty, October 11, 2010

Figure 25. Remittances from Russian Federation to Central Asian countries, 2007-2011, million US dollars



Source: The Central Bank of the Russian Federation

Shrinking employment opportunities in rural areas have been buffered so far by increased external labor migration

ing employment opportunities in rural areas have been buffered so far by increased external labor migration, in which incomes are derived through remittances. The net annual migration rate in the region was negative 2.5 per 1,000 population in 2010-2011. The opportunities for external migration are unstable, however, since the recent financial crisis resulted in job cuts in host countries such as Russian Federation. In 2009, the volume of remittances from Russian Federation to Central Asian countries dropped by 30%, but in 2010 it recovered to 92% of the pre-crisis level. Additional Russian Federation measures to tighten immigration policy could stimulate internal migration within most Central Asian countries, forcing their cities to absorb the inflow of surplus labor. The cities of the region, however, have limited capacity to become agents of urban-led development.

3.1.4. Differences in the models of economic reforms

During the Soviet period, models of economic development in all Central Asian republics were similar as they were focused on priority development of individual sectors of agricultural sector as well as priority development of the mining industry. Since independence, agriculture and mining along with the newly established institutions for international trade, allowed to restore economic growth and form the basis for further structural reforms.

At the same time, socio-economic, political and administrative transitions in the Central Asian countries have been based on different models and approaches. This resulted in greatly divergent political, economic and institutional systems. Nowadays the countries of the region practice different customs and tariff, currency, foreign trade, border regimes that determined the differences in approaches towards policies of spatial development and urbanization. Formulation and implementation of a regional approach towards spatial development and promotion of urban areas requires solutions allowing these disintegrating factors to be overcome.

Besides, all countries in the region need to deepen structural reforms, particularly in the development of the processing industry in order to overcome the long-term development challenges in the socio-economic sphere. This will require not only a financial investment, but to a much greater extent - a new knowledge and technologies, access to new markets and most importantly - the new institutions of governance that will be responsible for policy development and implementation of development projects. Thereby, such institutions of governance should be built not only on the basis of the central government, but should rely more on local governments and business structures of specific territories, economic regions and cities. These new actors will need an adequate capacity in order to act as drivers for growing interstate cooperation.

All countries in the region need to deepen structural reforms, particularly in the development of the processing industry in order to overcome the long-term development challenges

3.2. Spatial development models of Central Asian countries

The key problem of urbanization in Central Asia is that the configuration of cities and spatial development policies remain largely confined to the Soviet paradigm. Thus, cities are viewed primarily as (1) centers of narrowly focused industrialization (as opposed to integrated and outward-oriented), and (2) administrative and cultural centers. The Central Asian region, however, has significant development potential, particularly since it is located between the fast-growing economies of East Asia and Europe. Central Asia could become a hub for the trade of technologies, goods and capital, but cities are not yet equipped to play this role.

Changing the status of the region, which was previously isolated from global economy, will require a new understanding of the role of cities and the creation of a new urban framework. The new paradigm calls for a major reconfiguration of the cities' role at both national and regional level, including:

1. The emergence of new leading cities with industrial, innovation, transport and logistics potential.
2. Transforming existing outsider cities into leading cities, which could harness their competitive advantage under the new conditions.
3. The acquisition of new competitive advantages for the leading cities.

For example, the city of Tedjen in Turkmenistan is becoming a major transportation and logistical hub on a regional scale; Almaty is acquiring the features of a regional financial center; and the city of Navoi is turning into an interregional air transport and logistics hub.

The transformation of cities into drivers of national and regional development involves the following challenges:

- *Targeted development of cities* – a transformation of the predominantly rural economy into an urban one, a shift from an agrarian to an industrial development pattern, with a particular focus on balanced development of regions;
- *Promoting of agglomerations* – a policy focus on linking regions to transportation and communications networks;
- *Establishment of strategic settlement frameworks* – an increase in the density of economic activity, linking territories and compressing space.

The key problem of urbanization in Central Asia is that the configuration of cities and spatial development policies remain largely confined to the Soviet paradigm

The ultimate goal of urbanization and spatial development policies should be not just a quantitative increase in urban population, but a radical shift in the Central Asia's spatial structure and function. This requires developing urban infrastructure and increasing the absorption capacities of cities through expanded housing, social facilities, job creation, etc., as well as improving their governance.

3.2.1. Linking major cities to small and medium-sized towns

In predominantly rural Central Asia, policies focused on supporting agriculture may have obvious advantages such as rural employment and income. However, the development of small enterprises in rural areas cannot provide a leap forward in innovative industrial development. Yet experience shows that 80% of economic growth is generated in cities. On the other hand, while an emphasis on megacities and large industrial enterprises brings about an absolute increase in GDP, it does not create a multiplier effect for small and medium enterprises, nor does it solve the problem of unemployment. Other challenges for major cities include overpopulation, environmental degradation and strained infrastructure.

In these circumstances, urbanization policies in Central Asia should be focused on strengthening the linkages between large cities on the one hand and small and medium-size ones on the other hand. In addition to alleviating the issues related to demographic growth and migration, this could also contribute to qualitatively new and spatially balanced economic growth.

The prospects for connecting major, medium and small cities are based on the following premises.

Urbanization policies in Central Asia should be focused on strengthening the linkages between large cities and small and medium-size ones

First, the majority of towns in Central Asia are small and medium-sized cities (in Kazakhstan, 63 out of 84; in Kyrgyzstan, 20 out of 22; in Tajikistan, 15 out of 17; in Turkmenistan, 21 out of 25; and in Uzbekistan, 102 out of 119). They account for about one-third of the region's urban population (for example, in Kazakhstan the share is 25%; in Kyrgyzstan, 39%; in Uzbekistan, 35%). Moreover, the population of small and medium-size towns is growing at relatively high rates (averaging 8% per year in Uzbekistan and about 4.8% in Kyrgyz Republic).

Second, SMCs are better integrated with urban-type settlements and act as a buffer for the outflow of workers from rural areas (around 100,000 per year in Uzbekistan). The relevance of small and medium-size cities will grow in light of the further diversification of regional economies, which will result in a significant increase in the relative size of industry, construction and services and a smaller share for agriculture.

Finally, as part of agglomerations most SMCs function as typical incubators for small business and private entrepreneurship in processing industries. They can promote a close-knit integration of agricultural and industrial production and create conditions for the development of household businesses.

3.2.2. Urban agglomerations

The development of urban agglomerations is another urbanization policy that the countries of Central Asia could adopt to ease pressure on capitals and major cities and ensure more uniform spatial development.

Table 18. Urban agglomeration growth in Uzbekistan³⁷

	1969	2012
Number of agglomerations	5	12
Number of satellite towns around agglomerations	26	126
Population of agglomerations	1.7 million	7.5 million

Today a majority of the region's urban population is concentrated in the major cities. In Kazakhstan three major cities (Almaty, Astana, Shymkent) account for 32% of the country's urban population; in Kyrgyzstan two cities (Bishkek and Osh) account for 60%; in Tajikistan two cities (Dushanbe and Khujand) account for 59%; in Uzbekistan one city (Tashkent) accounts for 25%; and in Turkmenistan one city (Ashgabat) accounts for 35% of the urban population.

The unbalanced pattern of urbanization in Central Asia is also illustrated by the World Bank's agglomeration index. In 2008, this indicator was estimated at 51% for Kazakhstan; 34% for Kyrgyzstan; 36% for Tajikistan; 54% for Uzbekistan; and 43% for Turkmenistan.

In **Kazakhstan**, the development of agglomerations will be associated with the country's further urbanization—over the next 18-20 years the urban population may reach 70%. The real rate of the formation of agglomerations, however, will depend on the actual population size and economic development of cities. In addition to Almaty and Astana, Kazakhstan's rapidly developing cities include Karaganda, Shymkent, Atyrau, Taraz, Uralsk, Ust-Kamenogorsk and Aktau. The government's long-term strategy envisions priority development of the areas along the North, Central and South axis.

According to CER estimates, as of January 1, 2012, agglomerations in **Uzbekistan** accounted for about 10% of the country's territory, 70% of the population, 74% of industrial output, and 79% of exports. Urban agglomerations in Uzbekistan are forming around the capital Tashkent and mainly oblast centers. For example, the Tashkent monocentric agglomeration today comprises 12 cities and 24 urban settlements, with a total population of more than 3 million. Monocentric agglomerations are expected to grow around the cities of Samarkand, Andijan, Urgench, Namangan and Kokand.

3.2.3. Poles of growth

Policies for spatial distribution of productive forces in Central Asia, focused on creating points of accelerated growth, so called "locomotive-cities", should implement the following activities.

- Developing an **integrated framework for promoting the "leading cities"** as engines of industrialization both within the countries and across the region. The focus should be on identifying certain cities that have the potential to become sites of accelerated growth (leading cities) and channeling core investments into their development. In other words, based on the available resources, capabilities and potential of cities and regions, the most viable option would be to gradually increase support for the development of large, medium-size and small cities that could become poles of sustainable growth.

The development of urban agglomerations is a policy option that the countries of Central Asia could adopt to ease pressure on capitals and major cities and ensure more uniform spatial development

³⁷ Excluding the 965 urban-type settlements reclassified in 2009.

Second option is to promote policies for spatial distribution of productive forces, focused on creating points of accelerated growth, so called “locomotive-cities”

- Formulating **new approaches to implementing the strategy for rapid industrialization** and transition to intensive forms of industrial growth based upon sustainable development. This includes the improvement of existing mechanisms and tools (localization and industrial cooperation programmes) as well as the search for new industrial policy tools.
- Adopting **comprehensive programmes of urban and territorial development**. This approach involves an increased role for local authorities at the oblast, district and town levels, which should become coordinating centers for directing investment to the selected cities that can become the locomotives of growth. Without active and focused efforts by central and local governments, the policy to optimize the distribution of productive forces so as to create growth poles could be fruitless, and the leading cities’ potential could be unrealized.

Spatial development policies, therefore, should be implemented on a gradual (pilot) basis. If a political decision is adopted, the key is to develop long-term strategies or programmes for the development of a pilot city/region in which the primary focus should be on improving the spatial distribution of productive forces.

This will require an in-depth analysis of production factors, resource availability, infrastructure quality and transport and logistics potential that takes into account long-term demographic trends. This initiative would require the joint efforts of research centers, universities and business associations throughout Central Asia to provide information, analysis and consulting to local authorities in drafting the long-term urban development programmes aimed at creating the poles of growth.

3.2.4. Spatial development axes

A policy option for Central Asia’s spatial development is to form so called “spatial development axes” built on existing and planned transport corridors. At present, the countries of the region are implementing national programmes for enhancing the transportation infrastructure that could become the basis for a region-wide network of development.

For example, linking the “Dostuk (border of China and Kazakhstan) – Almaty – Shymkent” transport corridor with the “Tashkent – Termez – Mazar-i-Sharif” transport corridor could be a major factor in increasing the transit capacity of Central Asia and include Afghanistan in the regional transport and transit flows.

Another axis of spatial development could be based on the “Kashgar (China) – Osh (Kyrgyzstan) – Andijan – Tashkent (Uzbekistan)” highway and railway that would run on through existing transport corridors to Western Europe and the Middle East.

This model could help strengthen the connections among the disjointed and isolated economic zones in Central Asia, optimize transportation costs in inter- and intra-regional exchange and facilitate external trade and the integration of the region into the world economy. Transit networks would also facilitate the development of cross-country economic clusters in various industries, ranging from the manufacture of consumer products to food processing and services.

Another policy option is to form so called “spatial development axes” built on existing and planned transport corridors

Box 9. CAREC Programme: The action plan for development of transport corridors in Central Asia

One of the major regional initiatives for development of transport communications in the Central Asian region is the ADB's "Central Asia Regional Economic Cooperation" development programme (CAREC), which includes Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan.

The action plan for development of transport corridors, covering period from 2008 to 2017, is focused on strengthening the region's competitiveness and expanding trade both within the Central Asia and with the rest of the world.

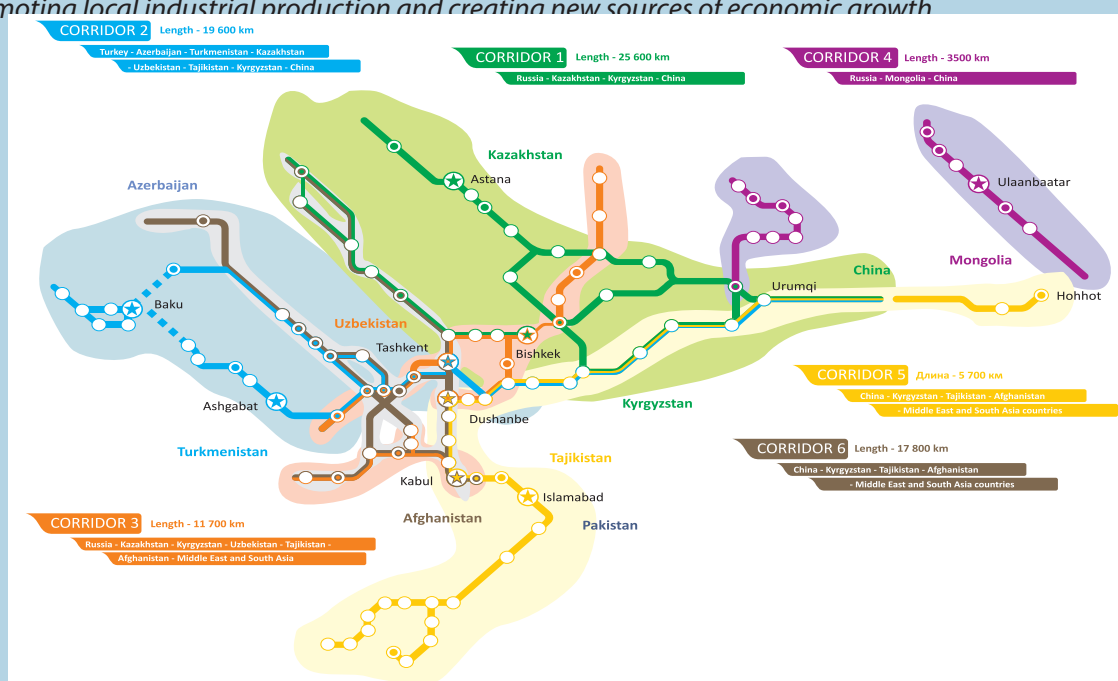
The following six transport corridors are considered by the action plan:

- Corridor 1: Europe-East Asia
- Corridor 2: Mediterranean-East Asia
- Corridor 3: Russian Federation-Middle East and South Asia
- Corridor 4: Russian Federation-East Asia
- Corridor 5: East Asia-Middle East and South Asia
- Corridor 6: Europe-Middle East and South Asia

Key goals of the action plan should be the followings:

- 100% of roads and road infrastructure should be improved by 2017, compared with 64% in 2007.
- The transit trade volume via the CAREC corridors between Europe and East Asia should be increased from less than 1% (about 34 mln. tons) in 2005 to 2% in 2012 and to 5% by 2017.
- Intraregional trade should be increased by 50% by 2017 compared with the level in 2005 (about 32 mln. tons).
- The time for border crossing along the CAREC corridors should be decreased by 80% by 2017 compared to 2007.
- The effective functioning of national committees on transport and trade facilitation or similar authorities in all CAREC countries for managing the transport corridors.

Under the action plan 62 investment projects with total cost of \$21 billion are supposed to be implemented. These investment projects include 40 new projects with a total cost of \$15.8 billion and 22 ongoing projects with a total cost of \$5.3 billion. In the context of development of urban areas, this provides new opportunities for establishing effective connections between large, medium and small cities of Central Asia, as well as for promoting local industrial production and creating new sources of economic growth



3.3. Improving urban governance policies

Different approaches toward the issues of demography, migration, economic growth and regional development were used in Central Asia. At the same time, all countries in the region are moving towards understanding or already understand the need to move from an agrarian to an industrial-agrarian economic model, in which the role of growth-drivers is given to cities and their agglomerations. All countries of the region, with certain differences in the rates and forms are experiencing a profound transformation.

All CA countries are moving towards understanding the need to move from an agrarian to an industrial-agrarian economic model, in which the role of growth-drivers is given to cities

Economic transformation is characterized by the transition from an agrarian-industrial economy to an industrial-agrarian economy (except for Kazakhstan) and the formation of a market economy. A key element of this process is the policy of industrialization.

Political transformation is characterized by fundamental breakdown of previous system of political institutions and public administration, as well as new system based on democratic principles and democratic institutions.

Social transformation is when complex processes of social change characterized by gradual erosion of values inherent in traditional/agrarian societies held in Central Asian societies. Next to these values are new, often formed outside Central Asian societies is individualism and focus on personal success, the erosion of family values, etc. Therein, one can witness a change in consumer behavior models, in particular, so called “status” consumption is becoming popular. Another aspect of social transformation is a process of urbanization, when rural people move to cities, which results in a deep, fundamental behavioral change.

To briefly state, industrialization and urbanization are the main trends that are common to all countries in the region. And in the medium and long term perspective, these two particular processes will determine the dynamics and

Box 10. Framework strategies for urban development – the experience of developing countries

In January 2013, the World Bank published a report “Planning, integration and funding of cities today: the need for the city government to know”, which reflects the results of the surveys conducted in seven countries – Brazil, China, Colombia, India, Indonesia, South Korea and Vietnam – with coverage of issues that include land ownership, housing, transportation and basic services.

The report offers frame strategy of planning and financing the urban growth which is designed to help the city authorities to identify obstacles to urbanization and find the right mix of policy options that would be politically, technically and financially acceptable to their cities and countries.

Frame strategy of urban development covers three areas:

- *Planning* - map out the direction of urban development, while defining the conditions of urbanization, in particular, the policy of usage of urban lands and expansion of basic infrastructure and public services.
- *Integration* - to provide a city-wide labor market, goods and services, and communicate with other cities and export markets.
- *Funding* - to find the initial capital for the creation of infrastructure and services at a time when urbanization accelerates.

According to the authors of research, by contributing to the concentration of population and economic activity in small areas through inclusive and sustainable development and integration, the cities can transform the economy, while creating opportunities for social and economic interaction, dynamic market of ideas that lead to innovative solutions in the field of business and investment.

depth of economic, political and social transformation in Central Asia. Industrialization and urbanization are manageable processes, and the governments of the region are implementing comprehensive programmes aimed at stimulating the growth of processing industry and urban development.

At the same time, to date, these policies (with few exceptions) take into account the regional dimension and they are focused more inwards (or focused on the markets of developed countries) than building a common regional structures, which could integrate some sectors of national economies. As a result, programmes and projects of industrial development that are localized within the national borders may not produce desired effects. This particular variant can be called a variant of non-integrated development.

There is a need for elaboration and the gradual implementation of a new scenario, which could be based in a region-wide, integrated approach towards realization of industrial and trans-logistic projects, formation of zones of border cooperation and others. In this context, the countries of the region face a major challenge, that is to find areas, initiatives and specific projects which will gradually provide more contingency and complementarity of national development programmes.

3.3.1. Enhancing municipal governance

Efforts to improve urban governance should focus on strengthening local self-government and integrating urban communities into the decision making processes. Local communities need to be consulted and given a variety of tools and mechanisms to participate in resolutions adopted by the city governments (municipalities).

Decentralization should not limit itself to holding occasional elections. Evidence in some countries in the region suggests that such elections have done nothing to improve the government's transparency and accountability to the electorate. City dwellers must have full and timely access to all the information, activities, policies and decisions of local self-government.

In addition, continuous efforts are needed to refine legislation pertaining to urban/regional development, with a particular focus on the following:

- Improved procedures for registering and record-keeping on internal migrants that would help optimize the development of urban infrastructure, the design of adaptation programmes and social planning (day care, child-support benefits, targeted social assistance, etc.).
- An improved urban statistical system to provide reliable data on unemployment, the self-employed, etc.

The discussion of urban-planning issues and the development of local self-government must include community of experts, NGOs, and donor organizations.

3.3.2. Improving the urban budgeting system

The governments of Central Asia need to review their budgeting systems so as to adapt them to current tasks and future priorities for urban development. Such an overhaul should include the following measures:

- Increasing the role of local budgets in the development of cities by re-examining the system of local taxes and mandatory payments;

Efforts to improve urban governance should focus on strengthening local self-government and integrating urban communities into the decision making processes

The governments of Central Asia need to review their budgeting systems so as to adapt them to current tasks and future priorities for urban development

Urban infrastructure policies and projects must take into account the changing technological paradigm of cities

- Formulating of revisions and amendments to laws pertaining to the improvement of mechanisms for drafting national and local budgets;
- Developing indices and criteria for infrastructure development in cities and districts;
- Improving quantitative and qualitative analysis of the condition of urban infrastructure, and enhancing the mechanisms of private-public partnership in implementing urban development projects.

3.3.3. Modernizing urban infrastructure

The key issue in managing urban infrastructure is related to the limited powers and accountability of local authorities for infrastructure development. The following steps are needed to enhance the opportunities for the development of urban infrastructure:

- Develop a systematized, objective, and accessible database on the condition and key issues of urban infrastructure;
- Introduce a system for collecting detailed statistics on small and medium-size cities to better analyze their infrastructure and plan their development;
- Supplement the powers of local executive bodies to monitor the situation regarding heating, electricity, water supply and sanitation (either independently or with the assistance of external auditors);
- Implement energy and resource saving programmes in urban infrastructure in order to establish low-carbon cities as a desired goal;
- Promote competition in the infrastructure sectors and incentivize the private sector to provide high-quality utility services.

Urban infrastructure policies must take into account the changing technological paradigm of cities. In the next five years, virtually every country in the region will have to make massive investments not just in maintaining but also in modernizing the urban infrastructure. It is extremely important to know what type of infrastructure will be needed and to avoid rebuilding the same centralized heating, water supply and electrical systems or other services in order to build cities of the future, based upon principles of low-carbon and sustainable urban development. Without a clear understanding of what technologies of urban planning and infrastructure will be used in the near future, it is impossible to talk about sustainable spatial development.

3.3.4. Capacity building in urban governance and development

A successful urbanization policy is largely dependent on human capital, namely, policymakers and civil servants engaged in urban planning and management. Analysis has shown that there is a pressing need to improve policy analysis, leadership training, project management, private-public partnership mechanisms and IT applications for information and knowledge. It is therefore important to combine the efforts of national governments and international donors to improve the skills of politicians and local civil servants in Central Asia. The following initiatives could be considered in this regard:

- Establishment of training courses for civil servants on municipal governance, local budgets, inter-budgetary relations, management of urban infrastructure, etc.;

- Creation of an integrated and open statistical database on urban demography, migration, the economy, infrastructure, and other indicators of urban development in the Central Asian countries. These data should be regularly updated and easily accessible on a dedicated website;
- Creation of a permanent platform – *Central Asian Urban Forum* – for sharing knowledge and developing policy options on urban challenges facing the Central Asian countries. The forum would benefit from engaging regional experts, academics, civil servants, professionals, businesses, NGOs, and international donor organizations.

It is important to combine the efforts of national governments and international donors to improve the skills of politicians and local civil servants in Central Asia

3.4. Summary of findings

High rates of demographic growth and migration will continue to stimulate urbanization in Central Asia in the medium term. Economic zones could be established where industrial and labor resources are concentrated to spearhead national economic growth and spatial development. The development of major cities in the region would lead to agglomerations (growth poles) which would foster high-tech manufacturing and enhance the export potential of the Central countries.

At the same time, the region's countries should not limit themselves to only one model of territorial and spatial development. While a focus on growth poles allows resources and efforts to be concentrated in priority sectors and regions, it runs the risk that other territories will be left behind. Uniform development of all territories helps reduce social risks but requires greater financial resources, resulting in the dispersion of investments and reducing their efficiency. In Central Asia, the more appropriate model is one of balanced spatial development that uses large cities as poles of intensive and innovative growth and small and medium-size cities as areas for SMEs in processing and labor-intensive industries.

Effective management of urbanization in Central Asia requires political and economic tools and mechanisms, including coordinating institutions to manage infrastructure investments, etc., in order to link certain territories (such as major cities with mid-size and small cities) and enhance the efficiency of government interventions.

An upgrade of urban management, planning, and institutions, as well as building up the capabilities of local governments, can make a significant difference in this regard. Along with decentralization, urban authorities should receive appropriate support, including funding. It is important to adopt a new vision and principles for urban planning and do away with the conventional way of thinking.

An upgrade of urban management, planning, and institutions, as well as building up the capabilities of local governments, can make a significant difference

Urbanization policies in the countries of Central Asia must also be focused on achieving sustainable development, which means expanding economic opportunities, ensuring environmental sustainability and reducing inequality and poverty. In general, revamping the role of cities requires a comprehensive and forward-looking strategic framework.

Conclusion

The process of urbanization and urban development has been a difficult one for the Central Asian countries over the past 20 years. This was due primarily to the consequences of Soviet urbanization, including the phenomenon of company towns, the predominance of extractive industries and the agricultural and raw-materials specialization of the regional economies.

The efforts by the national governments to implement market-driven reforms proceeded at different paces and produced mixed results that significantly impacted Central Asia's demographic and socio-economic landscape. In most of the countries the transition period has deepened divisions between regions in terms of social and economic development, widened the gaps between rural and urban populations and magnified the problem of small and medium-size towns. Some countries of Central Asia have seen a pattern of de-urbanization and de-industrialization.

As a result, a "concentration model" of urbanization has taken root in Central Asia, in which population and economic activity are focused in large cities, which in turn are struggling to cope with the growing influx of residents from underdeveloped towns and districts. Serious problems persist in the systems of municipal governance and urban budgets, with unemployment and rural-urban migration putting additional pressure on deteriorating urban infrastructure.

The dynamic processes of urbanization in Central Asia in the medium and long term will create new opportunities for industrial and agricultural development, forming megacities of regional and interregional scope, and improving the quality of urban life.

Current trends of demographic growth, migration, administrative-territorial and economic transformation in Central Asia will result in continued population growth in rural areas and cities, especially the small and medium-size ones. Greater concentration of population, production and cultural life is expected in large cities. A continued influx of population to the cities will result in urban sprawl and the emergence of unplanned agglomerations.

Without comprehensive urbanization policies, such an upsurge of urban population in the medium and long term will undermine the potential contribution to national and regional development and will bring more problems and challenges than benefits and opportunities. The major downside of such 'false urbanization' is its impact on urban infrastructure and the environment.

Urban development in Central Asia should be stimulated gradually. The countries of the region will have to go through the following stages to become urbanized nations: (1) targeted development of cities focusing on structural

shifts in the urban economy; (2) promoting agglomerations and linking territories with transportation and communications networks; (3) establishing settlement frameworks to increase the density of economic activity, to compress the distance between regions and promote sustainable urban development.

To address the challenges and trends of urbanization, the governments of Central Asia should gradually shift their priorities from rural to urban infrastructure development, increase the absorption capacities of urban communities, especially by providing affordable housing and improving public utilities. Special attention must be given to increasing the cities' potential to generate productive employment. Governments will face a dilemma: to allocate more and more funding to the public utilities sector or stop maintaining the rapidly decaying part of the infrastructure (gas supply, heating) in small and medium-size towns.

Urbanization is thus becoming a major challenge for urban infrastructure, which is one of the most energy-intensive, labor-intensive and capital-intensive industries. With the steady rise in energy prices it is becoming more problematic to maintain centralized heating and gas supply systems and other utilities, which traditionally account for the greatest consumption of non-renewable resources. Soon Central Asian governments will probably have to ration natural gas, electricity and heat supply and implement new guidelines and standards in other areas of urban development. Hence, as the region's countries become more urbanized they will increasingly confront the need for technological innovation and upgrading services in cities -- and elsewhere as well. Urbanization and the formation of agglomerations are closely related to issues of spatial distribution of industrial enterprises and transport infrastructure across an entire country.

Urbanization in Central Asia highlights the following priorities in social and economic policies:

- Further streamlining spatial development policies and institutional arrangements for managing urban settlements;
- Implementing new standards for urban development and comprehensive modernization of urban communities and the housing and utilities sector based on plans for the next 20 or 30 years and integrated with territorial development strategies;
- Supporting the accelerated development of urban infrastructure as urban pressures grow.

Another key challenge of urbanization is to ensure efficient urban governance, which implies delegating more fiscal and other powers to cities. Social, economic and administrative policies must also be used to optimize rural-to-urban migration. Current restrictive measures are largely ineffective, as rural migrants easily bypass restrictive barriers by settling in the suburbs of the capital or major cities.

As of today, none of the Central Asian countries have adopted a comprehensive strategy that clearly outlines the priorities and policies of urbanization. Urban development issues are partially covered by various sectoral and regional

development programmes. There is also no policy continuity or integration; new plans are often adopted without reference to the results of previous ones. Governments should review their industrial policies and link them to urban development plans.

Central Asia's governments would benefit from adopting a comprehensive urbanization framework that clearly formulates concepts and strategies of urban and spatial development. Such planning would outline new forms and tools for implementing these policies (urban governance, municipal autonomy, urban budgets, financing urban infrastructure, etc.) along with instruments for their monitoring and evaluation.

As of today, none of the Central Asian countries have adopted a comprehensive strategic document clearly outlining priorities and policies of urbanization. Urban development issues are partially covered by various sectoral and regional development programmes. There is also no continuity and integration; new plans are often adopted without reference to the results of the previous ones. Governments should review their industrial policies and link them to the plans for urban development plans with an emphasis on identifying the challenges and opportunities for effective, sustainable and inclusive urban development.

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