

# Chapter III

## THE HOUSING STOCK

### A. Supply of housing

#### *Total housing stock*

According to official statistics, the housing stock of the Russian Federation stood, at the beginning of 2003, at more than 2 850 million sq. metres of dwelling space. Some 72.5% of the total housing stock was situated in urban areas. Official

statistics also show a clear increase in dwelling space between 1990 and 2002.

In general, statistics on the supply of housing have to be treated with caution as they sometimes provide contradictory information. In addition, units of measurement differ from most other countries, further complicating comparisons.

**Table 4. The housing stock**

Year	1990	1995	2000	2001	2002
Housing stock (million m <sup>2</sup> of dwelling space)	2,425	2,645	2,787	2822	2853
- Urban	1720	1911	2020	2045	2069
- Rural	705	734	767	777	784
Average dwelling space per inhabitant (m <sup>2</sup> )	16.4	18	19.3	19.7	20
- Urban	15.7	17.8	19.2	19.5	19.8
- Rural	18.2	18.6	19.8	20.2	20.6

Source: The Russian Statistical Annual Edition 2003, Goskomstat, pp. 199, 200, 202.

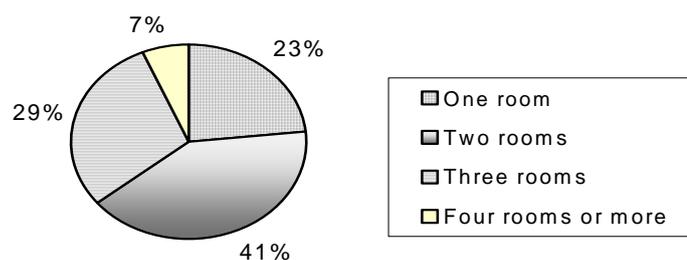
It should be noted that figures for the total housing stock include special-purpose houses such as hostels, shelters, homes for the elderly, children's homes, boarding houses for the disabled and boarding schools. They do not include cottages (dachas) or hotels or other premises intended for temporary residence. In Western countries special-purpose houses are not included in figures for the total housing stock, which makes comparisons with the Russian Federation difficult.

At the beginning of 2002 the housing stock of the Russian Federation was made up of more than 18.9 million residential buildings, composed of 55 million apartments. With 49.8 million households living in the Russian Federation in 2001, the total

number of dwellings exceeds the total number of households.

#### *Dwelling space*

In urban areas residential buildings mainly consist of multi-storey apartment blocks and in rural areas of single-family houses. Of the 55 million residential apartments, 23.2% are one-room flats, 41% two-room flats, 29.3% three room flats and 6.5% flats of four rooms or more. The area of a flat typically includes living rooms and bedrooms as well as auxiliary premises, such as kitchens, corridors, bathrooms, store-rooms, and staircases within a flat. Common corridors and staircases or balconies are not included.

**Figure III. Number of rooms**

Source: The housing economy in Russia, 2002. Collection of Statistics/ The State Statistics Committee of Russia (Goskomstat). - Moscow, 2002, p.110.

The average size of a flat amounts to approximately 51 m<sup>2</sup> and the average dwelling space per person is about 19.7 m<sup>2</sup>, which is low in comparison to West European countries but about average for Eastern Europe. Newer flats are normally bigger. In 2001 the average size of

newly constructed flats was 83 m<sup>2</sup>, and flats with three rooms or more represented 50% of the total number of new flats.<sup>21</sup> The number of flats per 1000 inhabitants is 360 – 380. The average occupancy rate per flat is 2.7 persons and per room 1.2 persons.

**Table 5. Comparison of housing stock indicators, late 1990s**

	m <sup>2</sup> /inhabitant	Dwellings/thousand inhabitants	Number of rooms per dwelling	Average completed dwellings per thousand inhabitants, late 1990s
France	43	490	3.9	5.4
Sweden	43	482	4.3	1.3
Portugal	28	482	4.3	11
EU	---	450	---	5.4
Estonia	22	430	---	0.6
United Kingdom	35	417	5.2	3.4
Hungary	29	400	---	2
Russian Federation	19.7	360	2.3	1.1 - 2.6
Ireland	33	341	5.3	12.4
Poland	18	300	---	2.1

Source: Housing Statistics in the European Union 2001. State Research Centre, VTT Finland. Goskomstat.

<sup>21</sup> According to Goskomstat.

**Table 6. Number of occupants per room**

<u>Country</u>	Number of occupants	<u>Country</u>	Number of occupants
United States	0.5	Uruguay	1.1
Germany	0.5	Republic of Korea	1.1
Norway	0.6	Russian Federation	1.2
France	0.8	Israel	1.2
Japan	0.8	Turkey	1.3
Poland	1.0	Peru	2.0

Source: United Nations indicators on housing.  
Unstat.un.org/unsd/demographic/social.htm,copyright 2003.

The number of flats per 1000 inhabitants in the Russian Federation is not extremely low compared to Western countries but the flats are small with, on average, only 2.3 rooms per flat. Therefore, the number of persons per room is clearly higher than in Western countries.

As the population has decreased, the housing situation, in terms of available number of flats according to the official statistics, is improving. However, official statistics, do not take adequately into account the condition of the housing stock, which is worsening continuously due to the nearly complete absence of renovation and reconstruction. Statistics on renovation and reconstruction are very limited.

According to expert estimates,<sup>22</sup> approximately 150,000 flats become uninhabitable every year due to lack of repairs. It is estimated that over the past few years around 40 million m<sup>2</sup>, i.e. approximately 800,000 flats, have been taken out of the stock due to poor quality. Together with the low rate of new construction this might mean that, contrary to official statistics, there has been no increase in the total housing stock in recent years.

The scale of new construction to replace the run-down housing stock is limited. New housing construction in the Russian Federation has slowed

down significantly since 1990. New construction in 2001 was about 40% of the volume of new construction in 1990. Housing statistics indicate that the Russian Federation is producing about 32 million m<sup>2</sup> dwelling space and 380,000 dwellings annually, that is, 2.6 dwellings per 1,000 people. But more detailed surveys of different regions suggest that the real number is much lower, even under 200,000, which would mean about 1.4 dwellings per 1,000 persons.<sup>23</sup> In Western Europe the average number is 5 to 5.5 dwellings per 1,000 persons (see chap. X).

## **B. Quality of the existing housing stock**

### *Age and design of the housing stock*

The housing stock in the Russian Federation is young compared to that in Western Europe. The industrialization of construction started in the Soviet Union in the 1950s. Thereafter, precast concrete large-panel construction developed quickly. Most of the apartment buildings were constructed between 1960 and 1985, and as a result the urban housing stock today consists mainly of a few standard building types.

Residential panel buildings can generally be divided in three basic categories:

- *First generation*: five-storey buildings often called *khrushchevki*. *Khrushchevki* were

<sup>22</sup> E. Hekali, Hansa Renovation Project, Finnish Association of Construction Industry.

<sup>23</sup> State research centre, VTT, Finland, Academic J. Rekitar, Russian Federation.

built between 1959 and 1969 and about 10% of residential buildings belong to this category. The buildings do not have lifts. Flats and rooms are small. Total dwelling space varies between 30 and 61m<sup>2</sup>. There are four subcategories but the differences are not great. Most *khrushchevkys* are in a poor state of repair. Many five-storey buildings are situated in fairly attractive areas, not far from city centres.

- *Second generation:* these buildings were built between 1961 and 1975. The number of storeys varies but nine-storey buildings are the most common. The buildings are long and there are usually five to nine staircases in each. The external walls are different lightweight concrete structures without separate thermal insulation material. The housing norms of 1963 regulated their design and construction. The dwellings in this category are more comfortable than those in the first-generation buildings.

- *Third generation:* these buildings were built mainly after 1975 in the suburbs. Large elements and prefabricated modules were used. These buildings are nine-storey or higher, tower-type blocks of flats or long, narrow buildings with four to seven staircases. The external walls are 35 cm thick expanded-clay lightweight concrete.

Although the above-described urban housing stock is fairly new, technically it is not in a good condition owing to its low-quality construction and poor maintenance. Energy efficiency is generally poor. The thermal insulation of the precast panel walls does not meet modern standards. Moisture and mould problems appear in some apartments due to poor thermal insulation. The surroundings including streets, courtyards and parks are usually poorly maintained too. The limited variation in the urban housing stock results in suburbs of great uniformity, which are not geared towards individual wishes or needs.

There are also older buildings and other types of buildings in urban areas but these are much less common. One category is the famous “Stalin-era” buildings, which can be recognized by their typical architecture. These prestigious buildings are situated in good places in city centres; their technical condition, however, is partly problematic. In St Petersburg, for instance, there are also historically valuable residential buildings with communal flats, which are in urgent need of repair. In many towns there are also old wooden individual houses which are in very bad condition owing to a complete lack of repair.

**Table 7. Age of the housing stock**

Construction date	% of dwelling space		
	Moscow	St.Petersburg	EU
Before 1917	2	19	32
1918 - 1945	3	3	
1946 - 1975	52	43	40
1976 and later	43	35	28

*Source:* Moscow City Bureau of Housing Stock Technical Inventory 2002. Hansa Renovation.  
Project, Finnish Association of Construction Industry: St.Petersburg State.  
Housing Statistics in the European Union 2001.  
Sciotech 1998.

### ***Run-down and dilapidated (“emergency”) housing stock***

The technical condition of the country’s housing stock is worsening continuously. More than 290 million m<sup>2</sup> or 11% of the housing stock needs urgent renovation and re-equipment, 250 million m<sup>2</sup> or 9% should be demolished and reconstructed. Gosstroy estimates that the annual need for renovation is equal to 4 – 5% of the total housing stock. However, in 2001 only 0.3% of the housing stock was actually renovated.

The State guarantees that citizens who live in dwellings or houses which do not fulfil the minimum safety or health requirements will be rehoused. There are no federal standards or guidelines defining run-down or dilapidated housing. Local authorities and special boards inspect the houses and estimate the “rate of wear”.

Housing with a rate of wear exceeding 60% is classified as run-down or dilapidated and is

subject to demolition. The numbers have increased continuously over the past years. In 2003 the housing stock classified as run-down or dilapidated represented more than 87 million m<sup>2</sup> which is 2.7 times more than in 1990. The share of run-down or dilapidated housing within the total amount of the housing stock has increased from 1.3% in 1990 to 3.1% in 2001 (see table 8).

The rate of demolition of condemned housing has been extremely slow in recent years. On average, around 2 – 3 million m<sup>2</sup> (about 60,000 dwellings) have been removed from the housing stock, i.e. only 3.5% of the run-down or dilapidated stock. However, according to estimates of Russian and foreign experts over the past years over 40 million m<sup>2</sup> (approximately 800,000 flats) have not been inhabited due to their poor condition. At present, 2 million people live in officially condemned stock. In the absence of adequate maintenance and repair the share of the run-down or dilapidated housing is likely to increase sharply in the near future.

**Table 8. Run-down and dilapidated housing stock (2001)**

Year	1990	2001
Total run-down and dilapidated housing stock (thousand m <sup>2</sup> )	32,200	87,800
- Rund-down stock	28,900	80,000
- Dilapidated stock	3,200	7,800
Share of run-down and dilapidated housing (%)	1.3	3.1

Source: The Housing Economy in Russia 2002, *Goskomstat*, p. 87.

### ***Unfinished construction***

Insufficient investments and rising construction costs have often resulted in delays in construction or in an inability to complete the already started work. As a result, at the end of 2002, unfinished residential buildings (excluding individual houses) represented 40.1 million m<sup>2</sup>, i.e. twice the volume of dwellings completed in 2002. In many areas it is expected that construction on this unfinished buildings will not resume in the near future due to a lack of financing or a lack of active demand. Nevertheless, the amount of unfinished housing is gradually decreasing: in 2002 it was 4.2 million m<sup>2</sup> (9.5%) less than in 2001 and 50 million m<sup>2</sup> less than in 1995, i.e. the unfinished housing stock has been halved (see table 9).

**Table 9. Estimated unfinished housing**

Year	1995	1996	2000	2001	2002
Number of residential houses	80,800	68,700	41,100	38,700	34,100
Total floor area (million m <sup>2</sup> )	90.1	76.6	45.3	44.3	40.1

Source: The Russian Statistical Annual Edition, 2003, Goskomstat, p. 444.

There are strong regional differences in the volumes of unfinished construction. It is extremely high in the regions of Tula, Murmansk, Kamchatka, Magadan and the Jewish autonomous region, where in 2001 the ratio of the total unfinished dwellings to completed new dwellings was 10:1. Only in Moscow did the volume of unfinished housing not exceed annual dwelling completions at the end of 2001.

#### **Housing amenities**

There have been improvements in housing utility services during the past six years. However, in 2002, 13% of the housing stock in towns and

urban settlements remained without running water, 15% without sewerage, 12% without central heating, 20% without fixed baths or showers and 23% without running hot water. In rural areas between 59 and 81% of the housing stock had no such utilities. There is no piped water in 10 towns (i.e. in 1% of their total number), in 110 urban settlements (6% of all urban settlements) and in 110,100 rural settlements (71% of rural settlements). About 71 million people, i.e. 49.6% of the total population live in housing equipped with all amenities; 61% of the urban population and only 16.2% of the rural population.

**Table 10. Housing amenities (%)**

	Running water	Sewerage	Central heating	Gas	Fixed baths (showers)	Running hot water	On-floor electric stoves
Total housing stock							
1995	71	66	68	61	69	55	15
2001	74	70	75	64	70	61	16
2002	74	70	75	64	70	61	17
Urban housing stock							
1995	84	82	85	77	67	72	20
2001	87	85	88	80	69	77	22
2002	87	85	88	80	69	77	22
Rural housing stock							
1995	35	24	23	20	73	12	2
2001	40	31	40	24	74	19	3
2002	41	31	41	24	75	19	3

Source: The Russian Statistical Annual Edition, 2003, Goskomstat, pp. 199-201

### **Energy efficiency**

The Russian housing stock has poor energy efficiency, but not so poor as sometimes estimated in energy-saving calculations. Measurements in Baltic and Russian panel-block buildings show that their energy consumption is about 1.1 to 1.7 times higher than that of Finnish energy-efficient multi-storey residential buildings. In Estonia it is estimated that different renovation measures to save energy in the Soviet-era large-panel buildings can reduce heat consumption by 7% to 27%. Energy-saving measures in old buildings are often technically problematic and expensive. Their payback time is long. They are often economical only in combination with other renovation measures. Energy-efficient stock needs to be built up slowly through new construction and strict building regulations, but even now new construction seems to be less energy-efficient in the Russian Federation than in Western countries.

In the Russian Federation energy saving measures that are not too costly, such as renewing windows and installing energy and water meters, are the most common. They might increase energy efficiency; however, attention must be paid to the overall circumstances. When, for example, changing windows there is a danger that the indoor climate deteriorates and mould problems increase due to a lack of ventilation. When windows are changed, the ventilation and heat systems of the whole building should be checked and regulated. The instalment of individual heat and water meters in flats also has

to take into consideration the state of the pipes in the building.

New flats are sold when the load-bearing structures and outer walls are ready. All the finishings and infrastructure inside the flat are done or bought by the buyer. This reduces the sales price of the flat but actually increases the costs of construction, maintenance and repair. Plumbing and heating equipment are consequently often very diversified and their quality, security and energy efficiency can be low. Roofs and heating systems must be regularly repaired to keep the building usable. Valuable technical knowledge about repairing Soviet-type apartment buildings is available, for instance, in the Baltic countries. Solutions to technical problems in renovating, for example, concrete panel buildings and modernizing district heating systems are well known in the neighbouring Nordic countries. This knowledge is also usable in the Russian Federation. The repair of the Russian housing stock should, however, take into account the country's economic, technical and cultural circumstances and not simply import methods developed for quite different situations far away.

### **C. Tenure structure**

The tenure structure has changed greatly as a result of privatization. By the beginning of 2002, 22.3 million residential units, i.e. 61% of the housing stock subject to privatization, had effectively been privatized (see table 11).

**Table 11. Privatization of housing units**  
(shown as accumulated results from the beginning of privatization)  
(by the beginning of each year)

Year	1990	1995	2000	2001	2002
Number of privatized housing units (thousands)	53	12,479	17,351	18,538	22,339
Total dwelling space (million sq. m)	2.5	608.3	842.0	903.2	-
Privatized residential premises (% of total premises subject to privatization)	0.2	36.0	47.0	50.0	61.0

Source: The Russian Statistical Annual Edition 2003, Goskomstat, p. 200.

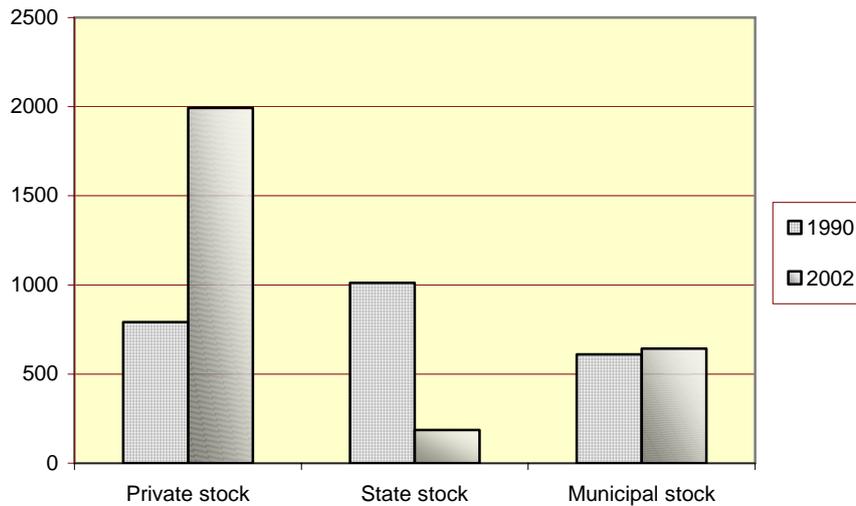
While in 1990, 33% of the total housing stock was privately owned, in 1995 it was 53%, in 2000 65.3%, in 2001 67.7% and in 2002 69.9%. Of the privately owned dwellings in 2001 50% had been privatized cost-free, 40% had been purchased by private citizens, 6.7% belonged to building cooperatives and 3.3% were in the hands of various other legal entities. much in recent years.

The share of the municipally owned housing stock has not changed Municipalities owned 25% in 1990, 30% in 1995, 26.5% in 2000, 24.1% in 2001 and 22.5% of the total housing stock in 2002. About 6.5% of the total housing stock was in State ownership in 2002. The share of State-owned housing has decreased rapidly. It was 42% in 1990, 10% in 1995, 6.3% in 2000 and 6.8% in 2001.

**Table 12. Ownership of the housing stock**  
(m<sup>2</sup>)

Year	1990	2001	2002
Total housing stock	2,425	2,822	2,853
Private stock	791	1,910	1,993
- of which in citizens' ownership	641	1,809	1,897
- State stock	1,011	193	186
- Municipal stock	611	680	643
- Public stock	12	2	2
- Mixed ownership	---	37	29
Urban housing stock	1,720	2,045	2,069
Private stock	353	1,245	2,069
- of which in citizens' ownership	260	1,191	1,265
State stock	765	162	157
Municipal stock	594	612	575
Public stock	8	1	1
Mixed ownership	---	29	22
Rural housing stock	705	777	784
Private stock	438	669	679
- of which in citizens' ownership	381	618	632
- State stock	246	31	29
- Municipal stock	17	68	68
- Public stock	4	1	1
- Mixed ownership	---	8.0	7.0

Source: The Russian Statistical Annual Edition 2003, Goskomstat, p. 200.

**Figure IV. Ownership of the housing stock**

After peaking in the mid-1990s, the annual rates of privatization of the housing stock gradually fell till 2000. The share of privatized housing in different areas does not differ much. In Moscow 53% of the housing stock is subject to privatization, i.e. can be privatized by the tenants by the special privatization law, which is above the Russian average. The relatively low share of privatized housing in St Petersburg (43% of dwellings subject to privatization) can, for the most part, be explained by the large share of communal flats (i.e. dwellings being shared by more than one household). Privatizing rooms in such flats was until recently constrained by the necessity to get permission from the other households.

#### **D. Households in need of new housing and housing improvements**

The number of households in need of housing or better housing conditions registered by the local

authorities has substantially dropped during the past few years. By the beginning of 2002 the number of households registered by local authorities for the purpose of housing allocation had come down to 4 million, i.e. 10% of the total number of households down from 20% in 1990.

By the beginning of 2002, the share of households which had been on the waiting lists for new housing for more than 10 years was 37.7% of all households on the waiting list (compared with 13% in 1990 and 33.8% in 2000). During 2002 about 229,000 households (5% of all registered households) were housed, compared to about 1,296,000 households (13% of registered households) in 1990 (see table 13).

It is estimated that there are approximately 4.2 million homeless people, of whom half have been without a fixed abode for more than two years.

**Table 13. Housing allocation**

Year	1990	1995	2000	2001	2002
Number of households provided with dwellings or having improved their housing conditions (thousands)	1,296	652	253	242	229
- in % of households registered for housing allocation	13	8	5	5	5
- in % of all householdes	3.0	1.0	0.5	0.5	0.5
Number of households registered for housing allocation by year-end (thousands)	9964.0	7698.0	5419.0	4857.0	4428.0

*Source:* The Russian Statistical Annual Edition 2003, Goskomstat, p. 201.

The public housing allocation system with waiting lists is losing its role in the provision of dwellings. However, at the same time, the secondary market and rental market systems are not yet working

efficiently. The changing of flats between households seems complicated and households have difficulties to meet their housing needs.