

# EXISTING HOUSING SITUATION, NEW CONSTRUCTION, URBAN PLANNING AND UTILITIES

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### A. The existing housing stock

According to analysis of data on the existing housing situation in Georgia<sup>15</sup>, the country does not differ from the average scenario in the region. Average housing space per capita was reasonable before the collapse of the Soviet Union – about 22.5 m<sup>2</sup> per capita. However, square metres do not provide an accurate picture of the quality of housing and related services. Current figures for the total housing stock are not available. Nearly 93 per cent of households in the countryside live in detached houses, whereas in the urban areas 67 per cent of the households are located in flats. These numbers are to be kept in mind when assessing the existing housing stock, as more than half of the residents of Georgia are in urban areas.

In 1989, the last Communist Government issued a legal act<sup>16</sup> permitting residents to expand their living areas by enclosing balconies, loggias and verandas or adding extensions to their apartments provided they submitted the corresponding plans for building permission. As a result, numerous structurally and aesthetically questionable extensions of blocks of flats – in a highly seismic region – were constructed.

Inhabitants erected private chimneys for fireplaces and gas-stoves on the facades of the apartment buildings, and redesigned windows and balconies. Buildings thus acquired a makeshift look, with structural extensions that exceed a building's planned dimensions. It remains to be assessed how many of these extensions were actually carried out with proper permission and

followed safety standards. Several of these “initiatives” have remained unfinished.

In general, a major part of the housing stock in Georgia – regardless of its ownership – will require massive reconstruction. At the same time, a part of the stock should be demolished due to natural structural deterioration, lack of maintenance, and the activities of residents. Some damaged houses were subject to demolition even before the 2002 earthquake, but after the earthquake the number of badly damaged houses in Tbilisi came to more than 20,000. In some districts, multi-family estates in particular entered a process of “slumization”.

### B. Housing maintenance and management

By 1999, the level of privatized housing in Tbilisi was 86.6 per cent; in 2004 the share of dwellings owned by the households was 94.5 per cent. Over 1.7 per cent of the stock was rented from private individuals. New owners of property (mainly of flats in apartment blocks) appeared overnight without the requisite experience and resources to fulfil the obligations and responsibilities of property owner in terms of managing and contributing to the maintenance of structures and facilities.

The privatization of flats was carried out without technical surveys and relevant documentation of the flats and apartment blocks. Technical conditions of the block were not considered, there being no publicly available guidelines for the new owners. The ZHEK (municipal management and maintenance company)-based system of the Soviet era was abolished without being replaced. Only a few of them were turned into service centers.

Although the *Civil Code* includes the general concepts of common ownership of land and of common parts of a building in multi-apartment buildings, there is at present, in the absence of a law on homeowners' associations, no

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<sup>15</sup> Data in this chapter are taken from the MED of Georgia, Department of Statistics unless otherwise stated.

<sup>16</sup> Normative Act no. 10.19.254. Decision on Approval of the Regulation on Building Loggias, Verandas, Balconies and Other Supplementary Spaces on Existing State and Cooperative Residential Houses Built at Residents Expense. 18.05.1989.

effective implementation of apartment owners' obligations to maintain such common space.

The organizing principle for the management of privatized housing, i.e. the concepts of homeowners' associations and the management of common property, is established by the provisions of the *Civil Code* of 1997<sup>17</sup>. The problem is not simply that the status of a homeowners' association was not clearly defined, but further that the subject of management of the common property of apartment owners was not elaborated. No clear obligation to participate in the management of common property was imposed, as the extent of such common space was also not clearly identified. It remains unclear to what extent the land plot should be registered as being in condominium ownership, and where the borders of such property should lie. These issues were left to a normative act of the Ministry of Urbanization and Construction from 2002, which attempted to provide rules for the parcelling of land between multi-apartment buildings.

The condominium form of property is recognized in paragraph 208 of the *Civil Code* of 1997 (and as subsequently amended), which also provides a basic framework for the activities of homeowners' associations, i.e. it is registered as the common land of the apartment owners. Furthermore, paragraph 219 obliges apartment owners to maintain individual and common areas of multi-apartment buildings. (Paragraph 231 imposes a financial liability on a single apartment owner towards the other apartment owners.) This is the only legislation imposing an obligation pertaining to the maintenance of multi-apartment buildings.

Paragraphs 227, 228 and 229 of the *Civil Code* provide further details on the activities of homeowners' associations. The chairman of the homeowner association must call a meeting if requested by 25 per cent of the apartment owners within one week (or else the meeting can be called by an individual owner). A meeting of the apartment owners has a quorum if it is attended by half the owners, and if the meeting is not

competent, another meeting can be called which shall be competent to take decisions regardless of the number of owners present. A decision can be taken by a simple majority (50% + 1) of those attending. The chairman is obliged to implement the decisions made and to undertake the necessary measures for proper maintenance and current repair of the common property. He is entitled to enter into contracts and demand payments from the co-owners. In reality, however, the apartment owners do not possess the financial resources – or, more importantly, access to financial resources – to pay for such maintenance, and in practice many of the apartment owners are absent and the apartments rented out.

#### ***Examples of municipal programmes for housing maintenance***

Due to legislative shortcomings, the lack of mechanisms, and insufficient public awareness for need and importance of homeowners' associations, not all privately owned multi-flat apartments have established homeowners' associations that are registered and functioning.

It should be noted, however, that over past years organizations such as the Urban Institute and GTZ (German Technical Cooperation) have offered support to the central and local governments vis-à-vis the establishment of homeowners' associations.

In the period 2001-2003, the Urban Institute was actively involved in condominium development support under the "Local Self-Government Reform" programme. Pilot projects were carried out in Zestaphoni, Ozurgeti, and Lagodekhi. As a result of these projects, about 50-60 homeowners' associations came into being. Zestaphoni is the second city after Tbilisi where the number of condominiums, in comparison with others, is high: there are now 47 condominiums registered. In 2001-2002, a project on "Establishment of Condominiums in Zestaphoni - Georgia", financed by the Urban Institute, was initiated. At the time of the project, eight condominiums were registered, of which six received the Urban Institute grant for renovation works, including renovation of roofs and drainage systems. The Urban Institute is still receiving requests for assistance and training from local authorities, but unless these activities are agreed upon by the central government, according to its

<sup>17</sup> Civil Code 1997, part 3, article 4, paragraph 216, on the significance of homeowners' associations. The Civil Code has also converted cooperatives into homeowners' associations.

responsibility to coordinate international assistance, these projects will not be continued.

In July 2004, the city of Tbilisi has established Tbilisi Corps to implement the programme supporting the development of homeowners' associations. Tbilisi Corps is a municipal unit that employs 21 persons as well as several contract-based individuals in different parts of the city who serve as a contact between residents and the city. Tbilisi Corps assists owners in establishing homeowners' associations. With

the support of GTZ, the draft law on condominiums was elaborated, and Tbilisi Corps issued a brochure with guidelines on condominiums for owners, and holds special training sessions for association leaders.

Tbilisi Corps also offers financial assistance to established associations for renovation projects. Three major projects have been initiated, following the public-private partnership principles of financing.

Figure 3.1. Allocation of renovation projects initiated by Tbilisi Corps



\* Share of costs covered by municipality : share covered by HOA

About 80 per cent of the 6,000 lifts in the city require renovation; repair of one costs some 5,000 lari. One square metre of roofing rehabilitation costs about 13 lari.

The activities of Tbilisi Corps depend fully on the municipal budget. So far, 10 million lari have been provided from the city budget. An additional 1.5 million lari for 2006 were guaranteed, and 750-800 homeowners' associations had submitted applications for 1500-1600 renovation projects by June 2006. About 6 million lari have been spent already. Similar projects are foreseen in the future, e.g. an initiative to replace or install missing entry gates which should lock for all multi-flat housing estates. Initial work has already begun. There are currently 2,600 homeowners' associations listed in Tbilisi.

This is a useful starting point and pilot initiative for improving the situation. It is equally important, however, that follow-up activities and maintenance schemes be established to keep reconstructed roofs, lifts and pipelines in satisfactory condition for the long run. In fact, currently there is no institutional framework for maintaining the existing structures.

### C. New Construction

Since the collapse of the Soviet Union, the amount of construction work has fallen significantly, including new housing construction. As of today, this sector has not recovered much. During the years 2001-2003, the total annual number of commissioned sites in Georgia fluctuated between 400 and 500. In 2004, this number fell to 325. With 700 new apartments commissioned in 2004, construction remains weak (table 3.1). The share of sites located in Tbilisi is about two thirds.

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Table 3.1. Construction of new housing

	Thousand m <sup>2</sup> of total floor area			Thousand apartments		
	Commissioned in total	of which by:		Commissioned in total	of which by:	
		State enterprises and organizations	Private clients		State enterprises and organizations	Private clients
1995	161	26	135	1.2	0.4	0.8
1996	148	34	114	1.1	0.4	0.7
1997	105	15	90	0.7	0.1	0.6
1998	92	21	71	0.8	0.2	0.6
1999	183	15	168	1.1	0.2	0.9
2000	213	22	191	1.4	0.2	1.2
2001	139	-	139	0.7	-	0.7
2002	222	19	203	1.1	0.2	0.9
2003	189	-	189	1.1	-	1.1
2004	139	-	139	0.7	-	0.7

Clear regional differences are visible since 2000. For example, for the private sector in 2004, 715 apartments were commissioned; of these, 253 were in the city of Tbilisi and 185 in Adjara, with significant numbers in Shida Kartli (98 units), Imereti (75 units) and Samegrelo-Zemo Svaneti (69 units). Other regions accounted for only a small number.

Analysing construction sector output, one can conclude that the construction sector in Georgia is functioning only partially. There are 684 officially listed construction companies (87 of these still State-owned) in 2004. In the same year, the number of commissioned sites was 325, in other words, an average of two sites per company.

The average turnover for a construction company for the same year amounts to only 560,000 lari. Accordingly, these average numbers are not sufficient to run a construction company efficiently.

The majority of officially listed construction entrepreneurs are not permanently employed. The absence of permanent employment does not give sufficient incentives to improve the performance of the companies, because:

- On-site work is poor due to the low quality of materials used and the fact that no investment has been made to raise the technological level of the equipment used;
- There are no standard security measures currently followed on construction sites (even by the so-called “quality” contractors), making the workplace dangerous both for workers of the contractor and third parties;
- The quality of construction work is lacking mainly due to the use of unskilled labour.

Moreover, Georgia does not have a sufficient construction materials industry – cement is partly imported from Armenia, steel from Ukraine, and finishing materials from Turkey. The prices for these major items influence the cost of construction.

The role of the construction-related professions (including architects, designers, engineers and supervisors) is currently underutilized. Developers are taking the lead through active lobbying and marketing of their services. For quality estates (for housing, business or administrative purposes), developers require qualified construction and maintenance professionals. Hence they have a major interest in increasing the level of professional training.

Courses in architecture and urban planning are currently offered by Georgia Technical University to fill this gap.

Reports indicate that developers deliver housing projects (blocks of apartments) without any finishing work as they cannot afford to damage their company's image due to the poor performance of available on-site workers. They expect the new owners to employ a team to complete these tasks and to carry the related risks accordingly.

Efforts to establish an institutional structure for developers can be considered as a positive measure in urban development. The Developers Association of Georgia is working towards creating a legal basis for development activities according to a Code of Ethics. In the new draft of the Construction Code, the developer is mentioned, but the role is not yet clearly defined.

#### ***Construction permits, supervision and licensing***

According to the *Law on Territorial Arrangement and Urban Planning* of June 2005 (hereafter *Law on Urban Planning*), development of local planning and zoning documents is the responsibility of local governments. Applications for permission to build must be submitted to the relevant local bodies (individual applications must be considered in the absence of a master plan). In order to receive a construction permit, the construction company has to present several documents, one of which is a proof of land ownership.

The planned construction is advertised for 20 days and if no objections are received, conditions for the planned construction are issued within another 10 days by the municipal architect's office. In practice, however, one problem encountered is that the construction often infringes on third-party rights, so many protests are received after the notification of construction.

The construction company then submits drawings and technical information to the municipal architect's office, which are approved within 20 days if they are drafted in accordance with the conditions provided. In the past, the construction permit had to be approved by the

body of "state expertise", which no longer exists. In reality, due to the absence of a town plan, this process takes much longer.

These regulations are set to be codified in the draft Construction Code. Indeed, the standard provisions of a Construction Code are an elaboration of the requirements for the construction of a building and for its procedure. The stated aim of the Ministry of Economic Development (MED) is to contain all such regulations with the exception of those contained within the *Law on Urban Planning* and the *Law on the Supervision of Architectural and Construction* of June 2004 (hereinafter the *Law on Supervision*) within the draft Construction Code.

Indeed, it was disclosed that the provisions of the *Law on Urban Planning* may even be included in an attempt to reduce the possibility of contradiction between these two laws and to remove any overlapping functions with regards to planning activity. A bi-product of these efforts is the fact that the Code is too specific, containing too many norms and standards.

The main idea behind the draft Construction Code is, however, to establish a small number of regional offices to issue construction permits and supervise construction. Complementing the *Organic Law*, the draft Construction Code provides that the local government should be responsible for issuing construction permits and certificates stating that a building is fit for use. Problems are expected, with the implementation of these provisions, however, given the lack of financing for local government and the absence of any enforcement mechanisms.

At present, the architect supervision body is involved neither in awarding the initial construction permit and nor in making the decision that the building is fit for use. The intention of the draft Construction Code is to elaborate upon the provisions of the *Law on Supervision*. According to this law, the Chief Architectural and Construction Inspectorate at the municipal level is empowered to inspect construction sites for violation of regulations, i.e. the implementation of construction outside the design activity without a proper license.

The Inspectorate is empowered to enter projects and demand documentation, to supervise construction, and to recommend the suspension of a construction activity license. The law provides for fines for the violation of regulations, and if the party in violation refuses to pay, the Inspectorate can request to the court to ensure that they pay.

Two problems are currently evident in practice. First, the builder is no longer certified by an accreditation body. Such an accreditation policy is hard to establish, as is the registration of specialized activities, due to the absence not only of authorized State certification bodies, but also of professional standards in general. Under the new *Law on Licensing*, the licensing of construction companies has been abolished.

The only obligation made on a construction company is that it comply with the design obligations contained in the construction permit, as issued in accordance with the provisions of the *Law on Urban Planning*. Secondly, the *Law on Supervision* does not obligate the contractor to actually supply the papers demanded by the inspection authority. Furthermore, in the event of non-compliance, local inspection authority has to obtain a court order to inspect the construction site and to stop construction. The local authority does not, however, have the ability to demolish such construction.

A building cannot be registered unless it has been certified by the local inspection authority as being fit for use. (It should be noted in regard to housing maintenance that the provision of the certificate stating that a building is fit for use includes an obligation to maintain the building.) At present, buildings that are not certified or registered are sold.

Crucially, the *Civil Code* does not impose an obligation on the homeowners to sell the building if construction stops. In an attempt to resolve the consequent problem of the incompleteness of building construction, the draft Construction Code intends to impose an obligation on the homeowners to conserve the building, i.e. to pay for the work done by the local government.

#### **D. Urban planning**

##### ***Legislative basis and recent developments in urban planning***

The existing system of spatial planning in Georgia is based on the *Law on Urban Planning*. However, most cities in the country still have master plans from Soviet period, although these are no longer relevant to current socio-economic realities. The Constitution of Georgia *de jure* established terms of legitimacy for the legislative and normative acts of Soviet period, i.e. legal acts or the parts of them that do not contradict the Constitution are legitimate. According to part II of article 106 of the Constitution, the Parliament should determine the compliance of old normative acts with the Constitution within the two-year period following the promulgation of the Constitution. However, this was only partially completed.

The Soviet era master plans were a part of a strictly centralized territorial and economic planning system. Local governments were not involved in planning, and the central government (Gosstroy) dictated planning norms. The result was unplanned and unevenly dispersed urban development. The last development plans were elaborated in the 1970 and 1980s. Since then, national and regional programmes, regional planning schemes, as well as city plans, have not been prepared.

The term for validity of most long-term master plans of Soviet period expired only in 2000. It was extended to 2004, with the Presidential Decree (February 2002) on *Prolongation of the Terms of Validity of Master Plans*.

In the 1990s, statutory acts related to urban policy were prepared on a periodical basis, e.g. the 1996 Order of the President of Georgia on *Activities Endorsing the Management of Urban Development Process City-Planning and Construction* and the 1997 "Programme and terms for open competition on the concept of urbanization of Georgia", prepared by the Association of Urbanists of Georgia for the Ministry of Urbanization and Construction. Both of these documents did not receive political support, causing major stagnation in development of urban policy.

This situation has led to the ongoing degradation of the urban environment. During the last decade, universally accepted principles of urban planning have not been followed. Instances of imbalance in the urban environment are evident, especially in Tbilisi. Regardless of the number of urban land-related normative acts, the legislative system can be characterized as sporadic and having no clear conceptual objectives.

In 2004, the Ministry of Infrastructure and Development launched the elaboration of new urban planning documentation in six Georgian cities: Batumi, Poti, Kobuleti, Kutaisi, Gori and Signagi. These plans are not approved yet, however. In Tbilisi, there is currently no active master plan; the new one is expected to be published only in 2007.

### ***Land cadastre***

A clearly discernible step forward has been the introduction of a comprehensive land cadastre, an essential foundation for urban planning<sup>18</sup>, which contains information on land and real estate. The *Civil Code* provides that the land and real estate objects are unified, and, in addition, the new *Law on State Registration* stipulates that the *cadastre* number apply not only to the land but to the building as well.

Information previously contained in the Bureau of Technical Inventory has been incorporated into the land cadastre. However, the process remains incomplete. Due to the number of illegal constructions since 1997 that were not properly registered, inaccurate information is often included in the cadastre. Moreover, since other information such as modifications of buildings has not been included in the cadastre, extracts and plans do not adequately describe reality.

### ***The role, responsibilities and powers of local governments***

As was noted in chapter II, the division of responsibility between the central and local government was not clearly defined so as to

provide a clear legal basis for spatial planning. Due to the current lack of such a definition, construction is approved without regard for urban development documentation. Proper land management was further hampered by the absence of municipal ownership of land. Municipalities, especially municipal governments, thus lacked clearly described roles and incentives vis-à-vis urban planning. However, the new *Organic Law* together with the *Law on Urban Planning* improved the legal situation.

The wide-scale privatization of real estate and urban land was accompanied by short-term political interests rather than by overall spatial planning principles. Nevertheless, the recent *Law on Urban Planning* established three layers of planning: (a) territorial arrangement of Ajara and Abkhazia (general plan and schemes); (b) territorial arrangement of district (territorial development plan); (c) urban planning of settlements (general land-use plan and regulation plans). The law requires local governments to develop two types of documentation: land-use plans and regulation plans for the construction of buildings (although the law states that if local plans exist, an overall plan does not have to be developed).

Fundamental problems remain unresolved, however. The law includes urbanized land as a category of land, but does not define what it is. Finally, the law provides that within five months of its adoption the MED has to prepare major principles for the regulation of use and development of settlement territories. This was never done. The *Law on Urban Planning* fails to provide the necessary procedures for implementing urban zoning, for carrying out public participation in the planning process, or for simplifying the process to obtain land development permits and approvals.

In November 2000, a Decree of the President requested that the mayor of Tbilisi establish the organization of a new system of territorial management before the local government elections of June 2002. Consequently, the government of Tbilisi issued *Rules for Land Use and Building Regulations for the City of Tbilisi* on 1 August 2001 (hereinafter "*Rules for Land Use*"). Regulations were introduced as existing regulations had no requirements for single parcels, a new institutional set-up had not been

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<sup>18</sup> See also UNECE, *Land Administration Review*, Georgia, 2001.

established, and transparent public participation procedures did not exist. The *Rules for Land Use* envisaged the preparation of general and detailed zoning maps for Tbilisi within nine months, as well as the establishment of a land-use and building regulation council.

### ***Illegal construction***

The shortcomings describe above in spatial planning and the lack of adequate institutional structures for planning have also resulted in illegal occupation (squatter) of land and illegal construction. There are only poor statistics for Tbilisi and other cities of Georgia, but local experts assert that the problem of illegal land occupation is becoming more and more significant.

Illegal construction is understood as being the construction of parts of a building, or of an entire building, that does not conform to existing laws, rules and norms. Most common features of illegal construction in Tbilisi are the absence of design, planning documents and construction permits.

Article 10 of the *Presidential Decree No. 874 on Activities for the Detection of the Illegalities which took place in the Use of the State Land Fund 1995-2000 and their Elimination* of 22 June 2002 instructs the Ministry of Justice of Georgia “to review the expedient issue of imposing responsibility by the Criminal Law for illegal occupation of land and to submit the appropriate project”. However, this decree has had little impact.

Legislation is still being prepared in Parliament on the legalization of informal buildings; i.e. the legalization of a construction if the building qualifies for a building permit and can be certified as fit for use. As a consequence, and in a similar vein to the problem of enforcement against incomplete construction, there is no legislative provision that allows local government to demolish an illegal construction. Local government can inspect construction activity, and in case of illegality, take action, including passing the case to the court.

Examples in Tbilisi make evident the fact that illegal construction by owners and developers can result in problematic extensions constructed by individual residents. These can pose security threats, and the problem of illegal construction, in unsuitable historic areas or not following building regulations such as proper distances between buildings, is especially critical in seismic areas such as Georgia.

### ***Heritage protection***

Some steps were taken to preserve buildings of historic interest. For example, the Ministry of Culture, Monuments Protection and Sports has prepared an inventory of all buildings of historic value of Tbilisi. The municipality of Tbilisi established the Old City Rehabilitation and Development Fund in 2005 to carry out studies for the Kala district with the aim of restoring historical buildings and developing the historic core of the city as a tourist attraction.

The Fund employs 13 professional staff and has already acquired experience with public-private partnerships where plots or buildings for demolition were offered to investors in exchange for the renovation of another building. Unfortunately, this programme only addresses physical infrastructure and not social issues, in particular the needs of the population currently inhabiting the old town. There are cases in which, in the course of housing privatization, poor residents became owners of historical buildings that urgently require repairs.

### **E. Utilities sector**

The official statistical review provides data about dwellings with different types of utilities (see table 3.2).

The capital Tbilisi shows the highest level of indicators. In urban areas, the level of provision with utilities is generally higher than in the rural ones.

The formerly widely used district central heating system collapsed. Nearly 100 per cent of households are provided with electricity, and gas has become the basic means for heating homes.

*Table 3.2. Provision of dwellings with water, energy and communications, in per cent (2004)*

	Tbilisi	Other cities	Total for urban areas	Rural areas	Total for Georgia
Cold water supply	99.1	81.7	90.6	51.6	71.1
Central system of hot water supply	1.3	0.1	0.7	0.1	0.4
Individual system of hot water supply	22.7	7.6	15.3	1.7	8.5
Electricity supply network	99.8	99.9	99.9	99.4	99.6
Central system of gas supply	59.1	19.2	39.6	3.5	21.5
Individual system of gas supply	19.1	22.5	20.8	15.0	17.9
Central system of heating <sup>19</sup>	0.5	0.2	0.4	0.2	0.3
Individual system of heating	18.1	9.7	14.0	11.6	12.8
Telephone	72.1	46.7	59.7	5.6	32.7

There is currently an urgent need to rehabilitate the national energy sector services – gas and electricity – to avoid the risk of provision problems in the short run and to secure the availability of electricity in the winter. There is evidence of power failures and gas pipes in poor technical condition.

Both the electricity and gas subsectors continue to struggle with low fee collection rates. While in Tbilisi collection of electricity bills has improved to 60-70 per cent – mainly because of the installation of meters and the imposition of sanctions – in the rest of the country only 40 per cent of customers are metered. It has been reported that in spite of these measures, collection rates are not much above 50 per cent, nor has the collection rate for gas any better. As a result, the financial condition of enterprises in the energy sector is not attractive to private investment, as losses include technical losses and theft in addition to uncollected bills. Average payments to the Georgian Wholesale Electricity Market (GWEM) are less than 30 per cent of invoice value. The shortfall in payments accounts for about \$70 million per year. Sound regulation of the activities and operations in the energy sector would reduce losses and non-payment and would improve service-quality levels and the financial condition of enterprises as well as generate funds for further

investments. These low collection rates are in great part caused by rapidly rising power tariffs that began to reflect the true cost of electricity. In the absence of adequate metering, and with a high incentive for fraud, demand for electric power has risen to excessive levels.

Burdened with such problems, Georgia's energy sector has not made much progress in privatization. The distribution company for Tbilisi was sold to AES in 1999, together with a thermal power plant. These assets are now owned by the Russian firm RAO/AES. The State-owned transmission company (Georgian State Electrosystem, GSE), the State-owned distribution company outside Tbilisi (Unified Distribution System, UDC – the largest in the country), as well as the wholesale market GWEM are under management contracts with international firms and financed by donors, including international financial institutions. In the gas subsector, enterprises remain predominantly State-owned, with fragmented arrangements for purchasing imported gas.

Under these circumstances, the energy supply to household and business consumers has been rather unreliable, with frequent and unpredictable interruptions of service. Consumers, especially outside Tbilisi, endure particularly low service levels, and power failures affect economic activity, the delivery of public and social services and the quality of life. However, electricity supply has improved since 2003 for almost all parts of the country.

<sup>19</sup> Does not include electric ovens and other traditional means of heating.

Table 3.3. Average monthly expenditure per household in 2004

	In lari			In percentage		
	Urban areas	Rural areas	Total	Urban areas	Rural areas	Total
Total cash expenditure	304.8	186.7	245.7	100	100	100
Food, alcohol, tobacco	160.4	103.0	131.6	52.6	55.2	53.6
Clothing and footwear	16.8	12.3	14.5	5.5	6.6	5.9
Household items	10.4	7.9	9.1	3.4	4.2	3.7
Health care	17.8	12.9	15.3	5.8	6.9	6.2
Fuel and electricity	27.6	16.1	21.8	9.1	8.6	8.9
Transportation	28.4	18.6	23.5	9.3	10.0	9.6
Education and recreation	9.6	3.6	6.6	3.1	1.9	2.7
Other	34.0	12.3	23.1	11.2	6.6	9.4

Following the official data, the unit prices for energy have been stable.

Table 3.3 reflects a rather unconventional budget structure for households – monthly costs for food, alcohol and tobacco constitute more than half of the total; second, transportation; and third, energy costs. The main reason for this is the not fully disclosed costs for housing, as well as the costs for water and wastewater services and for garbage collection. These are assumed to be listed along with the other expenditures. However, fees for the above-mentioned services are very low in relation to other communal fees.

In addition to energy, households require fresh water and waste management, including wastewater and garbage management. Despite the fact that Georgia has abundant water resources, the current water supply situation is complicated. It is reported that 60 per cent of existing water pipelines are faulty and sanitary and technical conditions are unsatisfactory, resulting in frequent accidents, which in turn, lead to water contamination. According to data, losses amount to 40 per cent of the overall quantity of water supplied to households.

Ironically, the water supply in Georgia is reported to be safe for drinking. At the same time, many water intakes have no protected sanitary zones. All 85 cities and districts in the country have centralized water systems; in total, there are 150 major water intakes. Drinking water is mainly drawn from ground sources. The total design capacity of the ground drinking water sources is 3.1 million m<sup>3</sup> per day. The majority of settlements in Georgia receive water with interruption. Yet there is no accurate regulation of

water produced and consumed. The situation is exacerbated by a lack of water-control laboratories. This means that supplied water often does not comply with standards or sanitary and epidemiological requirements. Most of the rural population relies on individual wells and springs, and in high mountainous areas, springs and streams.

Nonetheless, according to the reports provided, only in parts of four cities (Tbilisi, Batumi, Samtredia and Gori) is water provided 24 hours a day. In the two other large cities, Rustavi and Kutaisi, each with more than 140,000 inhabitants, supply regularity is only eight and six hours, respectively. The lowest level of supply regularity (four hours a day) is reported in Gurdjaani. Consequently, low-quality service negatively influences consumers' willingness to pay.

At one end of the scale, in Tbilisi average water household consumption is 743 litres per day. Next comes Batumi with 432 litres. On the other end, in Ozurgeti the relevant consumption level is only 37 litres. (As water consumption is not measured, findings and recommendations are based on average data.) In a western European city, average consumption is about 100 litres per day (mainly measured). Currently, there is no awareness among consumers that water is a resource.

Wastewater discharge systems operate only in 41 cities and districts, 30 of which have wastewater treatment plants with a total design capacity of 1.6 million m<sup>3</sup> per day including regional treatment facilities in the Gardabani district, which serve Tbilisi and Rustavi, with the capacity of 1 million m<sup>3</sup> per day.

As for wastewater treatment, in Tbilisi and Rustavi (two of the three largest cities of Georgia), only 74 per cent of the total volume of wastewater is treated. By contrast, in Kutaisi, the third of these cities, there is no wastewater treatment. Khashuri is the only settlement in Georgia with 100 per cent wastewater treatment. Almost all wastewater treatment facilities are in poor condition.

The most alarming problems exist in the collection and treatment of domestic sewage and industrial wastewater. The energy crises after the dissolution of the Soviet Union, together with significant electricity tariffs increases due to a lack of financing, have negatively influenced almost all wastewater treatment facilities in the country. Most wastewater treatment facilities have become disabled, and the wastewater is discharged untreated into the open bodies of water. This

contamination of water resources is the main reason for endemic intestinal and infectious disease in Georgia.

Tariffs are designed by water supply and sewage organizations, in coordination with and approved by local authorities and registered with the Ministry of Justice. There are no approved methodologies or rules for tariff calculations in Georgia. It should be noted that in some towns and settlements, in spite of the fact that local budgets are unable to subsidize household tariffs, local authorities take the population's difficult economic situation into consideration and do not allow water supply and sewage enterprises seeking cover expenditures to introduce tariffs on provision of water supply and sewage disposal services. This negatively affects the financial situation of the water supply and sewage organizations.