

PART III

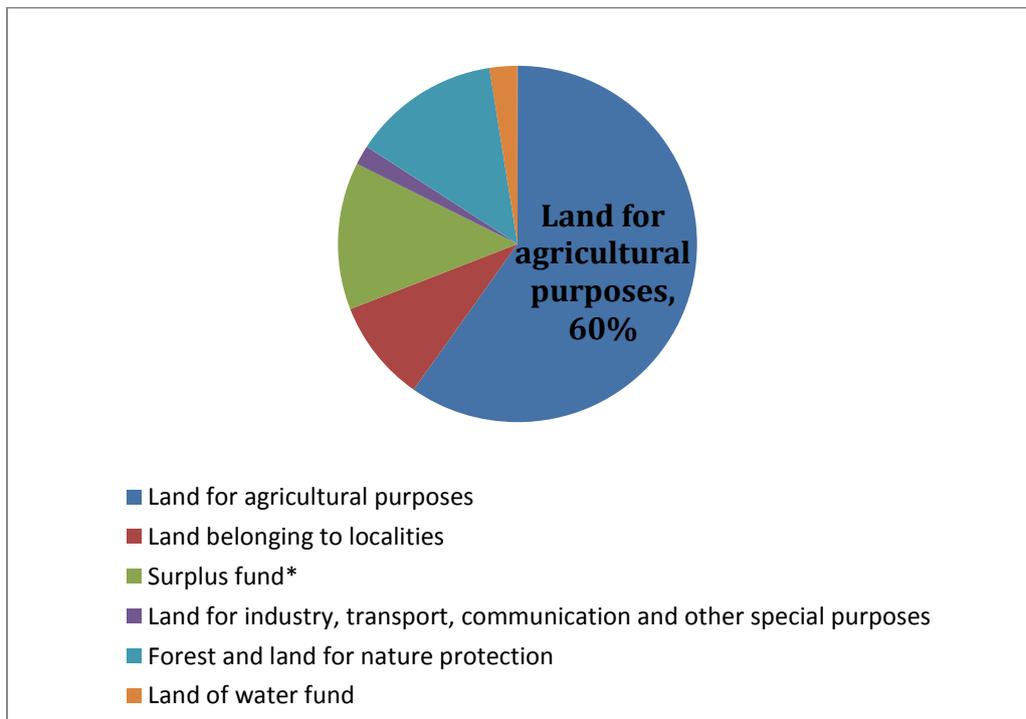
SPATIAL PLANNING AND URBAN DEVELOPMENT

A. CHALLENGES IN SPATIAL PLANNING

Agricultural land

The Republic of Moldova has inherited a strong legal framework for the protection of agricultural land from the Soviet Union. The country relies heavily on agriculture and, therefore, the Government has a strict policy on the transfer of agricultural land use to another category of use (e.g., for industry or housing). However, the increasing need for urban and rural housing development is hampered by this. Finding the right balance in policy making, legal framework, and spatial planning to allow the use of agricultural lands for another purpose is currently a challenge for the Republic of Moldova. However, this does not concern the conversion of agricultural lands into industrial zones or large housing developments. The agricultural areas affected are city and town fringes where small constructions have already been developed. These developments are usually unregulated and have an ad-hoc legal status or are even illegal. Providing a proper regulatory framework for these lands (the majority is private housing) is another challenge.

Figure 11. Land use as of 1 January 2014



Source: NBS, *Moldova in Figures 2014*, “Land fund”, (Chisinau, 2014), p.51.

*Lands for the social development of localities and for common use (common pastures, etc.).

Administrative structure and local spatial planning responsibilities

The administrative structure and the consequences of local governance practices represent major challenges for spatial planning. LPAs are responsible for local spatial and urban

development plans but, often, they lack the capacity to deal with it. Some LPAs are responsible for less than 1,000 people. Financially, it is not feasible for them to develop spatial plans for such small areas. Whether the authority to prepare a local development plan should be delegated to a higher level or whether the capacity of small municipalities to develop the plans themselves should be increased remains an open question. Currently, there is a decree that aims to facilitate the process of updating spatial plans and, ideally, provide full coverage by 2016.⁶² When implemented, the decree would facilitate the creation of a more comprehensive base for land use and development that would enable further socio-economic growth of municipalities.

Economic and demographic situation related to land use

One of the significant drivers of growth for the economy is its population working abroad. It is estimated that about 34.5% of the country's working population is living and working abroad.⁶³ They support the economy through remittances to their families, investments, and spending during their visits.

The huge percentage of emigrants has had an effect on population growth and, currently, the Republic of Moldova has a negative population growth (discussed in the Introduction). It can be said, therefore, that the work-abroad situation has been taking the pressure off urban development and housing. However, buying urban and peri-urban property (housing land lots and flats) is an attractive investment for those who work abroad. Flat sales in Chisinau are growing 8% annually.⁶⁴ This means that there is a growing demand for housing in the capital and in the immediate vicinities. However, the land is not yet used intensively. Chisinau, like most Moldovan cities, still has a lot of available land in developed blocks and some abandoned land lots. This non-intensive urban land use situation currently provides an opportunity for replacing, upgrading, and developing the physical infrastructure (e.g., utilities, transport), which is needed due to the growing demand for housing. With new constructions and land acquisition progressing, there is a need to have adequate spatial development plans in place.

Rural-urban migration

While in Soviet times people migrated into cities, the current trend is migration out of them.⁶⁵ The migration process is modest and does not target remote villages, but rather peri-urban areas, where formal and semi-formal housing (dachas) is being developed and is flourishing. Currently, suburbanization represents a significant challenge for spatial planning, since vast areas of urban sprawl should be properly included in the urban structure, with transport, public services, and infrastructure.

⁶² Decree No. 493, dated 4 July 2013, on Approval of a Mid-term Programme on the Development of Master Plans for Human Settlements for 2013-2016.

⁶³ Ibid., footnote 5.

⁶⁴ According to an interview at Cadastru during the research mission of independent international experts in August 2013 for the development of the Moldova CP.

⁶⁵ According to an interview at the Ministry of Economy during the research mission of independent international experts in August 2013 for the development of the Moldova CP.

B. MAJOR CHALLENGES IN URBAN DEVELOPMENT

State-of-the-art human settlements' spatial arrangement

There are 57 urban and 1,614 rural settlements in the Republic of Moldova.⁶⁶ The country inherited Soviet norms for urban and regional planning, which are still widely adhered to. A typical city or town is arranged according to linear planning, with wide main streets and pedestrian walkways. The main road, walkway, and buildings are typically separated by wide spaces, usually encompassing a lawn and one or two rows of trees. Rows of mature trees (predominantly poplar) along roads is a distinctive feature of the country. Rural settlements and towns typically have single carriageway streets with pedestrian pavements. The current spatial arrangement of human settlements is well-planned, providing room for further development in terms of new infrastructure installation (such as roadside infrastructure and utilities). There are ample green spaces in urban settings. Roads and many buildings are in bad condition and require renovation. However, on the whole they are deemed structurally sound. Table 14 shows some urban indicators for some cities and towns in the Republic of Moldova.

Table 14. Population, area, and urban densities in selected municipalities of different sizes, as at 1 January 2014

Municipality	Population (thousands of persons)	Area, km ²	Population density, persons per km ²
Chisinau	804.5	571.6	1 407.4
- City of Chisinau	674.5	123.0	5 483.7
Balti	149.8	78.0	1 920.2
Criuleni	73.7	688.0	107.1

Sources: NBS, *Territorial Statistics 2014*, pp.22-25. Available at http://www.statistica.md/public/files/publicatii_electronice/Statistica_teritoriala/Statistica_teritoriala_2014.pdf

Spatial planning

Urban and territorial development plans are prepared according to Law No. 835-XIII on the Principles of Urban Planning and Territorial Development dated 17 May 1996 (Articles 7 and 12). Plans for territorial development (spatial plans) are established at national, regional and local levels.⁶⁷ Regional territorial plans include zonal spatial plans, those of the Chisinau municipality and rayonal/raional or district ones. Local spatial plans include those of inter-municipal territory and municipal spatial plans.

⁶⁶ Ibid., footnote 5, p.3.

⁶⁷ Zoran Vitorovic and others, *The Legislation and Analysis of the Implementation of Spatial and Urban Planning in Albania, Kosovo, Macedonia, Moldova, Republika Srpska and Turkey as Compares to the Case of Denmark*, (Ljubljana, NALAS, 2009) p.14.

Urban planning deals with the territory of localities and it is an important component of territorial development or spatial planning. Urban development plans – general, detailed and zonal – are developed at the local level.⁶⁸

In practice, only a few localities have updated urban plans at any level. The development of updated Master Plans for human settlements is a major challenge for the country. These Plans date back to Soviet times. They are outdated, as they no longer reflect current development needs and realities. Therefore, further development of urban planning is critical.

In some cases, Master Plans do not even exist. Their absence is attributed to: (1) financial hardship due to the transition to a new market economy, (2) low demand for urban development associated with the negative population growth, and (3) the lack of capacity of LPAs who are responsible for developing them.

Only 33% of urban settlements and 1% of rural settlements have updated Plans or are in the process of updating them.⁶⁹ The remaining settlements are still using the ones developed during the Soviet times (1952-1991).⁷⁰

The Decree on Approval of a Mid-term Programme for the Development of Master Plans for Human Settlements for 2013-2016⁷¹ specifies that LPAs are responsible for the implementation of the programmes. This involves organizing and paying for the development of Plans. The Decree suggests a range of financial sources that can be used to finance their elaboration (central Government, local governments, international donors, private bodies). However, details on the possibilities and conditions for each financing mechanism are not provided, and potential conflicts of interest are not discussed. The Decree estimates the costs for elaborating a Master Plan to be EUR 10,000 for a rural settlement and EUR 15,000 for an urban one. The total investment required for providing Plans for all settlements of the Republic of Moldova is estimated at EUR 14.93 million. The Decree is accompanied by a table detailing the schedule for elaborating the Plans but it does not specify financing sources. It does not bear mandatory status, but rather provides recommendations, as specified in Article 3 of its preamble.

Practices to promote citizens' participation in land use planning (i.e., participatory planning, open access to information) have not yet been fully developed. Public consultations during the preparation of the regulations for the Chisinau urban plan were the first case of formally organized public participation process consultations so far. Information on how regulations affect individual plots of land is not readily available to residents.⁷² Due to the absence of Master Plans, authorities at all levels are deprived of a significant instrument to govern socio-economic development; they must rely on ad-hoc arrangements to address land development issues.

a. Spatial planning in Chisinau (capital city, population: 671,800)

The Chisinau General Urban Plan (Master Plan) was approved in 2007, and some additions to it were approved in 2008. This is the fourth Plan developed for the city since 1991.⁷³ It has a time span of 15 years, i.e., until 2022. It includes a transport scheme with

⁶⁸ Serghei Munteanu, "National Urban and Territorial Planning Policy of the Republic of Moldova", Powerpoint presentation. Available: <https://rm.coe.int/CoERMPublicCommonSearchServices/DisplayDCTMContent?documentId=09000016802fc125> (accessed 26 February 2015).

⁶⁹ Ibid., footnote 5, p.3.

⁷⁰ Ibid.

⁷¹ Ibid.

⁷² Ibid., footnote 22.

⁷³ Ibid.

provisions for developing tram lines. It also specifies functional zoning (e.g., for residential or commercial purposes) but, in practice, this is not enforced.⁷⁴ It does not include a requirement on the height of buildings.

This Master Plan has some deficiencies: its descriptive and numerical parts are outdated and some figures are judged unreliable by local experts.⁷⁵

In Chisinau, the “Chisinauproiect” Institute is in charge of land use planning. It is responsible for issuing permits for the design of new developments, and serves as the focal point for the coordination of the activities of road and utility management companies.

Table 15 contains some urban indicators (population, area, and population density) in Chisinau compared to selected European cities. Chisinau’s population growth has been modest over the past years and its area expansion has mitigated the increase in population density. Thus, we can see a typical example of urban sprawl, although at a moderate pace. The population density is relatively high for a European city, but is comparable to other European cities with populations of a half to one million.

A density strategy would be important for future master planning in Chisinau. As its population grows, the question is whether LPAs should decide to increase the urban area or to maintain the city’s compactness. The choice will have implications for infrastructure (mainly transport) development strategies; hence, LPAs may want to compare future Chisinau to cities with similar densities. A compact city solution would require a closer look at comparable cities with higher population densities, e.g., Bucharest, while a classic “sprawling” process would be exemplified by, e.g., Nottingham and other much bigger cities which are given for comparison in Table 15.

Table 15. Comparative population and urban density of Chisinau and selected international cities

City	Population (in thousands)	Area, km ²	Population density, persons per km ²
Chisinau (2004)	550	104	5 300
Chisinau (2013)	671	123	5 461
Moscow	15 788	4 403	3 600
Paris	10 869	2 845	3 800
Saint Petersburg	4 899	1 191	4 100
Nottingham	666	159	4 200
Voronezh	879	158	5 600
Bucharest	1 931	285	6 800

Sources: Demographia 2013 World Urban Areas: 9th Annual Edition (2013.03)
<http://www.demographia.com/>

⁷⁴ According to an interview conducted at USAID during the research mission of international experts in August 2013 in Chisinau for the development of the Moldova CP.

⁷⁵ According to interviews conducted at Chisinauproiect and Urbanproiect during the research mission of international experts in August 2013 in Chisinau for the development of the Moldova CP.

b. *Spatial planning and urban development in Balti (regional centre, population: 149,700)*

The current Master Plan of Balti was approved in 2007 and since then has undergone many changes. Major amendments were made to make arrangements for a free economic zone, introduced by a central Government order⁷⁶ in March 2010, which came into force in 2012. It can be considered as one of the few industrial and steadily developing cities in the country.

Balti needs more space for new development, but it has limited options for either sprawl or using vacant land within its borders. It is surrounded by agricultural land, which cannot be used for any other purpose. It has ample amounts of vacant lots in the city which are unused or used inefficiently. However, development opportunities are hampered by outdated regulations imposing restrictions on the use of land. For instance, several unused dormitory buildings could potentially be redeveloped, but they belong to a property category (higher education entities) that is protected by current regulations from being used for reasons other than for education. These buildings require significant renovation but the lack of funds in the Ministry of Education makes it impossible to do so.

Unfinished construction lots (mainly residential multi-apartment buildings) also represent unused land for development in Balti. These buildings are often abandoned due to developers' bankruptcy or legal disputes. Taking action seems to be problematic for the LPA from various points of view (legal, planning, technical). Consequently it resorted to using available land outside the city borders for new development. This situation is typical and has been observed in many regional centres.

Development outside city borders on available land when there is disused land within the city is an undesirable solution from an urban sustainability point of view. If built stock and population densities in the city were kept relatively low, this would inevitably promote unnecessary urban sprawl. Many cities would benefit from urban redevelopment programmes. While there are not many industrial brownfields or contaminated sites, disused buildings and "forgotten" areas are in abundance. It appears that some problems lie in zoning and Master Plans, which need to be revised to enable compact city strategies, at least for city and town centres. In this sense, Balti provides a typical example of land use challenges that towns of the Republic of Moldova face.

Balti has a 60-hectare landslide risk zone in the city centre, which is currently a green unmaintained area. This could potentially represent another land source for development, if a solution for its safe management can be found.

Balti also provides examples of other urban problems typical of the Republic of Moldova regarding: (1) unregulated dacha settlements; (2) access to water and sanitation – coverage is just below 70%, and 25,000 persons have no access to these services; (3) MSW management – only collection and landfilling services are provided; (4) aging infrastructure networks – cold water lost in conduits amounts to 47%; (5) the central heating system – 45% of users in multi-flat houses opted out of it or were disconnected because of debts.

c. *Spatial planning and urban development in Criuleni (town, population: 8,280)*

Criuleni is a town of 7,887 citizens on the Nistru River, about 43 km from Chisinau. It consists of 35% of multi-flat houses of up to five floors and 65% of individual houses. Water and gas are fully provided across the town, but sanitation provision varies

⁷⁶ Law No. 26 on Balti Free Economic Zone, dated 4 March 2010.

significantly between multi-flat houses (100% coverage) and individual ones (10% coverage). The town's Master Plan was adopted in 2005.

Natural disasters and environmental risks

The Republic of Moldova is prone to earthquakes, floods, droughts, landslides. It has recently experienced extreme temperatures due to climate change. Agricultural land loss due to gully formation is a significant problem. They are often formed during water run-off after heavy rainfalls on vast cultivated fields. Gullies and landslides also occur in urban areas.

A Dangerous Geo-Environmental Processes map has been developed for Chisinau. However, its value and usefulness is undermined by the fact that it does not directly correlate with the Master Plan. Ideally, mapped geological risks should be included in zoning restrictions within the Plan, which would provide safe and efficient use of higher-risk lands.

Dachas

“Dacha” is a word of Russian origin meaning a summer cottage or a cabin. Usually, people resided in a city and would spend their summer in a dacha. It was a widespread practice in the Soviet Union to give urban dwellers 600 or 1,200 m² of land in the vicinity of the city. These land lots were initially intended for gardening and vegetable-growing to ease the pressure on urban food supplies, and construction activities were restricted to sheds and simple summer houses.

The Republic of Moldova had even more restrictions in giving out dacha lots than in other parts of the Soviet Union. Each land lot was just 600 m² in size, and a shed for gardening tools was the only structure that was officially allowed to be built. Non-agricultural land (or less valuable agricultural land) is allocated for dachas. Since, initially, these land lots were not meant for dwelling, the planning process for dachas was ad-hoc. Some roads are just three metres wide, and no infrastructure or utilities were planned. Land lots given to develop dachas, or rather individual agricultural lots in the case of the Republic of Moldova, were random and, in many cases, prone to natural disasters like flooding and landslides.

Over the years, many dachas have grown into comprehensive established housing, with people permanently living there. The process of dacha transition from a vegetable land lot to a cottage with a small garden has not been regulated in any way. Communities of land owners were, and still are, responsible for the basic governance of dachas, mainly providing utilities (usually just electricity) and repairing roads.

In Chisinau, dachas occupy about 3,000 hectares of land.⁷⁷

They raise several concerns:

Legal. The land and ownership form must be regulated; there should be a special process for creating a legal framework for dachas. In many cases, dacha land is agricultural or belongs to the land category called “other” according to existing land use plans, but it actually represents classic urban sprawl. (The latter involves relatively low-density building on arable and other land outward from the metropolitan core.)⁷⁸

Planning. There are no Master Plans for dacha settlements (except the ad-hoc ones produced by the communities of land owners).

⁷⁷ According to an interview conducted at Chisinauproiect during the research mission of international experts in August 2013 in Chisinau for the development of the Moldova CP.

⁷⁸ John I. Carruthers, “Growth at the Fringe: The Influence of Political Fragmentation in United States Metropolitan Areas”, *Papers in Regional Science*, Vol. 82, Issue 4 (November 2003), pp.475-499.

Utilities. Dachas usually have an electric power supply but, sometimes, the water and sanitation infrastructure is absent. Since land owners are investing in building houses on their land lots, they are potentially interested in investing in better infrastructure (gravel roads, electricity, security, water supply). However, since these settlements were not initially planned for permanent residence, there is often no space for the installation of these utilities. Often, new infrastructure installations are ad-hoc, without proper planning. Waste collection also appears to be a problem.⁷⁹

Vulnerability. No environmental risk assessment, specifically on geo-hazards, has ever been performed for dacha communities. While housing land lots in a proper planning system would have such risk assessment undertaken prior to being assigned to the “housing” land category, the vulnerabilities of dacha land lots are unknown.

State services. Since many dachas have now become permanent residences, in theory the State should provide standard services to them (medical, firefighting, police). However, these communities are not under the Government system, and are currently a burden on adjacent LPAs who provide emergency services. Putting them under the Government system is not a simple matter. It would mean new villages or towns formally emerging overnight. This would imply voting rights for the residents, and extra budget for and provision of services by LPAs.

Land use efficiency. In some cases, dacha land lots are not used for the purpose they were given - agriculture and gardening (“fruit growing”). This raises concerns among some LPAs regarding land use efficiency.

Socio-spatial disparities in cities and spatial cohesion of living areas

The Republic of Moldova remains an egalitarian state. However, in the future, social disparities will most probably increase, as some people get considerably richer while many remain poor. This social divide visually manifests itself only in expensive car ownership, and has not yet been reflected by social segregation in urban districts. A small number of upper-class houses and shops can be seen dotted among standard Soviet and post-Soviet building blocks. This makes for optimal spatial cohesion. Social disparity cannot easily be seen in the streets, so it is not taken into consideration in the spatial arrangement of cities. For instance, there are no distinctive “rich” or “poor” areas in Chisinau. Social divisions have not yet manifested themselves in gated communities. There are no Government policies addressing the problem of segregation or mistreatment of vulnerable groups (e.g., Roma). Perhaps segregation and disparity will spread as the wealthy develop new real estate in “prime areas” (where stand-alone buildings and fenced private land lots are seen), although there is no official list of areas categorized as prime.

C. SPATIAL PLANNING AND HOUSING

Urban infrastructure overview

The public physical infrastructure faces two major challenges: coverage and efficiency. The major concerns are (1) sanitation coverage (predominantly in villages and towns) and MSW disposal (throughout the country); and (2) the efficiency of district heating systems (in cities).

The urban utility infrastructure, primarily district heating and hot water provision, is of major concern, due to its deterioration and the complicated socio-economic issues that affect its

⁷⁹ Ibid., footnote 20.

management. Potable water provision and sanitation also require attention, mostly in terms of improving energy efficiency and coverage. Electricity and natural gas provision is stable and the services are of reasonable quality and coverage.

Road networks and other physical infrastructures are in reasonable condition, but could be further improved. The telecommunications infrastructure (mobile telephony, broadband internet) is developing dynamically, driven by consumer demand and private investment.

The MSW infrastructure is also a concern because it is, literally, absent and only collection services are provided, with very few landfill sites.

Road network and public transport

Road construction and repair is one of the national priorities.⁸⁰ The motorization rate is still low - 113 cars per 1,000 population⁸¹, but it is growing steadily. Country and city roads are usually well planned and, while the road surface is not ideal, it is in reasonable condition. Moderate traffic congestion is observed in city centres. Chisinau has developed a feasibility study for a ring road. Generally, parking space seems to be available. However, some unauthorized parking can be observed in prime business and commercial areas in Chisinau. Currently, street parking for cars is free of charge; there seems to be no consistent enforcement of rules on parking.

The country's public transportation system is mainly based on buses. A railway connects major regional centres. Urban public transport mostly comprises buses and there is also ample coverage by trolleybuses. The length of trolleybus lines is 246 km in Chisinau and 40 km in Balti. Buses and trolleybuses are in good condition and are widely used.



Picture 5. A typical street layout in Chisinau

There is still a lot of space for pedestrians and bicycles, but unregulated parking might be detrimental to this spare space.

Photo: Bobilev, 2013

Infrastructure networks and city planning

The companies providing utilities and infrastructure services presumably hold a database of their respective assets. There is no centralized database of infrastructure, communication lines and bill collectors, at least in Chisinau city. The Planning Department does not know

⁸⁰ Ion Gumene, State Chancellery, interview by Nikolai Bobilev, August 2013.

⁸¹ World Bank, WDIs 2010. Available from <http://data.worldbank.org/indicator> (accessed 14 March 2014).

where utility lines are unless they ask the respective providers. It is recommended to have a central geographic information system (GIS) database of at least the approximate locations of communications lines, as this would facilitate informed urban planning and new development. A “single window” or “one-stop-shop” service for real estate developers and modern GIS-based knowledge for LPAs are important steps forward in urban planning and development.

Organizations (public and private) about to start construction or road works must obtain permits and technical information (e.g., maps of existing utility conduits) from LPAs via the “one-stop-shop” service. A number of these organizations concerned with city management⁸² reported problems regarding the accuracy of the technical information provided and the length of the procedure for getting approval to start maintenance or redevelopment works.

Housing development and redevelopment

The volume of new construction of multi-apartment houses is rather modest, and projects are usually driven by private investors.

Soviet-era panel multi-apartment houses are potential problems for the country, as for all other Commonwealth of Independent States (CIS) countries. These houses, built in the 1960s and 1970s, have low energy efficiency, and the layouts of the apartments do not correspond to modern improved living standards. There is a need to upgrade, renovate, or demolish and redevelop these housing blocks. Soviet-era blocks, usually consisting of five-storey buildings, are low-density with ample green areas. These blocks could potentially be demolished and replaced with modern ones of a higher density. This type of redevelopment scheme could be implemented with private financing, where an investor provides residents of the block with apartments in the new house, and covers his costs and makes a profit by selling the surplus apartments created by increasing the block density (e.g., taller buildings). Prerequisites for densification projects led by private investment are high land prices and a dynamic real estate market. For such projects, investors pick prime locations in city centres, which are usually not the ones most in need of redevelopment. Five-storey Soviet block redevelopment pilot projects in Moscow and Saint Petersburg have had mixed success. They have been criticized for picking the most lucrative blocks rather than those most in need of redevelopment. In the Republic of Moldova, Chisinau is the main city where such programmes might be interesting in the future, when both land prices and the citizens’ purchasing power increase. Currently, the city government is undertaking a pilot feasibility study on the upgrading of panel multi-apartment houses in the Rizkovka district.⁸³

International safety certification of buildings

The Republic of Moldova does not possess any Leadership in Energy and Environmental Design (LEED) or Building Research Establishment Environmental Assessment Method (BREEAM) certified buildings at present.⁸⁴

Construction norms and building codes are adequate, but could be updated to EU standards. Building safety should be at a higher standard in some cases.

⁸² Urbanproiect and Chisinau LPA, interview by Nikolai Bobylev, August 2013.

⁸³ Ibid.

⁸⁴ GreenBookLive, Certified BREEAM Assessments, GreenBookLive online database. Available from <http://www.greenbooklive.com/search/scheme.jsp?id=202>, <http://www.breeam.org/> and <http://www.usgbc.org/leed>



Picture 6. A staircase in one of the public offices in Chisinau

A gap of about 25 cm wide can be seen between the stairs and the wall on the right. This would be enough for a child to fall through. Generally, building safety is of a reasonable standard in Moldova but it requires improvement in some cases.

Photo: Bobylev, 2013.

D. CONTROL OVER DEVELOPMENT AND ENFORCEMENT OF PLANNING REGULATIONS

General procedure for carrying out construction works and new development⁸⁵

Construction works are carried out upon obtaining an urban planning certificate for design and a construction/demolition authorization, which are issued by mayors of municipalities, towns, communities and villages. There is also a legal stipulation that construction and development should be carried out in accordance with Master Plans⁸⁶; however, in the absence of these, the de facto practice is to proceed with construction with the urban-planning certificates alone. There are two types of these: (1) the urban-planning certificate for design (mandatory for starting the design and subsequent construction works); and (2) the informative urban-planning certificate (optional, used in legal disputes or for commercial reasons such as purchase, sale, lease, etc., of land and real estate). Urban-planning certificates are developed by the architecture and urban-planning authorities of local governments based on urban-planning and land improvement documentation. In the absence of this documentation, the issuing authority is required to develop a layout scheme of the building/land lot and utility networks through its authorized services. If this scheme is endorsed by the chief architect, the State supervision authorities (Centre of Preventive Medicine, Environmental Inspectorate, Fire and Rescue Service), and the “Urbanproiect” Institute (for all settlements except the Chisinau municipality) or the “Chisinauproiect” (for the Chisinau municipality), it will serve as the basis for issuing the urban-planning certificate for design. On this basis, project documentation is developed. To start construction work, the developer must obtain a construction authorization (permit) from the LPA. The latter will inform the State Inspectorate on Construction once the authorization is issued and the latter will register it.

Urbanproiect is a state-owned design institute specializing in urban planning. Apart from the usual design project work, it also carries out the above-mentioned regulatory and permit functions. While the ad-hoc process of approving new construction and development by Urbanproiect is a reasonable arrangement for the time being, it is not sustainable in the long

⁸⁵ Law No. 163 on Authorizing Execution of Construction Works, dated 9 July 2010, and Law No. 835-XIII on the Principles of Urban Planning and Territorial Development, dated 17 May 1996.

⁸⁶ Construction Code, dated 1999.

term. There is a potential conflict of interest for Urbanproiect, being both a project designer and an approver. The Chisinauproiect Institute has a similar status and formal responsibilities for Chisinau.

In general, urban plans have been ineffective in controlling urban growth. As a result, new housing units are being erected without a service infrastructure.⁸⁷

A large part of the designs are executed using outdated topographic studies that do not correspond to existing regulatory and legal acts in force, and are performed by people who do not have the necessary education and qualifications, and are not licensed in the topographic and geodesic fields. In some cases, the work projects are carried out using outdated topographic materials prepared between 1950 and 1980.⁸⁸

Enforcement

The enforcement of planning regulations and compliance with building codes present a problem for many new building developments.⁸⁹ For example, minimum lot size regulations are not checked during registration to cadastre; developers are known to circumvent restrictions by declaring an area larger than the lot where the construction is located.⁹⁰

Box 2. LPAs' enforcement of building regulations

In general, LPAs have a low capacity to enforce land use and building regulations. Land use change is prohibited in certain categories of environmentally sensitive land, and restricted for certain categories of agricultural land. These restrictions, however, are often violated by way of the construction of permanent structures on forest land and the use of grazing pastures for other purposes. The process of obtaining building permits is regulated and payments are affordable but, in practice, speed and predictability are a problem. Deadlines are generally not met and the use of informal payments is widespread. Abuse of discretion in the enforcement of regulations is common. Low salary and fee levels prevent land use planning departments to act on a cost-recovery basis. LPAs supervise constructions, but they do not have the authority to regularize infractions. If an LPA declares that a construction is illegal, a fine is imposed and demolition is ordered. The person can appeal the case to a judicial court. In 73% of these cases, the judge ruled in favour of the owner. Hence, the courts very often regularize unauthorized construction.

Source: World Bank

E. POLICY FRAMEWORK FOR SPATIAL DEVELOPMENT AND LAND USE REGULATIONS

Urban development policies and strategies

It is important to elaborate policies or strategies for urban development. Cities and towns in the Republic of Moldova, unfortunately, lack these. Although LPAs are aware of the development needs of their localities, this knowledge is usually not formalized or included in any strategic development documents. There is a great need for policies or strategies that address pressing urban problems (e.g., transport, housing, waste management), provide guidance for their implementation, specify overall policy goals and intermediate targets

⁸⁷ Ibid., footnote 22.

⁸⁸ Alexandru Morcov, *Modernization of Local Public Services in the Republic of Moldova - Intervention Area 1: Local Services, Construction and Registration of Facilities of Technical and Utility Infrastructure* (Chisinau, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, 2012).

⁸⁹ Anatolie Zolotcov, Ministry of Construction, interview by Nikolai Bobylev.

⁹⁰ Ibid., footnote 22.

including the time needed to achieve them, and set performance indicators and monitor them. Currently, LPAs seem to be addressing the main strategic issues (e.g., infrastructure provision) through ad-hoc arrangements.

Table 16 details urban indicators and their performance under two alternative development strategies: sprawling and compact urban growth. While it is widely accepted that urban sprawl is an undesirable strategy, especially in developed countries,⁹¹ urban development strategies in the Republic of Moldova should be a combination of sprawling and compact, given its land use and socio-economic conditions. Private housing should be encouraged, but this would inevitably create urban sprawl: so the compact strategy should focus on using land located within city boundaries as much as possible. Table 16 lists urban indicators for two types of development strategies that are recommended for the cities of Chisinau and Balti. On the basis of indicator analysis within both strategies, LPAs can consult on the one that would fit a particular location, especially when developing and updating Master Plans.

Table 16. Urban indicators and development strategies in the urban planning sector

<i>Urban indicator (theme)</i>	<i>Strategy: Sprawling</i>	<i>Strategy: Compact</i>
Density	Allow lower-density growth in urban fringes. Drawbacks: high infrastructure and transportation costs, ineffective land use in the city centre, dispersion of economic activity.	Encourage inner city development and redevelopment; discourage individual construction in city fringes. Drawbacks: higher development costs for individual housing, lower affordability of housing.
Growth pattern	Urban fringe (greenfield) development. Drawbacks: loss of agricultural land.	Infill (brownfield) development. Drawbacks: higher costs for remediation and risk assessment.
Land use mix	Homogeneous (single-use, segregated). Drawbacks: need for widespread transport infrastructure, higher cost of economic activity.	Mixed land use. Drawbacks: none.
Scale	Large scale. Larger blocks and wider roads. Less detail, since people experience the landscape at a distance, as motorists. This is the current situation in, e.g., Chisinau. Drawbacks: discourages walking, no room for implementing “sustainable mobility”.	Human scale. Smaller blocks and roads. Careful detail, since people experience the landscape up close, as pedestrians. This is the current situation in some Chisinau activity areas. This should be encouraged by allowing small business development, having sanitary, green, fire, etc., safeguards in place. Drawbacks: unauthorized and unregulated development.
Public services (schools, parks, etc.)	Regional, consolidated, larger. Requires automobile access. Drawbacks: social segregation.	Local, distributed, smaller. Accommodates walking access. Current situation in Chisinau and should be maintained. Drawbacks: none.
Transport	Automobile-oriented. Poorly suited for walking, cycling and public transport. Public transportation will	Multi-modal. Supports walking, cycling and public transport. Multi-modal transport should be encouraged in Chisinau by providing reserved,

⁹¹ UN Habitat, Earthscan (Routledge), *State of the World's Cities 2012/2013* (New York, Routledge). Available from <http://mirror.unhabitat.org/pmss/listItemDetails.aspx?publicationID=3387>

	<p>require significant investment, if it is to be preserved.</p> <p>Drawbacks: high overall and public sector costs.</p>	<p>safe spaces for walking and cycling; current street layout easily allows this.</p> <p>Drawbacks: none</p>
Connectivity	<p>Hierarchical road network with a need for large transit streets. Currently there are enough of these in Chisinau. However, outer city roads could be better developed.</p> <p>Drawbacks: high costs, no human scale, increased community segregation and traffic safety concerns.</p>	<p>Highly connected (grid or modified grid) streets and non-motorized network (sidewalks, paths, crosswalks and shortcuts). This should be encouraged. However, it should not be the only strategy for Chisinau.</p> <p>Drawbacks: risk that it would not work and this would result in traffic jams.</p>
Street design	<p>Streets designed to maximize motor vehicle traffic volume and speed (current situation in Chisinau).</p> <p>Drawbacks: non-human scale, community segregation.</p>	<p>Streets designed to accommodate a variety of activities (current situation in some smaller streets in Chisinau). Should be encouraged. Private car parking should be controlled (limited in the future).</p> <p>Drawbacks: with poor enforcement, private cars will push other activities aside (walking, cycling, small business).</p>
Planning process	<p>Unplanned and with little coordination between jurisdictions and stakeholders (current situation with dachas). This should be resolved by developing and enforcing Master Plans.</p> <p>Drawbacks: too much regulation will increase construction costs.</p>	<p>Planned and coordinated between jurisdictions and stakeholders (the situation in the city centre of Chisinau), which originated from Soviet zoning policies. Should be reformed to fit modern economic needs.</p> <p>Drawbacks: strict zoning might confuse and hamper urban economic growth.</p>
Public space	<p>Emphasizes the private realm (yards, shopping malls, gated communities). This is the trend in wealthy areas (minimal so far) and it should be controlled.</p> <p>Drawbacks: diminished public space.</p>	<p>Emphasizes the public realm (streets, walking environments, public parks, etc.). This is the situation in the majority of Chisinau, and should be further encouraged.</p> <p>Drawbacks: none.</p>

Note: Amended and extended based on Litman, 2012 (Litman, T. (2012) Smart Growth Reforms: Changing Planning, Regulatory and Fiscal Practices to Support More Efficient Land Use. Victoria Transport Policy Institute. Canada. www.vtpi.org). Recommended for Chisinau and Balti.