

UNECE

Country Profiles on Housing and Land Management

Republic of Moldova



UNITED NATIONS

UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE

COUNTRY PROFILES
ON
HOUSING AND LAND MANAGEMENT

REPUBLIC OF MOLDOVA



UNITED NATIONS
New York and Geneva, 2015

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ECE/HBP/181

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FOREWORD

Country Profiles on Housing and Land Management are intended to assist governments to improve the performance of their housing, urban development and land management sectors and, at the same time, to promote sustainable development. The Profiles analyse trends and policy developments and make an overall assessment of the political, economic and social framework of these sectors in a country. This work was initiated by the United Nations Economic Commission for Europe (UNECE) Committee on Housing and Land Management in the early 1990s, in response to requests from UNECE member States.

The studies are requested by member States and carried out by international teams of experts in cooperation with government bodies, other international organizations, non-governmental organizations (NGOs), local authorities and the private sector. Through a process of broad consultation, the experts undertake a comprehensive review of the housing, urban development and land management sectors and develop recommendations to help policymakers draft strategies and programmes.

This Country Profile on the Republic of Moldova, prepared at the request of the Ministry of Regional Development and Construction and the Agency of Land Relations and Cadastre, is the seventeenth in the series. The country profile programme continues to emphasize in-depth analysis and policy recommendations, while also focusing on specific challenges or achievements in the housing, urban development and land management sectors that are particularly relevant to the country under review. In the case of the Republic of Moldova, these issues are: housing supply and affordability; management of the housing stock; utility infrastructure management; spatial planning, land administration and real estate markets; and the legal, institutional and financial framework. The report lays out a set of policy recommendations. Their timely and effective implementation is regarded as crucial to meeting the challenges which the Republic of Moldova currently faces in the areas of housing, urban development and land management.

I would like to thank the international and local experts who contributed to the preparation of this Country Profile, as well as the governments that provided funding for its development. I invite all those with an interest in the Republic of Moldova's housing, urban development and land management sectors - policymakers and legislators, Government officials, academics, NGOs and other national stakeholders, as well as international organizations, lender and donor organizations, technical assistance agencies and private sector investors — to make full use of the information and recommendations contained in the study. It can serve as a framework for future action, and help shape programmes at the national and local levels.

Finally, I would like to stress the relevance of the country profile reviews as unique instruments that allow UNECE countries to share experiences in housing, urban development and land management issues, to compare trends and gain knowledge from different practices, to adopt policies and planning tools and to learn about the actions implemented. Experience has shown that Country Profiles are a practical policy tool that all stakeholders concerned can use to address development-related challenges in the housing, urban development and land management sectors, most particularly in countries with emerging economies such as the Republic of Moldova.

Christian Friis Bach
Executive Secretary
United Nations Economic Commission for Europe

PREFACE

This Country Profile on the housing and land management sectors of the Republic of Moldova was requested by the Ministry of Regional Development and Construction and the Agency of Land Relations and Cadastre, and began with a preparatory mission by the UNECE secretariat. A fact-finding mission by the international expert team was carried out in August 2013.

The project's expenses were covered by extrabudgetary funds provided by governments. The Government of the Republic of Moldova made national experts available for the study. The Governments of the United Kingdom, the Netherlands and Slovakia financed their experts' participation as contribution-in-kind. The successful conclusion of the project would not have been possible without this generous support.

This Country Profile is the second review done for the Republic of Moldova. The first review was prepared in 2002 and analyses covered only the housing sector.

Previous studies in the series include: Bulgaria (ECE/HBP/101, published in 1996), Poland (ECE/HBP/107, 1998), Slovakia (ECE/HBP/111, 1999), Lithuania (ECE/HBP/117, 2000), Romania (ECE/HBP/124, 2001), Republic of Moldova (ECE/HBP/125, 2002), Albania (ECE/HBP/130, 2002), Armenia (ECE/HBP/132, 2004), Russian Federation (ECE/HBP/131, 2004), Serbia and Montenegro (ECE/HBP/139, 2006), Georgia (ECE/HBP/143, 2007), Belarus (ECE/HBP/150, 2008), Kyrgyzstan (ECE/HBP/157, 2010), Azerbaijan (ECE/HBP/156, 2010), Tajikistan (ECE/HBP/163, 2011) and Ukraine (ECE/HBP/176, 2013).

Six other UNECE publications related to housing may also prove useful to the Republic of Moldova and other countries in transition: (a) *Guidelines on condominium ownership of housing for countries in transition* (ECE/HBP/123, 2003); (b) *Housing finance systems for countries in transition: principles and examples* (ECE/HBP/138, 2005); (c) *Guidelines on social housing: principles and examples* (ECE/HBP/137, 2006); (d) *Self-made Cities: In search of sustainable solutions for informal settlements in the United Nations Economic Commission for Europe region* (ECE/HBP/155, 2009); (e) *Green Homes: Towards energy-efficient housing in the United Nations Economic Commission for Europe region* (ECE/HBP/159, 2009); *Climate Neutral Cities: How to make cities less energy and carbon intensive and more resilient to climatic challenges* (ECE/HBP/168, 2011); *Good Practices for Energy-Efficient Housing in the UNECE Region* (ECE/HBP/175, 2013).

The Republic of Moldova may consider the Geneva UN Charter on Sustainable Housing when preparing housing policies and actions. The main purpose of this Charter is to ensure access to decent, affordable and healthy housing in the UNECE region. It can be downloaded from <http://www.unece.org/housing/charter.html>.

This Country Profile and other related publications are available on our website (<http://www.unece.org/housing>).

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LIST OF ABBREVIATIONS

| | |
|------------|--|
| ACC | Apa Canal Chisinau |
| ALRC | Agency of Land Relations and Cadastre |
| ANRE | National Energy Regulatory Agency |
| BREEAM | Building Research Establishment Environmental Assessment Method |
| CAMA | Computer-Assisted Mass Appraisal |
| CEB | Council of Europe Development Bank |
| CESCR | Committee on Economic, Social and Cultural Rights |
| CET-1 | Centrala Electrica cu Termoficare No.1 |
| CET-2 | Centrala Electrica cu Termoficare No.2 |
| CIS | Commonwealth of Independent States |
| DRR | Disaster risk reduction |
| E5P | Eastern Europe Energy Efficiency and Environment Partnership |
| EBRD | European Bank for Reconstruction and Development |
| EE | Energy efficiency |
| EU | European Union |
| EU NIF | European Union Neighbourhood Investment Facility |
| EU-12 | European Union of 12 Member States |
| EU-15 | European Union of 15 Member States |
| EU-25 | European Union of 25 Member States |
| EU-27 | European Union of 27 Member States |
| GDP | Gross domestic product |
| GIS | Geographic information system |
| GIZ | German Agency for International Cooperation |
| HOA | Homeowner's association |
| IMF | International Monetary Fund |
| LEED | Leadership in Energy and Environmental Design |
| LPA | Local public authority |
| MAFI | Ministry of Agriculture and Food Industry |
| MoREEFF | Moldovan Residential Energy Efficiency Financing Facility |
| MRDC | Ministry of Regional Development and Construction |
| MSW | Municipal solid waste |
| NBS | National Bureau of Statistics |
| NGO | Non-governmental organization |
| NHS | National Housing Service |
| NPC | National Participation Council |
| NPO | Non-profit organization |
| NSDI | National Spatial Data Infrastructure |
| OHCHR | Office of the High Commissioner for Human Rights |
| PIU | Project implementation unit |
| RES | Renewable energy sources |
| RISP-II | Rural Investment and Services Project II |
| SIDA | Swedish International Development Cooperation Agency |
| StatBank | Statistical Databank |
| UAA | Utilized agricultural area |
| UFW | Unaccounted-for water |
| UN | United Nations |
| UNDP | United Nations Development Programme |
| UNECE | United Nations Economic Commission for Europe |
| UNESCO | United Nations Educational, Scientific and Cultural Organization |
| UN-Habitat | United Nations Human Settlements Programme |
| WDI | World Development Indicators |

Exchange rate: 1 USD = 12.7 MDL (August 2013 est.)

EXECUTIVE SUMMARY

This summary provides an overview of the housing, urban development and land management situation in the Republic of Moldova, covering general characteristics, challenges and policy recommendations.

Overview

The Republic of Moldova has been exhibiting strong economic performance, and posted a gross domestic product (GDP) growth of 8.9% in 2013, the highest since independence in 1991. Remittances play an important role in the country's economic growth, consistently accounting for over 20% of GDP every year. The agricultural sector is also a big contributor, comprising 12.2% of GDP; however, this sector is highly vulnerable to external shocks.

The Government affirms that heavy reliance on remittances and agriculture for economic progress is not sustainable in the long run. This was reflected in the country's National Development Strategy "Moldova 2020", where a change in the country's growth model to one based on investments and goods and services industries was recommended.

The Republic of Moldova is one of the top performers in reducing poverty, having lowered its poverty ratio from 26.4% of the population in 2008 to 12.7% in 2013. Despite this, the country remains one of the poorest in Europe. In addition to economic growth, poverty reduction continues to be a priority of the Government and it is one of the objectives of "Moldova 2020".

The population of the Republic of Moldova has been decreasing, and it is consistently in the top five countries with a declining population. Emigration contributes to this decrease. The downtrend is also highly attributable to the decreasing birth rate and the increasing death rate. Due to an ageing population, this trend is expected to continue, and it is estimated that, by 2050, the population will fall by 30%.

Legal framework for housing, urban development, and land administration and management

The Republic of Moldova has a comprehensive legislative base for transitioning to a market economy. Several laws and regulations were adopted in recent years including the Law on Housing (2015), the Law on Energy Performance of Buildings (2014), the Law on Insolvency (2012), the Law on Condominiums (2000), the Law on Real Estate Cadastre (1998), etc.

It is clear from the extensive legal reform that has been carried out that the country is committed to filling in any gaps in the legislation. What is important now is effective implementation. Cooperation with international organizations like the UNECE is recommended to ensure plans of action are in place to implement the priority recommendations of this Country Profile.

In support of the legislation on local public administration, a national decentralization strategy was elaborated to establish the immediate tasks needed to assure local autonomy for local public authorities (LPAs) in accordance with the principles of the European Charter of Local Self-Government. In providing authentic local autonomy to LPAs, it is important that these authorities are ready to handle the task. Training programmes, if needed, should be developed.

Several government institutions shape government policies related to the housing sector, such as the: Ministry of Economy; Ministry of Finance; Ministry of Labour, Social Protection and Family; Ministry of Justice; and the Agency of Land Relations and Cadastre. The responsible authority for housing and urban development at the central level is the Ministry of Regional Development and Construction (MRDC).

Existing housing stock

The Republic of Moldova has a relatively new housing stock but its condition in general is very poor. The existing stock lacks maintenance and capital repairs.

Most of it (67%) is individual housing, but this ratio differs in Chisinau and Balti, where multi-family housing amounts to 63% and 62% of the total, respectively. With new housing developments, the trend is towards smaller apartments with one and two rooms in multi-apartment buildings.

Housing in the Republic of Moldova is characterized by low access to water and sanitation. In 2012, about 1.5 million people were served by the public water supply system. This represented 42.1% of the population (68.9% urban and 22.7% rural).

The population having access to sanitation is low, at 21.4%. The situation is much worse in rural areas, with only 1% of the population having access to sanitation and water, although the situation is improving. For the Roma communities, more than 80% of households do not benefit from basic housing amenities such as potable water, water closets, bathrooms and canalization.

Some 11% of Moldovan families live in overcrowded housing. This figure is below the European Union (EU) average of 16.5%. However, the vacancy rate in Moldova is high and affects the calculation of this indicator. Availability of sufficient space in dwellings is one of the key factors in assessing the quality of housing conditions. According to the 2004 census data, 56.6% of the population lived in houses with a surface area of between 50m² and 90m², with an average of 22m² per person.

Management and refurbishment of the housing stock

The management of multi-family houses faces a number of social, technical, financial, legal and operational challenges. Despite improvements introduced by the law on condominiums for housing stock, the management and maintenance situations have not improved.

The Republic of Moldova has some 6,888 buildings of multi-family houses. 70% of these are administered by local government; 7-8% (approx. 264 buildings) by condominium associations; and 17-19% by cooperatives and homeowners' associations. Some 50-66% of the common properties of privatized housing stock still remain in the ownership of local authorities.

In improving the management of housing stock, several things should be considered: an awareness-raising and capacity-building strategy for homeowners, on the management of common properties; training for condominium managers; a school curriculum at different educational levels that incorporates discussion on the concept of common property and homeowners' responsibilities; promoting good practices of effective homeowners' associations by LPAs; and the privatization of municipal enterprises.

Public utilities

The utility infrastructure for water supply has not been upgraded for many decades; its operational efficiency is low. It is estimated that modernizing pumping equipment in water supply and sanitation networks could reduce electricity consumption by 25-30%.

In 2012, 761,000 persons had access to sanitation - 50.1% in urban areas and only 1.0% in rural areas.

Heating, for the majority of cities and towns, is centralized (district heating system). Heating supply companies face increasing technical and structural challenges, such as an outdated and ageing infrastructure, and a poor system for collecting fees.

Termocom estimates the loss of energy in its networks (prior to entering buildings) at 21%, of which 2% is due to leakages and 98% to bad insulation. Modernization of the main networks and of heat distribution has been one of the major challenges for Termocom.

Municipal solid waste (MSW) appears to be a major problem for almost all settlements in the Republic of Moldova, including the capital Chisinau. The legal provisions for MSW management are rather weak; there are no mandatory provisions at the LPA level.

Developing specific programmes that will ensure the provision of basic services such as safe water and sanitation should be looked into by the Government. Relocation of small communities into denser-populated areas equipped with the necessary infrastructure could also be taken into consideration.

Energy efficiency of the housing stock

The Republic of Moldova is highly dependent on foreign energy resources, importing 95% of its energy needs. The residential sector is the highest consumer, with approximately 30% of the total energy usage. The average household spends between 15% and 50% of its total budget on heating.

Therefore, enhancing energy efficiency is crucial. Doing so will contribute to energy security, economic competitiveness, and will have a positive impact on the environment. Enhanced energy efficiency will improve housing conditions and reduce energy costs in the future, thus reducing energy bills for households.

The goal of the Government is to reduce energy consumption in buildings by 10% before 2020. Several measures will contribute to achieving this goal, including: the reduction of energy intensity in the residential, industrial, transport and agricultural sectors; the modernization of the energy system; the implementation of efficient energy technologies; etc. The Moldovan Residential Energy Efficiency Financing Facility (MoREEFF) was established by the European Bank for Reconstruction and Development (EBRD) and has dedicated EUR 35 million to support energy-efficiency investments in the Moldovan residential sector.

The Government may consider participating proactively in a UNECE task force on the development of standards for energy efficiency in buildings.

Policy and financial framework for housing

The housing policy of the Republic of Moldova addresses a wide range of target groups and it may not be able to adequately address all. There is no clear information on the total number of applications for housing from these target groups, nor on the number of beneficiaries of housing programmes.

The Republic of Moldova has no comprehensive housing strategy covering the whole housing cluster. Government policies are driven by problem areas, mainly generated by the transition process from a command-driven economy to a market-orientated one.

House prices in the free market dropped after the 2008 crisis. In 2010, house prices were 25% lower compared to 2008. Despite this, a family with an average income still cannot afford a house in the free market. Moldovan banks are well capitalized and have enough equity available to expand their lending business, but their terms for housing loans are unaffordable.

It is expected that the improved stability of the economic sector will lead to amelioration in banks' lending conditions.

Spatial planning and urban development

The development of updated Master Plans for the country is a major challenge for the Republic of Moldova. In most cases, Master Plans do not even exist and, where they do, most are outdated. These date back to Soviet times and, with the move to a market economy, they no longer reflect current development needs and realities. 33% of urban settlements and 1% of rural settlements have updated Master Plans.

A mid-term programme for the development of Master Plans for human settlements for 2013-2016 was approved. In proceeding with these, the Government must consider funding, strategic planning and the capacity to implement the programme.

There should be clear guidance on how their development will be funded. There is also a need for strategic planning to make sure that country-specific concerns, like environmental risk due to geological processes; allowance of space for infrastructure development; and concerns of vulnerable groups, are not overlooked during their development. The programme for the development of Master Plans stipulates that local authorities are responsible for their implementation. Therefore, LPAs should have the necessary experience and knowledge to deal with the developers of Master Plans.

Land administration and land registration

The Republic of Moldova has a well-established institutional and legal framework for real estate registration. The State Enterprise Cadastru (or Cadastru), within the Agency of Land Relations and Cadastre (ALRC), is the only agency that has the mandate to register land.

The country has been successful in the registration of properties, having registered 85% of real estate objects. All citizens, notaries and public authorities have access to the land register. The real estate registration system is expected to provide: security of ownership rights, for property owners; bank-secured loans against real estate; necessary information on ownership, location of the property, and property values, to the real estate market; and basic information, to government institutions for urban planning and land management. With all that the register could offer, its completion is recommended.

The Republic of Moldova is a non- EU member state but, to ensure that its spatial data infrastructures are harmonized with those of EU Member States, it has to comply with the requirements of the EU INSPIRE Directive.

Real estate markets and land policy

In the Republic of Moldova, land and property are taxed separately. A reform aimed at modernizing taxation, which will levy a single tax for property, was introduced in 2007. The reform involved a mass appraisal system for all property types. Completion was targeted for

2012, but a delay meant it has been pushed back to 2020. In order to move to a unified taxation system, the mass appraisal of properties should be completed. Once this is done, taxation of properties will be based on assessed market values.

This again emphasizes the importance of completing the real estate registration. The new tax system applies mass appraisal procedures to all properties registered in the real estate register. For those properties not yet registered in the cadastre, the old system of taxation still applies. Until the register is completed, real property assessment for taxation purposes cannot be concluded.

The ALRC is responsible for the implementation of State land policy. However, its mandate overlaps with that of the Ministry of Agriculture and Food Industry (MAFI) where policies for rural lands are concerned. This overlap could create conflict in the implementation of policies.

INTRODUCTION

The Republic of Moldova is a landlocked country covering a territory of 33,800 km². It is bordered on the west by Romania and on the north, east and south by the Ukraine (Annex I). The Prut River runs along the entire western boundary with Romania, while the Nistru River forms part of the eastern boundary with the Ukraine and separates it from Transnistria. The country's southern border extends almost to the Black Sea, making it one of the countries located in the Black Sea Basin.

The country's proximity to the Black Sea gives it a temperate-continental climate. It has moderate winters and warm summers. Three quarters of its territory is covered with the rich, black soil called "chernozem", which is ideal for agriculture. The landscape is characterized by hilly plains with many streams and rivers cutting through them.

Government structure and political system

The Republic of Moldova is a democratic and unitary State. Its Government is made up of three authorities: legislative, executive and judicial.

The Parliament is the legislative authority and passes laws, decisions and motions; declares referendums; and approves and controls the national budget.

The executive branch consists of the President and the Government. The President is the head of the State and is elected by the Parliament. The Government is the executive authority. It is led by a Prime Minister, who is appointed by the President with the approval of the Parliament. The Government carries out domestic and foreign policy.

Judicial authority is exercised by the courts of law, namely by the Supreme Court of Justice, the Court of Appeal and other courts of law. The Supreme Court of Justice is the highest court of law.

The Republic of Moldova is divided into 32 districts or raions (also written as rayons), 5 municipalities (Chisinau, Balti, Comrat, Bender and Tiraspol) and 2 territorial units (Autonomous Territorial Unit Gagauzia and Transnistria). Its capital is Chisinau.

It has 1,682 administrative units (localities). 982 of these have their own local public authorities (LPAs), of which: 5 have municipality status; 61 have city status; and 916 are villages with commune status. The remaining localities are villages that are too small to have an independent administration, and they belong to either cities (41) or communes (659).¹

The human context

The population on 1 January 2014 was estimated at 3.5576 million². The population density is 105 people per km². The majority of Moldovans live in rural areas (58%). The municipality of Chisinau has 804,476 inhabitants, representing 22.6% of the population.

The Republic of Moldova has a diminishing population and has been experiencing negative population growth since 1993 (Figure 1). Part of this demographic decrease is linked to the

¹ National Bureau of Statistics of the Republic of Moldova (NBS), "Geography, Meteorology and Environment - Administrative-Territorial Division 2014", *Statistical Yearbook of the Republic of Moldova*, p.13.

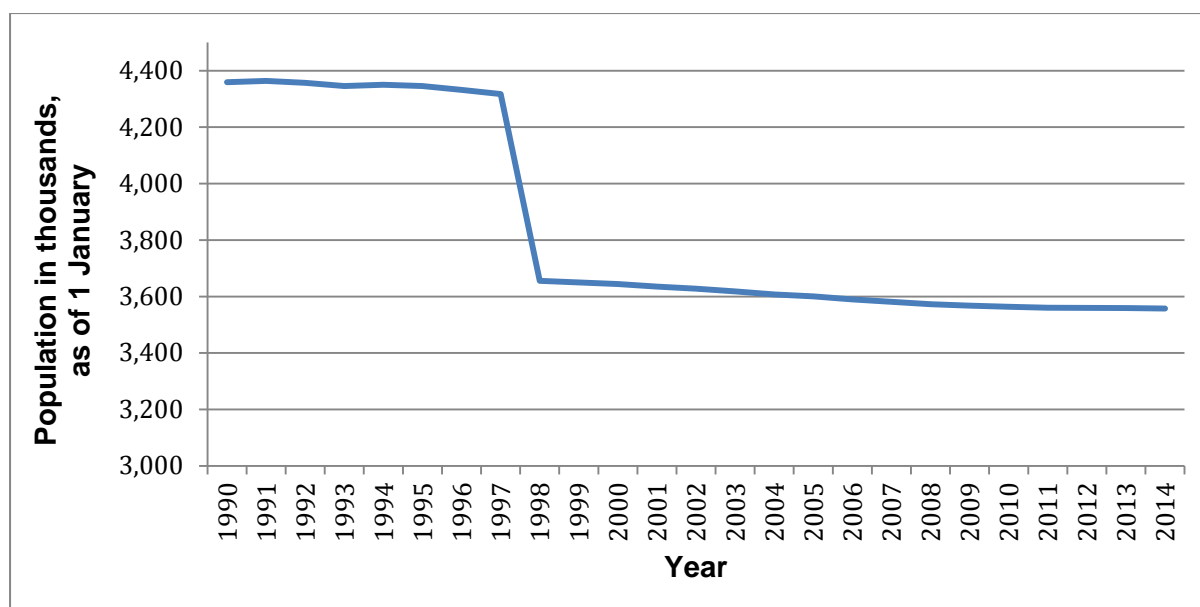
² NBS, Resident population, StatBank. Available from <http://statbank.statistica.md/pxweb/database/EN/databasetree.asp> (accessed 11 August 2015). Information does not include the population from the left side of the Nistru River and the Bender municipality.

emigration of a large percentage of the economically active population. It is also attributable to a declining birth rate and an increasing death rate. In fact, since 1998, the number of deaths has outnumbered the number of live births (Annex II). In 2013, the country's mortality rate was 10.7%; this figure was much higher in rural areas (12.4%) than in urban ones (8.4%). Detailed demographic statistics from 1990 are presented in Annex II.

The total fertility rate of the Republic of Moldova in 2013 was 1.24, which is considerably lower than the replacement-level fertility of 2.1.³ At the same time, the country's population is ageing, and reached 15.3% in 2012 and 15.7% in 2013. Based on these trends, it is expected that the population will continue to decline. It is estimated that, by 2050, the population will decrease by 30% from the 2010 level.⁴

Emigration is a strong phenomenon. According to the Labour Force Migration report published by National Bureau of Statistics (NBS) in 2013, the number of emigrants was estimated at 426,900, or 16.4% of the country's economically active population. The majority of these went to Russia (69.2%) and Italy (14.2%). Around three quarters of them were from rural areas.⁵

Figure 1. Trend of population, 1990-2014



Source: NBS, StatBank. Information after 1997 does not include data from the left side of the River Nistru and the municipality of Bender.

Recent socio-economic development

The Republic of Moldova transitioned from a command economy to a market one after independence from the Soviet Union in 1991. During the 1990s, the economy was in a long recession, but economic growth began in 2000 and continued for nine years. However, the

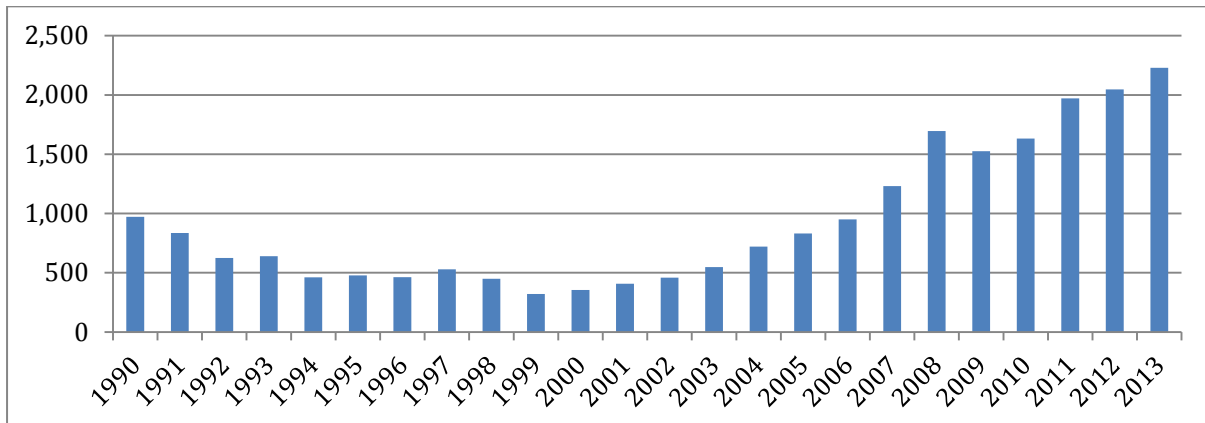
³ Replacement-level fertility is “the average number of children a woman would need to have to reproduce herself by bearing a daughter who survives to childbearing age. If replacement-level fertility is sustained over a sufficiently long period, each generation will replace itself in the absence of migration.” United Nations Department of Economic and Social Affairs, “Total Fertility Rate” (p.101). Available from www.un.org/esa/sustdev/natlinfo/indicators/methodology_sheets/demographics/total_fertility_rate.pdf (accessed 26 August 2013).

⁴ Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, *World Population Prospects: The 2012 Revision, Volume I: Comprehensive Tables* (New York, 2013). Available from <http://esa.un.org/unpd/wpp/index.htm> (accessed 1 May 2014).

⁵ NBS, *Labour Force Migration 2013*. Available from <http://statbank.statistica.md/pxweb/database/EN/databasetree.asp>

country was not spared from the effects of the global economic crisis of 2008, and GDP growth decreased by 5.9% in 2009 (Figure 2). Remittances in the same year fell by 36% from the previous year and started picking up again in 2010.

Figure 2. GDP per capita (current US\$), 1990-2013



Source: World Bank, World Development Indicators (WDI).

After recovering from the global economic crisis, the country’s economy weakened again in 2012. According to the World Bank, this was caused by a slowdown in external demand for goods and services, and a decline in agricultural production due to the severe 2012 drought. Such examples demonstrate how vulnerable the country’s economy is to external shocks.

2013 marked a period of economic upturn. The country posted 8.9% GDP growth that year, the highest since independence in 1991. This increase is attributable to higher household spending. Remittances from Moldovan workers abroad and a rise in wages bolstered households’ disposable income and increased private consumption. Among countries in Europe and Central Asia, the Republic of Moldova has the third highest remittances share of GDP per capita and is the leader in Europe.⁶ Over the past decade, remittances have consistently contributed to over 20% of the GDP.

Despite economic progress, the Republic of Moldova remains poor. Based on the per capita GDP in 2013 (US\$ 2,229)⁷, it is Europe’s poorest country.

The National Development Strategy “Moldova 2020” states that economic growth and poverty reduction are closely correlated to the flow of remittances, which increase consumption. The Government recognizes that economic growth dependent on remittances is not sustainable. As such, “Moldova 2020” concludes that, to maintain the pace of the country’s economic growth, the structure of the national economy should be changed. It recommends replacing this growth model with a dynamic one based on investments and goods and services exporting industries.

⁶ World Bank, Migration and Remittances Data. Available from <http://go.worldbank.org/092X1CHHD0> (accessed 1 May 2014).

⁷ International Monetary Fund (IMF), World Economic Outlook (WEO) Database, April 2014. Available from <http://www.imf.org/external/pubs/ft/weo/2014/01/weodata/index.aspx> (accessed 1 May 2014).

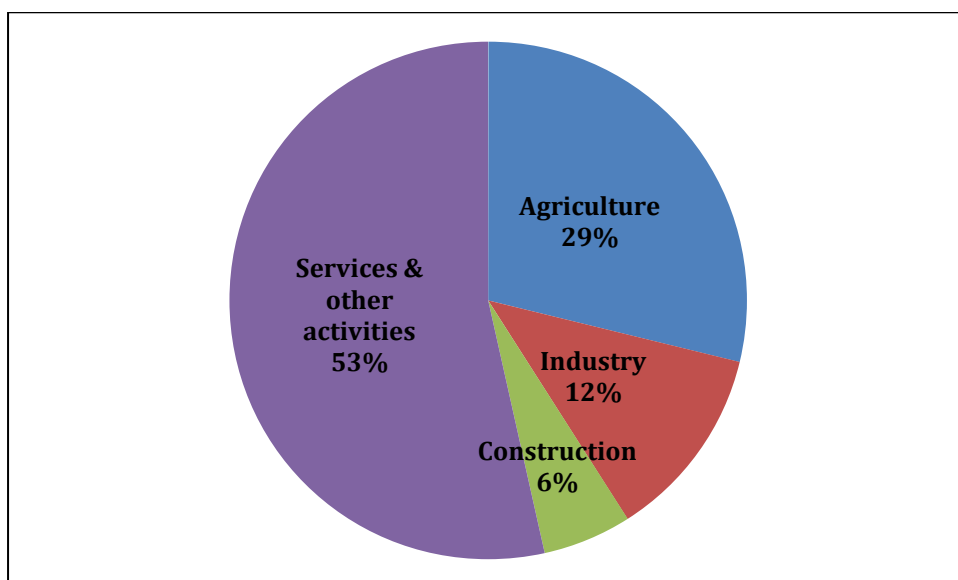
Poverty and employment

The country has made significant progress in reducing poverty. It lowered its poverty ratio from 26.4% in 2008 to 12.7% in 2013.⁸ According to the World Bank, it is one of the top performers for poverty reduction.⁹

This continues to be a priority on the Government's agenda and, along with ensuring qualitative economic development, it is an objective in the "Moldova 2020" development strategy. The United Nations Development Programme (UNDP) has noted that inequality between men and women and the urban-rural divide are challenges that remain to be addressed by the Government.¹⁰

The agricultural sector is an essential component of the country's economy. In 2013, it made up 12.2% of GDP¹¹ and employed 29% of the population (Figure 3). These figures highlight the importance of the sector and underline how its development can contribute to the objectives of "Moldova 2020", including reducing unemployment and promoting economic growth.

Figure 3. Employment by main economic activity in 2013



Source: NBS, StatBank, Labour.

⁸ UNDP Moldova, "2014 Human Development Report: 2.2 billion people are poor or near-poor", 24 July 2014. Available from <http://www.md.undp.org/content/moldova/en/home/presscenter/pressreleases/2014/07/24/raportul-dezvoltarii-umane-2014-2-2-miliarde-de-oameni-sunt-saraci-sau-aproape-saraci/> (accessed 11 August 2014).

⁹ World Bank, "Moldova Overview". Available from <http://www.worldbank.org/en/country/moldova/overview> (accessed 2 May 2014).

¹⁰ 82% of the country's poor are from rural areas and 55% of the economically inactive population are women (NBS, Labour Force, StatBank. Available from <http://statbank.statistica.md/pxweb/database/EN/databasetree.asp>)

¹¹ NBS, "Share of main economic activities in the generation of gross domestic product," *Moldova in Figures 2014* (Chisinau, 2014), p.44.

PART I

LEGAL AND INSTITUTIONAL FRAMEWORKS FOR HOUSING, URBAN DEVELOPMENT, AND LAND ADMINISTRATION AND MANAGEMENT

Housing policy development in the Republic of Moldova has passed through several phases since the country gained its independence. The first stage was defined by an urgent necessity to transform the housing sector to a market-oriented system. The second stage was an attempt to elaborate a strategic approach. The Government adopted the “National Housing Concept” that set the principles for the reform of the housing sector, in 1994, and the “Housing and Real Estate Market Strategy”, which provided guidance for the development of legal and institutional frameworks, in 1999. However, despite a number of framework documents, the housing sector did not benefit from a clear policy or legal context.¹² (See the UNECE Country Profile on the Housing Sector: Republic of Moldova, prepared in 2002, for details of these two phases, hereinafter, 2002 Moldova CP). There is enough evidence to state that the housing sector has entered its third stage of development, which focuses on policy implementation.

A. LEGAL FRAMEWORK FOR HOUSING, URBAN DEVELOPMENT, LAND ADMINISTRATION AND MANAGEMENT

Housing-related activities are governed within the framework of the Constitution, which guarantees private property rights for all citizens of the Republic of Moldova and foreign nationals without limitation, and the Civil Code, which establishes the basis for the functioning of the real estate market.

The Law on Housing, No. 75 of 30 April 2015, which replaced the Housing Code of 1983, establishes general principles that relate to the granting of social housing, including the categories of people eligible for it, the contract for the rent, and the general principles concerning the payment of communal services and administration of housing.

This Law promotes cooperation between the State and the private sector in order to provide affordable housing for socially vulnerable groups. Basic principles include constitutional guarantees of housing, legal equality of all types of housing ownership, the right of citizens to choose how to meet their housing needs, and freedom to dispose of property legally. In addition, it guarantees the distinct separation of housing responsibilities between central and local government, businesses and individuals.

The new Law addresses issues which the previous Housing Code did not, such as:

- Roles of different actors in the housing sector

¹² Council of Europe Development Bank (CEB), “Social Housing Project. Feasibility Study”, Draft, February 2011.

- Responsibilities of Government bodies in the sector, including the regulation of the provision of housing services and utilities to consumers¹³
- Guidelines on the use of the public housing fund
- Social housing and its use
- Administration of housing and utilities, and the reconstruction of uninhabitable residential premises
- Leased housing, including clarification of the rights and obligations of the lessee and the lessor

The provisions of the Law establish the elaboration of documents, such as:

- A regulation on the use, operation and management of housing stock
- A methodology for calculating the fees for renting houses, technical service and repair of dwellings
- A regulation on the use of social housing and how to assign them
- Standards of social housing and minimum requirements for it
- Rules and norms for the technical exploitation of housing

The Law on Local Public Administration, No. 436-XVI of 28 December 2006, defines the roles of LPAs. This Law gives LPAs the right to initiate and decide on matters of local interest.

Together with the new Law on Housing, some related functions given by this Law to local governments are the following:

- Promoting the Government's housing policy at the local level
- Keeping records of persons needing and entitled to social housing
- Approving the local budget and granting funds therefrom or from other special funds to support housing construction, purchase or maintenance, which meets the criteria set by the local or municipal council¹⁴
- Providing infrastructure and communal services
- Deciding on the construction, rebuilding and demolition of residential buildings or houses, except for those considered as being of historical or architectural importance
- Overseeing the allocation of buildings intended for housing, ensuring that they are used for that purpose
- Regulating the use of land for residential purposes and adopting urban development and zoning plans

In 2012, the Parliament adopted the **National Decentralization Strategy**, the main policy document in the domain of local public administration, aimed at transferring competences and financial resources from the central authorities to local ones.

In the Strategy, the concepts of Law No. 435-XVI "on administrative decentralization" are applied and developed.

According to the Strategy, local governments can make decisions and allocate resources on matters pertaining to social assistance, water supply, road infrastructure, etc.

¹³ These issues are partially regulated (Law on Local Public Administration, No. 436-XVI of 28 December 2006).

¹⁴ A local or municipal council is the local government of a municipality.

The Law on Condominiums, No. 913-XIV of 30 March 2000, limits the rights of State and territorial-administrative units, including management rights over common condominium property such as terraces, roofs, stairways, basements, pipes, and rubbish chutes. However, it does not provide a mechanism by which the common property of the condominium and its non-residential spaces are registered together with the property of the apartment owners, which leads to problems of how the building operates and is managed.

A new law on condominiums, which has been drafted and has yet to be approved by the Government, aims at solving such management problems that were not addressed in the housing privatization law or in the current condominium law. The new law, if passed, will address issues concerning the establishment of condominium co-owners' associations, the functioning and management of them, the rights and obligations of owners, and joint owners' associations with local authorities.¹⁵

It will create an efficient economic and social environment for the operation and maintenance of housing stock. Addressing the issues of the mandatory registration of ownership shares in common areas, the establishment of the maintenance and repair fund, and the transparent management of fund assets and other financial resources of the homeowners' association will motivate owners of condominium units to manage their properties and common areas more effectively.

The Law on the Energy Performance of Buildings, No. 128 of 11 July 2014, creates the legal framework and necessary mechanisms to encourage improvements in the energy performance of buildings. It establishes the rights and duties of the MRDC to set the minimum energy performance of buildings through a series of normative documents in construction. It also establishes the obligation to comply with minimum energy performance requirements in the design and construction of new buildings and the major renovation of existing ones. All new buildings, major renovation for existing ones, and buildings for sale or rent must be certified in terms of energy performance.

The Law on the Principles of Urban and Spatial Planning, No. 835-XIII of 17 May 1996 (amended in 1998 and 2007), states that the management of land and settlements "is aimed at achieving a physical and functional framework of the natural and built habitats, to meet human needs, consistent with public interest and according to planning documents and approved landscaping".

The Law on Authorizing the Execution of Construction Works, No. 163 of 9 July 2010, regulates the procedure of:

- Authorizing, approving and verifying design works
- Constructing, rebuilding or demolishing buildings and facilities in accordance with urban and spatial planning documentation
- Applying normative documents in construction to ensure transparency in the issuance of administrative acts and the creation of favourable business conditions

The Law on Access to Information", No. 982 of 11 May 2000, and the **Government Decision "on Approval of the Regulation on Public Consultation in the Development and Approval of Documentation on Territorial Development and Urbanism, No. 951 of 14 October 1997**, regulates the involvement of key stakeholders in spatial planning.

¹⁵ Draft Law on Condominiums (December 2013 version). Available from <http://mdrc.gov.md/libview.php?l=ro&idc=145&id=2755&t=/Transparenta-decizionala/Rezultate-consultare/Proiectului-legii-cu-privire-la-condominiu-versiunea-din-decembrie-2013/>

Currently the Republic of Moldova is working on the Urban Planning and Construction Code, which unifies and systematizes provisions, and harmonizes Moldovan legislation with the construction principles and regulations of the EU.

The draft Code has been developed in accordance with the provisions of the Government programme “European Integration: Freedom, Democracy, Welfare” for the years 2011–2014 (action: removing administrative constraints in the business environment; sub-action: development of a code in the construction field which would cover all procedures of construction improvements and, in particular, would ensure optimization of licensing procedures and acceptance of construction by combining documentation of completion of construction works in a single procedure).

The draft Code establishes:

- A unified legal framework governing planning and urban development
- Approval and execution of construction works
- Quality assurance of construction materials and products
- The exercise of State control in planning and licensing
- Uniform application of legal provisions on construction quality

This Code, if passed, will integrate the process of constructing a building, including location, design, approval, implementation, monitoring, and post-use.

In 2004, the city of Chisinau adopted a housing strategy, and a new local plan has been prepared.

The Land Code, No. 828-XII of 25 December 1991, sets out the legal framework for all aspects of land and property ownership and dispute resolution. It also provided the framework for major changes in land ownership during the privatization process.

The Law on Real Estate Cadastre, No. 1543-XIII of 25 February 1998, stipulated the mandatory registration of all real estate property, and established a unified system, bringing technical, legal and ownership characteristics together to ensure the identification, registration and monitoring of all land and other real estate property, regardless of its use or owner.

Overall, the country has adequate legislation for the functioning of the housing and land management sectors. However, the challenge is the lack of its effective implementation.¹⁶

B. INSTITUTIONAL FRAMEWORK FOR HOUSING, URBAN DEVELOPMENT, LAND ADMINISTRATION AND MANAGEMENT

Several Government institutions shape policies related to the housing sector, such as the: Ministry of Economy; Ministry of Finance; Ministry of Labour, Social Protection and Family; Ministry of Justice; and the Agency of Land Relations and Cadastre. However, the authority responsible for housing and urban development at the central level is the MRDC.

¹⁶ S. Tsenkova, “Lost in Transition: Housing Reforms in Moldova.” *Sustainable Urban Areas: An international conference of the European Network for Housing Research (ENHR)*, Rotterdam, June 25-28, 2007. (Rotterdam: Delft University, 2007). Available from http://s3.amazonaws.com/zanran_storage/www.enhr2007rotterdam.nl/ContentPages/2486807089.pdf

Its mission is to develop, promote and implement State policy in regional development and spatial planning, architecture, design, planning, construction, production of construction materials, and housing.¹⁷ To fulfil its mission, the MRDC involves the media, non-governmental organizations (NGOs), and the public in its decision-making and implementing process, in line with the pillars of the UNECE Aarhus Convention¹⁸. The Republic of Moldova was among the first states to ratify the Convention in 1999.

The main responsibilities of the MRDC include:

- Developing, monitoring and evaluating the implementation of the National Strategy for Regional Development and the National Fund for Regional Development
- Cooperating with other ministries, as well as with the National Coordination Council for Regional Development and Regional Development Councils, to achieve national regional development priorities

It therefore:

- Develops and enforces the national landscape plan
- Coordinates the implementation of sustainable development principles in urban design
- Coordinates and monitors the reconstruction, rehabilitation and restoration of monuments of architecture, history and culture that epitomize urban areas within historical districts, cities, towns, villages and municipalities, as well as architectural complexes
- Promotes the implementation of new technologies, machines, performance mechanisms and materials in its field

It also develops and implements State policy in the construction, reconstruction and maintenance of housing, and:

- Contributes to policy implementation of housing for socially vulnerable segments of the population
- Develops and promotes policies to secure housing for young people
- Participates in the development of national housing programmes for young and vulnerable people, and is involved in completing apartment buildings started with State funds
- Develops national and regional programmes jointly with local authorities, to rehabilitate housing, implementing the principles of energy efficiency
- Monitors, together with local authorities, the implementation of legislation regarding the housing sector
- Contributes to enhancing the quality of public housing through management of the housing fund

¹⁷ Government Decision No. 662 of 10 November 2009. Available from <http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=332629>

¹⁸ The UNECE Aarhus Convention (Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters) grants the public rights and imposes on parties and public authorities obligations regarding access to information and public participation and access to justice.

Picture 1. A housing construction project for socially vulnerable segments of the population



Within the MRDC, the General Directorate of Architecture, Construction and Housing¹⁹ is responsible for:

- Architecture, design, spatial planning
- Technical problems of buildings
- The construction materials industry
- Accreditation, certification and technical approval of construction quality management activities
- Technology deployment
- Modern and competitive production of building materials
- Housing-related matters
- The development and implementation of State housing programmes

The General Directorate is divided into three divisions:

- 1) The Division of Architecture, Design, Urbanism and Planning ensures the development, maintenance, monitoring, compliance and subsequent amendment of the

¹⁹ Functions of the General Directorate of Architecture, Construction and Housing. Available from <http://mdrc.gov.md/slidepageview.php?l=ro&idc=132&t=/Minister/Structura-ministerului/Atributiile-subdiviziunilor&>

National Spatial Plan, based on the coordination of regional and local plans and policies. It also coordinates the implementation of sustainable development principles in urban design (including city Master Plans and zoning); supervises the implementation of urban landscaping, water supply, sanitation and recreation; and creates pilot projects in development and spatial planning.

- 2) The Division of Construction, Building Materials and Modern Technologies promotes the implementation of new technologies, machines, performance mechanisms and materials. It also participates in organizing the development of regulations for construction, building materials and housing. Furthermore, it oversees the technical approval of construction materials and their quality testing.
- 3) The Housing Division develops and implements State policy in the construction, reconstruction, and maintenance of housing. It also contributes to housing policy development and its implementation for socially vulnerable segments of the population, as well as the implementation of national housing construction programmes for young and other vulnerable people. It participates in the completion of buildings started with State funds, and oversees the national rehabilitation of housing, implementing energy-efficient principles jointly with local authorities.

The National Housing Service (NHS) under the Ministry of Ecology, Construction and Territorial Development was established in 2003 as a public institution to improve the condition of the housing stock. The NHS has commissioned 65 multi-storey housing blocks, around half of which are in the Chisinau area. Currently, it has finished its mandate and is in the process of liquidation.

The local government authorities and municipalities are responsible for ensuring the overall urban plan development and documentation of urban and spatial planning.

The Parliament has established a number of standing committees related to housing matters: the Committee on Public Administration and Regional Development; the Committee on Economy, Budget and Finance; the Committee on Environment and Climate Change; and the Committee on Social Protection, Health and Family. However, there is no specific committee on housing and urban development, meaning that these problems tend to have less importance in parliamentary debates.

The Agency of Land Relations and Cadastre (ALRC) was set up by Government Decision No. 383 of 12 May 2010 to carry out State policy on land, cadastre, geodesy, cartography and geo-informatics. It is responsible for the establishment of the National Spatial Data Infrastructure, and is currently involved in the development of a National Geographic Information System.²⁰ It maintains the system, which covers over 90% of all real estate in the country.²¹ It hosts several technical institutions and state-owned enterprises. The State enterprise “Cadastru” is responsible for the management of the cadastre and registry.²²

Important private-sector institutions are involved in the production, allocation and consumption of housing, e.g., the federation of employers of builders, road builders and producers of building materials “CONDRUMAT”, and the public association “Republican Union of Associations of Co-owners in Condominium” or “GESTIONARUL”.

²⁰ European Commission, Infrastructure for Spatial Information in the European Community (INSPIRE), “List of Registered Organisations”. Available from <http://inspire.ec.europa.eu/index.cfm/pageid/42/list/6/id/8759>

²¹ Ibid., footnote 16.

²² World Bank, Moldova Land Governance Assessment Framework (LGAF). Final Report. March 2014. Available from http://siteresources.worldbank.org/INTLGA/Resources/Moldova_Final_Report.pdf

PART II

HOUSING SECTOR

Chapter 1 Existing housing stock, condition, maintenance and management

This chapter analyses the existing housing stock and its condition, the provision of new housing, energy efficiency of the housing sector and the management of the housing stock in the Republic of Moldova. It describes major challenges and recommends policies and actions that could address them.

A. EXISTING HOUSING STOCK AND ITS CONDITION

1. Existing housing stock

The housing stock expanded slowly, from 76,200.0 thousand m² in 2002 to 80,614.6 thousand m² in 2013 (an increase of 8% over a decade). The average yearly increase was approximately 1.7%/1,000 inhabitants, which is far below the EU average of 4.8%.

Available data is not sufficient to estimate the gap between the rate of new housing construction and the need to 1) satisfy housing demand, and 2) replace damaged houses, houses converted for other purposes, and dilapidated houses due to age and lack of maintenance. Another missing figure is the rate of vacancy. During the expert's mission, it was reported on several occasions that there is a high rate of vacancy due to the large number of emigrants. A vacancy rate of 5-6% is considered to be "healthy" for a housing market, while high vacancy rates affect its efficiency. Data on this rate is needed to address different problems that a potential high rate could cause to both the market and the condition of the housing stock.

It is recommended that a yearly replacement of housing rate of 1% is needed in a "normal" situation. This would include the regular replacement of housing stock due to damage from natural and other types of disasters and dilapidation. This rate for the Republic of Moldova would be some 800,000 m². Data shows (Table 1) that, from 2002 to 2012, the highest rate of construction was reached in 2008 with some 680,000 m² of housing constructed, which represented 0.9% of the existing stock. In addition, the housing market should supply new housing for the demand generated through the creation of new families. In conclusion, it can be assumed that there may be a housing shortage. However, further data and analyses are needed to support this hypothesis.

In 2012, the largest amount of new housing, 248,000 m², was developed in Chisinau, representing 81% of the country's total. Currently, a 10,000 m², 12-storey, multi-family housing block is being built on land owned by a hospital university. The building will consist of 1,800 apartments of between 36 and 100 m² in size. Hospitals own large amounts of land in Chisinau and they are not exclusively used for the health services.

Table 1. Dwellings completed, 2002-2012

| | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Total area (000 m²) | 255.0 | 287.0 | 344.0 | 461.0 | 579.0 | 558.0 | 680.0 | 502.0 | 546.2 | 589.3 | 502.5 |
| Percent of total | 0.35 | 0.4 | 0.47 | 0.63 | 0.79 | 0.75 | 0.91 | | 0.72 | 0.77 | 0.65 |
| Number of apartments (000) | 2.3 | 2.3 | 2.8 | 4.0 | 4.9 | 5.0 | 6.8 | 4.8 | 4.9 | 5.2 | 5.1 |

Source: NBS, *Construction in the Republic of Moldova* (Chisinau, 2011), http://www.statistica.md/public/files/publicatii_electronice/Costructii/2011/Constructii_2011.pdf.

2. Age of the housing stock

Approximately 60% of the housing stock was built between 1976 and 1993, so it is relatively new. However, due to lack of maintenance and capital repairs, its condition in general is very poor.

Some 20-30% of the housing stock, which dates from more than 60 years ago, needs to be replaced because of old age and lack of maintenance and repair. If these houses continue to be inhabited without being repaired, they will become a serious risk for the health and safety of the dwellers.

In the last four years, new housing construction averaged a mere 0.65% yearly, which is not sufficient to replace the old housing stock and supply new housing. At this rate, it would take more than 80 years before the old housing stock was replaced.

3. Typology and characteristics of the housing stock

The main typology of the country's housing stock is individual housing, which accounts for 67% of the total (Table 2). At national level, apartments in multi-family housing consist of 23% of the total. However, in the municipalities of Chisinau and Balti, the situation is the opposite, with apartments in multi-family housing at 63% and 62% of the total, respectively.

Table 2. Housing stock, in thousand m²

| Housing stock | 2002 | 2012 | 2013 |
|----------------------|-------------|-------------|-------------|
| Total | 76 200.00 | 80 163.40 | 80 614.60 |
| Multi-storeys | 14 330.00 | 19 070.00 | - |
| Single-family | 60 870.00 | 62 490.00 | - |
| Private | 71 628.00 | 78 302.00 | 78 688.10 |
| Public | 4 724.40 | 1 941.57 | 1 859.50 |

Source: NBS.

At national level, most of the buildings are made from bricks and stone, while panel constructions are found mostly in urban areas (Table 3). In 2011, 65% of houses were built with bricks and stone, compared to 78% in 2001, while those built with frame-panels accounted for 4.1%, compared to 10% in 2001. Housing stock has increased very modestly over the past years. Therefore, the impact of new housing stock on the overall quality of the housing stock is low. Furthermore, lack of maintenance, limited renovation, and poor housing management efficiency have diminished the quality of housing stock.

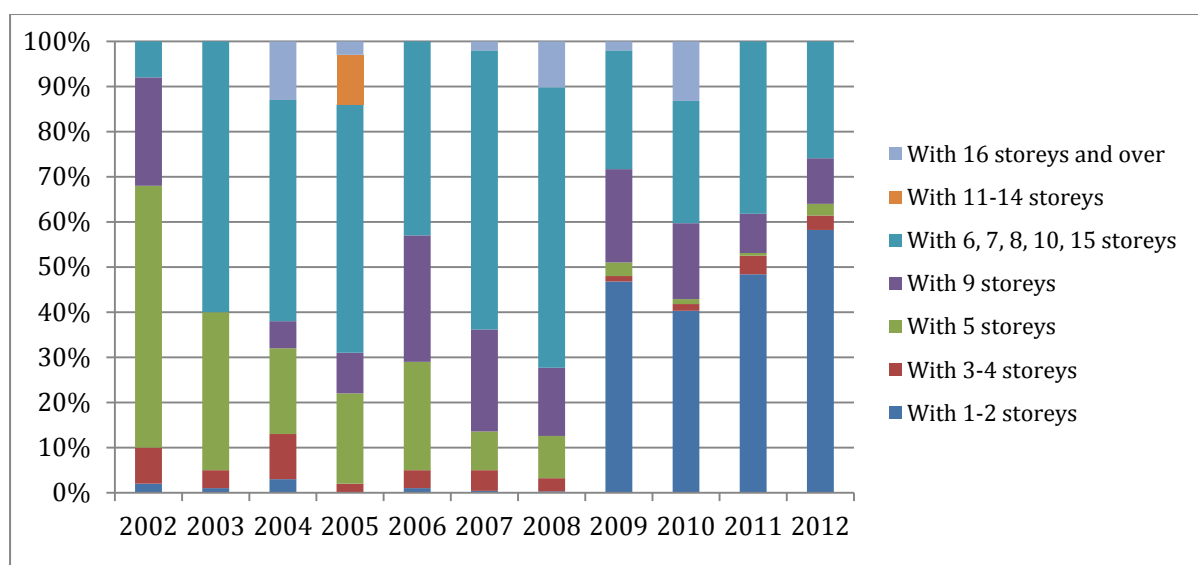
Table 3. Distribution of new dwellings by type of wall materials, 2000-2011, %

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
|--|------|------|------|------|------|------|------|------|------|------|------|------|
| Bricks and stone | 71.0 | 78.0 | 87.0 | 93.0 | 89.0 | 87.0 | 85.0 | 74.0 | 68.0 | 61.1 | 49.4 | 65.5 |
| Large-panels and frame-panels | 8.0 | 10.0 | 6.0 | 1.0 | 2.0 | 4.0 | 2.0 | 3.0 | .. | 6.7 | 5.7 | 4.1 |
| Large-block and prefabricated forms | 6.0 | 3.0 | 1.0 | 1.0 | 4.0 | .. | 1.0 | .. | .. | .. | ... | ... |
| Other types | 15.0 | 9.0 | 6.0 | 5.0 | 5.0 | 9.0 | 12.0 | 23.0 | 32.0 | 32.2 | 44.9 | 30.4 |

Source: NBS. Information is presented without the data on districts from the left side of the river Nistru and the municipality of Bender. Data are presented according to the total area completed of dwelling houses.

In 2012, 58.2% of the total houses built were 1-2 storey buildings (Figure 4). It is interesting to note that, during the last five years, the construction of 1-2 storey houses prevailed in multi-family types of housing.

Figure 4. Distribution of new dwellings by number of storeys, 2002-2012

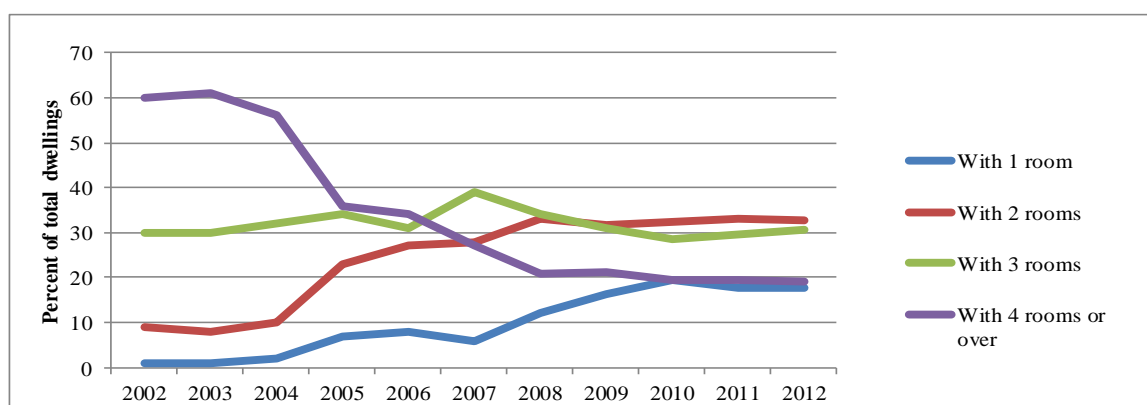


Source: NBS. Data from 2004 to 2008 are presented without individual dwelling houses.

Changes in life-style and economic reasons may have caused the reversal of preferences from big houses and apartments with four or more rooms to small apartments with one or two rooms (Figure 5). For example, in 2012, apartments with four or more rooms amounted to only 19% of the total, compared to 60% in 2002.

The downward trend in the number of rooms per dwelling demonstrates various changes in Moldovan society. For example, it shows that families are getting smaller; emigrants buy small houses because they use them seasonally; and families do not buy big houses because they consume more energy. The downward trend also suggests decreased housing affordability due to increased housing and maintenance costs, while income remains low or regresses because of the economic crisis.

Figure 5. Trend in housing by number of rooms, 2002-2012



Source: NBS.

The average size of an apartment built in 2012 was 99.1 m², which is 13% smaller than the average of 2011. Data from the 2004 census indicates that the majority of households were living in houses of between 50 m² and 99 m² and that housing consumption per capita (average space per person) was 22.5 m².

4. Quality of living conditions

One of the ways to assess the quality of living conditions is by using the principles that define the right to adequate housing²³. Seven criteria are specified in General Comment No. 4 of the Committee on Economic, Social and Cultural Rights (CESCR) pursuant to Article 11(1) of the International Covenant on Economic, Social and Cultural Rights. An analysis of those relevant to the Republic of Moldova is provided:

- a. **Security of tenure:** housing is not adequate if its occupants do not have a degree of tenure security, which guarantees legal protection against forced eviction, harassment and other threats. There are no official figures on forced evictions in the Republic of Moldova. Although they are usually associated with informal housing, which is the most typical case, other situations could trigger this as well. For example, those in unregulated rental housing; those who default on their mortgage; families living in areas prone to natural disasters; and those living in areas that will be redeveloped; do not have security of tenure. Specific marginalized groups are more affected than others, e.g., Roma communities, displaced persons, or low-income families. During the mission, it was reported that the Government will legalize informal houses that comply with standards, and demolish those that do not. Policies should be carefully developed to avoid forced evictions and respect the principles set out by CESCR in its General Comment No. 7²⁴. However, it is clear that the Republic of Moldova is affected by natural disasters, so the eviction of families living in disaster-prone areas can save lives.
- b. **Availability of services, materials, facilities and infrastructure:** access to housing infrastructure is one of the important aspects of household deprivation and an additional factor of household vulnerability. Access to sanitation services is important, not only to ensure decent living conditions, but also to radically decrease mortality and morbidity due to water-borne diseases.

Housing in the Republic of Moldova is characterized by low access to safe drinking water

²³ United Nations Office of the High Commissioner for Human Rights (UN OHCHR); CESCR, General Comment No. 4.

²⁴ Ibid, General Comment No. 7.

and sanitation. In 2012, about 1.5 million people were served by the public water supply system. This represented 42.1% of the population (68.9% urban and 22.7% rural). The largest shares are recorded in Gagauzia (66.6%) and the municipality of Chisinau (66.4%), followed by the south with 48.8%, the north with 30.5%, and the centre with 27.4%.²⁵

761,000 people had access to sanitation, representing 21.4% of the total population, including 50.1% in urban areas and only 1.0% in rural areas. The largest share of the population with access to improved sanitation is recorded in the north (23.4%), followed by the centre (10.2%), the south (6.7%) and Gagauzia (2.2%)²⁶.

Data from the NBS (although demonstrating inexplicable differences between two tables in their publication) show a low level of households supplied with services, even when referring to the best case scenario (Table 4 and Figure 6).

Table 4. Household dwelling facilities, 2006 and 2013, in %

| | 2006 | | | 2013 | | |
|--------------------------|---------------|-------|-------|---------------|-------|-------|
| | Whole country | Urban | Rural | Whole country | Urban | Rural |
| Electric lighting | 99.6 | 99.9 | 99.4 | 99.9 | 100.0 | 99.9 |
| Aqueduct | 42.7 | 83.4 | 12 | 60.1 | 89.4 | 35.7 |
| Central hot water system | 13 | 29.8 | 0.3 | 9.1 | 20.0 | - |
| Central heating | 19.9 | 45.5 | 0.7 | 19.3 | 42.0 | 0.3 |
| Own heating system | 15.4 | 28.4 | 5.6 | 13.9 | 26.3 | 3.6 |
| Gas facilities | 45.4 | 79.2 | 19.9 | 56.6 | 82.0 | 35.5 |
| Water closet | 32.8 | 71.7 | 3.5 | 38.5 | 73.0 | 9.7 |
| Sewerage | 32.1 | 71.2 | 2.7 | 33.4 | 71.5 | 1.6 |
| Bathroom or shower | 38 | 75.7 | 9.6 | 48 | 77.1 | 23.8 |
| Telephone | 74.3 | 89.6 | 62.7 | 87.2 | 91.9 | 83.2 |

Source: NBS, Household Budget Survey.

Different regions and groups of the population are affected at different rates. Rural areas suffer most from a lack of access to sanitation and water, although the situation is improving. The situation of Roma communities is even worse; more than 80% of Roma households do not benefit from basic housing conditions such as potable water, water closet, bathroom and canalization²⁷. Specific programmes should be developed to provide Roma communities with safe water and sanitation. Investments for bringing water and sanitation to small communities may not be economically viable but can have a high social impact. Therefore, such investments should be based on a cost benefit analysis. Governments, in collaboration with local authorities and with participation of the affected communities, may also take into consideration the relocation of small communities to

²⁵ NBS, *Water supply systems and sanitation in 2012*. Available from <http://www.statistica.md/newsview.php?l=ro&idc=168&id=4086>

²⁶ Ibid.

²⁷ Sorin Cace, Vasile Cantarji, Nicolae Sali, Marin Alla. *Roma in the Republic of Moldova*. (Chisinau: Casa Editorial-Poligrafica Bons Offices, 2007). Available from [http://www.undp.md/publications/roma_report/Roma in the Republic of Moldova.pdf](http://www.undp.md/publications/roma_report/Roma%20in%20the%20Republic%20of%20Moldova.pdf) (accessed 2 Sept. 2013).

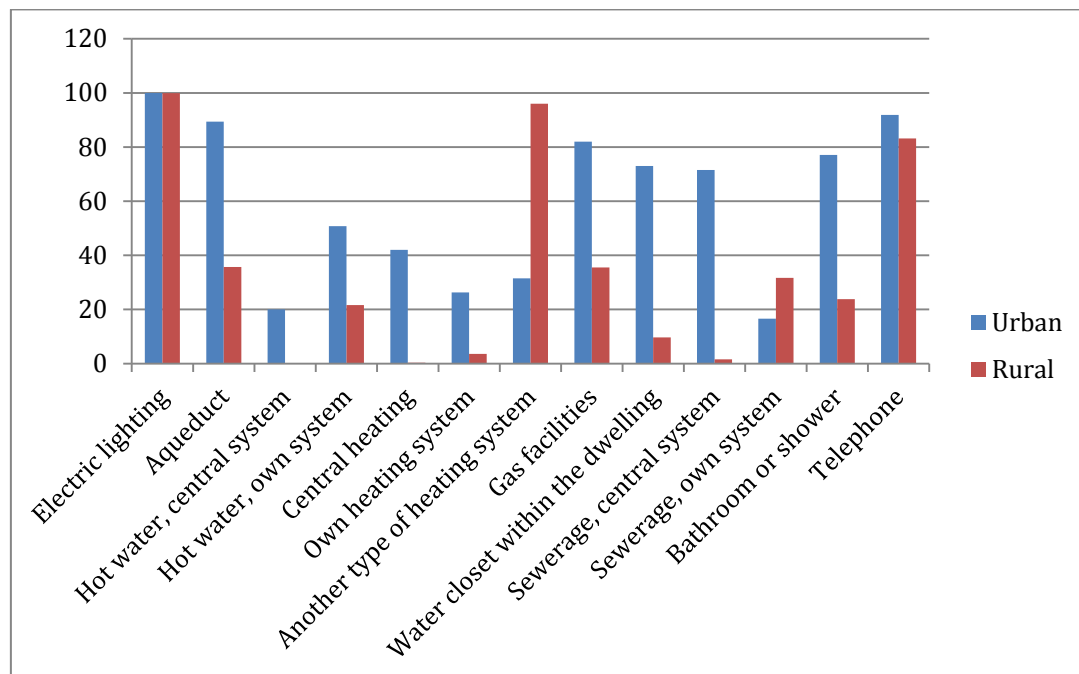
more densely-populated areas, which are equipped with the necessary infrastructure. The feasibility of each solution should be analysed.

Box 1. Roma in the Republic of Moldova

About nine out of ten Roma dwellings do not have a flushing WC and piped potable water in the dwelling. However, this situation is also characteristic for the majority of the non-Roma population, where 71% have no flushing WC and 76% live without potable water. Eight out of ten Roma households do not have bathrooms and sewerage treatment in their dwellings. This situation is also true for the non-Roma population, where 51% do not have bathrooms and 60% do not have sewerage treatment. The most significant difference observed was concerning the availability of kitchens; 42% of Roma households surveyed do not have one, in comparison with 17% for non-Roma households. Households' lack of access to electricity is another example of deprivation. Electricity supply was not available to 10% of Roma households but to only 2% of non-Roma households. While Roma households use predominantly wood for cooking (44%), 61% of non-Roma households use gas (piped or bottled). Wood is the primary heating source for both groups during the cold period of the year, but the non-Roma population uses more charcoal (27%) and gas (15%) than Roma.

Source: UNDP Moldova (2007), Roma in the Republic of Moldova.

Figure 6. Household dwelling facilities in 2013, in %



Source: NBS, Household Budget Survey.

- c. **Affordability:** housing is not adequate if its cost threatens or compromises the occupants' enjoyment of other human rights. Affordability is subject to national interpretation. However, the most common notion of affordable housing implies that households that

spend more than 30% of their gross income to obtain adequate and appropriate housing have an affordability problem²⁸.

d. Habitability: housing is not adequate if it does not guarantee physical safety or provide adequate space, as well as protection against the cold, damp, heat, rain, wind, other threats to health, and structural hazards.

According to a UNDP survey, 7% of the population of the Republic of Moldova live in ruined or poor housing. Moreover, the country is exposed to natural disasters such as flooding, landslides and earthquakes. For example, in July 2008, 1,123 houses were flooded due to rainfall alone, of which 91 were totally demolished and approximately 450 needed to be completely rebuilt²⁹. In July 2010, heavy rains affected 12,000 people. A total of 3,183 houses in half of the country (85 settlements) were flooded and most of them were destroyed. The most affected district was Hincesti where 700 houses were destroyed³⁰. The country needs to develop a comprehensive national plan indicating the areas at risk of disasters, isolate settlements adjacent to these areas, and start planning and implementing their gradual relocation if engineering solutions for upgrading the existing safety levels are more expensive.

One of the key factors in assessing the quality of housing conditions is the availability of sufficient space in the dwelling. According to Eurostat, a person is considered as living in an overcrowded household if the household does not have at its disposal a minimum number of rooms equal to:

- one room for the household
- one room per couple in the household
- one room for each single person aged 18 or over
- one room per pair of single people of the same gender between 12 and 17 years of age
- one room for each single person between 12 and 17 years of age and not included in the previous category
- one room per pair of children under 12 years of age.

There are no official data or studies on households living in overcrowded apartments in the Republic of Moldova. The data from the 2004 census are aggregate and cannot be disaggregated at the level required for undertaking a thorough analysis. However, some very conservative calculations based on data provided by the census³¹ suggest an overcrowding rate of 11%. For this purpose, the number of households with three, four and five members, living in apartments with one and two rooms, were used. This rate is below the average for the EU-27 which, in 2011, was 16.5%. However, due to the low level of new housing construction, it can be speculated that the overcrowding rate increased in the seven years after the 2004 census.

²⁸ Alice Pittini, "Housing Affordability in the EU: Current situation and recent trends", CECODHAS Housing Europe's Observatory Research Briefing, Year 5/1, January 2012. Available from <http://www.housingeurope.eu/resource-122/housing-affordability-in-the-eu>

²⁹ UNDP, "Empowering Communities to Prevent and Mitigate Natural Disasters and Crises: the UN Response to Floods in Moldova". Available from http://www.gripweb.org/gripweb/sites/default/files/Moldova_Empowering Communities to Prevent and Mitigate Natural Disasters and Crises.pdf (accessed 14 October 2013).

³⁰ International Federation of Red Cross and Red Crescent Societies, "Moldova: Floods", International Federation's Disaster Relief Emergency Fund (DREF) Operation Final Report, 15 January 2010. Available from http://reliefweb.int/sites/reliefweb.int/files/resources/D4FB06C58EA1CF638525782500568419-Full_Report.pdf

³¹ NBS, Households by Occupied Dwelling Type, Composition and Average Household Size, 2004 census (Living Conditions of Population). Available from <http://www.statistica.md/pageview.php?l=en&id=2361&idc=295>

- e. Accessibility for the disabled:* The existing Housing Code stipulates the provision of elevators in buildings with more than five floors. Therefore, both existing and new housing are not accessible for people with disabilities. New norms should provide standards for accessibility and for eliminating barriers to it, starting with small interventions such as introducing ramps, handrails, etc.
- f. Cultural adequacy:* housing is not adequate if it does not respect and take into account the expression of cultural identity. In the Republic of Moldova, single-family housing is the most popular type of housing, which suggests that Moldovans embrace the traditional way of living and shows their strong rural roots. However, industrialization and urbanization will change these traditions.

B. ENERGY EFFICIENCY OF THE HOUSING STOCK

The Republic of Moldova imports 95% of its energy resources, which makes the country highly dependent on external sources and its economy volatile with regards to fluctuations in the energy markets.

Buildings consume 40% of the energy, 65% of which is used by the residential sector. The Republic of Moldova is one of the poorest countries in Europe. With increased energy prices, the poor suffer from poor housing quality, as they are least able to heat their homes. Energy-efficiency refurbishments could improve housing conditions and reduce energy costs in the future. Moreover, enhanced energy efficiency could contribute to energy security, less dependence, and economic competitiveness, and could have a positive impact on the environment.

The National Development Strategy envisions the development of the country's energy sector based on: (i) ensuring the country's energy security; and (ii) increasing energy efficiency.

Several measures are foreseen to improve energy efficiency, including: reduction of energy intensity in the residential, industrial, transport and agriculture sectors; modernization of the energy system; implementation of efficient energy technologies; etc. Soft measures are also foreseen, such as raising public awareness on the need to save energy. The goal for 2020 is to reduce energy consumption in buildings by 10%³².

The Republic of Moldova, together with Armenia and Georgia, has joined the Eastern Europe Energy Efficiency and Environment Partnership (E5P). This initiative will support the country's efforts in improving energy efficiency and reducing harmful emissions, through the pledge of additional funding.

The energy sector is one of the top priorities for the Government and it is addressed in a number of policy documents, laws and regulations.

In 2010, the Law on Energy Efficiency (Law No. 142 of 2 July 2010) was approved, which partially transposes the *Directive 2006/32/CE on energy end-use efficiency and energy services*. Based on this law, the Energy Efficiency Agency was established, which implements the State energy-efficiency and renewable energy policies.

The MRDC, with the support of the EBRD and the Swedish International Development Cooperation Agency (SIDA), elaborated the draft Law on Energy Performance of Buildings

³² IMF, *Moldova 2020 National Development Strategy: 7 Solutions for Economic Growth and Poverty Reduction* (Washington D.C., IMF, 2013). Available from <http://www.imf.org/external/pubs/ft/scr/2013/cr13269.pdf>

(which transposes *Directive No. 2010/31/EU* into the national legislation), which was approved by the Government and adopted by the Parliament in 2014. The Law provides for, inter alia, the establishment and enforcement of minimum energy performance requirements for existing buildings when they undergo major renovation; energy performance certification of buildings or units thereof; the responsibilities of central and local government specialists on energy efficiency; etc.

The legal framework has, among others, transferred the responsibility for heat tariff setting from the LPAs to the National Energy Regulatory Agency (ANRE). It has also transferred the responsibility for the ANRE's budget approval and Administrative Board assignment from the Government to the Parliament. These changes allow the setting of heat tariffs at cost-recovery level.

However, the Republic of Moldova remains one of the six countries in Europe and Central Asia with the highest energy intensity (more than 0.3 kgoe/GDP). The EU-15 average is 0.11 kgoe/GDP, and 0.17 for the EU-12. According to a World Bank study³³, for a country to move from high or medium to transitional energy intensity, it should:

- Set energy prices to reflect the cost of supply
- Ensure that energy efficiency is embedded in the legal framework
- Establish an adequate budget for energy efficiency
- Establish energy-efficiency targets that are monitored and evaluated
- Enable competition for the industrial sector
- Create reasonable building standards and ensure implementation
- Establish appliance standards

It should be noted that, in improving the energy efficiency of the residential sector, several challenges have to be addressed, which are summarized in Table 5. The greatest potential for energy savings lies with the existing housing stock, the majority of which is located in rural areas in the form of individual housing. This report focuses on multi-family housing, which does not represent the major share of the housing stock but is a high consumer of energy and is the most challenging to address due to its form of management.

The EBRD has established a financing facility, the MoREEFF, and has dedicated the amount of EUR 35 million to supporting energy-efficiency investments in the Moldovan residential sector. The project consists of credit lines disbursed through local banks to:

- Individuals or groups of individuals and households registered under the laws of the Republic of Moldova as residents or owners in the building for which they intend to perform eligible sub-projects
- Associations/condominiums of apartment owners registered under the laws of the Republic of Moldova
- Legal entities, including housing management companies, energy service companies or any other service company providing maintenance, operation, construction or refurbishment services for the purpose of the implementation of eligible energy-efficiency projects in the residential sector.

The loan can be used for a dwelling-level project or a building-level one.

³³ Gary Stuggins, Alexander Sharabaroff, and Yadviga Semikolenova, *Energy Efficiency: Lessons Learned from Success Stories*, (Washington, D.C., World Bank, 2013). Available from <https://openknowledge.worldbank.org/bitstream/handle/10986/12236/9780821398036.pdf?sequence=7>

Table 5. Challenges in improving energy efficiency in the residential sector

| Description | Challenges and/or opportunities | Consequences for energy-efficiency measures |
|---|--|--|
| Existing multi-family housing stock | | |
| <ul style="list-style-type: none"> - Accounts for 23% of the total housing stock - 90% is located in urban areas - More than 90% is apartments that were privatized in the early 1990s | <ul style="list-style-type: none"> - Needs capital repairs (e.g.: insulation of roofs, walls and floors; replacement of apartments' windows, entrance door and common windows; replacement of heating network; etc.) - Decisions need to be taken by the majority of homeowners - Municipal agencies still have the monopoly on managing the common properties - In many cases the homeowners' association is not established or registered as a legal person - The condominium property, including the land, is not registered under the name of the association | <ul style="list-style-type: none"> - High costs for repair cannot be borne by most homeowners - No decisions are taken - Low quality of management and lack of participation of homeowners in decision-making - Homeowners cannot enter into a contract agreement as an association, but they should sign individually - The homeowners' association cannot obtain a loan from the bank |
| New multi-family housing | | |
| <ul style="list-style-type: none"> - Represents less than 10% of the housing stock - Adds less than 0.6% to the housing stock yearly | <ul style="list-style-type: none"> - There are no benchmarks for energy consumption - Some of EU regulations are transposed - Not sure that standards for energy efficiency are met - Voluntary implementation by developers | <ul style="list-style-type: none"> - Not enough information on the energy efficiency of the building for the consumers - Potential increase of energy inefficiency due to the low capacity of monitoring of the implementation of regulations |

The programme provides incentives to borrowers upon completion of their projects, subject to MoREEFF terms and conditions.³⁴ The MoREEFF established an investment incentive ceiling for 10 different energy-efficiency home improvement measures. The total lump sum should not exceed EUR 6,000 per borrower (Table 6). The European Union Neighbourhood Investment Facility (EU NIF) and SIDA, in support of the MoREEFF programme and with the aim of stimulating investments in energy-efficiency measures, have earmarked EUR 11 million to award the incentives to the borrowers.³⁵ Any borrower who takes a MoREEFF loan is entitled to receive an incentive of up to 20%, 30% or 35% of the loan amount for a dwelling-level, building-level, or building-level project of an association of apartment owners, respectively.

³⁴ MoREEFF "About Grants". Available from <http://moreeff.info/en/grants/about-grants/>

³⁵ MoREEFF "About Us". Available from <http://moreeff.info/en/>

Table 6. Energy-efficiency home improvement measures and investment incentive cap of MoREEFF

| Energy-efficiency home improvement measures | Investment incentive cap (EUR) |
|---|--------------------------------|
| Energy-efficient windows | 800 |
| Wall insulation | 1,000 |
| Roof insulation | 750 |
| Floor insulation | 350 |
| Efficient biomass stoves and boilers | 600 |
| Solar water systems | 1,000 |
| Efficient gas boilers | 600 |
| Heat pump systems | 2,000 |
| Roof-top photovoltaics in buildings (up to 2.0 kW per dwelling) | 1,800 |
| Maximum aggregate investment incentive per borrower | 6,000 |

The MoREEFF Programme has granted 1,536 loans so far, totalling close to EUR 6 million. Incentive grants have been pledged, amounting to EUR 1.7 million. According to MoREEFF:

“To date, the MoREEFF financed projects have saved 12,626 MWh per year, which is enough energy to heat water for 631,300,707 cups of tea or enough to drive a car over 18,939,021 kilometres.

To date, the MoREEFF supported projects have brought reduction in CO₂ emissions of 2,866 tonnes per year, which is equivalent to the amount of CO₂ annually absorbed by a forest of 106,152 trees”.

C. MANAGEMENT AND REFURBISHMENT OF THE HOUSING STOCK

This part addresses the problems of the housing stock privatized under the Law on Privatization of the Housing Stock, No. 1324-XII of 10 March 1993.

The privatization of the public housing stock was expected to improve housing maintenance and management by passing the ownership to the sitting tenants. However, as in other countries with economies in transition, the situation has not really improved. This can be attributed to the following factors:

- Privatization occurred very fast, without taking into consideration the time needed to inform and train tenants on their responsibilities as homeowners.
- The cost of privatization was not based on the value of the houses and, in many cases, it was done free of charge. This was a strong incentive for tenants to get ownership, without paying attention to the future need for maintenance.
- In most cases, tenants were poor and, giving them the ownership of a house with the financial obligation of maintenance, meant trapping them deeper in poverty.
- The Law stipulates the formation of homeowners’ associations (HOAs) without limitation. However, there is a provision that for apartment buildings that are connected to the same water, heat and electricity pipelines, the HOAs should be in the

form of cooperatives and for a maximum of 500 apartment units. This provision brought about the establishment of a single condominium association for a large number of apartments blocks, which was not the right solution. In a smaller association, the decision-making is more efficient.

The privatization of the housing stock was not accompanied by a reform of the management companies, which still control a large share of the housing management market. This situation does not help the creation of a market for housing management, as the municipal companies have almost a monopoly.

The Republic of Moldova has some 6,888 buildings of multi-family houses. 70% of them are administered by local governments, 7-8% by condominium associations, and 17-19% by cooperatives and homeowners' associations. Moreover, some 50-66% of the common properties of privatized housing stock still remain in the ownership of local authorities. Homeowners have outstanding debts to local management companies for unpaid dues, and these companies are not willing to privatize the common parts unless the debt is paid. This means that the land cannot be registered as the common property of the association, which is a serious impediment to implementing projects for the refurbishment of the deteriorated housing stock.

Condominium management

The decision-making bodies of a condominium are the General Meeting of members (representatives) and the Administrative Council.

If the condominium consists of over 40 members, for every five members one representative is assigned to the General Meeting.

The General Meeting is considerate deliberative if at least two thirds of the total number of votes are present. If there is no quorum, the next Meeting can be organized not earlier than 48 hours and not later than 30 days after the date that was originally fixed. The Meeting organized for the second time can adopt decisions with only 51% of the total number of votes.

The decisions of the General Meeting are reflected in the Protocols, which are signed by the President and the Secretary of the Meeting.

Later provisions of Law No. 913-XIV of 30 March 2000 give associations of co-owners the possibility of managing the common property either directly by the property owners if the condominium consists of four property owners at most, or through the association of property co-owners. The association may administer the condominium independently or they may contract these functions (partially or entirely) out to a duly authorized physical or legal person. In practice, however, for privatized apartment stocks, the management of the common parts is undertaken by municipal housing management companies, which have the same structure as those that operated during the Soviet system.

Despite improvements introduced by the new Law on Condominiums in Housing Stock, the management and maintenance situation has not improved.

1. Legal and operational

Several authors highlight discrepancies in the Law on Condominiums. For example, a study undertaken by Citrus³⁶ underlines the following legal bottlenecks:

³⁶ Citrus Partners LLP, "Moldova: Study into Improving the Energy Efficiency of Residential Buildings", Final draft, Bath, 2011.

- The Law does not contain adequate provisions to support transparent management by condominium associations
- Condominium associations lack the power needed to collect payments
- Accounting is not transparent, which leads to a lack of trust
- Invoicing is not transparent, which leads to cross-subsidizing among homeowners
- Condominiums comprise multiple apartment blocks and different types of properties, which leads to conflicts of interest between homeowners
- The high percentage of homeowners required to be present at meetings (66%) and to take decisions (51%) can be a barrier to change

Some further comments and recommendations would include the need for additional transitional provisions for those properties that are already registered based on previous legislation, as well as for the owners of privatized apartments that have not taken legal steps to form associations and to register the property. The Law should also provide regulations for mandatory up-keep and maintenance of some basic standards, such as health and security. This should be monitored by existing public departments at the local level, such as public health, fire control, building inspection, etc.

The Republic of Moldova has a large number of emigrants living abroad and there are many empty flats in multi-apartment buildings due to this. It is estimated that in Chisinau up to 10% of apartments are empty³⁷, while in Criuleni the percentage ranges between 12 and 15%. The emigrants do not pay their maintenance fees, thus aggravating the financial constraints of the association. The Law should provide obligations for owners who do not live in their houses to pay maintenance dues. It should also provide penalties for those who contravene the provisions of the Law, mainly for the non-payment of dues and lack of maintenance.

2. *Social challenges*

The Republic of Moldova has significantly reduced both its absolute and extreme poverty levels. In 2006, about 1 million people (30.2%) were living in absolute poverty according to the international poverty line and, in 2012, the figure was down to 12.7%. About 150,000 (4.5%) people were living in extreme poverty in 2006, down to 0.3% in 2013.³⁸ Poor homeowners find it challenging to cope with maintenance costs. Moreover, the condition of the housing stock and utilities linked to it are deteriorated, which increases the inefficiency of their maintenance. The rehabilitation of housing and utilities are unaffordable for many households. Without external support, it would be impossible for these families to invest. Households in absolute poverty cut their expenditure on heating, thus decreasing their quality of life.

However, poverty is not the only reason for lack of maintenance. Unit owners are not ready to pay maintenance fees. Lack of transparency and trust in the management of finances, low quality of the services offered by municipal companies, and the lack of tradition and knowledge on property management also seriously hamper this process.

Establishing a sustainable housing management system is a long-term objective. Developing related skills requires time, the engagement of the educational system, and the expansion of training courses.

³⁷ Ibid, page 8.

³⁸ UNDP, Republic of Moldova, "Eradicate extreme hunger and poverty". Available from <http://www.md.undp.org/content/moldova/en/home/mdgoverview/overview/mdg1.html> (accessed 29 July 2015).

Stimulating housing management through specialized management companies will contribute to supporting small businesses. However, the market will only start to provide these services when the demand for them has increased. Rules to regulate the performance of management enterprises and requirements for their professional profile and vocational training need to be developed.

D. ADDRESSING THE PROBLEM OF DETERIORATED HOUSING STOCK

Improvement of privately owned housing stock is the obligation of the homeowners. However, experience from other countries with different economic and social backgrounds has shown that the process is usually initiated by the public sector. This means that there is a public interest in renovating the private housing stock. This is related to social, economic, environmental and political factors:

1. Social factors

Many households are asset rich and cash poor. This is mainly due to the privatization of the public housing stock. Households are not able to pay for the maintenance and renovation of their houses. Moreover, the houses privatized in the early 1990s are in bad shape, due to poor quality of construction, poor maintenance and lack of capital repairs. In the last 20 years, there has also been a lack of regular maintenance and capital repairs and, therefore, the quality of these houses has deteriorated. Regular maintenance will not bring any added value to these houses if they are not first brought up to acceptable standards. It is important to note that low quality of living affects physical and mental health, and also learning capabilities and work performance.

2. Economic factors

There are economic losses because of the devaluation of the assets, and opportunity losses by not investing in renovation. Property tax is based on the value of the property and, therefore, if houses are improved, the value of the property will rise and the tax gains will be higher. Stimulating renovation programmes will create new job opportunities and, if combined with the introduction of energy-efficiency measures and the stimulation of new technologies, will help the production sector. Housing renovation programmes and wider urban regeneration make cities more attractive and competitive.

3. Environmental factors

Deteriorated housing stock has an environmental impact due to high energy consumption.

Some of the major problems of privatized housing stock are:

- Leaking roofs
- Energy-inefficient windows and lack of adequate insulation of roofs and walls
- The need for general repair of common spaces

Based on information from the Housing Department of the MRDC, as of 2008, some 589 buildings needed renovation of the roofs, and approximately 1,000 housing blocks needed rehabilitation.

Three scenarios for addressing the deteriorated housing stock can be summarized as follows:

1. Keeping the status quo

This approach does not require taking action. It presupposes that neither homeowners nor the State will invest in the refurbishment and maintenance of the housing stock. This stock will lose value, and developers may become interested in redeveloping the area and demolishing the houses. The process involves the temporary relocation of families, but can cause gentrification if policies are not put in place to keep a good mix of different groups. The process could take time or it could be spontaneous, if local government is unprepared and does not guide the process. However, only houses located in attractive areas, which have good access to infrastructure, may attract the attention and interest of the private sector. Moreover, high-density housing blocks will not be attractive due to the high number of homeowners to be relocated and difficulties in getting agreement.

2. Demand-driven approach

This is based on the interest of homeowners in housing improvements, and is a bottom-up approach. Financial schemes have been developed and are being used to support the demand of homeowners for housing improvements. A good example of this type of project is the MoREEFF.

3. Urban regeneration

Urban regeneration programmes are initiated by the public sector, usually by municipalities, and are a top-down approach. They are complex programmes and not limited to housing improvements. They address run-down neighbourhoods and problematic communities. The aim is the social, economic and environmental rehabilitation of urban areas, through the creation of job opportunities, and the investment in infrastructure, public spaces, social services and housing renovation. In urban regeneration projects it is crucial to keep a balanced mix of different income groups. The key to the success of these projects is the ability to establish multi-partner partnerships and to engage the community in the whole process.

E. BUDGET ALLOCATION FOR HOUSING REPAIR AND MAINTENANCE

The total budget of the Chisinau municipal council in 2013, as approved by Decision No. 3/4 of 02 April 2013, was MDL 2,695,113,000 (approx. USD 211 million), and 1.31% of this went on housing repair and maintenance. This amount is not enough to bring the deteriorated housing stock up to standard (including energy-efficiency standards) but it can be effective if its use is diversified. Moreover, analysis of budget revenue sources reveals that 66% comes from the revenues of Chisinau municipality itself. With the process of decentralization, it is expected that revenues of municipalities will rise, that they will levy more taxes, and that they will have more discretion in establishing tax levels and deciding on their use. It is also important to note the level of property tax. Regarding the budget proposal for 2013, five taxes relate to property: tax on agricultural land; tax on land for purposes other than agriculture; real estate tax paid by juridical persons; real estate tax for commercial and industrial premises; and real estate tax paid by individuals based on the estimated real estate market value (for more information on the tax on real estate, please refer to Part IV). All these taxes amount to only 4% of the local revenues. No particular model indicates the best ratio of real estate taxes to the total revenue of local government. However, a higher real estate tax can have a positive impact on local revenue, which can then be used for housing improvements and/or social housing programmes. It can also improve housing consumption and the diversification of housing tenure.

F. PUBLIC UTILITIES

1. Water supply and sanitation

Cold fresh water is supplied to 100% of urban settlements and 40% of rural ones. Water sanitation supply figures are low - 70% of urban settlements and 10% of rural ones.³⁹ In 2013, 839 million m³ of water was collected from natural wells. Losses during transportation accounted for 57 million m³ (6.8%)⁴⁰.

The Republic of Moldova has a piped water system of 9,324.2 km, 49% of which serves urban areas. 74.9 million m³ of water was supplied in 2013. 70% of it was provided to the population, which corresponds to 14.7 m³/p/y or 40 l/p/d. This was an increase of 10% compared to 2005. However, it is still low compared to the rates of EU Member States.

In Chisinau, water supply coverage is 100% and sanitation coverage ranges from 54% in individual houses in suburbs to complete coverage in the city. Chisinau has a separate household wastewater and street rainwater collection and treatment system. Table 7 presents basic statistical data on the sewerage infrastructures in Chisinau and Balti.

Table 7. Sewerage systems in the main cities of the Republic of Moldova

| City | Length of sewers, km | Capacity of water treatment plant, % in use | Average energy (direct expenditure only, i.e., electricity) spent to pump and treat 1m ³ of water, kWh/m ³ | Population served |
|------------------------------|----------------------|---|--|-------------------|
| Chisinau (coverage 70-92.6%) | 1,023 | 32.3 | 0.4 | 800,600 |
| Balti (coverage 50%) | 150 | 32.4 | 0.5 | 70,000 |

Source: "Moldova Apa-Canal" Association website: <http://www.amac.md/>.

Increased urbanization, population growth and living standards are major drivers in increasing urban water use, and the Republic of Moldova will face this challenge in the near future. Given the limited water resources, it is of utmost importance to ensure the efficiency of the water system. Currently, water meters are installed for each building, and this system should be enhanced to make possible the accounting of water consumption for each household.

Another concern is water leakage due to old water pipes. For example, in the Balti municipality water losses amount to as much as 40%. The Government has invested in extending the water pipelines, but rehabilitation of the existing network should also be prioritized.

According to Apa Canal Chisinau (ACC), there is an average discrepancy of 16% between meter readings of the cold water supply to a multi-apartment building and the total of all

³⁹ According to an interview at the Ministry of Environment during the research mission of independent international experts in August 2013 for the development of the Moldova CP.

⁴⁰ NBS, Water Consumption (use) (2006-2013), StatBank. Available from <http://www.statistica.md/category.php?l=en&idc=99> (accessed 15 March 2015).

readings of individual apartments⁴¹. It estimates losses in its networks due to leakages (prior to entering buildings) to be about 37%, which is quite high compared to 5-10% for developed countries. However, the altitude difference in the Chisinau water supply system, which exceeds 200 metres, makes it more challenging to limit leaks.

Unaccounted-for water (UFW) results from physical (leakages) and commercial losses (e.g., discrepancies in meter readings). Table 8 shows a comparison of UFW for some cities in the Republic of Moldova with selected cities in other countries. The concept of UFW helps to better understand the typology of water network losses, which could help in developing a strategy for more efficient utility systems. UFW represents the difference between “net production” (the volume of water delivered into a network) and “consumption” (the volume of water that can be accounted for by legitimate consumption, whether metered or not).⁴²

Table 8. Unaccounted-for water in selected cities in the Republic of Moldova in comparison with cities of other countries

| Country/City/Year | UFW (%) | | |
|--|-----------------|-------------------|-------|
| | Physical losses | Commercial losses | Total |
| Balti | | | 27.7 |
| Chisinau ^a | 37 | 16 | 53 |
| Criuleni | | | 50 |
| Tokyo, Japan ^b | | | 3.3 |
| Singapore, 1989 ^c | 4 | 7 | 11 |
| Barcelona, Spain, 1988 ^c | 11 | 12 | 23 |
| Philadelphia, Pennsylvania (Philadelphia Water Department, 2010 - highest in the USA) ^d | | | 31 |
| San Jose, Costa Rica, 1990 ^c | 21 | 25 | 46 |

Sources: “Moldova Apa-Canal” Association; NBS.

a - ACC

b - Bureau of Waterworks, Tokyo Metropolitan Government, 2009. Retrieved from https://www.waterprofessionals.metro.tokyo.jp/pdf/efficient_usage_of_water_by_leakage_prevention.pdf

c - Yepes, Guillermo; Dianderas, Augusta. 1996. Water and wastewater utilities: indicators, 2nd edition. Washington, D.C.: World Bank. Available from <http://documents.worldbank.org/curated/en/1996/05/696572/water-wastewater-utilities-indicators-2nd-edition>

d - Control and Mitigation of Drinking Water Losses in Distribution Systems, U.S. Environmental Protection Agency. November 2010.

⁴¹ Ibid.

⁴² SWITCH, Loughborough University, “Managing Water for the City of the Future”. Available from <http://www.switchurbanwater.eu/cities/index.php>. The UNESCO-IHE presentation on SWITCH was a major research partnership funded by the European Commission.

Table 9. Guidelines for interpreting water loss within distribution systems

| UFW, % | Recommended action (UNESCO-IHE*) |
|--------|-------------------------------------|
| < 10 | Acceptable, monitoring and control |
| 10-25 | Intermediate, could be reduced |
| > 25 | Matter of concern, reduction needed |

Source: UNESCO-IHE presentation on SWITCH available at <http://www.switchurbanwater.eu/cities/index.php>. SWITCH is a European Commission-funded major research partnership on urban water issues.

*UNESCO-IHE is the largest international postgraduate water education facility in the world and is based in Delft, the Netherlands.

Based on statistics for UFW presented in Table 7, utility companies in the Republic of Moldova fall into the least acceptable category according to the UNESCO-IHE guidelines for interpreting water loss (Table 9). This suggests that efficiency in water distribution should be a policy priority. Currently, Tokyo has one of the most efficient water systems in the world. It was successful in reducing the leakage rate from 20% in 1956 to 3.6% in 2006 (population served: almost 13 million; total length of distribution pipes: 26,219 km). Reduction in leakages not only reduces monetary loss; it also saves a significant amount of energy. Table 10 presents some statistical data on the potable water supply infrastructures in Chisinau and Balti.

Table 10. Cold potable water infrastructures in Chisinau and Balti

| City | UFW, % | Length of distribution pipes, km | Average water consumption, litres per person per day | Average energy spent to process and deliver 1m ³ of water, kWh/m ³ |
|----------|--------|----------------------------------|--|--|
| Chisinau | 53.0 | 1,816 | 131-166 | 0.8 |
| Balti | 27.7 | 261 | 71 | 1 |

Sources: NBS; “Moldova Apa-Canal” Association website: <http://www.amac.md/>.

The utility infrastructure for cold water supply has not been upgraded for many decades now; its operational efficiency is low. It is estimated that modernizing the pumping equipment in water supply and sanitation networks can reduce electricity consumption by 25-30%⁴³. Many of these projects are supported by international donors. For instance, the EBRD is considering financing the construction of a 70 km-long 1.2 m-diameter water main in the city of Balti, which would increase coverage in nearby villages and connect 100,000 more households. The German Agency for International Cooperation (GIZ) proposed investments in the water supply in the Leova District, where only the district centre of the town (Leova), out of 2 towns and 37 villages, benefits from quality water and sanitation services.⁴⁴ However, challenges remain. For instance, the GIZ project plans to connect 14,700 people in

⁴³ According to an interview at the Ministry of Environment during the research mission of independent international experts in August 2013 for the development of the Moldova CP.

⁴⁴ According to an interview at the GIZ office during the research mission of independent international experts in August 2013 for the development of the Moldova CP.

the first stage, which is due to be completed by 2030, while the population of the district is projected to reach 61,060 by that time. Another project in the city of Orhei will provide a modern sewerage treatment plant for 30,000 people; the plant will use constructed wetlands technology, and will be operated by five staff members. The project will cost about EUR 5 million.⁴⁵

The local council sets water and sanitation tariffs (Table 11). They are very low and do not cover the cost of service provision. They differ between municipalities and changes to them are politically sensitive.

Table 11. Water tariffs in selected cities of the Republic of Moldova

| Municipality | Water tariff | Municipality | Water tariff |
|---------------------|------------------------------------|---------------------|------------------------------------|
| Chisinau | 9.19 Lei/m ³ (USD 0.72) | Soldanesti | 5.4 Lei/m ³ (USD 0.42) |
| Balti | 15 Lei/m ³ (USD 1.18) | Hincesti | 18.4 Lei/m ³ (USD 1.45) |
| Ungheni | 5.84 Lei/m ³ (USD 0.46) | Calarasi | 16.5 Lei/m ³ (USD 1.30) |

Source: “Moldova Apa-Canal” Association website: <http://www.amac.md/>.

According to the Law on Drinking Water, No. 272-XIV of 10 February 1999, water is part of the public domain. Water supply systems are owned by the State and local authorities (municipal property) or by businesses and individuals. The main systems are centralized and state-owned.

The operation of centralized and decentralized water supply is carried out by specialized companies, which are bound by strict standards, rules and sanitary norms.

In Chisinau, the ACC operates the system. All shares in this company are owned by the Chisinau Municipal Council.

Some of the constraints facing the water supply and sewerage systems are:

- a) Low coverage of water services and sanitation in areas of the country
- b) The existing legal framework does not ensure sustainable development in the field of water supply and sanitation
- c) Poor spending on water supply and sewerage systems
- d) Outdated and inefficient infrastructure (leakages)
- e) Lack of specialists
- f) Approval of tariffs is politically sensitive
- g) The inability of enterprises to cover the costs of production
- h) Low quality in the provision of water and sewerage to customers
- i) The high share of non-invoiced water
- j) The problem of the difference in water consumption between the data from common meters and that from apartment meters.

A draft law on the public service of water supply and sewerage is being prepared. It was developed by the Ministry of Environment and establishes the legal framework for the creation, organization, management, regulation and monitoring of the operation of public water supply, industrial and domestic sewage, and industrial wastewater in terms of accessibility, availability, reliability, continuity, competitiveness, transparency, and

⁴⁵ According to an interview at the Ministry of Environment during the research mission of independent international experts in August 2013 for the development of the Moldova CP.

compliance with quality and environmental safety standards to ensure the effective functioning of public water and sewers.

2. Heating and hot water supply

Heating for the majority of cities and towns is centralized (district heating system), as the infrastructure was inherited from Soviet times. Hot water is heated at a power plant and is distributed to users via a network of conduits. Hot water for heating is usually separated from the hot water communal supply. Balti's mayor estimates that heating and the hot water utility networks for 130 multi-apartment houses need replacement.

The centralized network of housing heating in the Chisinau municipality is powered by two electric heating plants "CET-1" and "CET-2", which have been privatized and are now joint stock companies, as well as by three thermal stations which belong to the network service company "Termocom". Termocom is a joint stock company under the town and municipal councils of Chisinau. The company aims to produce, supply and distribute heat and hot water to consumers, municipal housing organizations, State institutions, budgetary organizations, socio-cultural, private and State economic agents, etc.⁴⁶ Its network also includes 19 suburban thermal stations, and encompasses:

- 331 km of dual pipes for heating agent (hot water) circulation
- 188.6 km of pipes carrying hot water for domestic consumption
- 17 pumping stations
- 365 units of central thermal points
- 301 units of individual thermal points
- Over 3,240 pumping units, and
- 824 control units.⁴⁷

Heating supply companies face increasing technical and structural challenges, such as an outdated and aging infrastructure and a poor system for collecting fees. High energy costs and low efficiency result in high prices for private consumers, many of whom prefer to opt out of district heating, and heat their apartments by electricity or gas. This results in revenue loss for heat providers but no reduction of actual consumption, since heating systems in multi-apartment houses require roughly the same amount of energy due to the heat circulation arrangement via pipe networks and heat migration between apartments. Eventually, heating becomes even more expensive for the consumers who decided not to opt out.

Termocom has been implementing a decentralization strategy, which involves using individual thermal points instead of providing heat via a long network (production of heat closer to the consumer). These points reduce heating expenses by at least 5-10%, and integration with the internal heat supply system allows for over 30% of additional savings. Using this new system, a consumer is able to regulate heat consumption according to his needs, and even connect or disconnect heating entirely in individual apartments. For Termocom, the introduction of individual thermal points will allow the elimination of the centralized system and the reduction of 188.6 km of district heating networks, which will increase the efficiency of the whole system, according to projections. The practice of consumers opting out of district heating is not unique to the Republic of Moldova; a number of former Soviet republics reported it as well⁴⁸. In Dushanbe, the capital of Tajikistan, almost

⁴⁶ Termocom, "About JSC "Termocom"". Available from http://termocom.md/en/?page_id=2

⁴⁷ Ibid.

⁴⁸ *United Nations Economic Commission for Europe (UNECE) Country Profiles on the Housing Sector: Tajikistan* (UN publication ECE/HBP/163). Available from <http://www.unece.org/index.php?id=27165>

80% of residents in multi-family houses have dismantled radiators and hot water pipes, which resulted in electricity overconsumption and outages during wintertime⁴⁹. The situation in the Republic of Moldova is much more stable; only 15% of consumers have opted out from the heating supply⁵⁰. However, the technical efficiency of district heating is a major concern, as well as the efficiency in managing it.

Termocom was successful in upgrading 14 of its 19 thermal power plants located in the suburbs of Chisinau between 2003 and 2011. These power plants produce thermal energy from coal, oil or natural gas. The upgrading programme allowed for the installation of gas boilers and more efficient machines with a total installed capacity of 25.6 megawatts. Currently 10 of the power plants work in automatic mode, allowing for the optimization of the number of staff and the reduction of production costs. According to Termocom, there is an average discrepancy of 36% (28% according to ACC) in meter readings between hot water supply in a multi-apartment building and the sum of the readings of individual apartments⁵¹. While 15% of consumers opted out of the heating supply during the last 10 years, energy consumption by Termocom has fallen by just 5%, which suggests a 10% loss in efficiency. Termocom estimates losses of energy in its networks (prior to entering buildings) to be 21%, of which 2% are due to leakages and 98% due to insulation. Modernization of the main networks and of heat distribution has also been one of the major challenges for the company. This has been carried out by the replacement of existing old transmission and distribution pipes with pre-insulated pipes; the replacement of the existing compensators and bellows; the mounting of ball valves; and the installation of monitoring systems. It targets heat losses due to leakages of the heating agent and poor pipe insulation.

3. Municipal Solid Waste (MSW) management

MSW appears to be a major problem for almost all settlements in the Republic of Moldova, including the capital, Chisinau. There, the MSW management system is linked to waste collection; 1.2 million m³ of MSW is collected per year, of which 75% is from households and 25% from businesses. The waste is transported by trucks to “a temporary storage site” because the 21-hectare landfill is already way over its capacity. There is no waste sorting, recycling, or separate collection of hazardous waste.

MSW is collected by a special enterprise, and the service is paid according to the following fixed norms: Chisinau urban: 1.3 kg per person per day; Chisinau rural: 0.25 kg per person per day; and Balti urban: 0.8 kg per person per day. There is a need to update these norms and to conduct a study on the actual amount of waste that is generated and on its composition.

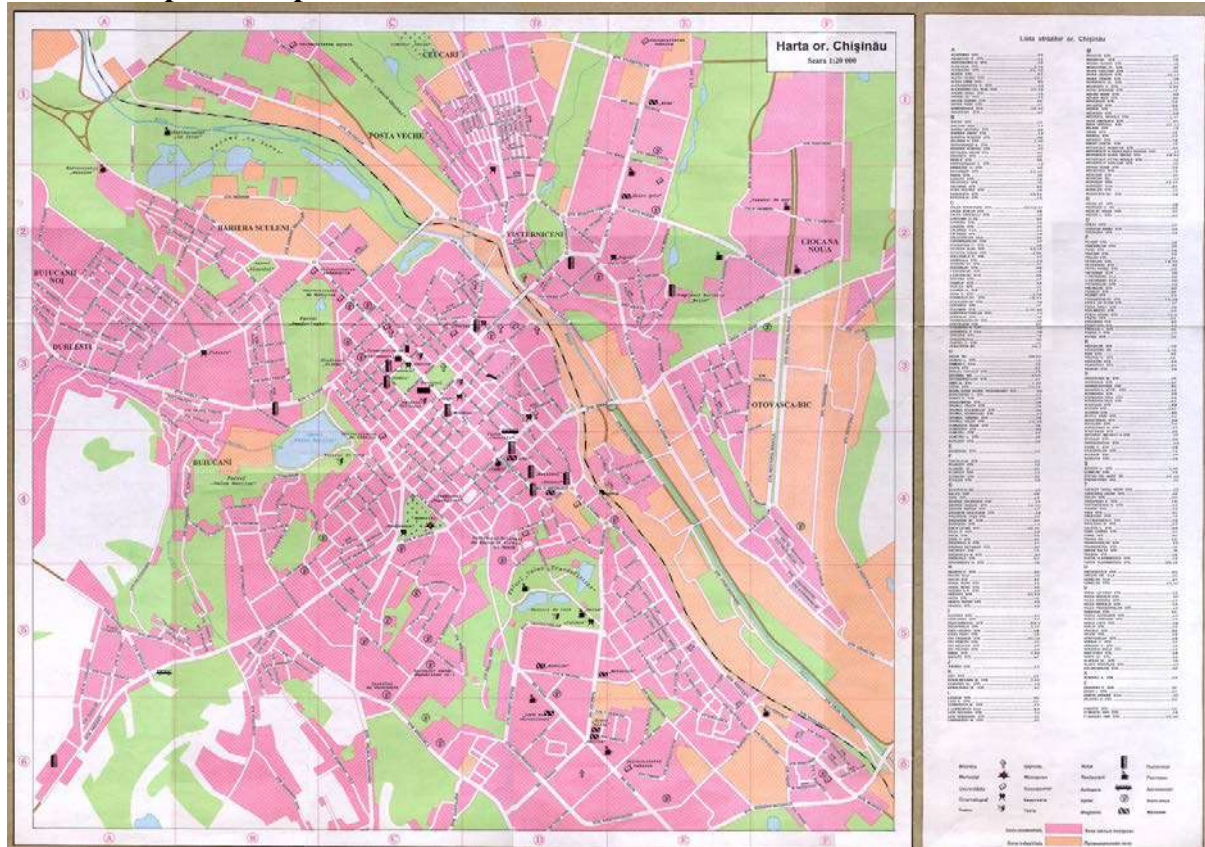
The legal provisions for MSW management are rather weak; there are no mandatory provisions for MSW management at the LPA level.

⁴⁹ Ibid.

⁵⁰ According to an interview at Termocom during the research mission of independent international experts in August 2013 for the development of the Moldova CP.

⁵¹ Ibid.

Picture 2. Spatial map of Chisinau



Chapter 2 Policy and financial framework for housing

A. POLICY FRAMEWORK FOR HOUSING

1. Major housing policy reforms

The Law on Property of 22 January 1991 established the framework for private property, including private ownership of land, and has created a significant impact on the private housing market. After its adoption, buyers started to invest their savings in real estate, resulting in a significant increase in real sales figures.

The transformation process from free housing to market-priced housing was further promoted by the Law on Housing Stock Privatization (Law No. 1324-XII of 10 March 1993). Following this Law, a privatization programme began, which privatized 80% of all housing units⁵² in that same year. The private home ownership rate stood at 98% by 2012. Dwellings in unsatisfactory condition remained as public property, as well as dormitories not eligible for privatization.

Table 12. Privatized dwellings, 1995-2002

| | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Total (000) | 90.0 | 25.8 | 14.1 | 12.7 | 10.6 | 8.4 | 7.4 | 6.6 |
| Cumulative total (000) | 182.0 | 207.8 | 221.9 | 234.6 | 245.2 | 253.6 | 261.0 | 267.6 |
| Privatized (% of total): | | | | | | | | |
| - Free of charge | 58.6 | 14.7 | 6.9 | 5.2 | 3.8 | 3.3 | 3.0 | 2.5 |
| - For a partial payment | 16.2 | 4.6 | 2.3 | 2.6 | 2.1 | 2.4 | 1.3 | 1.3 |
| - Full payment | 15.2 | 6.5 | 4.9 | 4.9 | 4.7 | 2.7 | 3.1 | 2.8 |

Source: Statistical Yearbook of the Republic of Moldova 2003, p.181.

The privatization process in the Republic of Moldova has its consequences, affecting both the new owners and the needy households who can afford only public housing.

For the new owners, the responsibility for the maintenance and repair of the property now lies with them. However, among the owners are vulnerable families who cannot even afford to pay the increasing cost of utilities, much less bear the responsibility for the maintenance and repair of their property.

The cash revenue from privatization was 20 times lower than the estimated value of the housing stock in 1998 and it generated only 6 million Lei (approx. USD 1.5 million at the 1994 exchange rate)⁵³. This was a lost opportunity to generate funds for housing the poor and other vulnerable groups.

At first, the income from privatization was used for the maintenance of the common spaces of the buildings, which were managed by municipal enterprises. As these areas were not included in the privatization of the apartments, they are considered as belonging to the

⁵² United States Department of State, "U.S. Department of State Background Note: Moldova", October 2007. Available from <http://www.infoplease.com/country/profiles/moldova.html#ixzz2j8BzD4D5> (accessed 13 August 2015).

⁵³ Vincent Gruis, Sasha Tsenkova, and Nico Nieboer, *Management of Privatised Social Housing: International Policies and Practice*. (Chichester, United Kingdom, Wiley-Blackwell Publishing, 2009) p.178. Available from <https://leseproub.buch.de/images-adb/80/09/80097f51-d4d2-4c09-8c18-5b1e207d039a.pdf>

municipalities. Therefore, maintenance expenses for these spaces are covered by their budgets. Privatization led to a massive depletion of assets below market value.

According to law, where homeowners register a homeowners' association, the common space becomes their property, and its maintenance their responsibility. However, homeowners are reluctant to fund an association because of unsatisfactory enforcement of the law. When established, homeowners' associations often remain weak and an unreliable partner for banks.

To address all these gaps, the existing Housing Code of 1983 will be replaced by a new housing law approved by Government Decision No. 656 of 29 August 2013 (see the discussion on the Law on Housing Condominiums in Part I).

The basic principles of the draft law are:

- Constitutional guarantees on housing
- Diversity and equality of all forms of housing ownership
- The right of citizens to choose a convenient way to meet the needs related to housing and dispose of it freely and in accordance with the legislation in force
- A distinct separation of the functions of central Government bodies, local government, businesses and individuals in the housing sector.

Compared with the Housing Code of 1983, the new law includes:

- Competences of Government and local government bodies in the field of housing in accordance with the Law on Local Public Administration, including the checking of the provision of housing services and utilities
- Clear stipulations related to public housing funds
- A special chapter on social housing
- Two chapters pertaining to the administration and payment of housing and utilities and the reconstruction of uninhabitable housing and residential premises
- A chapter on the use of housing under lease, giving the rights and obligations of the lessee and the lessor.

The draft law provides for the development and approval of new documents by the Government, such as:

- Rules regarding the use, operation and management of all types of housing
- Regulations on proving social housing need, how to allocate it, and rules for its use
- Regulations on determining persons in need of housing in hostels, and the use and management of the latter
- Minimum requirements for housing
- Housing standards, etc.

According to the new housing law, homeowners' associations are mandatory for buildings with two apartments or more. This is only valid for new constructions and does not cover the existing housing stock.

It will also initiate the amendment of some existing laws (Law on Housing Privatization, Contravention Code, standards and norms, social housing regulations, etc.). However, the renovation and maintenance of the existing housing stock remains an issue and a key strategic goal. Together with energy saving, renovation of the existing housing stock is one of the seven priorities of the country.

2. Target groups of specific housing policies

The target groups of specific housing policies are:

- Low income households, to reduce the risk of poverty and to avoid social exclusion and multiple deprivation
- Vulnerable and disadvantaged families who are currently unable to access satisfactory housing conditions
- Young families with children, preferably graduates living in provincial cities, to ensure that they will reside there permanently. (This should also help retain and even attract people to provincial cities where the population is declining).

Targeted populations include teachers, technicians, nurses, etc., whose disposable income does not allow them to enter the property market to rent or to acquire their own dwelling. Indirectly, job creation in the construction sector is being targeted.

Other target groups:

- Citizens handicapped by war and those who participated in the Second World War and their families (Law No. 121-XV of 03 May 2001)
- Citizens who suffered from the Chernobyl disaster (Law No. 909-XII of 30 January 1992)
- Veterans of the Nistru conflict in 1992 and people who lost their homes because of it.

It can be concluded that the housing policy addresses a wide range of target groups. However, there is no data on the total applications for housing from these groups or on the number of beneficiaries of housing programmes. Therefore, it is difficult to estimate the efficiency and effectiveness of policies on such groups. Countries with economies in transition prioritize the restructuring of the economy, the privatization of State properties, and the reduction of public spending, mainstreaming them into areas of public interest. Housing does not usually fall under these priorities. It can be assumed that the housing policy of the Republic of Moldova may not be able to address all the target groups adequately. Some priorities should be established within the existing groups.

Picture 3. New social housing in Chisinau



Photo by: D. Andoni

3. Current housing policies, programmes and projects

The Republic of Moldova has no comprehensive housing strategy covering the whole housing cluster. Government policies are driven by problem areas mainly generated by the transition process from a command-driven economy to a market-orientated one.

Some key factors that influence the performance of the housing sector are:

- The privatization of dwellings combined with the resulting housing maintenance problems
- The dramatic increase of energy prices together with high energy inefficiency of buildings
- The low income of people and the high poverty rate together with high inflation and unemployment. People cannot even finance their daily subsistence, let alone operating costs of flats, especially in wintertime.

In 2011, the Republic of Moldova's budget included 18 different allowances, including grants, indemnities and aids. 95% of these are paid through the State budget and only a small part through the LPA budget.

With the following programmes, the Government tries to address problem areas:

a. Social Housing Project

A Social Housing Project was proposed by the MRDC and supported by the Council of Europe Development Bank (CEB), to complete 15 unfinished construction projects in 12 local authorities. These projects consist of building 700 apartments in a 40,000 m² area that will accommodate 2,500 persons from poor and vulnerable families, who do not have access to satisfactory housing conditions. The average size of an apartment is 57 m². The schedule of works is from 2012 to 2018.

The project will reduce energy consumption for heating from the current level of 400 kWh/m²/year to 102 kWh/m²/year.

According to the Framework Loan Agreement signed in June 2012 between the CEB and the Republic of Moldova, the objective of the project is "to improve and increase the stock of rental housing to benefit families from socially-vulnerable segments of the population of Moldova".

The total amount of the programme is EUR 20.4 million, of which EUR 13.4 million (65%) is provided by the CEB and EUR 7 million (35%) by local authorities. Accepted contributions from local authorities are in-kind and investments, and include:

- Value of unfinished constructions
- Value of land
- Value of technical project.

b. Energy-efficiency policies and programmes

The National Development Strategy "Moldova 2020" states that reducing energy consumption by increasing energy efficiency and using renewable energy sources is one of the seven solutions for economic growth and poverty reduction. According to the strategic vision on energy efficiency, the Government aims to create, by 2020, a competitive and efficient energy sector and provide affordable quality energy resources.

c. The Energy-Efficiency Fund

The national Energy-Efficiency Fund (hereinafter, the Fund) was founded and financed by the CEB through Government Decision No. 401 of 12 June 2012. The main objective of the Fund is to attract and manage financial resources in order to finance and implement projects in the field of energy efficiency and harness renewable energy sources. The Fund will achieve its objectives through the promotion and financing of projects that are economically feasible and technically and environmentally sustainable, ensuring energy and reducing energy intensity in the economy and mitigating emissions of pollutant or greenhouse gases. In 2013, the Fund launched its first call for project proposals in energy efficiency (EE) and use of renewable energy sources (RES). The Fund has allocated 20 million Lei (USD 1,574,803), which is the total maximum amount available for financing eligible EE and RES projects⁵⁴. The establishment of the Fund is motivated by the high energy prices in the world market.

d. The Moldovan Residential Energy-Efficiency Financing Facility (MoREEFF)

MoREEFF⁵⁵ is a financial instrument set up by the EBRD in cooperation with Moldovan banks with the aim of assisting Moldovan households upgrade their houses and/or flats.

e. Housing allowances for families in need

Until July 2012 the Law on Social Protection of Population Groups (Law No. 933-XIV of 14 April 2000) was valid. Within this programme, allowances were provided to needy people to pay for utilities. Approximately 58,000 households were subsidized by municipalities to the tune of 200 Lei/month/household (USD 15.7) in 2012/2013, and were subsidized in the winter of 2013/2014 to the tune of 250 Lei/family (USD 19.7), which is almost 50% of the income of the poorest.

f. Law on Social Assistance, No. 133-XVI of 13 June 2008

Social aid is given to provide a minimum guaranteed monthly income to disadvantaged families. It was designed as a basic programme of the Government to support poor people and to eradicate poverty. At present, it has two basic components - social aid (730 Lei/month (USD 57.5)) and aid for the cold season (200 Lei/month (USD 15.7) paid from November to March). Granting of benefits is based on financial eligibility. The amount of the benefit is equivalent to the difference between the minimum guaranteed monthly income and the actual monthly income of a family. The selection of beneficiaries is based on the socio-economic situation of the family, welfare use criteria and eligibility conditions for people of working age.

g. Tax policy programmes

i. Direct subsidies

- No direct subsidies are paid for housing construction or renovation purposes at the moment. In the past there were some interest rate subsidies for cooperatives.

ii. Indirect subsidies

- Projects of local authorities/municipalities are exempt from VAT. Until 2008 all construction activities were exempt from VAT.

⁵⁴ The Energy-Efficiency Fund of the Republic of Moldova, "Call for Project Proposals No. 2 in Energy Efficiency and use of Renewable Energy Sources". Available from <http://www.fee.md/index.php?pag=page&id=441&l=en> (accessed 11 August 2015).

⁵⁵ Details on this energy-efficiency programme is found in Chapter 1B, Part II of this study.

- No corporate tax for municipalities.

B. PRIMARY AND SECONDARY HOUSING REAL ESTATE MARKETS

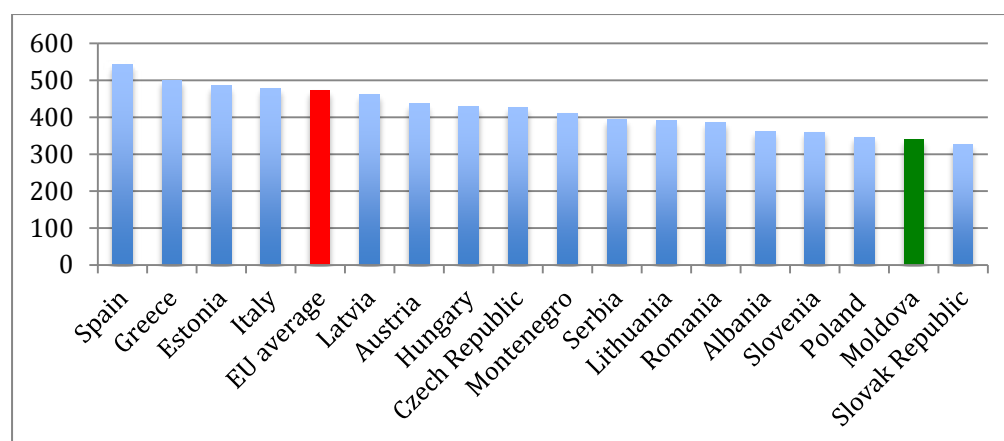
1. Availability of housing

According to the NBS, the country had a total of 79,860.3 thousand m² of housing at the beginning of 2012, which corresponds to 1,315.3 thousand dwellings. By the end of the year, the stock had increased by some 303 thousand m² (corresponding to 1,500 dwellings according to the NBS) reaching a total of 80,163.4 thousand m² (Table 2). 22% of the housing stock is located in Chisinau, which accommodates 23% of the country's population. The rest of the housing stock is equally distributed between 37 municipalities⁵⁶. The Moldovan population is still predominantly rural; consequently, the majority of the housing stock is located in the rural areas. Urban housing stock accounts for 39% of the total.

The ownership structure of dwellings is predominantly private, a legacy of the privatization process in the 1990s. At the national level, the private ownership rate has reached 97%, with 99% in rural areas and 92% in urban areas. The municipalities of Chisinau and Balti have the lowest level of private housing ownership at 89 and 88%, respectively. This indicates a trend in the diversification of tenure typology, and is a sign of the mobility of the population towards the most important cities.

One of the indicators used to measure the availability of housing stock is the number of dwellings per 1,000 inhabitants. At the moment, the Republic of Moldova has 386 flats/1,000 inhabitants. Assuming that the number of households will further increase because of the growing number of single households, there is a need to add a minimum of 100 flats/1,000 inhabitants more to the existing housing stock. This figure suggests a low housing density rate when compared with the EU average of 450 and means that, in the next 20 years, there will be a need for 350,000 more flats. Figure 7 compares the data on housing availability for some EU and non-EU Member States.

Figure 7. Housing per 1,000 inhabitants in some EU and non-EU Member States



Source: *Housing Statistics in the European Union 2010*. Ed. Kees Dol and Marietta Haffner. The Hague: Ministry of the Interior and Kingdom Relations, 2010.

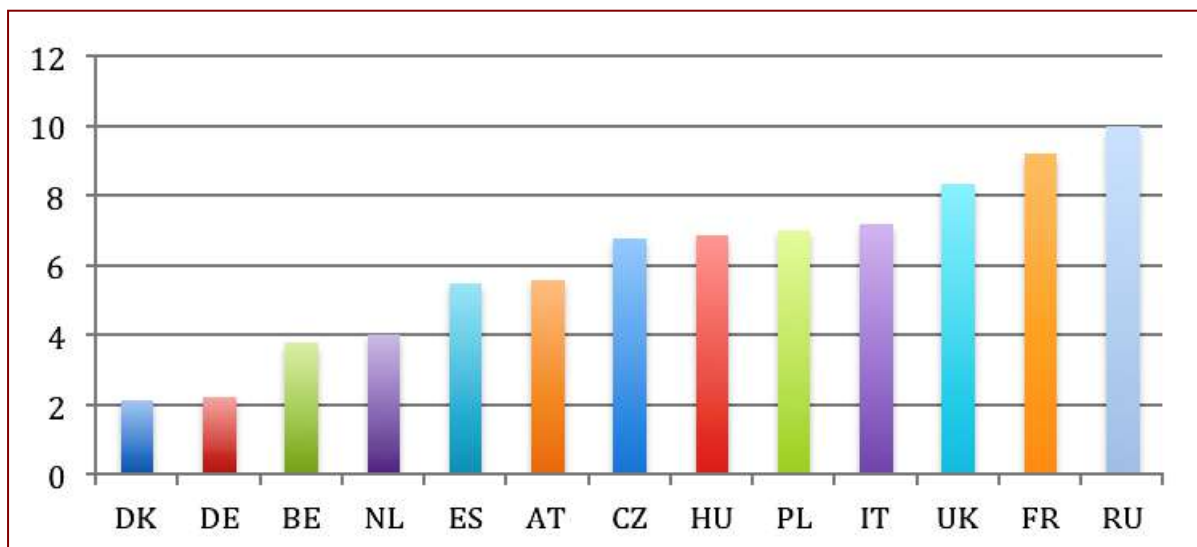
⁵⁶ A municipality includes a city and villages.

2. Housing needs, housing demand and affordability

Data from the NBS suggest that, on average, a household in the Republic of Moldova in 2013 spent 45% of its income on food and beverages, and 19% on housing maintenance. The average housing cost for the overall EU-27 population in 2010 amounted to an estimated 22.5% of disposable income. Data from the Household Budget Survey of the Republic of Moldova shows a better housing affordability rate than the EU average. However, for EU Member States, the data for expenditure on housing include mortgage payments and other utility costs. In the case of the Republic of Moldova, the number of households with mortgage debt is very low, which means that the category of “housing consumption” includes expenditure for utilities and housing maintenance. If the cost of mortgage debt servicing was included, the ability to afford the housing costs would be seriously threatened. Moreover, the expenditure for maintenance as established by local governments is MDL 1/m² or MDL 70 (USD 3.5) for an apartment, which represents 1.3% of the average household income.

In 1996, the methodology used by the United Nations Human Settlements Programme (UN-Habitat) to calculate housing market affordability measured the ratio between the median price of apartments in the free market and the median yearly family income. According to UN-Habitat, this ratio is regarded as the best measure of pressure on housing markets, and ratios of 3 to 5 are regarded as “normal” or satisfactory.⁵⁷ With a per m² cost of EUR 500–600, a 60 m² flat will cost EUR 36,000, which is equivalent to 10 years’ salary of the average Moldovan earner (monthly average income = EUR 300). This figure indicates a high unaffordability ratio in the housing market (Figure 8 compares housing affordability in some countries, with Denmark having the best ratio of 2 and Russia the worst).

Figure 8. Affordability* of own housing in selected countries



* Criterion: Number of annual gross salaries required to buy a standard-size new dwelling (70 m²).
Source: Deloitte (2013) Property Index: Overview of European Residential Markets, European housing 2012, 2nd edition, May 2013, pp.10-11.

Even buying a home with a mortgage is unaffordable for an average income family in the Republic of Moldova. A loan of EUR 36,000 with a term of 20 years at a 12% interest rate would mean a monthly burden of EUR 396/month, which is more than the monthly salary of an average earner. This clearly reflects the non-affordability of housing for the majority.

⁵⁷ *Global Urban Indicators Database*, version 2. (UN publication HS/637/01E). Available from http://www.cityindicators.org/Deliverables/Global%20Urban%20Indicators%20Data_12-4-2007-1028705.pdf

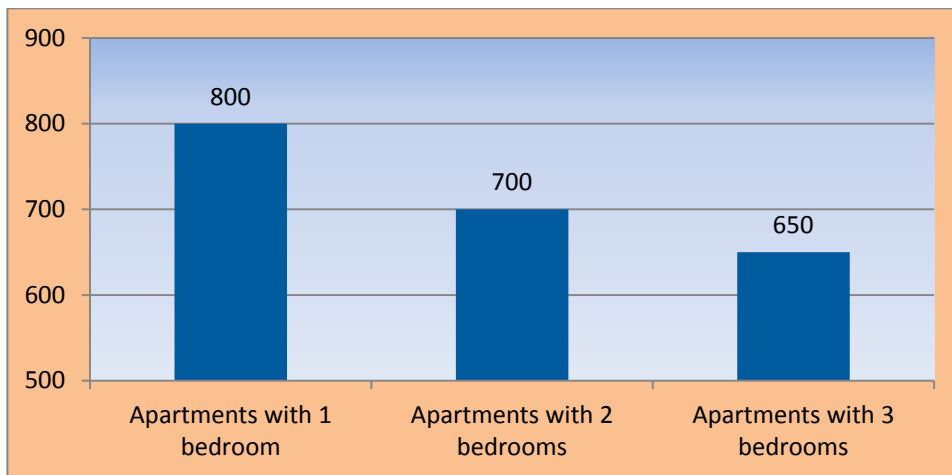
The rental market is also unaffordable for a Moldovan household. The project implementation unit (PIU) for social housing referred to a monthly rent level of approximately EUR 250-300 per apartment in Chisinau and EUR 100-150 in other regions. These figures suggest that rent is comparable to a mortgage instalment. Rent accounts for 60-80% of a renter's average income, which is unaffordable for most. The resumption of economic growth, the lowering of inflation, the recovery of real wages, and employment stability for the majority of the population must be the focus of Government policies to improve housing affordability.

3. Real estate market costs and prices

The housing market in the Republic of Moldova has fluctuated over the last 20 years, reflecting the socio-economic situation in the country as well as the global economic crisis. In early 2000, housing markets grew tremendously, due to a combination of increased demand and the inability of supply to keep up with demand. The prices of houses in the free market before 2008 doubled or tripled compared to 2003 prices, reaching an average of EUR 900 per m².⁵⁸

Towards the end of 2008, house prices started to decline, a pattern that continued in 2009. During 2009, prices fell by 16% on average, compared to 2008, reaching EUR 710 per m².⁵⁹ In 2010, the decline persisted, dropping from EUR 700 per m² at the beginning of the year to EUR 630 per m² at the end.

Figure 9. Average price per m² of housing, first quarter 2009, in Euro



Source: NIKA Imobil website, “Chisinau Real Estate Market: Overview for 2009”, available <http://nikaimobil.md/en/analitic.php?year=2009> (accessed on 19 June 2014).

The crisis of the real estate market led to a reduction of real estate enterprises. According to Lara Real Estate Agency (hereinafter, LARA), before 2008 around 60-90 real estate enterprises were in the market. In 2013, there were only 8 serious companies left. The real estate market experienced a price decrease of 20% from 2008 to 2013 and a reduction of transactions of 30% in units and 50% in volume. These have caused the decline of real estate companies.

⁵⁸ Global Property Guide, “Moldova’s property market at a standstill”, 24 January 2014. Available from <http://www.globalpropertyguide.com/Europe/Moldova> (accessed 10 March 2015).

⁵⁹ NIKA Imobil, “The dynamics of price changes in 2007-2012 (Value of 1m² total area), 2012. Available from <http://nikaimobil.md/en/analitic.php?year=2009> (accessed 10 March 2015).

The price of land is between EUR 70-80 per m². The price for 1 m² of apartment decreased from EUR 604 to EUR 583. The reason is the completion of semi-finished buildings supported by the CEB.

The selling prices of new and existing houses in Chisinau do not differ much. The range is between EUR 400 and 1,000/m² for primary housing and between EUR 500 and 800/m² for secondary housing.⁶⁰

The situation in the rental market is quite different. Rental costs range from EUR 120/monthly for a single room apartment in a multi-storey building to EUR 2,500 for an individual house. The highest rent is 20 times more expensive than the lowest one. This difference probably comes from the fact that individual houses are rented out to foreigners.

In the real estate sector there is no formal education for employees. Each company trains its employees on the job. No license or trade permit are necessary. Any real estate transaction between a seller and a buyer is only possible through a notary. The rates of notaries are criticized by the real estate sector, but they are very important for consumer protection.

Figure 10. Variation of market prices for a m² of the total area of an apartment, 2007-2013, in Euro



Source: NIKA Imobil website, “Chisinau Real Estate Market: Overview for 2009”, available <http://nikaimobil.md/en/analitic.php?year=2009> (accessed on 19 June 2014).

C. PRIVATE HOUSING FINANCE

This section addresses the challenges of private financing for housing, focusing on the banking system and mortgage financing.

Private housing finance in Moldova is bank-based. Currently, the Republic of Moldova has 14 licensed commercial banks.

The refinancing of all banks is deposit-based. A high percentage originates from remittances of emigrants. It is also supported by programmes of financial institutions like the World Bank, the European Investment Bank, the EBRD, the CEB, the International Financial Corporation, SIDA, etc. These sources of refinancing from international financial institutions are important to start housing finance reforms but it is necessary to ensure the continuity of the reform and the continued functioning of the financial sector even when these sources are gone.

The performance of the banking sector and the confidence of the population in it need to be

⁶⁰ Ibid., footnote 57.

improved, as only 18% of the population have bank accounts. The interest on deposits is tax-free for residents, which is a good incentive, and banks should promote it to attract clients. Non-residents pay 10% tax.

Table 13. Annual rates of new loans granted and new deposits attracted

| Moldova | The average rate on new loans granted in the banking system | | | | | | The average rate on new deposits attracted in the banking system | | | | | |
|-------------|---|----------------|-------------|---------------------|----------------|-------------|--|----------------|-------------|---------------------|----------------|-------------|
| | in national currency | | | in foreign currency | | | in national currency | | | in foreign currency | | |
| | Total | Including | | Total | Including | | Total | Including | | Total | Including | |
| | | Legal entities | Individuals | | Legal entities | Individuals | | Legal entities | Individuals | | Legal entities | Individuals |
| 2003 | 19.18 | 18.97 | 23.24 | 10.85 | 10.85 | 11.03 | 12.68 | 10.38 | 13.57 | 3.13 | 2.05 | 3.53 |
| 2004 | 20.96 | 20.77 | 23.32 | 11.39 | 11.39 | 11.90 | 15.16 | 12.99 | 16.03 | 5.01 | 4.09 | 5.16 |
| 2005 | 18.93 | 18.67 | 20.73 | 11.07 | 11.07 | 12.20 | 12.99 | 10.08 | 13.78 | 5.15 | 3.90 | 5.32 |
| 2006 | 18.18 | 17.84 | 19.48 | 11.06 | 11.03 | 16.68 | 11.93 | 9.31 | 12.46 | 5.17 | 4.52 | 5.30 |
| 2007 | 18.85 | 18.74 | 19.15 | 10.88 | 10.87 | 13.32 | 15.13 | 12.50 | 15.66 | 6.01 | 4.97 | 6.16 |
| 2008 | 20.96 | 20.84 | 21.43 | 13.02 | 12.02 | 13.05 | 18.09 | 15.52 | 18.86 | 9.64 | 7.51 | 9.96 |
| 2009 | 20.31 | 19.65 | 24.05 | 12.51 | 12.33 | 21.89 | 14.66 | 9.10 | 17.12 | 7.61 | 6.70 | 7.72 |
| 2010 | 16.25 | 15.62 | 19.01 | 9.91 | 9.82 | 15.24 | 7.56 | 4.69 | 9.42 | 3.34 | 3.92 | 3.36 |
| 2011 | 14.37 | 13.85 | 16.68 | 8.75 | 8.70 | 11.83 | 7.54 | 5.13 | 9.42 | 3.69 | 3.42 | 3.73 |
| 2012 | 13.34 | 12.81 | 15.29 | 8.28 | 8.25 | 9.61 | 7.59 | 4.95 | 9.62 | 4.30 | 3.83 | 4.49 |

Source: National Bank of Moldova.

Mortgages (including foreclosure) and the use of land as collateral

A legal framework for the lending business exists, that is, mortgage finance legislation is in place.

However, the mortgage market operates under challenging conditions for households. The maximum loan-to-value ratio for residential mortgages is currently 70% of the property's value, and typical interest rates are around 12%, but can go up to 15.29% for loans denominated in the local currency and down to 9.61% for those in foreign currency. This makes mortgages unaffordable for many Moldovan residents. However, the large number of citizens who have moved abroad to find work have kept the mortgage market relatively stable since the economic downturn resulting from the 2008 economic crash. It is not currently possible to obtain a mortgage on unregistered land.

The banks' risk-weighted capital adequacy ratio indicates a very stable and well-capitalized banking sector.

The total loans to total deposits ratio of approximately 87% indicates room for expanding the lending business.

Banks' outstanding loans for real estate are very low in comparison to total bank deposits (14%).

Mortgages which go into arrears, and foreclosure

The National Bank of Moldova reports that the share of non-performing loans versus total loans is approximately 12.7% (Table 15). This figure indicates a high ratio of non-performing loans, which results either from weak underwriting procedures and/or doubts concerning borrowers.

Banks confirmed that they have procedures for handling loans which go into arrears. It is clear that procedures for sharing information on default loans with other parties are not well entrenched, and default information is not shared with other credit institutions. It is possible for banks to examine credit reference agency data but this data does not extend to personal bankruptcy.

Should a mortgagor default, the bank acting as mortgagee can initiate proceedings to repossess the property. The proceedings for instigating foreclosure can be set out in the purchase contract or, alternatively, the mortgagee can go to court for permission to foreclose when all other avenues have failed.

Despite the high percentage of non-performing loans, the banks' net interest margin of 4.6% is satisfactory compared to international rates.

Legal bottlenecks for the lending business

Some restrictions to the lending business are:

a. Some specific aspects of the Moldovan real estate law

In the Republic of Moldova the principle *superficies solo cedit*⁶¹ does not apply. Hence, the owner of the plot of land may not be the same as the owner of the building. If both real estates are owned by the same person, both the plot and the building are recorded on the same Ownership Certificate. This is mostly the case when buildings are erected on State land. Homeowners may register only the building, without the land.

It is recommended that the principle of *superficies solo cedit* be introduced into Moldovan legislation. The Government, through legal provisions, should allow homeowners to buy the land. This will increase the value of the property, and homeowners will be more likely to be granted a loan.

b. No acquisition of real estate in good faith

Under Moldovan law, the persons registered in the Real Estate Register are presumed to be the owners of the real estate. However, this presumption may be rebutted. In cases where the information in the Real Estate Register is different from the genuine owner, the latter is always the decisive one. If a person wishes to challenge the validity or accuracy of the registered information, such claim must be proven (for instance, before a court).

As a general rule, a purchaser who acquires real estate from a person who is not the registered owner in the Real Estate Register will not become the legal owner of the property.

According to prevailing Moldovan legislation, the registered owner (considered as the legitimate owner) enjoys the absolute protection of ownership rights ahead of any other person who acquires the property in good faith. If a person loses his ownership title, he can sue the Cadastre Office or the State. It is important to note that the ownership right is not statute barred, and therefore the legitimate owner can claim his/her right at any time.

⁶¹ According to ancient Roman law, if someone builds on land that someone else owns, the building belongs to the owner of the land. According to this principle, a building is a dependent component of the land on which it is built.

c. Limited public belief in the Real Estate Register

All registrations and information included in the Real Estate Register are considered correct, unless proven otherwise.

Future outlook

Moldovan citizens are hesitant to deposit their savings in banks; only 18% have bank accounts. If more individuals put their savings in banks, the latter would have more funds available for lending. This is a question of building up more confidence and experience between customers and banks. A wider variety of housing finance products and access to housing finance is necessary. A savings model to motivate individuals to save their money in banks for generating housing loans is a solution, as in many other European countries. This should be performed by specialized banks, e.g., construction savings banks, focused on lending for housing renovation and new housing construction.

Moreover, banks can encourage homeowners' associations to deposit the fees collected for maintenance purposes. As depositors, these associations would be entitled to a loan for renovations and energy-efficiency improvements. This activity could be supported by Government policies to stimulate deposits for housing purchase and/or renovation.

Picture 4. Social housing construction in Chisinau



Photo: Cecil Batac

PART III

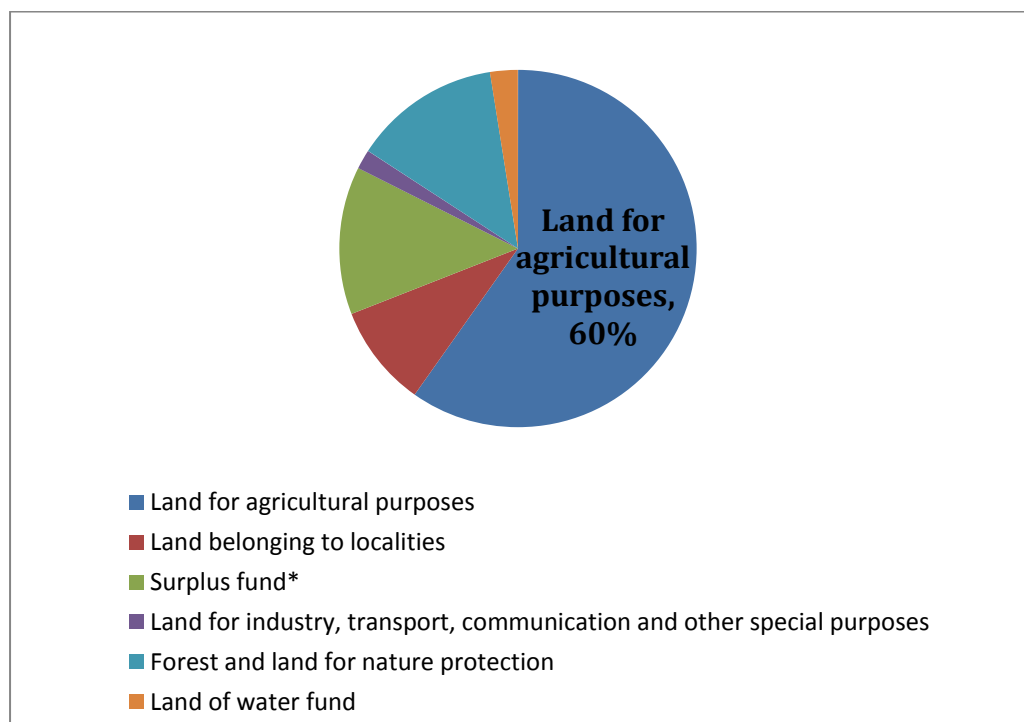
SPATIAL PLANNING AND URBAN DEVELOPMENT

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 the Republic of 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.

LAND ADMINISTRATION AND MANAGEMENT; REAL ESTATE MARKETS

Chapter 1. Land administration and management

A. CURRENT SYSTEM OF LAND ADMINISTRATION – THE LEGISLATION FRAMEWORK

General legislation

Under its Constitution, the Republic of Moldova has a free-market economy. The Constitution guarantees property rights for all Moldovan citizens and foreign nationals without limitation, with the exception of agricultural and forest lands. Moreover, it sets out the liability of the State for recompense. To further protect ownership rights, no property can be expropriated without prior and just compensation.

Land and real estate

There were two major land reforms in the Republic of Moldova after it declared independence from the former Soviet Union in 1991. The first reform involved the privatization of agricultural land, and the second related to urban land. This included residential, commercial and industrial plots.

The Land Code was adopted in 1992. Its primary purpose was to establish land rights and begin the process of transferring State land to private ownership. Since then, the legal framework, as set out in the Code, has been put in place, been revised and now covers almost all aspects of land and property ownership and dispute resolution. Almost all land is owned by private citizens without restrictions, except in the case of agricultural land which can only be owned by citizens of the Republic of Moldova or local agricultural companies.

Between 1998 and 2001, the first 2.8 million land plots were recorded in the real property register.

A total of 4.5 million land plots have been registered so far, of which 3 million are for agriculture, 0.8 million for construction, and 0.7 million for other use.⁹²

Land and real estate registration

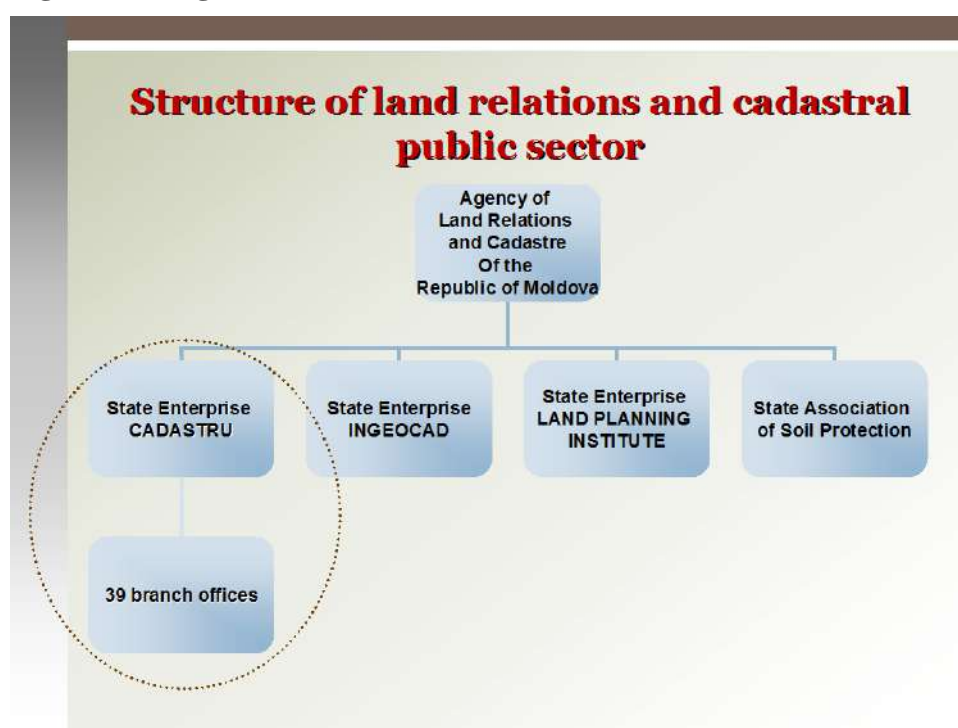
Land and real estate registration is the responsibility of the ALRC, which was founded in 1994. It is a Government body, which reports directly to the Prime Minister. Its core function is to set and administer policy in relation to land administration, property registration, cadastre, geodesy, land planning and soil protection. It also presents to the Government its proposals regarding changes to legislation and ensures their passage through Parliament.

⁹² Cadastru.

On behalf of the Government, it is the shareholder in four state-owned enterprises:

1. Cadastru – responsible for real estate registration, mass valuation for fiscal purposes, keeping the real property register and the cadastral map, and the address and utilities registers, and providing services related to property measurement and formation and other cadastral-type works
2. INGEOCAD – responsible for the State geodetic network, State border demarcation and other geodetic services
3. IPOT – the Land Planning Institute – responsible for public land delimitation, and land consolidation programmes introduced by central Government
4. State Association of Soil Protection – responsible for restoring agricultural land, and land improvement

Figure 12. Organizational structure of land administration bodies



Source: Cadastru. "Property Registration System in Moldova: General Overview". August 2013. Powerpoint presentation.

B. LAND REGISTRATION

State enterprise Cadastru (Cadastru) – the State land registration authority

Cadastru has statutory authority to register land under the Law on Real Property. It has no authority to set its own land legislation, but works closely with the ALRC and Government officials to draft new land law. It is a state-owned company regulated by the Law on Entrepreneurship, and operates on a self-financing basis. The methodology framework for fees is set by Parliament, and the Government approves the fees for property registration. When Cadastru undertakes work on a commercial basis, it is permitted to set its own fees.

It currently employs approximately 1,080 staff, half of which are professionally qualified registrars and surveyors. They are based in the 39 branch offices in major towns and cities throughout the country. The head office is in Chisinau.

In 2012, its offices received 370,000 applications for registration, approximately 25% of which were taken in at the Chisinau cadastral office.

Services to the public

All citizens, notaries and public authorities have access to the land register, which is open to inspection upon request and on payment of a small fee. Payment is made by credit card.

Anonymous access to the property register is permitted, but in these cases a cut-down version is released and details of the owners and any encumbrances (typically mortgages) are not shown.

There are no restrictions on searches by address or by cadastral identifier, but only certain public authorities can search by name. The list of authorities able to do this is approved by law, and information is released free of charge.

Searches of the register are available on the web but results must be collected in person from Cadastru on an appointments-only basis. Postal or telephone services are not currently offered.

Requests for registration must be presented in person by the notary to the Cadastru office responsible for the area in which the property is situated. The estimated completion time for registrations is currently seven days.

The role of Cadastru in handling complaints

There are established procedures within Cadastru for claiming compensation when errors are made, but the indemnity fund and procedures for claims do not extend to mistakes made by third parties. Notaries and private surveyors have separate insurance cover but claimants must go directly to these parties. It is not clear at the present time who has responsibility for ensuring that insurance is in place, or indeed what the checking process actually is.

The land register

The Republic of Moldova currently has a mixed registration system comprising title and deeds registration. The whole country is now compulsorily registrable, and new rights must be registered within three months of the date of the transaction. The land register is open in principle. This is described in greater detail later in this Chapter.

The country has a unified system for real estate registration, property rights registration and assessment for taxation purposes. Calculation of taxes and tax administration is a separate function carried out by the Tax Authority but Cadastru is responsible for valuation for taxation purposes using mass valuation systems. Its central valuation department has responsibility for the analysis of market data, the development of the valuation model, property data capture, the calculation of value and the notification of the cadastral value to the owner. Post-valuation complaints from owners are handled by the local cadastral offices.

The register of individual properties comprises three parts:

- a) A description of the property
 - The cadastral identifier
 - Property address

- Total area of the plot
 - Total area of each building
 - Land use
 - Use of any building erected on the land
- b) Details of the owner of the property
- Name
 - Personal identifier
 - Address (if different from the property)
 - Date of birth
- c) Encumbrances affecting the property
- Nature of it, e.g., mortgage
 - Holder, e.g., mortgagee
 - Document
 - Date of registration of it
 - For mortgages, the loan amount

Some of the comprehensive details kept on the register were drawn from other State registers (e.g., births, marriages and deaths registers) which are accessible to the staff of Cadastru to improve the accessibility and inter-operability of State information.

Privacy of the register is always a sensitive subject, and approaches vary from country to country. The Republic of Moldova has an open register but elects to keep some information private. For example, although mortgages are entered into the land register, details are not available to the public. No figures were available on the percentage of titles held under mortgage, but estimates of 25,000 new mortgage applications per year were made by Cadastru. This would equate to 6% of titles.

The mortgagee's interest is protected from the date the application is received at the office of Cadastru, and the fee for registration is approximately EUR 4.

Land disputes

Disputes can be initiated either by the property owner or by the owner's notarial representative. Where the litigant is the property owner, no special fees are applied, but stamp duty is applicable where the litigant is a legally qualified person. Disputes are heard by the Chief Registrar at Cadastru or, alternatively, the dispute can be referred directly to court.

C. MAPPING AND GEODESY

INGEOCAD – the State geodesy, topography and mapping authority

The geodetic and mapping systems are the responsibility of Cadastru's sister organization, INGEOCAD. Full coverage was achieved in 2012 at a map scale of 1:50,000.

Cadastru maintains the cadastral map of land parcels, which comprise technical descriptions of each land plot, e.g., area, coordinates and land use. These maps are produced based on field measurements. Urban maps are produced at 1:500, 1:1,000 and 1:2,000, while non-urban ones are produced at 1:5,000 and 1:10,000. 900 localities (including major cities and towns) are covered by these.

They are updated for individual plots, the work being done either as:

- A result of the owners' request
- A review programme by surveyors at Cadastru, or
- By a private cadastral mapping company

The role of the private sector in the real estate registration process

Whilst the mapping and registration process is a State function, some activities are undertaken by private sector participants.

Surveyors

Private surveying companies carry out surveying activities under contract to the ALRC. This is not overseen by the State. Private sector activity is usually done by companies licensed to carry out geodetic work. Individual surveyors are certified as fit to practice by the ALRC. Certificates are awarded for five years and, after this, a surveyor must re-take an exam for the license to be renewed. The surveyors undertake work under contract from the Agency, and staff from Cadastru manage the contracts. Surveying is understood to be less burdensome or difficult now than in previous years, and so the number of surveying firms undertaking the work has decreased.

Notaries

There are approximately 300 notaries in the country. They are public officials but are not employed by the State. They operate on a self-employed basis. All land transactions, except those involving small agricultural plots, must be handled by a notary.

They are responsible for ensuring that completed purchases are registered at Cadastru. This involves personal presentation, together with the owners and all of the deeds relevant to the purchase, at the relevant branch office to pay the fees and ensure registration is carried out.

Chapter 2. Real estate markets

A. COMPLETION OF THE REAL PROPERTY REGISTER (FINALIZATION OF THE FIRST REGISTRATION)

One of the key issues for the development of a real estate market is clear and unambiguous ownership rights supported by a reliable and effective system of registration⁹³. The real estate cadastre is an open system as stated in the cadastre law⁹⁴. The 1998 Law on Real Estate Cadastre was a major boost to the land market.

The first real property registration encompasses 85% of Moldova's 5.7 million titles. The unregistered real properties (15%) concern mainly those in rural areas that are considered to be of low value. The bottleneck for finalizing the first registration seems to be limited financial resources, not human ones. It is foreseen that the first registration of real properties will be completed by 2022. For each property registration, EUR 3 is paid from the State budget.

The first registration requires municipalities to have all the relevant documentation of the objects to be registered and the number of them. Therefore, sound cooperation between Cadastru and communes is important. Once the volume of the first registration is known by the municipality, the Ministry of Finance decides on the allocation of funds necessary to speed up its completion. The ALRC coordinates and monitors activities in the field of surveying, financed by State funds. The actual surveying is executed by private firms. However, since prices for surveying have fallen, the interest of these firms in surveying has decreased.

The State has a direct interest in real property being registered and, consequently, a direct interest in acting as a catalyst to accelerate the completion of the first registration.

B. TAXATION OF REAL PROPERTY

In the Republic of Moldova, a property and the land on which it stands are taxed separately. According to legislation, Cadastru is responsible for property valuation for taxation purposes. The World Bank reports that, in practice, LPAs also appraise values of real properties.⁹⁵ Between 2004 and 2011, Cadastru assessed the values of 796,000 various property types for taxation (Table 17). In principle, this valuation is based on market prices.

Table 17. Number of real estate objects that have been assessed for tax purposes

| Property assessed for tax | | |
|-----------------------------------|----------|---------------------|
| Object types | Quantity | Mass valuation date |
| Apartments | 356,000 | 1 June 2004 |
| Individual houses in cities | 170,000 | 1 June 2005 |
| Commercial and industrial objects | 92,000 | 1 June 2009 |

⁹³ *UNECE Country Profiles on the Housing Sector: Republic of Moldova* (UN publication ECE/HBP/125). Available from <http://www.unece.org/index.php?id=36288>

⁹⁴ Mirea Ciobanu, *The Real Estate Cadastre in the Republic of Moldova: 10 years* (Chisinau, I.E.P. Stiinta, 2009).

⁹⁵ *Ibid.*, footnote 22.

| | | |
|---|--------|-------------|
| Garages in building cooperatives | 51,000 | 1 June 2007 |
| Fruit-growing associations' lots with/without construction placed on them | 75,000 | 1 June 2007 |
| Agricultural lands with buildings placed on them | 22,000 | 1 June 2010 |
| Individual residential houses in Chisinau and Balti | 30,000 | 1 June 2011 |

Source: Cadastru.

Overall, the Republic of Moldova has a functional real estate taxation system which will soon be up-to-date and in full operational use.

Mass valuation procedures – updates, methods

The system of mass valuation is based on three methods of market costs estimation established by Moldovan legislation⁹⁶: the comparative sales method, the income method and the expense method. Property valuation is carried out separately for the various categories of real estate (Table 18). Based on this data, one can see that real estate objects of the highest economic value were valued first. Objects, like agricultural lands, that have low values were valued much later. The first registration of agricultural lands is still incomplete and so are their valuations because an object not yet delineated cannot be valued.

Table 18. Implementation of real estate mass valuation (thousands of units)

| Real estate object type | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
|--|------|------|------|------|------|------|------|------|
| Apartments | 104 | 221 | | | | | | |
| Urban residential buildings | | 137 | 33 | | | | | |
| Commercial buildings, garages | | | 40 | 75 | | | | |
| Agricultural plots, horticultural partnerships | | | 4 | 476 | 2200 | 550 | 400 | 300 |
| Rural residential buildings, gardens | | | | | | 300 | 300 | 310 |

Source: Cadastru.

A dedicated software application called ValueCad was developed⁹⁷, consisting of:

- Collection of data concerning the technical properties of the unit
- Introduction of value coefficients, and
- Calculation of market value for taxation

The location of the property, which is one of the most influential factors in real estate valuation, is found on real estate maps that are made separately for each category.

Assessment of property tax for buildings in urban areas is based on their estimated market value. A methodology for the valuation of agricultural properties is lacking. The legislation specifically mentions Computer-Assisted Mass Appraisal (CAMA) which was first applied in municipalities in urban areas, but it was never extended to the whole territory because of lack of available data.

SIDA supported the technical assistance project “First Cadastral Project in Moldova for the period 2006-2009”, and a valuation methodology for agricultural lands was developed.⁹⁸ The

⁹⁶ Ibid., footnote 93.

⁹⁷ Ibid.

project proposed using sales transactions per region as the basis for valuation in the absence of statistical data. Stakeholders were also involved in the development of the methodology. However, it was concluded that the costs involved in the valuation of agricultural properties in relation to the revenues from taxes was too high.

When real estate objects are valued, the need for their revaluation emerges. According to current legislation, the latter is carried out every three years for local taxes purposes. In the SIDA-funded cadastre project, a methodology for this was developed and tested. This methodology follows the valuation one but includes lessons learned to enhance its quality and avoid redundant actions, thus increasing efficiency. Obtaining market data and property characteristics should be a joint effort by the stakeholders, the main one being the municipality because they receive the property taxes. In return, the municipalities should provide the ALRC with information on new constructions and changes in land use on a continuing basis, and assist in maintaining the quality of the characteristics of a property and checking the reliability of collected market data.

Real estate, property and land tax

The real estate tax is a local tax based on the value of the real estate. It is a mandatory payment that goes to the budget of the corresponding administrative territorial unit. For tax purposes the term “real estate” means land plot and/or improvements to it, i.e., buildings, structures, apartments and other isolated premises that could not be moved without causing direct damage. Real estate properties are subject to tax, as well as improvements that are 80% or more completed or have been under construction for more than five years. The base of the tax is 50% of the assessed value of the real estate. In appraising properties, a single methodology is used for all types, and it is carried out in accordance with procedures and terms stipulated in relevant legislation. The maximum tax rate is equivalent to 0.5% of the tax base. Specific real estate tax rates are established each year by LPAs and may not be less than 50% of the maximum real estate tax rate.

The following are subject to real estate tax:

- Owners of real estate located in the Republic of Moldova; and
- Holders of property rights to public real estate property located in the Republic of Moldova, including lessees who have been renting for more than three years, unless the lease contract states otherwise

Property tax is levied on the estimated value of properties in rural communities and the estimated market value of properties in urban municipalities. The tax rates are set annually by the local authorities. The applicable rate for properties located in rural communities is up to 0.10% of the property value, and in urban municipalities it may vary between 0.02 and 0.25%. A specified value of the property is tax exempt (in Chisinau, this is MDL 380,000 (approximately USD 29,921)). For a property exceeding 100 m² in size, the established specific tax rate (0.02% in Chisinau) is increased by a multiplier for the excess of the property size.

Land tax is also levied annually by local authorities. Landowners are liable for this, and the amount depends on the property’s location, area and fertility potential. The tax is assessed by multiplying the specific land tax rate by the size of the land plot (measured in point hectares, hectares, or land parcel area). It is calculated and paid according to the procedures stipulated

⁹⁸ Ulf Kihlbom and Mike Cheremshynsky, “First Cadastre Project in Moldova: Training Technical Assistance Project”, SIDA Evaluation No. 06/54 (Stockholm, SIDA, 2006). Available from http://www.sida.se/contentassets/0dcd9fc39c9f4bb781745518e54bef85/0654-first-cadastre-project-in-moldova_2012.pdf

in Article 4 of Law No. 1056-XIV on the implementation of Section VI of the Tax Code of 16 June 2000. The specific land tax rates are established yearly by LPAs upon approval of their respective local budgets. The rates should be within the limits (including the maximum rates) stipulated in Annexes 1 and 2 to this Law (Annex III). The land tax was supposed to be merged with the real estate tax in 2006, so that it would no longer be collected separately. However, to date, this merger has not taken place.

Twice a year, Cadastru sends information to the State Fiscal Authority on the subjects and objects of taxation that is needed for the appraisal of a property. The appraisals should conform to the procedures and rates specified in Section VI of the Tax Code. Pursuant to Article 161 of this Code, the tax authorities are responsible for assigning fiscal codes to taxpayers, and maintaining the tax registry. A fiscal code is assigned only once and, without it, a person may not be registered as a taxpayer. The State Tax Registry (hereinafter, Registry) is a public registry, which is created and maintained by the tax authorities, and contains information on fiscal codes assigned in accordance with tax regulations. The Registry is updated by means of the assignment and/or the cancellation of fiscal codes, as well as the modification of the data on the registered taxpayers. The recording of the taxpayer's fiscal code in the Registry confirms his tax registration. According to the World Bank, over 95% of owners liable for land and/or property tax are listed on the tax roll.⁹⁹

The 2002 Moldova CP stated that *“though Article VI of the Fiscal Code made provision for the enforcement of the new taxation methods by 1 January 2001, until the Fiscal Code is enforced and related legal provisions are adopted, transitory legislation provides for real estate taxes to be fixed, up to January 2004, on an annual basis by local authorities”*. The adoption of the Law on Valuation introduced the concept of the market value of taxable goods. Consequently, comparative analysis of sales will now be feasible.

All real estate properties still use the old system of taxation, except for residential properties in urban areas. Since 1 January 2007, the market value system of taxation is being used for the latter. The separate taxes for land and buildings are set by the Parliament on a normative basis, without taking into consideration market values and changes due to inflation. A common practice is to declare a lower value for the real estate to avoid some taxes, raise excess loans on a property (high-risk lending) and acquire higher collateral in order to minimize risk.¹⁰⁰ An audit by the Court of Accounts has revealed that the assessed values were two to ten times lower than the market prices. Many property types were subjected to lower tax (e.g., real estate used by public authorities, public institutions, religious institutions and a number of special categories of individuals) or even avoided taxation altogether. In 2007, the Government initiated a reform to bring the assessed values of real properties closer to market prices, through the use of a mass appraisal system using data collected by Cadastru. To date, however, the intended results have not been achieved. The Government has until 2020 to complete the mass appraisal to cover all property types and objects.

Table 19 provides the local property tax rate in 2008 and its percentage of GDP, total public budget and total local revenues. The values are low when compared to other countries in South-East Europe¹⁰¹.

⁹⁹ Ibid., footnote 94.

¹⁰⁰ Ibid.

¹⁰¹ Ibid., footnote 66.

Table 19. Local property tax, 2008

| Local property tax | (in %) |
|----------------------------------|---|
| Local property tax rate in 2008: | 0.25 |
| Local property tax | |
| - GDP: | 0.4 (OECD average of 23 European countries is 0.71%) |
| - Total public budget: | 1.0 |
| - Total local revenues: | 4.2 |

Source: NALAS, 2009.

Until 2020, the Republic of Moldova will be using a taxation system that is inefficient and not completely transparent. It seems that part of the data needed for the mass appraisal is missing and is substituted by *ad hoc* appraisals in which the methodology is not always clear. Parcel-based information for tax purposes is available on the internet but this concerns only a limited number of properties. The Tax Code includes many exceptions.

According to a World Bank report¹⁰², the collection rate for land and property taxes was over 96% in 2012. However, the revenue only exceeded the cost of collection by a factor of 1.7.

C. REAL ESTATE MARKET

Another function of the registration system is the provision of information contained in the real estate register to the participants of the real estate market. To make the findings on Moldovan housing conditions and real estate markets widely available was one of the recommendations of the 2002 Moldova CP. The Law on Real Estate Cadastre and the Civil Code indicate: “*Any person has the rights, without being obliged to motivate their interest, to study and to acknowledge the contents of the real estate registry*”. The information is given within seven days; the excerpt is provided within three days.¹⁰³

Cadastru keeps the data on real estate transactions which is made available to real estate market agencies and associations. It can be provided monthly to certain neighbourhoods (for instance, Chisinau) and it can be provided by ownership or property type (examples can be found on the website of LARA at www.lara.md).

The value of land increases once it is used for construction, especially for housing, and this is also true for agricultural land with change-of-destination as its use (Table 20). In general, agricultural land that is accessible to urban centres has a higher market value.

Before 2008, around 60-70 real estate companies existed. Now, the numbers are down to 7-12 companies countrywide. The National Chamber of Real Estate (hereinafter, the Chamber) coordinates their activities. Currently, their activities are not regulated, but the Chamber oversees the qualifications of personnel working in the sector. In the past, training courses were offered by the Chamber, covering legal and economic aspects as well as behaviour risks of the market and consumers, but in the last five years no training has been offered. These real estate companies can also assess properties. The charge for their services is 2% of the real estate market price. Some of these companies argue that charges should be based on the volume of work and not on the market value of the property. The declining number of real estate companies is related to the 30% decrease in transactions since 2008 and to the 50%

¹⁰² Ibid., footnote 94.

¹⁰³ Ibid., footnote 93.

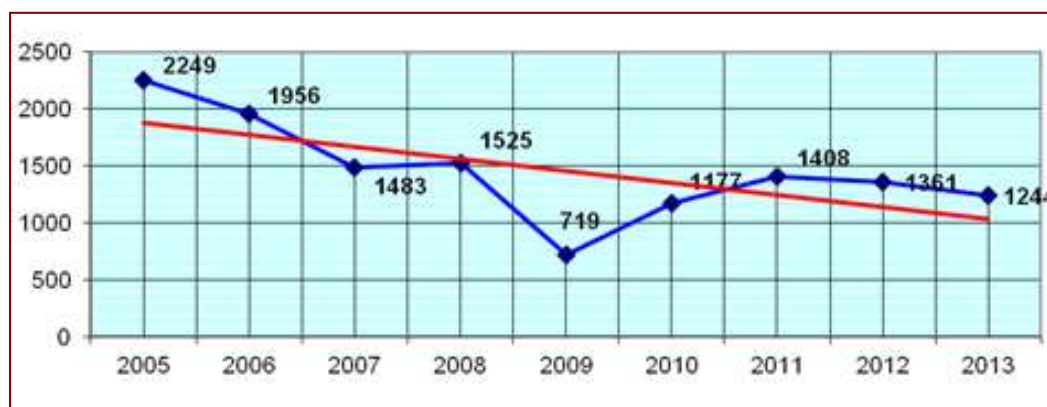
reduction in financial volume of the real estate market. Statistics on the real estate market are available every six months, and about 5,000 visitors per week consult the internet for such data.

Table 20. General real estate data

| Type of real estate property | Market information |
|---|---|
| Primary housing | 400-1,000 EUR/m ² |
| Secondary housing | 500-800 EUR/m ² |
| Land for housing construction | 7,000-50,000 EUR/0.01 ha |
| Land for commercial construction: | |
| 1. Social-cultural purpose | 25,000-35,000 EUR/are |
| 2. Industrial purpose | 5,000-8,000 EUR/are |
| 3. Housing purpose (for dwelling houses with stores) | 17,000-25,000 EUR/are |
| Commercial real estate | 40-100 EUR/m ² /month |
| Commercial centres | 40 EUR/m ² /month |
| Office real estate | 9-25 EUR/m ² /month |
| Production and storage real estate | 3-6 EUR/m ² /month |
| Agricultural land | 1,200-2,000 EUR (700-5,000 EUR) per ha |
| Agricultural land with change-of-destination prospects | 40,000-50,000 EUR (from 30,000 to 250,000 EUR) per ha |

Source: <http://investinmoldova.md/>

Figure 13. Average number of real estate transactions per year as registered by Cadastru in Chisinau



Source: LARA 2013, <http://www.lara.md>

The downward trend in the real estate market (Figure 13) is caused by a number of factors:

1. The global financial crisis that led to a worldwide downtrend of real estate prices.
2. The gap between the price expected by the seller and that paid by the buyer. It is not yet common practice to establish the price of a real estate property based on an analysis of the real estate market.
3. The country's political and economic instability, which makes people hesitant to buy or sell a property. The decline in income usually leads to more savings in agriculture-based economies.

4. The emigration of the active labour force leads to a decrease in the number of potential buyers of real estate. People working abroad may be sending remittances but evidence suggests that, in the last three years, there has been a marked lack of demand for the acquisition of property by Moldovans working abroad.
5. The additional expenditure for owners of new apartments to make them habitable. Developers reduced the prices of new apartments, and advertising campaigns to promote this have influenced buyers. However, these new apartments are not ready to live in. It could cost the owners up to 20% of the apartment price to make these new apartments habitable.

While the downward trend continues, it is expected that the demand for smaller (e.g., 60 m²) apartments will increase. The price for existing property is slightly higher than for new. With new real estate property, the owner is responsible for finishing the apartment (e.g., inner doors, windows, electric wiring, kitchen block, sanitary facilities, etc.). Originally, the idea of having the owner finish the property was meant as an incentive to buy but, in practice, it has turned out to be more expensive.

Due to the continued global financial crisis, the downtrend of real estate prices is likely to continue, as well as the emigration of the active labour force. The same trend will likely continue for the number of real estate companies. The view of these companies on the dynamics of the market is pessimistic, and their attitude towards developing new initiatives seems limited. The licensing of real estate companies is considered important: 1) to guarantee the professionalism of real estate agents, as well as the quality of services they render, and 2) to facilitate the monitoring of the market by the Government. Moreover, licensing generates revenues for the Government. The Chamber requested a license but the Government declined because it is reducing the number of licensing companies.

The Union of Notaries sets the tariffs for their work on the transactions but these tariffs are not considered an impediment to the number of property transactions.

D. LAND POLICY

The three pillars of a good land policy are security of tenure, land markets (see previous section on real estate markets) and socially desirable land use.¹⁰⁴ From the Government's perspective, the question is how to balance owners' rights with the necessity and capacity of the Government to regulate land use and development for the best interests of society.¹⁰⁵ The national land policy provides the answer to this. A land policy that enables diversity and change is likely to be more successful in fostering urban and rural prosperity than one based on some specific economic model.¹⁰⁶

Land issues can be illustrated by hierarchy (vertical) and increasing complexity (horizontal) (Figure 14).¹⁰⁷ This hierarchy should be embedded in sustainable development programmes comprising four dimensions: economic (profit), environmental (planet), social (people) and

¹⁰⁴ Klaus Deininger, "Land Policies for Growth and Poverty Reduction", World Bank Policy Research Report, Vol. 1 (Oxford, Oxford University Press; Washington, D.C., World Bank, 2003). Available from http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2003/08/08/000094946_0307250400474/Rendered/PDF/multi0page.pdf

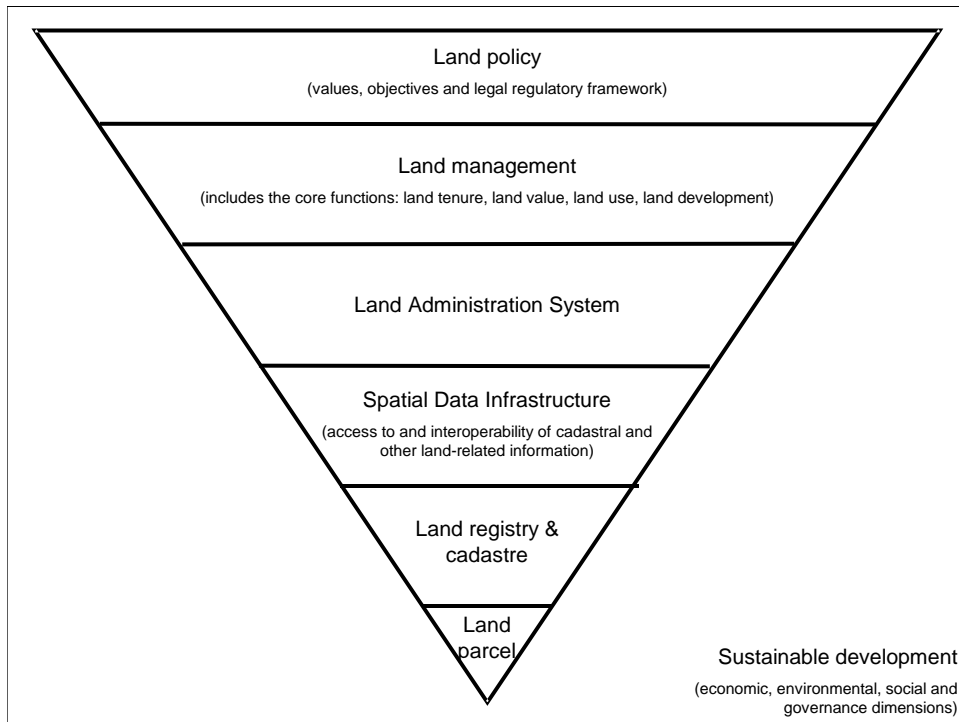
¹⁰⁵ Ian Williamson and others, *Land Administration for Sustainable Development* (California, ESRI Press Academic, 2009).

¹⁰⁶ M. Heywood, "Rural land management and agricultural restructuring in transitional economies - the case for developing a land tenure framework", *Zeitschrift für Kulturtechnik und Landentwicklung*, Vol. 41, No. 3 (2000).

¹⁰⁷ *Ibid.*, footnote 104.

good governance.¹⁰⁸ Governance is the key element in determining if and how individuals or communities can acquire rights, and associated duties, to use and control land and other natural resources. This holistic approach is in the new “Moldova Agriculture and Rural Development Strategy 2014-2020”. Land policy is the most complex land issue. This is followed by land management, which covers all activities associated with the management of land and natural resources that are required to fulfil political objectives and achieve sustainable development. Land management is a process by which a country’s resources are put to good effect.¹⁰⁹

Figure 14. Hierarchy of land issues embedded in sustainable development



Source: Jansen, 2013 based on Williamson *et al.*, 2010.

E. LAND POLICY FRAMEWORK

The Republic of Moldova has been in a complex and volatile transitional phase where the objective was to replace the formerly command-driven economy with an open-market one. The removal of socialist institutions and the privatization of resources were the initial stimulants for this massive economic shift. Of primary importance is the re-allocation of land and its related resources, which were under strict State control.¹¹⁰ The land policy framework needed to be adjusted accordingly, no longer focusing primarily on land use and land

¹⁰⁸ Louisa J.M. Jansen, “How can land management be improved in Romania with the lessons learnt elsewhere in Europe?”, paper presented at the Séminaire du Syndicat National des Géomètres Experts Aménageurs Ruraux (GERAR) sur l'aménagement foncier, Lyon, September 2013.

¹⁰⁹ *Land Administration Guidelines with Special Reference to Countries in Transition* (UN publication, Sales No. E.96.II.E.7). Available from <http://www.unece.org/fileadmin/DAM/hlm/documents/Publications/land.administration.guidelines.e.pdf>

¹¹⁰ Sean M. Cashin and Gerald McGrath, “Establishing a modern cadastral system within a transition country: Consequences for the Republic of Moldova”, *Land Use Policy*, Vol. 23, Issue 4 (October 2006). Available from <http://www.sciencedirect.com/science/article/pii/S0264837705000311#>

capability to facilitate large-scale centralized planning and resource allocation, but rather, focusing on switching to legal ownership. Multiple agencies were established, each assigned strict responsibilities, and administering particular land resources. The records kept in socialist times were distributed amongst these independent agencies.

A key element of privatization was the transfer of exclusive use or ownership of land from the State to individuals, families or companies. The commonly chosen mechanism for doing so was to establish land registration or cadastre programmes supported by the necessary legal and institutional frameworks. The longer-term goal is to establish functioning real estate markets and stimulate further economic development. The market in land, linked to those in capital and labour, is central to the functioning of a market economy.¹¹¹

The current policy framework priorities are not directly related to land, although there is an integrated approach to policy development, as expressed in the document “Moldova 2020 - National Development Strategy: 7 Solutions for Economic Growth and Poverty Reduction”. Education, infrastructure, financing, competitive environment and energy consumption all have links to the land sector. One consolidated action plan has been developed, for which the State Chancellery is responsible. This will facilitate monitoring. The Interministerial Committee for Strategic Planning will watch over the implementation of the Strategy, and the National Participation Council (NPC), comprising of representatives of civil society, will monitor it. The Government will inform the NPC on the progress of the Strategy and discuss ways of joint involvement for its successful implementation. The State Chancellery is responsible for the compilation of reports based on the monitoring and evaluation of the contributions of public authorities involved in the process.

Box 3. Development priorities of the National Development Strategy

Development priorities formulated in the “Moldova 2020 - National Development Strategy: 7 Solutions for Economic Growth and Poverty Reduction” (2012):

1. Aligning the education system to labour market needs in order to enhance labour productivity and increase employment in the economy
2. Increasing public investment in the national and local road infrastructures in order to reduce transportation costs and increase the speed of access
3. Reducing financing costs by increasing competition in the financial sector and developing risk management tools
4. Improving the business climate, promoting competition policies, streamlining the regulatory framework and applying information technologies in public services for businesses and citizens
5. Reducing energy consumption by increasing energy efficiency and using renewable energy sources
6. Ensuring the financial sustainability of the pension system in order to secure an appropriate rate of wage replacement
7. Increasing the quality and efficiency of justice, and fighting corruption in order to ensure equitable access to public goods for all citizens.

The ALRC and the MAFI have overlapping mandates concerning the implementation of land policy in rural areas. The mandate of the ALRC is to manage all State land policy, whereas

¹¹¹ World Bank, *Transition, The First Ten Years: Analysis and Lessons for Eastern Europe and the Former Soviet Union* (Washington, D.C., 2002). Available from <http://siteresources.worldbank.org/ECAEXT/Resources/complete.pdf>

the MAFI is responsible for sectoral policies. This arrangement may result in unclear implementation procedures. The mandates of the institutions involved in policy making and the management of land should be clearly defined and reflected in their arrangements and responsibilities.

Currently, the Republic of Moldova has three strategies related to agriculture: (1) the National Strategy for Agro-industrial Complex Sustainable Development; (2) the Food Safety Strategy 2011-2015; and (3) the Strategy on Development of Rural Extension Services. The first has only general aims; the second addresses the legal and institutional settings; and the third addresses services provision. None of the above addresses land and/or rural households directly. The new “Moldova Agriculture and Rural Development Strategy 2014-2020”, approved in 2013, aims at taking a more holistic approach and complies with EU requirements. Its vision is as follows:

“A competitive agri-business sector contributing to rural areas of Moldova, equipped with the necessary infrastructure becoming an attractive place for working and living. Agriculture and rural areas will provide goods and services while maintaining the biodiversity, cultural and traditional values for future generations” (Anonymous, 2013).

Three priorities are defined within the above Strategy that target land and rural households directly:

1. To increase the competitiveness of the agri-food sector through restructuring and modernization. The emphasis is on (1) high value-added produce, (2) meeting EU food safety and quality requirements, (3) facilitating access to capital, and input and output markets for farmers, and (4) improving education, research and development.
2. To ensure sustainable management of natural resources. National-level climate change adaptation and capacity-building are high-priority. The emphasis is on land and water management practices, environmentally-friendly production technologies and products, and support in adapting specific climatic conditions (e.g., risk management).
3. To improve the standard of living in rural areas. The emphasis is on (1) the enhancement of investment in the physical infrastructure and rural services, (2) increased non-agricultural employment and income opportunities, and (3) the stimulation of local community involvement in rural development.

The Strategy should be complemented by a monitoring and evaluation system to assess whether the implementation brings the expected results.

F. LAND SECTOR REFORM

Reform measures carried out and proposed

Since 1991, a wide range of reforms affecting the social and economic system have been carried out (e.g., regulatory framework). In 2006, the Law on Regional Development was adopted and its implementation started in 2009-2010. The first priorities are decentralization and property delineation. National development planning has improved due to re-focusing on feasible objectives and strengthened links with budget allocation.¹¹² These reforms have been aimed at the creation of political, legal and economic foundations for a market-based

¹¹² Organisation for Economic Co-operation and Development, “Capacity development for environmental management in Moldova: drivers, links to planning and methods of assessment”, report of the OECD EAP Task Force (Paris, OECD, 2010). Available from <http://www.oecd.org/countries/moldova/45559222.pdf>

economy predominantly rooted in the private sector.¹¹³ However, current legislation addressing the land sector could be better aligned.

The economy is especially vulnerable to environmental factors because of its dependence on agricultural production, though this dependence is decreasing (29.2% in 1989 and 12.3% in 2003 according to NBS). Agricultural production and the food processing industry provided around 30% of export revenues in 2009. Several strategies address the various aspects of agriculture but implementation of these has not yet led to significant improvements in the livelihoods of the people.

Currently there is a trend to shift responsibilities from central to local government levels. Policy will continue to be made at national level, whereas implementation will be executed at local level. To realize such decentralization, more capacity is needed at the local level and sufficient budget should be allocated to local governments. In economically stressful times, it is doubtful if the necessary funds can be allocated from the State budget. The alternative would be to use the local government budget which, in practice, will mean finding other sources of revenue or increasing local taxes.

Since the institutional developments in the 1990s, when popular and political support resulted in many reforms, the drivers for further reforms have mainly been external, led by global and regional processes and, in particular, in cooperation with the EU.

Results of land reform in urban and rural areas

The transition from a centrally planned economy to a market-oriented one involved the privatization of land, i.e., the shift of ownership from collective and State to private persons.¹¹⁴ This was done through the adoption of the Land Code, on 25 December 1991, which enabled an equitable distribution of land parcels. Privatization of former state-owned farms was carried out in a two-stage process: firstly, village land commissions assigned plots of land to eligible recipients, who received a title issued by the mayor's office; and secondly, based on the Law on Peasant Farms, recipients had the right to request the separation of a collective or State farm into individual land plots. The National Land Programme finished in 2001 and privatized 1,004 collective and State farms. Around 1.7 million hectares were distributed to almost 1.1 million new owners.¹¹⁵ In rural areas, the physical change in the landscape of land-use patterns became imminent. In urban areas, State, municipal, enterprise and cooperative buildings were established, often without consideration of the historical property rights of the underlying land. In some cases, the land was expropriated and residents were given only usage rights.

Rural areas should be seen in a wider context than just being the source and supplier of material and non-material products for the society as a whole. They should also be seen as providers of a range of facilities including, among others, the provision of open space, natural resources including biodiversity, clean water, energy, and the repository of national and cultural heritage (e.g., landscapes). The community and national authorities must make the necessary initial investments for rural development. These may be followed by private-sector activities and investments. However, the public sector must continue to be responsible where *public interest* objectives and facilities are involved. Climate change conjures a growing

¹¹³ Dragos Cimpoeies, Zvi Lerman, and Anatol Racul, "The Economics of Land Consolidation in Family Farms of Moldova", a seminar paper at the 111th seminar of the European Association of Agricultural Economists, Canterbury, 2009. Available from <http://purl.umn.edu/52837>

¹¹⁴ Terry Van Dijk, "Scenarios of Central European Land Fragmentation", *Land Use Policy*, Vol. 20, Issue 2 (April 2003). Available from <http://www.sciencedirect.com/science/article/pii/S0264837702000820?np=y>

¹¹⁵ Morten Hartvigsen, Maxim Gorgan and David Palmer, "Experiences with land reform and land consolidation in Moldova", *Land Tenure Journal*, No. 2 (2012), p.10.

interest in the urban-rural relationship, as rural areas are seen as actual or potential suppliers of renewable energy (e.g., bio fuels, wind or hydropower). It also increases the impact on water availability, food production, habitats and biodiversity.¹¹⁶

In rural areas, the relationship of people with the land has profound implications for agricultural productivity, environmental sustainability, and the economic and social status of rural households.¹¹⁷ The distribution of land parcels led to *fragmentation of land ownership*. Land remained consolidated by active farmers, while new corporate farms (e.g., partnerships, limited liability companies, agricultural cooperatives, joint stock companies, etc.) lease land from owners who sometimes had never practised farming. Thus, *fragmentation of land use* was less of an issue. Fragmentation of ownership or of use can have negative consequences for the rural economy, but at the same time it is not disadvantageous by definition.¹¹⁸ This bimodal agricultural structure has led to discussions among policy makers and economists concerning the efficiency and performance of corporate farms versus individual ones. The strength of a good agricultural structure is *diversity* as a result of different responses to economic signals, managerial capacities, personal choices, availability of capital, and family relationships.¹¹⁹ Statistical data show that the gross agricultural output by households and farms under private ownership surpasses collectives under private ownership. Furthermore, the gross agricultural output under public ownership is negligible compared to private ownership (Table 21).

Table 21. Gross agricultural output by forms of ownership, in comparable prices of 2005

| Ownership form | 2004 | | 2005 | | 2006 | | 2007 | |
|----------------------|-------------|------|-------------|------|-------------|------|-------------|------|
| | million Lei | % | million Lei | % | million Lei | % | million Lei | % |
| Public | 140 | 1.1 | 117 | 0.9 | 107 | 0.9 | 75 | 0.8 |
| Private, of which: | 12162 | 98.9 | 12285 | 99.1 | 12160 | 99.1 | 9358 | 99.2 |
| - Collective | 3723 | 30.6 | 3508 | 28.6 | 3359 | 27.6 | 2590 | 27.7 |
| - Households & farms | 8439 | 69.4 | 8777 | 71.4 | 8801 | 72.4 | 6768 | 72.3 |
| Ownership form | 2008 | | 2009 | | 2010 | | 2011 | |
| | million Lei | % | million Lei | % | million Lei | % | million Lei | % |
| Public | 137 | 1.1 | 62 | 0.5 | 78 | 0.6 | 66 | 0.5 |
| Private, of which: | 12323 | 98.9 | 11198 | 99.5 | 12068 | 99.4 | 12692 | 99.5 |
| - Collective | 4311 | 35 | 3373 | 30.1 | 3814 | 31.6 | 4054 | 31.9 |
| - Households & farms | 8012 | 65 | 7825 | 69.9 | 8255 | 68.4 | 8638 | 68.1 |

Source: NBS, 2013.

¹¹⁶ P. Van de Molen and Louisa J.M. Jansen, “Urban and rural land management in the Netherlands: the role of the State as policymaker and landowner”, key note speech at the ARGE/AdV International Land Management Symposium Land Management Strategies for Improving Urban-Rural Inter-Relationships – Best Practices and Regional Solutions, Hanover, May 2010.

¹¹⁷ Louisa J.M. Jansen and others, “The Use of the Land-Cover Classification System in Eastern European Countries: Experiences, Lessons Learnt and the Way Forward”, *Land Use and Land Cover Mapping in Europe Remote Sensing and Digital Image Processing*, Vol. 18 (2014). Available from www.springer.com/earth+sciences+and+geography/book/978-94-007-7968-6

¹¹⁸ Terry Van Dijk, Land consolidation as Central Europe’s panacea reassessed, paper presented at the Symposium on Modern Land Consolidation (Volvic, September 2004).

¹¹⁹ Ibid., footnote 105.

The composition of the population in rural areas is changing. The older generation is staying, while younger people are leaving. This has an impact on the socio-economic situation of these areas. People living there are not active in agriculture or do not work full-time in it.

Around 58% of the population lives in rural areas, even though the rural employment rate was only 36.6%¹²⁰ in 2013. The urbanization annual rate of change is 0.8% (2010-2015 estimate). As discussed in the Introduction, the majority of the migrants in the Republic of Moldova come from rural areas. Emigration concerns the young and educated. Low wages and limited jobs have established stable patterns of poverty in rural areas. Gradually, remittances have gained importance in the share of total disposable income of urban households. Furthermore, the income of those working in rural areas is highly dependent on pensions and on self-employment in agriculture. Urban households experienced a threefold increase in their real subsistence level in the period 2001-2011, while that of rural households remained stable. Thus, the gap between livelihoods in urban and rural areas is widening, and measures need to be taken to mitigate this. Land reform could diminish this, but measures should also include making rural areas attractive to young people.

Agriculture and infrastructure in rural areas

The Republic of Moldova is endowed with fertile soils (e.g., chernozem) and a temperate climate, furnishing ideal conditions for agriculture. However, they are currently underused. Agricultural land covers approximately 75% of the total land surface. 73% is arable and 12% is used for perennial crops. Forested areas cover approximately 12% of the total surface area. Land has remained an important productive resource in rural areas and it possesses significant symbolic and economic values. Recently, the quality of soil and water has been declining, which is detrimental to productivity. Irrigation systems have deteriorated since the 1990s and the cost of it has increased. Consequently, access to such systems has decreased. Forest resources have declined over the years because of local needs for wood fuel and construction timber. The country has been experiencing droughts (most notably in 2007), which have affected the territory, and especially the rural population that is dependent on agriculture.

The State agency Moldsilva, under the Ministry of Environment, regulates, coordinates and enforces policies concerning forested areas. Most of these are located on public lands where there is a lack of clear boundary definition (see separate discussion on public lands in the next section). The management of these areas is outsourced to private sector companies under contract with Moldsilva. The distinction between management and supervision of forested areas is an issue. Consequently, the existing institutional and operational framework hampers investments in and management of forested areas.

Recipients of land through the land reform programme received land that was physically divided into equal portions of arable land, orchards and vineyards, depending on the situation in the village (e.g., if there were more orchards in the village, a recipient may have received a higher number of parcels thereof). The average land holding comprises 1.56 hectares, distributed in three to four parcels.¹²¹ This reform and these post land-reform developments have led to a bi-modal agricultural structure with, on the one hand, highly fragmented (semi-) subsistence farms and, on the other, a relatively small number of commercial farms. Family farms, so typical in Western European agriculture, are almost absent.

¹²⁰ NBS, "Table 5. Population by participation in economic activity, rural, years 2009-2013", *Labour Force in the Republic of Moldova: Employment and Unemployment*, (Chisinau, 2014), p.25.

¹²¹ *Ibid.*, footnote 115.

It was reported that 99.5% of farms belong to the category of semi-subsistent farms that use 39% of the total utilized agricultural area (UAA).¹²² Large commercial farms operate on leased land. Lease contracts with durations of less than three years are registered at the mayor's office; those of more than three years are registered with Cadastru. These contracts comprise a certain risk and may hamper investment. This situation is very similar to neighbouring Romania.¹²³ The lease market that has emerged in the Republic of Moldova, while offering a partial and short-term solution to land fragmentation, has brought further concerns that affect the long-term outlook for developing a functional property system.¹²⁴ Firstly, a significant portion of lessees are not within the terms stipulated in the legal framework, either by: not having a written agreement, or not having it registered if one exists. Most lease agreements are short-term, i.e., less than three years. Secondly, a pattern has emerged whereby the majority of lessees are people of greater social capital (age, education and social position) with sufficient capabilities for farming. Thus, a distinctive "rural elite" has been formed, although these are not large landowners.

The share of arable land in the UAA is 70% which is among the highest in Eastern Europe. 80% of this is used for low value crops (e.g., cereals, oilseeds, sugar beets and fodder crops), while the remainder is used for fruit and vegetables. Livestock production is hampered by strong competition from the CIS countries and the EU. The Republic of Moldova is a net importer of livestock products. Agricultural production is entirely dependent on imported agro-chemicals, seeds and fuel. International price volatility influences the competitiveness of Moldovan agri-food products compared to CIS and EU countries. The prices for world agricultural products increased by 70% in the period 2000-2010, yet in the same period the prices of agricultural inputs increased by 58%. This has led to a situation in which Moldovan farmers pay world prices for their inputs, but are unable to receive world prices for their produce. The lack of producers' organizational structures (e.g., cooperatives) and infrastructure (only 7% of the road network is in good or satisfactory condition and public infrastructure is poor) are constraints on the integration of farmers in supply chains (e.g., the joint acquisition of inputs at lower prices) and the effective use of market opportunities. This situation is further aggravated by limited access to bank loans to invest in agriculture.

The land market has developed slowly in the Republic of Moldova, with an average transaction area of about 0.10 hectare in the period 1999-2008 and an average price per hectare that slowly increased up to 2007 and started to decline after that.¹²⁵ Only 2% of agricultural land was sold in this period.¹²⁶

Land consolidation: current status, future role and developments

It is a widespread perception that consolidation of small fragmented land parcels into large farm holdings will reduce production costs and improve net income for a farm of a particular size. There is thought to be a more efficient use of technology and, accordingly, an increase in productivity and efficiency, and it is therefore preferred by farmers and landowners. However, empirical proof does not unanimously support these perceptions. Productivity and efficiency are determined by a range of factors that go beyond the farm lay-out and size (e.g., the capacities of the farmer, soil and water resources, landscape, type of farming activities, etc.). Results of several surveys from a sample comprising individual and corporate farms in the Republic of Moldova concluded that small farms are more productive and efficient than

¹²² Ibid.

¹²³ Ibid., footnote 107.

¹²⁴ Ibid., footnote 109.

¹²⁵ Ion Botnarenco, *Consolidarea terenurilor agricole în Moldova: (teorie, metode, practică)*, (Chisinau, Pontos, 2009).

¹²⁶ Ibid., footnote 113.

large ones.¹²⁷ When a homogeneous sample of individual and corporate farms was used, they found increasing returns to scale. Individual farms perform better than corporate ones. This is attributed to organizational form rather than farm size. This means that performance, i.e., production, of farms could be improved if the Government concentrated on improving operating conditions rather than increasing farm sizes.

The Government is aware of the land consolidation problems and has asked the World Bank for assistance. The “Moldova Land Re-parcelling Pilot Project”, as part of the “Rural Investment and Services Project II” (RISP-II), implemented *voluntary* land consolidation in six pilot villages in the period 2007-2009. This was funded by the World Bank and SIDA. It should be noted that no change to the 1991 Land Code was necessary. This is in sharp contrast with other Eastern European countries. The impact of the above project was assessed and, subsequently, the effort was scaled up to include 40 villages in the period 2009-2011 using the built capacities and without further international technical assistance. The results of the project and the outcome of the impact assessment led to the development of a “National Strategy for Land Consolidation” in 2010, supported by the Food and Agricultural Organization. In mid-2013, the “National Strategy for Land Consolidation 2012-2027” was adopted by the Government. This Strategy is part of the larger “Moldova Agriculture and Rural Development Strategy 2014-2020” and gives priority to *comprehensive* land consolidation that includes rural development measures. One should note that the implementation of land consolidation should be in line with territorial planning documents, including community area development plans. The Strategy envisages changes to the Land Code. The Government budget (State, LPAs or other sources) will support the implementation of land consolidation projects. The MAFI will remain the lead authority, and Cadastru and its territorial cadastral offices will provide the initial cadastre and land registry data free of charge to the MAFI. The interests of landowners and stakeholders participating in the project are safeguarded by the local stakeholder committee.

Public lands

Not all land was privatized; approximately 45% of it remained public. Public lands are owned either by the State or by LPAs. They are mainly used for forestry and grazing. However, only part of them - 12% of State public lands and 15% of LPA-owned lands - are registered in the cadastre. More problematic is that an even smaller percentage of them have marked boundaries: only 34% of State public lands and 81% of LPAs. This causes disputes, and contributes to tenure insecurity for individuals conducting agricultural, grazing and forestry activities either adjacent to or on public lands.¹²⁸ Furthermore, due to lack of delineation and clear assignments of responsibilities, the effective and transparent management of public lands is hindered.

Co-ownership arrangements are recognized. The law allows for the subdivision and merging of these arrangements, provided the parties involved ensure compliance with limitations (e.g., restrictions on use or encumbrances). Little is known about these limitations per land parcel because they have not been systematically recorded in the cadastre.

Thus, the protection and management of land with co-ownership arrangements, communal rights or common use rights should be improved.

¹²⁷ Dragos Cimpoies and Zvi Lerman, “Land policy and farm efficiency: the lessons of Moldova”, paper presented at the joint IAAE - 104th EAAE Seminar Agricultural Economics and Transition: “What was expected, what we observed, the lessons learned”. Budapest, September 2007.

¹²⁸ Ibid., footnote 94.

Large-scale land acquisition

Large-scale land acquisition is a phenomenon that is becoming increasingly widespread in Eastern European countries with agricultural potential. In the Republic of Moldova, there is no legal framework dedicated to this matter. Foreign investors (individuals and companies) and local companies whose equity includes foreign investments have no legal right to purchase agricultural land. However, it can be purchased by indirect methods, due to gaps in the legal framework and certain interpretations of the existing law. The Government should monitor the purchase and sale of agricultural lands for investment purposes, and make sure that the local population benefits from such investments.

Picture 7. Chisinau



Source: <http://www.mytripblog.org/pg/blog/moldova-social-manager/archive/1335830400/1338508800>

RECOMMENDATIONS

Legal and institutional framework

1. Promote the effective implementation of the legislation on housing

Since 1991, the Republic of Moldova has considerably improved its housing legislation. However, in any legislation, effective implementation is the key to achieving its objectives. It is important that all obstacles to this are identified and resolved. An obstacle could be anything from a gap in the law to unclear, costly and complex procedures.

The Government may consider establishing cooperation with the UNECE in developing a national action plan on sustainable housing and urban development based on the recommendations of this study, which would support the implementation of the laws.

2. Consider abolishing the Law on the Privatization of Housing Stock

The privatization of housing stock occurred in the early 1990s. The Law included provisions for both privatization and management of housing stock.

The Law on the Privatization of Public Housing (Law No. 1324-XII of 1993) should be abolished. Non-privatized housing stock should be registered as social housing and managed as such for low-income families.

3. Enhance the capacity of local authorities for the implementation of the National Decentralization Strategy

The European Charter of Local Self-Government (hereinafter, the Charter), which came into force in the Republic of Moldova in 1998, assures local self-government in the country and, therefore, local autonomy for the local public authorities (LPAs). This right is stipulated in the Constitution and in the Law on Local Public Administration but, in practice, LPAs have limited autonomy. In light of this, the Government has approved the National Decentralization Strategy (hereinafter, the Strategy) which provides mechanisms for decentralization and assures authentic autonomy for LPAs through better implementation of the principles of the Charter.

To achieve the aims of the Strategy - to improve the management and quality of services offered to the public - it is mandatory for LPAs to take full responsibility for implementing their actions. Capacity-building programmes for LPAs should be established. These could be in the form of training programmes and exchange of experiences with other countries.

4. Consider developing an act or a law on utility easement, on joint use of facilities and on joint property units

The current legislation does not cover such issues as utility easements, joint facilities and joint property units.

It is recommended to develop a Utility Easement Act, i.e. a law that will give the right to legal persons to install pipes/wires in real estate, an act (law) which will handle the establishment of a facility common to several property units (a joint facility), and also an act that will manage joint property units.

A property typically consists of an area of land with associated buildings. For a property to function, it sometimes requires access to facilities outside its own boundaries, e.g., roads, garages, playgrounds and water and wastewater facilities. It is not unusual for several properties in the same village or neighborhood to have similar needs.

Housing sector

5. Support the improvement of housing conditions, with particular attention to privatized housing stock

The housing stock in multi-apartment buildings is in urgent need of repair. However, homeowners are reluctant to spend on repairs and maintenance because of the non-functioning housing management system resulting from gaps or unclear procedures in laws relevant to housing.

The Law on Condominiums (2000), which governs housing stock, does not provide clear procedures on the establishment, registration and operation of homeowners' associations, and does not clearly stipulate the responsibilities of owners for the repair and maintenance of their property, including of common areas. Further, this Law does not have a provision covering ownership of common properties for buildings without a homeowners' association.

It is recommended that a new law be adopted providing for, among others, registration of ownership of the share of the common properties; clear regulations for the maintenance of common property in a building; mandatory membership of all homeowners in the General Assembly; and penalties for homeowners who do not pay the maintenance fee. At the same time, the new law should protect low-income families from eviction, and provide incentives to condominium associations.

In improving the management of housing stock, the following should also be considered:

- The development of a national strategy for awareness-raising, capacity-building and training of homeowners on the management of common properties.
- The development of vocational training for condominium managers to be organized by the ministries responsible for housing issues and for labour.
- Through the ministry responsible for education, in cooperation with the ministry responsible for housing, the development of curricula for different levels of education, starting with elementary school children, explaining the concept of common property and the behaviour of homeowners in a condominium.
- The planning, by the Government, of a process of privatization of municipal enterprises, providing clear rules and procedures and ample time for transition.
- The development of an automated information system (GIS-based database) where all documents related to construction are stored. Having all these documents in one place would facilitate the planning of repairs and improvements; the provision of State funds for energy efficiency; the monitoring of the condition of constructions and the oversight of the conformity of constructions with regard to safety.

6. Promote energy efficiency through effective housing financing and the development of standards on energy efficiency in buildings

The deterioration of the physical condition of housing stock has a marked impact on energy losses. This should also be considered in the maintenance of the deteriorated stock.

The improvement of the housing stock is a long process that will require time and financial resources. Central and local governments should develop projects that will encourage

homeowners to organize themselves into condominium associations, register their common property and apply for a loan. Land and common property can be used as collateral for a loan from commercial banks. In addition, or as an alternative, a State guaranty fund could be established to cover part of the risk for the banks. The MoREEFF project, developed by the EBRD, is a good example of an energy-efficiency financing project that should continue, even though only three condominium associations have so far applied for financing.

Energy-efficiency improvements can be implemented gradually, starting with small interventions, such as the replacement of windows in individual apartments and in halls, and the insulation of terraces, continuing later with the insulation of walls, the replacement and insulation of hot water pipes, the insulation of the ground floor, and the like.

Developing standards on energy efficiency in buildings by engaging in related work at the UNECE, such as the UNECE Expert Group on Energy-Efficiency Standards in Buildings, should also be considered.

7. Develop policies and regulations to improve the living conditions of the population, with particular attention to vulnerable groups

General Comment No. 4 of the UN CESCR specifies seven criteria that must be taken into account in assessing the quality of living conditions or adequacy of housing. The Republic of Moldova could take these into consideration when developing policies, regulations and programmes to improve living conditions, particularly those of vulnerable groups. The study has taken into account the seven CESCR criteria and developed recommendations in line with improving living conditions based on criteria relevant to the Republic of Moldova.

7.1 Security of tenure: Legislation should ensure security of tenure, particularly for people who are at risk of forced eviction. Households who face this risk are: those living in areas prone to natural disasters; those living in rental housing; those unable to pay the mortgage; etc. In developing regulations, the Government should refer to the UN general rules as specified in General Comment No. 7 of UN CESCR.

7.2 Access to water and sanitation: Specific programmes for Roma communities should be developed to provide safe water and sanitation. The Government should implement the actions provided for in the “Action Plan on supporting the Roma population of the Republic of Moldova for 2011-2015” (approved by Government Decision No. 494 of 8 July 2011) on ensuring adequate access to water and sanitation in Roma communities. The Plan describes, among others, the high social impact of investing in bringing water and sanitation to small communities and states that such investments should be based on a cost benefit analysis. Another action point is the possible relocation of the Roma communities to more densely populated areas, equipped with the necessary infrastructure.

7.3 Overcrowding: Analysis of available data suggests a degree of overcrowding that needs further research and study. Overcrowding is caused by unaffordability and low housing provision. Solving this issue is a complex task that involves integrating policies that support both the demand and supply sides of housing. From the demand side, the Government may take into consideration housing costs and what households can afford to buy, and introduce support programmes, such as small grants programmes, to enable households to enter the housing market. From the supply side, the Government may stimulate private sector involvement, e.g., by providing developed land at a reduced price; or easing urban regulations, e.g., increasing density; etc.

7.4 Improving access to housing for the disabled: Norms and standards in construction relating to person with disabilities should be implemented (contained in “General security requirements for buildings and construction accessibility for people with disabilities” and “Designing buildings and structures taking into account people with disabilities”). These norms and standards have taken into account the Universal Design Principles, which offer guidance to designers for the better integration of features that meet the needs of the disabled.

8. Examine homeowners’ debt to municipal companies and provide solutions on how to repay these debts

It appears unfeasible for homeowners to repay their accumulated debt to municipal companies. Therefore, this debt will continue to grow and homeowners may face the risk of eviction. Utility providers should thoroughly analyse the reasons why each household is not paying its dues and fees, and give specific solutions for each case. A new law may provide for local governments to take over the ownership of those apartments (de-privatize) and to sign a social rental contract with the current tenants.

Awareness campaigns are crucial to get the attention of homeowners. Training is needed for housing management companies. Specific requirements should be provided for the professional profile of the manager.

9. Improve utility infrastructure efficiency by modernizing equipment, introducing modern infrastructure technology and improving infrastructure management

9.1 A long-term commitment to reforms by the Government for improving the efficiency of the existing utility infrastructure is needed, as well as the encouragement of significant investment in this sector. The Government and the LPAs are on the right track with regards to addressing the problem. However, without major investment and structural reforms, progress could be limited.

Technical standards (e.g., energy-efficiency standards) for multi-family house maintenance should be set and apartment owners must adhere to them. Free market mechanisms can be used to select utility service providers, but the amount of services should be fixed according to technical requirements.

The utility infrastructure should be inspected if an upgrade or a replacement is needed. Old infrastructure has low operational efficiency and this could result in wastage or high utility costs (e.g., water leakage, high energy usage). Modernizing equipment could reduce the amount of electricity required to operate it.

Improving the efficiency of utility networks should be prioritized, since this will bring down operational costs for utility companies and enable them to increase service coverage to peri-urban areas where there is a great need for water and sanitation. The proximity of these areas to the main urban utility network makes this feasible without incurring an increase in operating expenditure.

9.2 A comprehensive GIS-based database of infrastructure assets should be set up by utility providers, in accordance with the provisions of Government Decision No. 1300 of 27 November 2001 (the regulation on the establishment and maintenance of functional urban cadastre). This data should be shared with State bodies and LPAs, as this will increase the efficiency of the process of authorizing new developments, as well as routine urban planning by LPAs. The most important components of a

functional urban cadastre are the register of utility networks and the documentation of information on urban and spatial planning.

10. Raise the profile of housing within the Government

To raise the profile of housing within the Government, consider:

- 10.1 Strengthening the housing division within the responsible ministry to take on the following additional tasks:
 - a) Analyse the actual housing management system, defining bottle necks; initiating legal reforms; and developing academic modules and curricula for courses for housing managers and representatives of homeowners' associations
 - b) Define and adjust quantitative and qualitative indicators for the housing sector and, based on these, develop a comprehensive housing sector strategy
- 10.2 Establishing a government advisory board, under the chair of the responsible ministry, consisting of representatives from major housing stakeholders, to make recommendations on housing issues to the Government and Parliament
- 10.3 Developing proposals for helping local authorities improve their strategic housing roles
- 10.4 Developing proposals for establishing mechanisms for incorporating the views of residents into national and local housing strategies.

11. Establish a sound housing data platform to use as a basis for developing housing policies and determining realistic measures of certain housing issues

In developing effective housing policies, their provisions should be based on realistic data and information on the housing situation and issues.

A sound housing data platform (hereinafter, the data platform) is needed to be able to define a realistic standard for “adequate” housing, which will cover space, amenities, construction and repair, management, energy efficiency and affordability. Currently, available data is not sufficient to measure certain housing issues, such as estimating the gap between the rate of new construction and the need to satisfy demand and replace damaged houses.

Sample surveys could be undertaken, the results of which could be included in the data platform. They should contain questions on indicators that would measure the need for repair and improvement of the housing stock, and the need for a housing safety net to prevent homelessness. Moreover, provisions in Government Decision No. 111 of 12 February 2014 on the technical inventory and certification of existing blocks of apartments should be implemented.

The data platform will serve as a centralized database of up-to-date housing information that could be used as a basis for developing policies and programmes to better address housing problems and serve the housing needs of people.

The MRDC could be tasked with establishing this data platform, with the assistance of the NBS.

12. Increase the availability of current housing stock and the provision of new housing

Available data suggest potential problems with housing availability and new housing provision. This is due to a combination of factors from the supply and demand sides. The number of new housing constructions is not enough to replace the dilapidated housing stock.

Moreover, the economic crisis has decreased the ability of households to afford housing costs and of banks to provide affordable mortgages.

12.1 To stimulate affordable housing provision, a combination of policy instruments that support both supply and demand is needed. The State still owns land in Chisinau and some of this land is owned, for example, by hospitals. One hospital gave part of its land (10,000 m²) to a private company to build a residential complex with 1,800 apartments. Hospitals are not specialized in developing housing programmes and cannot provide sustainable housing solutions.

12.2 A process of inventory of State and public properties should start, which should identify the state-owned properties to be transferred to, and registered under the name of, municipalities. This implies proper and timely inventory, measurement and registration in the real property register. The municipalities should then develop housing programmes based on local urban plans, and enter into partnership with private developers.

12.3 These properties can also be used to stimulate the market for NPO housing providers. The MRDC should prepare the legislation to support such activities.

13. Set up a regulated not-for-profit housing sector

After World War II, most of the development of social housing in Western Europe was carried out by NPOs. They fulfilled the role of investors in developing rental apartments as well as apartments for private ownership. The owners of these organizations are cities and municipalities, the state, counties, churches and business entities. Prevailing legal forms are cooperatives, limited liability companies and joint-stock companies.

Being NPOs, they are not subject to the provisions of the Tax Act, that is, they pay no tax on corporate income, and the balance sheet is drawn up under the commercial code.

These NPOs must organize their activities and overall management under an act or a law on non-profit housing. This law may consider provisions of similar laws in other countries.

Spatial planning and urban development

14. Implement the Master Plans development initiative of the Government

The Government recognizes the need to have modern Master Plans in place (Government Decision No. 493 on Approval of a Mid-term Programme on the Development of Master Plans for Human Settlements). However, it is still not clear how these Plans are going to be set up and who will finance their development. Therefore, there is a need to establish clear guidelines on these matters. The challenges to the establishment of Master Plans could be categorized into the following:

14.1 Financing. Government Decision No. 493 identifies a broad range of financing sources (State budget, local administration budget, loans and grants), which might blur the responsibility for financing. There is a need to look further and develop a policy document that would address issues of stakeholders' involvement in the elaboration of Master Plans, and that would assure the quality of the process for approving them based on market economy principles.

14.2 Strategic planning. It is very important that country-specific concerns are addressed in the Master Plans. These concerns are: (1) the environmental risk due to geological processes (including gully formation, landslides and floods); (2) spatial planning to

allow space for infrastructure development (water supply and sanitation, and waste management); and (3) the concerns of vulnerable population groups.

- 14.3 Capacity of LPAs. Local authorities are responsible for the provision of Master Plans. However, without the necessary experience, expertise and skill for doing so, the planning process could be hijacked by “sponsors” (i.e., developers and other parties concerned) and could result in Plans that do not fully address the needs related to the socio-economic development in a specific locality.

Further steps may include the development of laws guiding the public participation process in planning, and addressing specific issues like natural disaster risk mapping, utilities infrastructure and environmental management in the planning documents.

Developing the Master Plans requires the availability of spatial data. Therefore, the Government should support the ongoing establishment of the National Spatial Data Infrastructure.

15. Ensure coherence with the guidelines of the “Sendai Framework for Disaster Risk Reduction 2015-2030” in developing a disaster risk strategy

The Sendai Framework for Disaster Risk Reduction 2015-2030 makes numerous references to the importance of housing and land use management in disaster risk reduction (DRR) and resilience. The integration of climate change adaptation and DRR within development planning is crucial for the prevention of human and economic losses due to disasters, particularly in countries with high risk exposure such as the Republic of Moldova.

The following are some recommendations based on this Framework.

- 15.1 In order to mitigate existing risks and to avoid the generation of new ones, land use planning and planning of new urban and/or industrial settlements must be based on multi-hazard risk assessments, including secondary effects, and evaluate financial losses due to both direct and indirect consequences of disasters.
- 15.2 The proper accounting of financial losses due to disasters is crucial. Understanding each risk and its consequences in terms of financial and social costs will provide the basis for deciding on the most appropriate DRR strategy to be implemented. It is important that this risk information is shared among the different stakeholders at national and local levels, as well as with the private sector and civil society. In the Republic of Moldova, as in many other European countries, housing is often the largest investment made by families, and shared information would increase their interest in protecting their investment and heighten their awareness on its exposure to risk.

The same applies to the private sector. National and international investors are interested in risk analysis and DRR to protect their activities. A proper risk assessment and the accounting of losses due to disasters will also facilitate the penetration of insurance and reinsurance markets, as insurance companies will be able to better assess their risk and therefore to develop services tailored to the needs of customers.

- 15.3 Once both the risk and the impact are recognized, it will be much easier to design a DRR strategy to be integrated within new urban and/or industrial settings. The idea is not to avoid new settlements, but to develop them without generating additional risks.

15.4 Perform risk analysis and implement related mitigation strategies in a coordinated manner and with the engagement of all relevant stakeholders. The full participation of academia is crucial to ensuring that the most effective and convenient techniques and methodology are adopted, to guarantee the safety of the infrastructure as well as the financial sustainability of the measures in the long term. It is also crucial that all competent ministries, local authorities, and representatives of the private sector and of civil society are involved and committed to ensuring the sustainability of the measures.

16. Establish a mechanism to monitor how LPAs implement the approved Master Plans

The legal system clearly defines the division of responsibilities in the different tiers of the Government regarding urban and rural planning and development. The Government should establish a mechanism that would monitor and assess the performance of LPAs when it comes to adhering to and enforcing approved land use plans.

17. Monitor urban indicators at national level and set up policies and targets to address the most pressing problems

The national and local governments should adopt policy documents that would address specific problems at the local level. There should be local strategies to tackle problems according to priority, and indicators should be monitored based on progress made towards achieving specific targets and milestones. Such programmes could be directed at, for example, transport and waste management challenges. These programmes could and should be linked together, and should also be closely related to spatial data.

There is a need to set up policies that would address the most pressing problems (e.g., waste management) and develop strategy documents at the local level. The key locality-specific problems should be identified, and relevant urban sustainability indicators should be set and monitored. This would enable informed decision-making by the LPAs within an agreed policy framework, rather than ad-hoc decisions for tackling prolonged and persistent problems.

18. Treat dachas in peri-urban areas as individual housing units, gradually making provisions to integrate them into the urban system by providing utilities and standard State services

Living in a predominantly rural country with favourable climate and soil and limited industrial development, Moldovans rely on the land for their livelihood. During the Soviet era, people migrated to cities; now they migrate out of them. The migration process does not target remote villages, but rather peri-urban areas where formal and semi-formal (dachas – summer houses or cottages typically used as holiday homes) housing is being developed and currently flourishes. The Republic of Moldova still has ample land available that is either unused or not intensively used. In this situation, aggressively combatting urban sprawl would not be the right policy, but rather regulating it in a way that would still enable people to build their own houses and have domestic agriculture and farming.

It is recommended to have a policy appraisal exercise to determine whether peri-urban individual housing development would revitalize the economy. If it would, steps should be taken to determine the optimal size for a land lot and what functional use it should have (housing, gardening, small-size agriculture or animal farming). This exercise should include the assessment of infrastructure needs, including a study on transport systems. It should be determined to what extent encouragement of individual housing could be a promising policy

and strategy for economic growth, and under what conditions it should be encouraged or discouraged, and how.

Since significant urban sprawl occurs de facto, there is a need for a policy that would make it as sustainable as possible.

19. Provide staff training and capacity-building across LPAs and service providers, especially in the housing management and utility infrastructure sectors

In some instances it has been reported that professionals responsible for certain types of work lack the required qualifications for their job, or their knowledge and qualifications are not up to date. This has been observed in mapping and topographic works, as well as in the management of the utilities infrastructure. Many professionals attained significant experience in crisis management and tailored solutions ad-hoc while combatting problems unique to localities. However, this does not provide them with the knowledge and motivation to move to state-of-the-art facilities and facilitate the implementation of new policy and/or technical solutions.

It is recommended to establish a programme that would train LPAs in their line of work. International cooperation and exchange would also be beneficial.

Land management and real estate markets

20. Complete the real estate register

Challenges and problems are encountered in any registration system. Some are unique to individual countries, whilst others are commonly encountered across all jurisdictions. Now that the first phase of land registration is largely complete, both types of problems were observed in the Republic of Moldova.

The remaining 15% of unregistered privatized properties must be registered. The Government should accelerate the process of registration of all properties and may consider adopting additional triggers. For example, first registration should become a statutory requirement upon the death of an owner or when an owner takes a new mortgage on a property.

Completion of the register will not only benefit property owners, but also the real estate market in general. Property owners benefit from a legally valid registration title that they could use, for example, to sell or rent out a property at a fair price or pass it on as inheritance. A legal ownership title, in turn, gives banks secured credit against real estate, which could encourage them to provide more residential mortgage lending on more affordable terms. The availability of register information, such as ownership and property location, will stimulate the development of the real estate market.

As the real estate register becomes more complete, and new data sets are added, its value to society becomes greater. There may be opportunities in the future to use land registry data to improve land management, forecasting and predicting trends which will help improve the efficiency and transparency of the land market. This should perhaps be viewed as a long-term vision but, if borne in mind now, decisions for the next steps will have a focus and a rationale.

21. Undertake a quality-improvement programme by Cadastru to align registered properties with the physical occupation of the property in order to build confidence in the land register

There are discrepancies between the legal title issued and the physical occupation. This has partly been caused by plots inadequately delineated. Hence there are residual difficulties in identifying the extent of land included in individual ownership. Moreover, this has been exacerbated by subsequent re-surveys, which have used different surveying methods. These two problems result in insecurity of tenure and lack of confidence in the land register.

22. Consider setting up an alternative and independent complaints office to act as a single point of contact for all registration complaints, and a new land tribunal, operating independently of Cadastru and the courts, to improve the impartiality and speed of the judicial process and to increase access to justice for land owners

The involvement of State and private entities in the purchase and registration processes has resulted in complex and lengthy procedures for those who are unhappy with the service they have received. For example, Cadastru will refer complainants to private surveying firms if the problem is not directly attributable to it, even though, in principle, the State carries the liability for the registration process.

Owners have little faith in current procedures to hear land disputes. This is partly because of the length of time taken to receive a judgement, and also because of a perception that the process is not transparent and is susceptible to undue influence.

Cadastru would keep responsibility for paying compensation for mistakes but, where the fault lies with a contracted supplier, it should pursue a claim against the third party.

23. Investigate into the problems in respect of shared responsibility for the maintenance of purpose-built apartments or condominium blocks and, when solutions are found, set up a process to ensure that the financial details of purchaser liability are set out in the particulars of the sale as well as in the contract

The Moldovan registration system separates ownership of land and buildings, most typically where purpose-built blocks of apartments¹²⁹ (condominiums) are built on land formerly owned by State authorities or local municipalities.

Moreover, the transfer documentation of individual apartments is largely silent on the apportionment of ownership of common parts to individual owners. This has led to problems, misunderstandings and disputes over the liability for the maintenance and upgrade of these areas. Furthermore, owners build or extend their apartments without permits or any form of building control.

The recommended investigations should look at the role and statutory obligation of management committees, examples of public-private financing of new housing stock, and the role of Cadastru in administering any eventual solution (e.g., by setting out the liability of apartment owners on the register).

24. Further enhance the implementation of the new Insolvency Law

A new Insolvency Law, which took effect in 2013, was designed to speed up the process of administering insolvency.

¹²⁹ Blocks of apartments built specifically as such. If a hospital building was converted into a block of apartments, these apartments could not be called purpose-built.

The linkage of the new legislation to the land register was unclear but its positive effects could be further enhanced by adopting a procedure for entering the details of a bankrupt owner on the register, and also by keeping a central register in Cadastru if this is not already in place.

25. Compliance of responsible data owner and data providers with the EU INSPIRE Directive

The INSPIRE Directive is obligatory for EU member states. As a non-EU member state, the Republic of Moldova does not currently conform to it. However, the country is aspiring to EU membership and has made efforts to establish its National Spatial Data Infrastructure (NSDI) in accordance with the Directive. It is recommended that the Government should fully support this process.

To ensure that the spatial data infrastructure is harmonized with those of EU member states, it is recommended that the Government ensures compliance with the requirements of the Directive.

26. Review the Cadastru IT technical infrastructure

On the assumption that some, if not all, recommendations are adopted in the fullness of time, it should be ensured that the Cadastru IT technical infrastructure has the capacity and capability to operate going forward. This is particularly important since, as heard during interviews, the current IT system has been in place since the introduction of the current land registration system. Such a review should also encompass its web services.

27. Use clear, transparent and systematic methodologies in the taxation of properties and use the market value of the object as the basis for taxation

To have an effective taxation system, the criteria used should be explicit, transparent and systematically applied to all real estate. It should be made public, and citizens should be informed on the methodologies used. In a market-oriented economy, market values and changes due to inflation should be used rather than the normative basis. The same applies to the revaluation methodologies used every three years.

28. Apply CAMA for the whole territory

CAMA can assist in obtaining data for the whole territory in a systematic and transparent manner in a limited timeframe, and it can be easily repeated. For pragmatism and transparency, available data should be used rather than ad hoc appraisals where data are missing and which may comprise a methodology that is not always clear.

29. Base the taxation of real estate and land on market values

The use of market values will contribute to the development of the land market, as it allows the comparative analysis of sales. Currently, sales across the country cannot be compared.

30. Consider merging land and real estate taxes to make tax collection more efficient

To make the tax collection system more efficient, the merging of land and real estate taxes is needed. From a psychological point of view, it would be important to collect one tax instead of two. Furthermore, if tax collection takes place only once, savings can be made, and this would lead to lower costs.

At the same time, consider reviewing the collection of taxes, as the costs of collection barely exceed revenue. Collection of taxes is only useful if it brings in revenue. It is easier to explain that taxes need to be paid and what the Government is doing with the revenue for the society as a whole, rather than having to explain that, even though taxes were collected, nothing could be invested for the benefit of society because no revenue was earned from the tax collection.

Land policy

31. Address the issue of an emerging land lease market in the land policy

The intent of creating a formal land property system was the establishment of a credible and secure system for long-term perspectives and investments. However, in rural areas a land lease market has emerged, rather than a land market. Land leases have become the dominant land transaction. The land policy should address this issue because it has created an environment where short-term focus prevails over long-term interest in the sound use of these land resources.

32. Modernize the agricultural educational system and agricultural research to improve land use

To improve land use as one of the pillars of good land policy, the agricultural educational system and agricultural research should be modernized with regards to the capabilities, methodologies and tools used for production in a competitive market. This modernized agricultural education should be linked to agricultural research, so that information and knowledge are united.

33. Transfer labour from agricultural to non-agricultural activities to increase the quality of livelihoods in rural areas

The creation of modern and competitive agriculture implies a substantial transfer of labour from agricultural to non-agricultural activities. Rural development programmes should support this transfer in order to create diverse and attractive areas of living, facilitating a decent livelihood for the population.

34. Focus the strategy for land consolidation in rural development by taking into account the age groups of farmers, the funding and the envisaged farm types

In the “National Strategy for Land Consolidation 2012-2017”, the following can be observed:

- The Strategy should not only address the farm holdings. It should also focus on the age groups of farmers, so that elder farmers can retire and young farmers be given the opportunity to start as private entrepreneurs. This means that this Strategy should be integrated into rural development programmes.
- The Strategy should be long-term and with the necessary funding secured. Possible sources of funding are mentioned, but there are no explicit statements concerning long-term funding.
- The Strategy should take into account the type of farming envisaged long-term. This aspect is currently neglected. With such a vision, and in combination with spatial planning, the rural countryside can be shaped for the future.

35. Integrate the use of land consolidation in the land policy and the agricultural strategy to make optimal use of developed capacities

The steps taken in concluded land consolidation projects have been crucial in developing local capacities. These capacities should be further enhanced and broadened countrywide, while integrating the process of land consolidation in the land policy and the strategy for agriculture and rural development.

Land consolidation is an instrument that can contribute to solving land registration problems. In Western European countries this has been applied and, from this experience, the Republic of Moldova could apply the lessons learned.

36. Enhance the protection and management of all co-ownership arrangements, communal rights and common use rights

The protection and management of land with co-ownership arrangements, communal rights or common use rights should be improved. Delineation of areas is a prerequisite and this should be completed.

37. Monitor the purchase and sale of agricultural land for investment purposes

The Government should monitor the purchase and sale of agricultural lands for investment purposes, and make sure that the local population benefits from such investments. Land-based investments should create a win-win situation for the investor and for the host.

Annex II. Demographic statistics, 1990-2014

| As of 1 January | Demography | | | | | | | | | | | |
|-----------------|---------------------------|-------|-------|-------------|--------|--------|----------|--------|--------|--------------------------------|--------|--------|
| | Population (in thousands) | | | Live births | | | Deceased | | | Natural increase of population | | |
| | Total | Urban | Rural | Total | Urban | Rural | Total | Urban | Rural | Total | Urban | Rural |
| 1990 | 4 359 | 2 053 | 2 306 | 77 085 | 34 610 | 42 475 | 42 427 | 15 234 | 27 193 | 34 658 | 19 376 | 15 282 |
| 1991 | 4 364 | 2 057 | 2 307 | 72 020 | 31 603 | 40 417 | 45 849 | 16 045 | 29 804 | 26 171 | 15 558 | 10 613 |
| 1992 | 4 357 | 2 036 | 2 321 | 69 654 | 28 970 | 40 684 | 44 522 | 15 506 | 29 016 | 25 132 | 13 464 | 11 668 |
| 1993 | 4 346 | 2 023 | 2 323 | 66 179 | 25 987 | 40 192 | 46 637 | 16 563 | 30 074 | 19 542 | 9 424 | 10 118 |
| 1994 | 4 350 | 2 020 | 2 330 | 62 085 | 24 327 | 37 758 | 51 514 | 18 598 | 32 916 | 10 571 | 5 729 | 4 842 |
| 1995 | 4 346 | 2 017 | 2 329 | 56 411 | 21 712 | 34 699 | 52 969 | 18 645 | 34 324 | 3 442 | 3 067 | 375 |
| 1996 | 4 332 | 1 988 | 2 344 | 51 865 | 19 682 | 32 183 | 49 748 | 18 458 | 31 290 | 2 117 | 1 224 | 893 |
| 1997 | 4 318 | 1 978 | 2 339 | 45 583 | 15 549 | 30 034 | 42 957 | 14 236 | 28 721 | 2 626 | 1 313 | 1 313 |
| 1998 | 3 656 | 1 523 | 2 133 | 41 332 | 14 221 | 27 111 | 39 922 | 13 180 | 26 742 | 1 410 | 1 041 | 369 |
| 1999 | 3 650 | 1 517 | 2 133 | 38 501 | 13 238 | 25 263 | 41 315 | 13 512 | 27 803 | -2 814 | - 274 | -2 540 |
| 2000 | 3 644 | 1 514 | 2 130 | 36 939 | 12 722 | 24 217 | 41 224 | 13 266 | 27 958 | -4 285 | - 544 | -3 741 |
| 2001 | 3 635 | 1 486 | 2 149 | 36 448 | 12 542 | 23 906 | 40 075 | 12 844 | 27 231 | -3 627 | - 302 | -3 325 |
| 2002 | 3 628 | 1 485 | 2 143 | 35 705 | 12 747 | 22 958 | 41 852 | 13 229 | 28 623 | -6 147 | - 482 | -5 665 |
| 2003 | 3 618 | 1 484 | 2 134 | 36 471 | 12 788 | 23 683 | 43 079 | 13 650 | 29 429 | -6 608 | - 862 | -5 746 |
| 2004 | 3 607 | 1 478 | 2 130 | 38 272 | 14 060 | 24 212 | 41 668 | 13 319 | 28 349 | -3 396 | 741 | -4 137 |
| 2005 | 3 600 | 1 476 | 2 124 | 37 695 | 13 583 | 24 112 | 44 689 | 14 199 | 30 490 | -6 994 | - 616 | -6 378 |
| 2006 | 3 590 | 1 470 | 2 120 | 37 587 | 13 579 | 24 008 | 43 137 | 13 764 | 29 373 | -5 550 | - 185 | -5 365 |
| 2007 | 3 581 | 1 478 | 2 103 | 37 973 | 13 679 | 24 294 | 43 050 | 13 855 | 29 195 | -5 077 | - 176 | -4 901 |
| 2008 | 3 573 | 1 476 | 2 097 | 39 018 | 14 288 | 24 730 | 41 948 | 13 463 | 28 485 | -2 930 | 825 | -3 755 |
| 2009 | 3 568 | 1 476 | 2 091 | 40 803 | 14 906 | 25 897 | 42 139 | 13 296 | 28 843 | -1 336 | 1 610 | -2 946 |
| 2010 | 3 564 | 1 477 | 2 087 | 40 474 | 15 142 | 25 332 | 43 631 | 13 413 | 30 218 | -3 157 | 1 729 | -4 886 |
| 2011 | 3 560 | 1 482 | 2 079 | 39 182 | 14 599 | 24 583 | 39 249 | 12 541 | 26 708 | - 67 | 2 058 | -2 125 |
| 2012 | 3 560 | 1 486 | 2 074 | 39 435 | 14 890 | 24 545 | 39 560 | 12 792 | 26 768 | - 125 | 2 098 | -2 223 |
| 2013 | 3 559 | 1 492 | 2 067 | 37 871 | 13 987 | 23 884 | 38 060 | 12 590 | 25 470 | - 189 | 1 397 | -1 586 |
| 2014 | 3 558 | 1 503 | 2 055 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |

Source: Statistics from Republic of Moldova, NBS StatBank, Population.

Note: The information presented from 1998 onward does not include data from the districts from the left side of the river Nistru and the municipality of Bender.

The total may not equal the sum of its components due to rounding.

Annex III. Annex I of Law No. 1056-XIV of 16 June 2000 on the implementation of Section VI of the Tax Code of the Republic of Moldova

Objects of taxation and maximum ceiling land tax rates

1. For agricultural land:
 - b) For all types of land, excluding pastures and grazing land:
 - If cadastre value is determined – up to 1.5 Lei per grade/hectare
 - If cadastre value is not determined – up to 110 Lei per hectare
 - c) Pastures and grazing land:
 - If cadastre value is determined – up to 0.75 Lei per grade/hectare
 - If cadastre value is not determined – up to 55 Lei per hectare
 - d) Land plots occupied by water objects (lakes, ponds, etc.) – up to 115 Lei per hectare of water surface (amended by Law No. 1440–XV of 8 November 2002)
2. For land within dwelling community areas:
 - 37.1 For land parcels under housing facilities, garages of cooperative societies and household land (including house land lots distributed by local governments within the established norms beyond the dwelling community area if there is not enough land there):
 - In rural areas – up to 1 Lei per 100 m²
 - In towns – up to 2 Lei per 100 m²
 - In Chisinau and Balti municipalities – up to 10 Lei per 100 m²
 - In other municipalities and residence towns – up to 4 Lei per 100 m² (amended by Law No. 501–XV of 11 December 2003)
 - 37.2 Land used for industrial, transportation, and telecommunication purposes, used by agricultural enterprises, and other special-purpose land:
 - In towns and rural areas – up to 10 Lei per 100 m²
 - In Chisinau and Balti municipalities – up to 30 Lei per 100 m²
 - In other municipalities and residence towns – up to 10 Lei per 100 m²
3. For land allocated to horticultural partnerships:
 - In towns and rural areas – up to 1 Lei per 100 m²
 - In Chisinau and Balti municipalities – up to 10 Lei per 100 m²
 - In other municipalities and residence towns – up to 1 Lei per 100 m²
4. The land located beyond the dwelling community areas used for industrial, transportation, or telecommunication purposes and other special-purpose land – up to 70 Lei per hectare (in the redaction of Law No. 268–XVI of 28 July 2006).
5. Land parcels eroded as a result of the production activity of construction, installations, quarries – up to 350 Lei per hectare (in the redaction of Law No. 268–XVI of 28 July 2006).

(According to Law No. 268-XVI of 28 July 2006, the word “until” shall be excluded from the text of this Annex).

Source: Serviciul Fiscal de Stat al Republicii Moldova, http://old.fisc.md/en/lege/acte_legislative/legi/8/

REFERENCES

- “Cities’ Achievements and Challenges in the Fight against Climate Change”. C40 Large Cities Climate Leadership Group. 2009. <http://www.c40cities.org/c40events/c40-seoul-summit>.
- Ion Botnarenco (2009). *Consolidarea Terenurilor Agricole in Moldova (Teorie, Metode, Practica)*. Chisinau: Pontos.
- Sorin Cace, Vasile Cantarji, Nicolae Sali, and Marin Alla. *Roma in the Republic of Moldova*. Chisinau: UNDP Moldova, 2007. Available from [http://www.undp.md/publications/roma_report/Roma in the Republic of Moldova.pdf](http://www.undp.md/publications/roma_report/Roma%20in%20the%20Republic%20of%20Moldova.pdf).
- John I. Carruthers (2003). “Growth at the Fringe: The Influence of Political Fragmentation in United States Metropolitan Areas”. *Regional Science*, Vol. 82: 475-499.
- Sean M. Cashin and Gerald McGrath (2006). Establishing a modern cadastral system within a transition country: consequences for the Republic of Moldova. *Land Use Policy*, Vol. 23(4): 629-642.
- Dragos Cimpoies and Zvi Lerman (2007). Land policy and farm efficiency: the lessons of Moldova. Paper prepared for presentation at the joint IAAE - 104th EAAE Seminar, Agricultural Economics and Transition “What was expected, what we observed, the lessons learned”. Corvinus University of Budapest, 6-8 September, 2007, Budapest, Hungary. 10pp.
- Dragos Cimpoies, Zvi Lerman and Anatol Racul (2009). The Economics of Land Consolidation in Family Farms of Moldova. Seminar paper at the 111th EAAE-IAAE seminar “Small Farms: Deline or Persistence”. Canterbury, June. Available from <http://purl.umn.edu/52837>.
- Mirea Ciobanu (2009). *The Real Estate Cadastre in the Republic of Moldova: 10 years*. Chisinau: I.E.P. Stiinta, 2009. 95pp.
- Control and Mitigation of Drinking Water Losses in Distribution Systems*. Washington, D.C.: U.S. Environmental Protection Agency, Office of Water, 2010.
- Klaus Deininger (2003). Land Policies for Growth and Poverty Reduction. *World Bank Policy Research Report*, Oxford and Washington, D.C.: Oxford University Press and the World Bank, 2003. Available from http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2003/08/08/000094946_0307250400474/Rendered/PDF/multi0page.pdf
- Demographia World Urban Areas*. 9th Annual Edition: 2013.03. Demographia (2013). <http://www.demographia.com/>.
- European Environmental Agency (2005). The European Environment: State and Outlook. Available from <http://reports.eea.europa.eu/>.
- Morten Hartvigsen, Maxim Gorgan and David Palmer (2012). Experiences with Land Reform and Land Consolidation in Moldova. *Land Tenure Journal*, No. 2., p.10.
- M. Heywood (2000). Rural land management and agricultural restructuring in transitional economies – the case for developing a land tenure framework. *Z. f. Kulturtechnik und Landentwicklung*, Vol. 41, No. 3, pp.127-132.

- International Energy Agency (2004). *Energy to 2050: Scenarios for a Sustainable Future*. OECD Publishing, Paris. DOI: <http://dx.doi.org/10.1787/9789264019058-en>.
- L.J.M. Jansen (2013). How can land management be improved in Romania with the lessons learnt elsewhere in Europe? Paper presented at the Séminaire du Syndicat National des Géomètres Experts Aménageurs Ruraux (GERAR) sur l'aménagement foncier, Session technique aménagement foncier agricole. Lyon, September. 24pp.
- L.J.M. Jansen and others (2014). The Use of the Land-Cover Classification System in Eastern European Countries: Experiences, Lessons Learnt and the Way Forward. *Land Use and Land Cover Mapping in Europe: Remote Sensing and Digital Image Processing*, Vol. 18. Available from www.springer.com/earth+sciences+and+geography/book/978-94-007-7968-6
- Ulf Kihlbom and Mike Cheremshynsky (2006). First Cadastre Project in Moldova: Training Technical Assistance Project. *SIDA Evaluation No. 06/54*. Available from http://www.sida.se/contentassets/0dcd9fc39c9f4bb781745518e54bef85/0654-first-cadastre-project-in-moldova_2012.pdf.
- T. Litman (2015). *Smart Growth Reforms: Changing Planning, Regulatory and Fiscal Practices to Support More Efficient Land Use*. Victoria Transport Policy Institute, Canada. www.vtppi.org.
- Alexandru Morcov (2012). *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*. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.
- Network of Associations of Local Authorities of South-East Europe [NALAS] (2009). Improvement of Local Property Tax Administration in South-East Europe: Guidelines on Local Property Tax Administration. Skopje, Macedonia: NALAS, March. 61pp. Available from http://www.acor.ro/files/rel_internat/nalas/manuale%20-%20ghiduri%20-%20in%20limba%20engleza/Nalas%20-%20Improvement%20of%20local%20property%20tax%20administration%20in%20South%20Eastern%20Europe%20Net.pdf.
- Organisation for Economic Co-operation and Development [OECD] (2006). *Infrastructure to 2030: Telecom, Land Transport, Water and Electricity*. Paris: OECD Publishing. DOI: 10.1787/9789264023994-en.
- Organisation for Economic Co-operation and Development [OECD] (2008). *OECD Environmental Outlook to 2030*. Paris: OECD Publishing. DOI: <http://dx.doi.org/10.1787/9789264040519-en>.
- Organisation for Economic Co-operation and Development [OECD] (2010). Capacity development for environmental management in Moldova: drivers, links to planning and methods of assessment. Report of the OECD EAP Task Force for the Implementation of the Environmental Action Programme for Central and Eastern Europe. Paris, France. 46pp. Available from <http://www.oecd.org/countries/moldova/45559222.pdf>.
- M.L. Parry and others (2007). *Climate Change 2007: Impacts, Adaptation and Vulnerability: Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge, U.K.: Cambridge University Press, 2007. https://www.ipcc.ch/pdf/assessment-report/ar4/wg2/ar4_wg2_full_report.pdf.
- State of the World's Cities, 2012/2013: Prosperity of Cities*. New York: Routledge for and on behalf of UN-Habitat, 2013.

Sasha Tsenkova (2007). *Lost in Transition: Housing Reforms in Moldova*. Sustainable Urban Areas. Proceedings of International Conference of the European Network for Housing Research (ENHR)/Delft University: Rotterdam, 22pp.

UN-Habitat (2011). *Cities and Climate Change - Global Report on Human Settlements 2011*. London and Washington, D.C.: Earthscan. Available from <http://unhabitat.org/books/cities-and-climate-change-global-report-on-human-settlements-2011-abridged/>.

United Nations (2012). Report of the United Nations Conference on Sustainable Development. 20–22 June 2012. A/CONF.216/16.

United Nations Development Programme Moldova (2014). *2014 Human Development Report: 2.2 billion people are poor or near-poor*. Available from <http://www.md.undp.org/content/moldova/en/home/presscenter/pressreleases/2014/07/24/raportul-dezvoltarii-umane-2014-2-2-miliarde-de-oameni-sunt-saraci-sau-aproape-saraci-/>.

United Nations Environment Programme (2012). *GEO-5 Global environment outlook: Environment for the future we want*. Valletta, Malta: Progress Press Ltd.

United Nations, Department of Economic and Social Affairs (2012). *World Urbanization Prospects: The 2011 Revision. Highlights*. ESA/P/WP/224.

United Nations, Economic and Social Council (2013). Report of the Secretary-General “Science, technology and innovation for sustainable cities and peri-urban communities”. E/CN.16/2013/2.

United Nations Economic Commission for Europe (2002). *Country Profiles on the Housing Sector: Republic of Moldova*. ECE/HBP/125. Available from <http://www.unece.org/index.php?id=36288>.

United Nations Economic Commission for Europe (2011). *Country Profiles on the Housing Sector: Tajikistan*. ECE/HBP/163. Available from <http://www.unece.org/index.php?id=27165>.

United Nations Economic Commission for Europe. *Land Administration Guidelines with Special Reference to Countries in Transition*. Sales No. E.96.II.E.7. Available from <http://www.unece.org/fileadmin/DAM/hlm/documents/Publications/land.administration.guidelines.e.pdf>.

United Nations, World Commission on Environment and Development (1987). Report of the World Commission on Environment and Development: Our Common Future. Published as Annex to General Assembly document A/42/427 - Development and International Cooperation: Environment.

P. Van de Molen, and L.J.M. Jansen (2010). Urban and rural land management in the Netherlands: the role of the State as policymaker and landowner. Key note speech at the ARGE/AdV International Land Management Symposium Land Management Strategies for Improving Urban-Rural Inter-Relationships – Best Practices and Regional Solutions. Hanover, May.

Terry Van Dijk (2003). Scenarios of Central European land fragmentation. *Land Use Policy*, No. 20(2), pp.149-158.

Terry Van Dijk (2004). Land consolidation as Central Europe’s panacea reassessed. Presented at FIG Commission 7 Symposium on Modern Land Consolidation. Volvic, France, September. 21pp.

Williamson, Ian and others (2010). *Land administration for sustainable development*. Redlands, USA: ESRI Press Academic. 487pp.

World Bank (2002). *Transition, The First Ten Years: Analysis and Lessons for Eastern Europe and the Former Soviet Union*. Washington, D.C., 2002. Available from <http://siteresources.worldbank.org/ECAEXT/Resources/complete.pdf>.

World Bank (2012). *The World Bank Annual Report 2012: Volume 2. Responding with Knowledge and Experience*. Washington, D.C. © World Bank. <https://openknowledge.worldbank.org/handle/10986/11845> License: CC BY 3.0 IGO.

World Bank (2014). *Moldova Land Governance Assessment Framework (LGAF), Final Report*. Available from http://siteresources.worldbank.org/INTLGA/Resources/Moldova_Final_Report.pdf

World Health Organization (2000). *Global Water Supply and Sanitation Assessment 2000 Report*. Available from http://www.who.int/water_sanitation_health/monitoring/jmp2000.pdf.

Guillermo Yepes, Augusta Dianderas (1996). *Water and wastewater utilities: indicators, 2nd edition*. Washington, D.C.: World Bank. Available from <http://documents.worldbank.org/curated/en/1996/05/696572/water-wastewater-utilities-indicators-2nd-edition>.

Additional sources:

S. Angel, S.C. Sheppard and D.L. Civco (2005). *The Dynamics of Global Urban Expansion*. Washington, D.C.: World Bank.

Nikolai Bobylev (2007). Sustainability and Vulnerability Analysis of Critical Underground Infrastructure. *I. Linkov, R. Wenning and G. Kiker (eds.), Managing Critical Infrastructure Risks. NATO Security through Science Series*, pp.445-469. DOI: 10.1007/978-1-4020-6385-5_26.

Nikolai Bobylev (2013). Urban physical infrastructure adaptation to climate change. *J.B. Saulnier and M.D. Varella (eds.), Global Change, Energy Issues and Regulation Policies, Integrated Science & Technology Program*, Vol. 2, pp.77-102. DOI: 10.1007/978-94-007-6661-7_4.

Republic of Moldova, Government of the Republic of Moldova (2012). *Moldova 2020 - National Development Strategy: 7 solutions for economic growth and poverty reduction*.

Republic of Moldova, Government of the Republic of Moldova (2013). *National Strategy for Land Consolidation 2012-2027*.

United Nations Economic Commission for Europe (2010). *Policy framework for sustainable real estate markets - Principles and guidance for the development of a country's real estate sector*. ECE/HBP/147.

United Nations Office for Disaster Risk Reduction. *Sendai Framework for Disaster Risk Reduction 2015-2030*. Available from <http://www.unisdr.org/we/inform/publications/43291>.

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