SECTOR ASSESSMENT (SUMMARY): WATER AND OTHER URBAN INFRASTRUCTURE AND SERVICES[1]

A. Sector Performance, Problems, and Opportunities

1. Georgia has a population estimated at 4.5 million in 2012, with 53% classified as urban. Tbilisi is the capital and largest city in the country. Only three other cities have more than 100,000 inhabitants. The urbanization rates vary considerably from 48% for Imereti Region to only 19% for the Racha-Lechkhumi and Kvemo Svaneti regions. Urban growth and development has been uneven, with a concentration in Tbilisi, Kutaisi, and Batumi. Growth prospects remain uncertain for Georgia's secondary cities. Ongoing economic growth, rising urban population in the larger cities, and the transition to a market economy has increased demand for basic urban services. Despite investments in selected cities, there is considerable need to replace existing aging infrastructure to meet the requirements generated by urban redevelopment and expansion. In particular, this includes the need to provide quality service delivery, improve service coverage, and, consequently, for upgrading the urban environment and living conditions.

2. **Utility infrastructure and services.** Except for limited areas where infrastructure rehabilitation works in urban water supply and sanitation (WSS) and urban solid waste management (SWM) have been completed, urban infrastructure is outdated or nonexistent, and is thus either dysfunctional or partly functional. On the whole, quality, continuity, and coverage of services remain suboptimal.[2] Unless addressed in a coherent and systemic manner through rehabilitation and replacement of assets, these service delivery gaps will only increase with time. Key reasons for poor service delivery include (i) lack of investment; (ii) noticeable differences in the level of investment and quality of services management across the different regions; (iii) the low priority accorded to SWM and wastewater management versus water supply; (iv) weak operation and maintenance (O&M) capacity; (v) serious negative consequences of suboptimal O&M for the financial and technical sustainability of services; (vi) lack of an enabling legislative and regulatory framework for sector development; and (vii) low capacity of regulatory bodies.

3. Ensuring that the institutional structure for municipal services provides positive incentives for good service is critical. In particular, WSS and SWM services need to be provided in a professional, business-like manner, with a focus on providing quality services to consumers. This includes (i) improving the managerial, operational, and financial capacity of the utilities; (ii) strengthening water demand management (through meters, system efficiency, and wastewater treatment); (iii) strengthening the institutional and regulatory environment to facilitate sustainable investments; (iv) upgrading service quality norms; and (v) providing services at affordable prices with explicit service obligations and cost-recovery tariffs where affordable. In addition to transforming sector institutions into professional service providers, there is a need to (i) improve services by concentrating on comprehensive system improvements in urban growth centers as opposed to scattered investments; (ii) improve the planning process; (iii) structure alternative modes of financing, including public–private partnerships; and (iv) apply up-to-date technological solutions for upgrading WSS and SWM systems.

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[1] This summary is based on M. Popesco and G. Gigauri. Georgia: Urban Sector Assessment. Unpublished; Government of Georgia. 2014. *Socio-economic Development Strategy of Georgia (Georgia 2020)*. Tbilisi; and World Bank. 2013. *Georgia–Urbanization Review: Toward an Urban Sector Strategy Georgia's Evolving Urban System and its Challenges.* Washington, DC.

[2] The United Water Supply Company of Georgia estimates that about 25% of urban population outside Tbilisi has no access to piped water supply and 36% of this population lacks access to a reticulated sewerage system. Almost half of households with access to a piped water supply only receive water for 2–4 hours per day.

4. **Urban transport systems.** Mobility and connectivity within and between urban centers is hampered by dilapidated transport infrastructure, suboptimal transport planning and management, and gaps in policies and regulations. Motorization is increasing rapidly, causing congestion and air pollution in urban centers. Better traffic planning and management, and more attractive public transport alternatives are needed. In smaller towns, and administrative centers where there is strong economic development potential (i.e., growing tourist destinations and local employment generation hubs), intercity connectivity is the main transport issue. Cross-cutting concerns that affect urban transport include (i) institutional and regulatory constraints to a systemic approach to urban mobility; (ii) lack of integrated planning between urban and other transport modes; (iii) system redundancies; (iv) inadequate traffic management; (v) limited information on mobility needs; and (vi) constrained funding and financing sources. To strengthen urban transport systems, Georgia needs to streamline policy and regulatory frameworks, rationalize and improve public transport, reinforce network structures, optimize technologies and services, and develop links with a diverse range of public and private service providers. Capacity development priorities are to (i) develop and adopt traffic management systems in the main cities; (ii) introduce modern asset management systems; (iii) enhance integrated mobility systems; and (iv) improve investment planning, funding, and financing mechanisms.

5. **Sustainability of assets.** The sustainability of urban assets is reduced by (i) limited financing of O&M expenditures, (ii) inappropriate institutional structures and insufficient managerial and technical capacity in O&M, (iii) lack of enabling regulatory and legislative framework to operate urban assets efficiently, and (iv) suboptimal tariff-setting policy and tariff-setting processes. Problems of interagency coordination also frustrate reform in managing urban assets. Better interagency coordination, adequate investment to meet capital and O&M costs, and enhanced capacity of sector agencies to maintain urban assets and steadily increase cost recovery is essential. Encouraging public–private partnerships in utility operation and asset management could promote sustainability and financial viability of urban services. This in turn requires improvements in the enabling legislative and regulatory setting, including capacity development of the Georgian National Energy and Water Supply Regulatory Commission.

6. **Urban planning.** Since the mid-2000s, real estate development rather than sustainable urban planning has driven urban expansion in Georgia. This has contributed to parking problems, traffic congestion, alarming levels of air pollution in Tbilisi, deterioration of sanitation services, and insufficient adherence to preservation standards and legal requirements for protecting cultural monuments. Developing sustainable and livable cities in Georgia will require an urban development process that is based on integrated urban planning and policy formulation processes. These processes should (i) factor in the needs and opinions of immediate stakeholders; (ii) prioritize strategic investment in urban infrastructure with a holistic approach toward water management, especially water, wastewater (sanitation), SWM, and storm water management to reduce flood risks; (iii) address issues of utility service provision; and (iv) an integrated transport and land use planning to ensure traffic optimization and intercity connectivity through proper links with the national road investment program. City development plans should also focus on reducing environmental degradation, preserving cultural heritage, fostering financially sustainable development, and strengthening the institutional, organizational, and technical capacities of the urban development agencies.

B. Government's Sector Strategy

7. **Regional and urban-centric approach.** The government seeks more regionally balanced development by reducing disparities between urban and rural areas. The development of clusters, better connectivity within and between the regions, and an efficient decentralization

process are also government objectives in the urban sector. The government targets 24-hour water supply and fully functioning sanitation systems, in accordance with European Union standards. City development plans are expected to promote a sustainable, equitable, and integrated approach to urban development. The government plans to introduce local governance reform. Elements may include a new model of administrative–territorial arrangement delineating the responsibilities between the central and local levels of government, and outlining arrangements for fiscal decentralization. Planning will also be done on a regional level.

8. **Urban water supply and sanitation.** The Ministry of Regional Development and Infrastructure has developed an urban WSS sector development plan (SDP) that envisages continuous and reliable water supply and access to improved sanitation to all of Georgia's urban residents by 2020.[3] SDP objectives include (i) ensuring technical sustainability and environmental protection, (ii) achieving institutional and financial sustainability, and (iii) enabling legislative and regulatory framework. The government plans major physical and nonphysical investments in urban WSS to achieve the SDP vision and objectives.

9. **Urban transport.**[4] The development and upgrading of urban transport systems in Tbilisi and Batumi is a priority for Georgia. Measures to address the urban transport priorities in these cities include (i) decreasing traffic congestion through traffic planning and road construction, (ii) improving public transport, (iii) undertaking maintenance and rehabilitation of the existing road network (including coastal protection measures in Batumi), (iv) introducing modern tools of urban transport asset management, (v) improving safety, (vi) developing pedestrian zones, and (vii) reducing air pollution. Similar measures are also being taken to improve urban transport in secondary cities, although with more emphasis on intercity connectivity.

10. **Urban solid waste management.** Since 2012, the government has prioritized SWM, including closing old dumpsites and building proper sanitary landfills. A new landfill has been established in the Tbilisi–Rustavi area, and others are under development in Batumi and Kutaisi. However, SWM is challenging for many secondary cities and small towns.

C. ADB Sector Experience and Assistance Program

11. **ADB sector experience and key outcomes.** ADB is among Georgia's largest development partners in the urban sector, focused on WSS and urban transport. ADB has approved eight loans, two multitranche financing facilities (MFF), six MFF tranches, and three technical assistance projects for the urban sector since 2008. The recent completion report of the Municipal Service Development Project rated the project *successful*.[5] However, it rated the project *less likely sustainable*, because of concerns that neither the Municipal Development Fund of Georgia nor the participating municipalities had sufficient capacity or incentives to ensure proper road maintenance, rationalize tariffs to ensure cost recovery, or deliver urban WSS services in a commercially viable manner.

12. **Role of other development partners.** Other key development partners include the European Investment Bank (WSS), the European Union (local governance and emergency

[3] The SDP lays out the government's strategic vision and objectives for the urban WSS sector with emphasis on problems and constraints facing the United Water Supply Company of Georgia. This approach is adopted because the utility covers 90% of the country's geographical area, including economically strategic urban centers, and 60% of the population. The SDP was supported under ADB. 2010. *Technical Assistance to Georgia for Developing an Urban Water Supply and Sanitation Sector Strategy and Regulatory Framework*. Manila.

[4] Urban transport sector outcomes and indicators are in the sector results framework for transport.

[5] ADB. 2012. *Completion Report: Municipal Services Development Project in Georgia.* Manila.

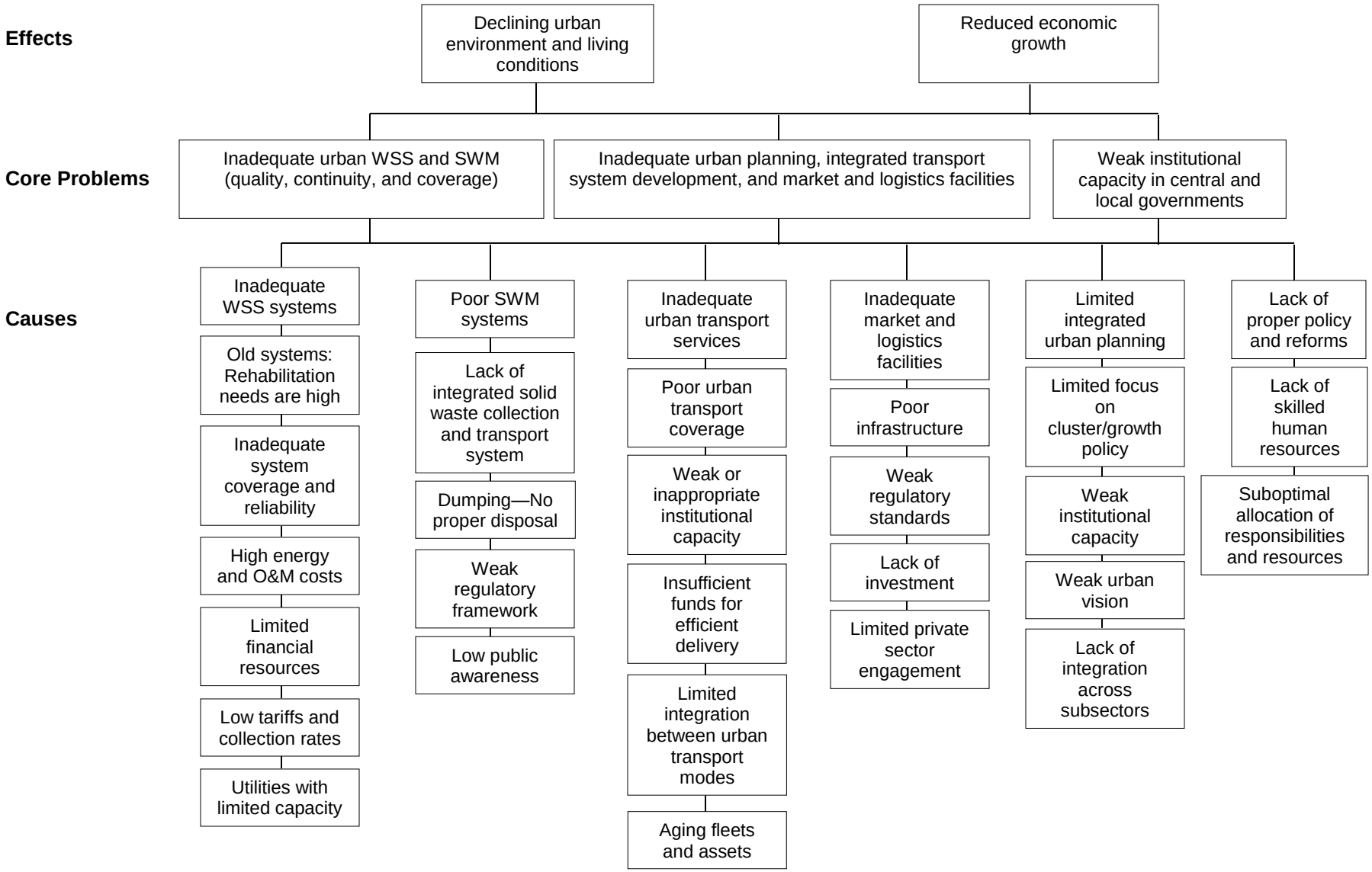
housing), GIZ (local governance and regional development), KfW (WSS and SWM), the Swedish International Development Cooperation Agency (WSS, SWM, and emergency housing), the United States Agency for International Development (economic growth and WSS), and the World Bank (transport and regional development, including WSS and tourism).

13. During the country partnership strategy period, ADB will build on ongoing MFF operations to help develop livable cities that are competitive, socially inclusive, and environmentally attractive. ADB's support for the urban sector will contribute to inclusive economic growth and social development by addressing the priority infrastructure needs of secondary cities and towns that serve as the main economic link between the rural areas and the larger urban centers. Assistance will be provided to improve urban water supply, sewerage, and SWM facilities to enhance the operational and managerial performance of WSS utilities, improve the policy and regulatory environment to foster sustainable operation of urban services, and promote private participation. Assistance for urban transport will contribute to advancing tourism development in coastal towns, expanding metro access in Tbilisi, and providing support for more sustainable urban transport systems, including intercity buses, and pedestrian and mass transport systems.

14. **Indicative areas for interventions.** Through ongoing MFFs in WSS and urban transport, ADB will continue to support urban infrastructure and improved policy and institutional arrangements for delivering urban services. Support for WSS will target 24-hour safe water supply and functioning water and sewerage networks in Georgia's secondary cities and smaller towns, and functioning wastewater treatment plants in at least three urban centers. The ability of the United Water Supply Company of Georgia to operate efficiently on a financially sustainable basis will be enhanced through various interventions supported under the ongoing MFF, such as (i) improvements in management practices through a performance-based management consultancy contract, (ii) use of modern equipment, (iii) development of the regulatory and legislative framework, (iv) capacity development of the regulatory agency and line ministries, (v) enhanced coverage of the geographic information system based utility management system, and (vi) enhanced vocational and higher education skills for the sector. In urban transport, an intercity connection between Tbilisi and the adjacent city of Rustavi will be improved, a new metro station to serve some 120,000 commuters in Tbilisi will be put into operation, and coastal reinforcement works to protect local roads in Batumi and Anaklia will be carried out. Capacity development will be supported in asset management, and for feasibility studies and detailed engineering design of bridges, tunnels, and local roads. Capacity development assistance will also be provided to improve water quality monitoring, develop and demonstrate innovative technologies for O&M of urban infrastructure, and support essential technical laboratories and construction standards.

15. To enhance the gender impact and thereby sustainability of development results, ADB will conduct social and gender analysis of all urban projects to assess how women and men can fully benefit from improvements. Differing usage patterns, concerns, and service expectations will be considered during project planning. This may include awareness-raising, particularly of women, on what constitutes good water management and service standards, development of consumer feedback mechanisms, and monitoring of user complaints to improve the responsiveness of utilities. To promote public transport use, urban transport projects will consider the use of visual information to discourage sexual harassment of female travelers and to promote transport safety.

Problem Tree for Urban Sector in Georgia



O&M = operation and maintenance, SWM= solid waste management, WSS = water supply and sanitation.

Sector Results Framework
(Water and other Urban Infrastructure and Services, 2014–2018)

Country Sector Outcomes		Country Sector Outputs		ADB Sector Operations	
Sector Outcomes with ADB Contribution	**Indicators with Targets and Baselines**	**Sector Outputs with ADB Contribution**	**Indicators with Incremental Targets**	**Planned and Ongoing ADB Interventions**	**Main Outputs Expected from ADB Interventions**
More people have access to good quality, reliable, and continuous water supply and improved sanitation services	Percentage of urban population with access to piped water supply increases to at least 86% by 2018 (2013 baseline: 75%) Percentage of urban population with access to piped sewerage connection increases to at least 72% by 2018 (2013 baseline: 64%) Population with access to improved sanitation increases to at least 95% by 2018 (2012 baseline: 93.3%)[a]	Water supply and other municipal infrastructure and services expanded, improved, and well managed	Additional 460 km of water supply pipes installed or upgraded by 2018 (2013 baseline: 0) Residual chlorine at tail ends of water supply system maintained at 0.2–0.4 ppm in USIIP towns by 2018 (2013 baseline: …)[b] Wastewater treatment capacity increases to at least 11 MLD by 2018 (2013 baseline: 5 MLD)	**Planned key activity areas** Drinking water and sanitation systems, and wastewater management (95% of funds) Urban planning and tariff policies and sector development (5% of funds) **Pipeline projects with estimated amounts** MFF USIIP T4 ($108 million) MFF USIIP T5 ($75 million) MFF USIIP T6 ($99 million) PDA for Sustainable Cities Development Program ($10 million) Preparing Sustainable Cities Development Program (PPTA, $1.5 million) Support for Regulatory Mechanisms for Water Utilities (CDTA, $500,000) **Ongoing projects with approved amounts** MFF USIIP T1 ($80 million) MFF USIIP T2 ($40 million) MFF USIIP T3 ($98 million) Developing a Geospatial Urban Water Supply and Sanitation Utility Management System (CDTA, $1.4 million)	**Pipeline projects** 460 km of water supply transmission and distribution network rehabilitated and/or constructed 36 MLD capacity of water treatment plants constructed 11 MLD capacity of wastewater treatment plants constructed **Ongoing projects** In USIIP towns: 110 km of water transmission mains and 350 km of water distribution network rehabilitated and/or constructed 36 MLD capacity of water treatment plants constructed Nonrevenue water progressively reduced from 60% to 30% Access to sewerage network provided to 305,000 people in 2019 (2011 baseline: 191,000 people) 11 MLD capacity of wastewater treatment plants constructed External professional assistance provided to Georgia National Energy and Water Regulatory Commission to establish tariff setting methodology and to monitor WSS service delivery

… = not available, ADB = Asian Development Bank, CDTA = capacity development technical assistance, km = kilometer, MFF = multitranche financing facility, MLD = million liters per day, PDA = project design advance, ppm = particle per million, PPTA = project preparatory technical assistance, T = tranche, USIIP = Urban Services Improvement Investment Program, WSS = water supply and sanitation.

[a] Baseline figure from World Development Indicators database (accessed 11 October 2014).

[b] Not available as it is not yet regularly measured.

Source: ADB, United Water Supply Company of Georgia, and World Bank.