Governance and Public Service Delivery:

The case of water supply and roads services delivery in Addis Ababa and Hawassa Cities, Ethiopia

By:

Regional and Local Development Studies,

Addis Ababa University

January 2013

This report was produced in the context of a Global Research Project, 'Varieties of Governance: Effective Public Service Delivery', generously supported by the UK Government through the Partnership for African Social and Governance Research (PASGR). The views herein are those of the author(s), and do not necessarily represent those of PASGR.

For any inquiries, contact:

Institute for Regional and Local Development Studies
Addis Ababa University
P. O. Box 1176, Addis Ababa, Ethiopia
Email: development.studies@aau.edu.et
Website: http://www.aau.edu.et/index.php/home-new

Research Team Members

Dr. Woldeab Teshome (Team Leader)
Dr. Degefa Tolossa
Dr. Fenta Mandefro
Dr. Bamlaku Alamirew

Contents

Abbreviations

AACRA	Addis Ababa City Roads Authority
AAWSA	Addis Ababa Water and Sewerage Authority
AfDB	African Development Bank
BPR	Business Process Reengineering
CBOs	Community Based Organizations
ECA	Economic Commission for Africa
ERA	Ethiopian Roads Authority
EPRDF	Ethiopian Peoples' Revolutionary Democratic Front
ETB	Ethiopian Birr
FGDs	Focus Group Discussions
GTP	Growth and Transformation Plan
HCM	Hawassa City Municipality
HWSE	Hawassa Water and Service Enterprise
MoFED	Ministry of Finance and Economic Development
n.d	not dated
NGOs	Non Governmental Organizations
NPM	New Public Management
PPP	Public-Private Partnership
RSDP	Road Sector Development Program
SNNPR	Southern Nations, Nationalities and Peoples Region
SPSS	Statistical Package for Social Science
SSA	Sub-Saharan Africa
UK	United Kingdom
UNDP	United Nations Development Program
WSDP	Water Sector Development Program
WSS	Water Supply and Sanitation

Executive Summary

In the traditional approaches to public administration, it was assumed that public service production and delivery should be the sole responsibility of the state. In practice, however, due to the rapid rate and level of urbanization, resource deficiencies, and poor urban management governments alone could not be able to provide, operate and maintain public services to meet the demands of the people. This resulted in radical reforms that advocated the involvement of multiple non-state actors including private providers (both formal and informal) and civil society institutions in the delivery of services. Along with this theoretical framework, both the supply and demand sides of service delivery in roads and water supply underpin the study. While the supply side refers to the production and delivery of public services through the involvement of multiple governance actors, the demand side deals with community members and their organizational capacities to aggregate and articulate demand towards service providers with the objective of influencing the availability, access, quality and time of services provided, and to claim accountability of providers.

The objectives of the study were to: i) explore the governance and delivery of public services in water and roads services in Addis Ababa and Hawassa; ii) assess the capacities of water supply and roads agencies to effectively deliver services; iii) examine transparency, accountability and voicing mechanisms in water and roads services delivery; iv) assess the degree and factors affecting clients' satisfaction in water and roads services delivery; v) identify and analyze major differences between the two cities in the respective sectors in terms of important governance variables (alternative delivery mechanisms, transparency, accountability, and voicing mechanisms); and vi) recommend ways of improving the governance and delivery of water and roads services.

With these specific objectives in mind, the major hypotheses established from both the theoretical and empirical literature include: i) weak capacity of the actors (in terms of technical and financial resources) is the cause for poor water and roads services delivery, which reduces the satisfaction level of clients; and ii) weak transparency, accountability and voicing mechanisms have contributed to the dissatisfaction of clients

The research adopted a multiple case study approach. Using multistage sampling technique, Addis Ababa and Hawassa cities were selected as case studies. Then, three districts in each

city were selected for each sector. Finally, 1000 households were randomly selected for the survey. The survey covered a total of 1000 households (500 for each sector). Of the total households, 600 (300 for each sector) were in Addis Ababa while the remaining 400 (200 for each sector) were in Hawassa. Mixed data collection methods were used including survey, FGDs, key informant interviews and observation to generate first-hand data. Theoretical and empirical works on roads and water services were also reviewed. Qualitative data were generated by interviewing government officials and community members, and through conducting focused group discussions with service users. SPSS and STATA were used to enter survey data into computer. Once the data were cleaned and managed, various descriptive and inferential statistics were applied for data analysis. Qualitative data were also summarized and transcribed to substantiate the arguments used in the quantitative analysis.

The main findings are organized under four headings: organization and management; actors and their capacities; features of service delivery governance; and citizens' satisfactions. Conclusions and policy implications of the research are also offered.

Organization and management of service delivery

Addis Ababa Water and Sewerage Authority (AAWSA) and Hawassa City Water Service Enterprise (HWSE) are the water supply agencies that have similar governance structures. They are organized into a Board, a Head Office, and Branch Offices. The Board of AAWSA is appointed by and is accountable to the Executive Organ-Cabinet of the Addis Ababa City Government while the Board of HWSE is appointed and remains accountable to the City Council. Chaired by the Mayors of the respective cities, the boards are the highest governing bodies. For roads service delivery, however, the two cities exhibit different governance and management structures. The Addis Ababa City Roads Authority (AACRA) is responsible for the construction and maintenance of roads. The organizational structure of AACRA consists of a board, head office, and project offices. The Board, reporting to the City Council, provides policy directions and supervision to AACRA. In Hawassa, the road sector activities are organized under work process known as the City Land and Related Services Administration Supply, which is in charge of many other municipal activities apart from roads. This arrangement has adversely affected the emphasis and efforts to roads service delivery.

Type and roles of actors

Service delivery in both water and roads involves state institutions and non-state actors. It was observed that the production of water has benefited more from this partnership than the distribution and delivery since the latter functions are almost under the monopoly of the water supply agencies in the respective cities. Bilateral and multilateral development agencies, NGOs, private sector actors, and communities have been working with water and road service provider agencies in order to bridge their capacity gaps. They work in partnership with water agencies and local governments with the major objective of improving access to safe drinking water for the poor. In the case of roads, they cooperate with local governments and community members.

Features of service delivery governance

The major governance features discussed include capacity of actors, voicing mechanisms, responsiveness, transparency and accountability. In terms of capacity, limited financial resources is the defining feature of water and roads agencies in Addis Ababa and Hawassa. For roads, the laws that established AAWSA and HWSE stipulate that the agencies should self-finance their functions. However, the findings show that none of them is able to cover their recurrent and capital budgets. Although the Federal Road Fund is the major source of finance for both AAWSA and Hawassa City Municipality, what they provide does not fully meet their needs. Both the water and roads agencies are also constrained by limited human resource capcity.

In order to promote voicing mechanisms, AAWSA and HWSE established mechanisms of reaching citizens through weekly radio programs, quarterly bulletins and issue-based TV and radio announcements, newspapers, and public meetings at *kebele* level, and/or direct meetings with officials.

As far as responsiveness is concerned, in Hawassa, information from a key informant indicated that HWSE decentralized water service delivery close to communities by establishing four branch offices due to customers' consistent demands for improved services. AAWSA also established eight branches to serve the communities better. However, only 38.3 in Hawassa and 47.6 percent of the respondents in Addis Ababa indicated that the degree of responsiveness of the water supply agencies is modest, while 19.6 and 32.8 percent of the respondents in the respective cities rated it as low/very low.

Also the service provision is not transparent. For instance, AAWSA did not put in place a mechanism through which budget information could be provided to inhabitants: 95.7 percent of the respondents in Addis Ababa indicated that they did not have any information as to how much money was allocated and how much of it was utilized, and for what purpose. The situation in Hawassa is almost the same whereby 96.6 percent of the respondents had similar views. In terms of roads, there is also a perceived lack of transparency, especially in the bidding process. The majority of respondents in both Addis Ababa (87.5%) and Hawassa (91%) do not have information as to how roads agencies float bids.

AAWSA and HWSE are accountable to the Boards, which are in turn accountable to the Cabinet and Council of the Addis Ababa City Government and Hawassa City Administration, respectively. This represents the long route of accountability. It is even longer in the case of Addis Ababa than in Hawassa. Supervisory agencies try to ensure accountability by seeking periodic reports. For roads, AACRA is accountable to the Addis Ababa City Council with regard to funds secured from the Federal Road Fund. The Hawassa Municipality is also accountable to the City Council. However, FGD participants indicated that there is no system that enables them to hold roads agencies directly accountable to the public. This clearly shows that the accountability mechanism for roads also follows the long route.

Customers' satisfaction

Citizens in both Addis Ababa and Hawassa, have limited access to water and roads.. Evidence shows that the two cities are far away from achieving universal access to safe drinking water. In Addis Ababa, access to safe drinking water has reached 75 percent with a corresponding figure of 60 percent in Hawassa. is. Results from the field survey indicate that 49.4 percent of respondents in Addis Ababa find it easy or very easy to get water from the source, while 87.2 percent said so in Hawassa. However, the majority get water on irregular basis: 63 percent in Hawassa and 90.9 percent in Addis Ababa. In terms of roads, survey results indicate that inhabitants in Hawassa could access feeder and main roads, on average, within 2.25 and 9 minutes walk from their homes respectively with the corresponding figures in Addis Ababa being 5.16 and 11.45 minutes. Results of the regression analysis about factors affecting the satisfaction level of households in getting access to main roads show governance parameters (such as voicing mechanisms and responsiveness) to be significant in affecting access to main roads, which goes in line with the *apriori* expectations.

Results of the analysis also indicate that the majority (70.1 and 76.4 %) of respondents in Addis Ababa and Hawassa respectively reported the quality of water either as very good or good. Results of the regression analysis show that the higher the responsiveness, the higher the likelihood of clients being satisfied with water service provision in both Addis Ababa and Hawassa at 1 percent significance level. In terms of road quality, survey results indicated that the percentages of respondents who were most dissatisfied and dissatisfied were 67.8 for Hawassa and 73 percent for Addis Ababa. Results of ANOVA and regression analyses reveal that governance parameters (such as voicing mechanisms, responsiveness of roads agencies and participation of non-state actors) significantly affect the likelihood of clients being satisfied with both water and roads availability and quality.

A number of policy implications have been drawn from the main findings of the study. This includes strengthening transparency and accountability mechanisms; having alternative service providers (especially in the case of water supply); initiating partnerships and consolidating the existing ones between state and non-state actors; putting in place an autonomous body in charge of the road sector in Hawassa; and enhancing the capacities of the various actors in the service delivery of roads and water.

1. Introduction

1.1 Problem statement

In most developing countries, there is growing dissatisfaction with the public service delivery. Deficiencies in the coverage, access and quality of basic services and infrastructures such as water supply and roads are common (Paul, 1992; OECD, 2008). UNDP (2006), for example, indicated that there are around 1.2 billion people in the world who lack access to sufficient quantities of safe water. Like most countries in the developing world, African countries have major difficulty in providing effective and equitable public services (ECA, 2005b).

While several factors have contributed to this phenomenon, the fundamental problems are broadly related to governance issues where transparency, responsiveness and effective accountability mechanisms over services are lacking. The poor are usually excluded from participation in the design and oversight of the policies and programs that affect their lives. This is due to low levels of transparency, and responsiveness of governments and service providers to their rights and needs. The public suffer from informational asymmetries since the information possessed by service providers often is not available, affecting their capacity to voice.

Informational asymmetries could be attributed to many factors. Restrictions by governments to public access to information or limit the scope for the media to challenge or publicize the poor quality and other attributes of services are important factors. Poor communication technologies affect effective dissemination of information to the public. In the current context, however, effective and efficient public service delivery does not depend only on the supply side, but also on the demand side in that citizens have to request for better service delivery and seek accountability for decisions made and actions taken by public officials. This side of the service delivery function is, however, affected, by, among other things, illiteracy, because peoples' capacity in voicing and demanding better service or access is greatly affected by their level of knowledge and skills. Poor service delivery has been occasioned by government monopoly of many public services and the limited capacity of the public to demand for and monitor the services. In many developing countries, there is neither the potential/scope for the public to exit when dissatisfied with a public service nor can they influence the final outcome of a service through some form of participation or articulation of protest/feedback (Rouse, 2007; OECD, 2008; Paul, 1992; Brown et al. 2008).

As a result, transparency, responsiveness and accountability have constituted important issues in public service delivery discourse. Transparency and accountability are at the centre of governance processes. Citizens have the right to know what actions have been taken on their behalf, and they should have the means to force corrective actions when government acts in an illegal, immoral, or unjust manner. There is a need for significant improvement of the accountability approach in developing countries that would help to enhance the efficiency and effectiveness of their public services. Public services are delivered by a nexus of relationships between beneficiaries, politicians and service providers. Thus, accountability may be organized indirectly, through the system of political representation (the long route), or directly between providers and citizens (the short route) (Joshi, 2010); Sahu, 2010; OECD, 2008; Besley and Ghatak, 2007).

Enforcing accountability through the long route follows a top-down fashion through which political leaders, agencies and bureaucrats act as proxies for the public and hold those reporting to them accountable through control systems within the relevant public organizations. Such systems of accountability, however, have become overloaded along with the expansion of the public sector. As a result, the long route of accountability has been failing the poor, making the short route more favoured. The short route, which aspires to establish direct accountability between users and providers, requires empowered citizens and improved transparency systems. Citizens need to have capacity to voice, set their own priorities, and to demand their rights. Transparency systems should ideally place information or processes t in the public domain to enhance access and use by citizen groups. In several instances, however, such requirements are not sufficiently available (Joshi, 2010; Paul, 1992; Brown et al. 2008).

Like many developing countries, public service delivery in Ethiopia suffers from weak capacity of public agencies and lack of effective transparency, responsiveness and accountability systems. Direct accountability of service providers to citizens is at the infant stage while the long route is characterized by top-down, slow bureaucratic processes that do not result in effective transparency, responsiveness and accountability. Nor are there sufficient exit mechanisms for citizens, since public service deliveries are under the monopoly of public agencies.

1.2 Research objectives

Given the above contexts and problems, this study focuses on the following objectives:

1. Explore the governance in water and roads services delivery in Addis Ababa and Hawassa;
2. Assess the capacities of water supply and roads agencies to effectively deliver services;
3. Examine transparency, accountability and voicing mechanisms in water and roads services delivery;
4. Assess the degree and factors affecting clients' satisfaction in water and roads services delivery;
5. Identify and analyze major differences between the two cities in the respective sectors in terms of important governance variables (alternative delivery mechanisms, transparency, accountability, and voicing mechanisms); and
6. Recommend ways of improving the governance and delivery of water and roads services.

1.3 Research questions

The research questions include:

1. How are the water and roads services delivery organized in Addis Ababa and Hawassa cities?
2. What is the capacity of the water supply and roads agencies that are primarily responsible for the production/construction and delivery of water and roads services in the two cities?
3. What mechanisms are put in place for clients to voice out and hold service providers accountable in the study areas?
4. What is the system and degree of transparency in the production/construction and delivery of water and roads services?
5. Does the provision of water and roads services satisfy clients in terms of availability, access, adequacy and quality?

6. What are the challenges of the two sectors in Addis Ababa and Hawassa?
7. Are there major differences in the governance and delivery of water supply and roads services between the two cities?

1.4 Organization of the report

The report consists of six sections. The statement of the problem, the research objectives and the research questions have been dealt with in the first section. Section Two describes the country's and the sectors' institutional contexts and reviews policies and strategies for road and water services in Ethiopia. Section Three presents the conceptual framework and literature review focusing on the supply and demand sides of public service delivery. Section Four is devoted to the methodology, in particular the qualitative and quantitative data collection and analysis. Section Five presents the results and discussions. Section Six summarizes the key findings, draws conclusions and policy implications of study.

2. Background of the country and the contexts of the sectors

The Marxist-Leninist government (*Derg*), which ruled the country from 1974 to 1991, was overthrown in May 1991 by the Ethiopian Peoples Revolutionary Democratic Front (EPRDF) which assumed state power. Following the election of EPRDF in June 1994, a new constitution was approved in December 1994. The constitution established the Federal Democratic Republic of Ethiopia (FDRE) with nine regional governments, drawn along ethno-linguistic lines, and Dire Dawa and Addis Ababa City Administrations. Each region is organized into zones, *woredas* and *kebeles*. The regional governments are organized with legislative, executive and judicial branches similar to that of the Federal Government. The federal legislature is bi-cameral and is composed of the House of Peoples' Representatives and the House of the Federation, each with tenure of five years. The fourth national and regional elections were conducted in May 2010, which confirmed the predominance of the ruling party, EPRDF.

The government has launched a series of economic reform programmes to achieve rapid economic growth including privatization, agricultural development-led industrialization and poverty reduction program. Further, it has launched the Growth and Transformation Plan (GTP) (2010-2014) by which the country has attained an economic growth rate over 10 percent over the last few of years.

Ethiopia is endowed with 12 large lakes and 12 major river basins that cover large areas of the country. Annual surface runoff water is estimated to be about 122 billion m^3 while groundwater resource is estimated to be around 2.6 billion m^3. Geo-political, financial and technological challenges have contributed to the minimal development of the water sector, and affected the management and utilization of its water resources (MoWR, 2001b; MoFED, 2006).

The Ministry of Public Works of the Imperial government was the first formal institution entrusted with the responsibility of managing water resources. Proclamation No.74 of 1945 gave the Ministry of Public Works in collaboration with other government offices the responsibility to prepare and implement plans for the development and exploration of the water resources in the country (Yacob, 2007). In a later development, the Water Resources Department was established within the Ministry of Public Works and Communications in the late 1950s. The Derg regime established an independent Water Resource Authority that dealt with development and management of water resources. In spite of such institutional development in the water sector, safe drinking water development and delivery was treated within the same generic policy environment until the late 1990s.

In 2001, the Ethiopian Government formulated a National Water Policy and Strategy followed by the introduction of National Water Sector Development Program (WSDP). The overall objective of the water supply and sanitation component of the policy is “to enhance the well-being and productivity of the Ethiopian people through provision of adequate, reliable and clean water supply and sanitation services” (MoWR, 2001a:22).

The Government prepared the Water Sector Program in 2002 in order to operationalize the country’s Water Sector Policy and Strategy.. The WSDP defines concrete interventions in terms of projects and programs to achieve the water policy objectives, using the guidelines set under the water sector strategy. The National Water Sector Development Program declared that the production and supply of clean water for drinking and sanitation as a first priority area. By the end of the Program period (2016), it aimed at achieving 76 percent overall coverage and 98 and 71 percent for urban and rural populations respectively (MoWR, 2002). A new national Growth and Transformation Plan (GTP) however, aspires more robust targets, which aimed at achieving 98 and 100 percent coverage for rural and urban respectively by the year 2015 (MoFED, 2010).

Modern road construction building had begun in Ethiopia during the reign of Tewodros (Pankhurst 1968). Since then many roads have been built, rebuilt and maintained. These road construction cycles are broadly categorized into five periods: I) Early road construction (1868-1935); ii) Road building during the Italian occupation (1936 - 1941); iii) Road reconstruction between 1951 and 1974; IV) Road construction during the *Derg* regime (1974 - 1991); and v) Road construction since 1991. There have been considerable expansions of roads, and changes in structure of organizations/institutions that were responsible for road construction over many decades (Pankhurst, 1961, 1968; Mekonnen, 1986).

During the 1941-51 decade, the responsibility for road construction and improvement lay with the Ministry of Works. Owing, however, to a serious shortage of capital and to a vast amount of repairs required, little was accomplished to remedy the road network that was damaged during the hostilities before the liberation. Because of the magnitude of the problem, the Imperial Highway Authority was established in early 1951[1] to have exclusive responsibility for road construction and maintenance. The Highway Authority implemented maintenance and construction of roads during the First and Second Highway Programs (1951 to 1965).

After the overthrow of the Imperial Government, the Derg Government re-established the Highway Authority as the Ethiopian Transport Construction Authority by Proclamation No. 189 of 1980. Later, the EPRDF led government re-established Ethiopian Transport Construction Authority as Ethiopian Roads Authority by Proclamation No. 80/1997., which has since been engaged in:

- Construction, improvement and maintenance of the country's road network;
- Planning, construction and maintenance of trunk and major link roads;
- Developing and administering highways; and
- Ensuring compliance with road construction standards.

The National Urban Development Policy addresses public service delivery for the road sector under the Urban Good Governance Package which is 'described in terms of efficiency,

[1] Established in 1951 as Imperial Highway Authority by Proclamation No. 115 of 1951

effectiveness, accountability, transparency, participation, sustainability, the rule of law and security' (Forum for Social Studies, 2010:455).

The Government of Ethiopia has formulated the Road Sector Development Program (RSDP) aimed at speeding up the improvement and expansion of the road network. The program focused on (1) rehabilitation of main roads; (2) upgrading of main roads; (3) construction of new roads; and (4) regular maintenance on the network. In tandem, the program considered major policy and institutional reforms (Ibrahim, 2011:3).

The RSDP was implemented in three phases: RSDP I was launched in July 1997 and ended in June 2002. RSDP II followed from July 2002 and concluded in June 2007. RSDP III commenced in July 2007 and ended in June 2010. In support of the Government of Ethiopia and Road Fund financing, various donors including the World Bank, European Union, ADB, NDF, BADEA, DFID, the Governments of Japan, Germany, U.K., and Ireland have been committed to financing the program. The Saudi Fund for Development joined the financing partnership during RSDP II, and since the implementation of RSDP III the Kuwait Fund and the Government of China have also joined (ERA, 2009:6).

Over the twelve years of the RSDP, routine maintenance, and other activities have been undertaken on a total of 37,994 km of roads, of which 15,742 km were federal roads and 22,252 km were newly constructed/maintained regional roads (Ibrahim, 2011).

3. Conceptual framework and literature review: governance of effective public services provision

3.1 Theoretical framework

The traditional approaches to public administration assumed public service production and delivery to be the sole responsibility of the state. Ministries, parastatals, and other government departments were considered the only available agencies to produce and provide urban public services as well as implement other development goals. Such an approach, however, proved to be a failure in many countries in general and in African countries in particular where states had limited capacity. Governments have been unable to provide, operate and maintain public

services in line with rapid urbanization, resource deficiencies, poor urban management and population growth. By the early 1980s, many African states were found to have been over-extended and literally unable to produce and provide basic services (Fenta, 2007; Batley, 2004; ECA, 2003).

In the same period, there was a shift from the traditional public administration to the new public management (NPM) approach. The paradigm believed that the public and private sectors did not have to be organized and managed in fundamentally different ways. It would be better for the public services if they could be organized and managed as much like the private sector as possible. The focus of the NPM movement therefore, was on creating institutional and organizational contexts which are to mirror what is seen as critical aspects of private sector modes of organization and management (ECA, 2003).

Restructuring the public sector alone was however found to be insufficient to improve the quality and quantity of public service delivery to citizens. This is because making government affordable and lean through cost reduction and containment measures, especially by way of rationalizing the machinery of government, divesting non-core operations, retrenching redundant staff, freezing employment and adopting measures to control the wage bill and other personnel-based expenditures had little positive direct impact on delivery of public service. In fact, such measure had contrary results, which in most instances they severely constrained both capacity building and service delivery. Due to employment freeze that resulted in shortage of skilled professionals, it was not possible to sustain let alone to improve quality and expand public services in key areas such as education, health, safe drinking water and road infrastructure (Kiragu, 2002).

As a result, since the end of the 1980s in general and the beginning of the 1990s in particular, the policy community started searching for development practice tools that would go beyond the state. The search called for radical reforms that advocated the involvement of multiple actors representing multiple sectors of society, which transformed the issues and discussions of public service from the sphere of public administration to governance. Non-state providers including both formal and informal private providers, as well as civil society institutions, also have important roles to play (Fenta, 2007; ECA, 2003; Milward and Provan, 2000).

Public service delivery in the context of responsive governance model, among others, involves distinguishing the strategies of the supply and demand sides (Birner, 2007).

3.1.1 The supply side of public service delivery

The Supply side of public service delivery refers to the production and delivery of public services through the involvement of multiple governance actors that include public agencies, private enterprises, NGOs, CBOs, and communities at large. Thus, strategies designed to improve the supply side of public service delivery need to focus on increasing the capacity and incentives of public agencies and other service providers to participate in different ways so that they can best fulfill their functions. There are two major approaches to improving the supply side of public service delivery, viz. administrative and fiscal decentralization to public agencies and creating the enabling environment for the involvement of non-state actors that include private-sector agencies, user organizations, and NGOs in the provision of public services. The first approach aims at improving the capacities of autonomous service delivery public agencies and local governments. This approach, however, is challenged by lack of willingness and commitment by central/state governments to ensure effective administrative and fiscal decentralization (Birner, 2007).

The second approach to improving the supply side of public service delivery aims at creating an enabling environment for non-state providers to engage in activities that increase and improve service provision to poor people (Batley, 2006). There are a number of institutional arrangements or intervention modalities though which non-state actors take part in the production and delivery of public services. The most common institutional arrangements include contracting out, privatization, public-private partnerships, public-private-civil society partnerships, devolving management authority to user groups, and service cooperatives (Birner, 2007; Smith and Smyth, 1996; Awortwi, 2004 and 2012; ECA, 2005; Batley, 2006; World Bank, 1999).

Contracting out is one of the potential tools in public service delivery reform efforts. It refers to the use of public sector funds to contract non-governmental and private service providers (Anderson and Van Crowder, 2000). It is suitable for functions that require public finance, but not necessarily public provision. The government contracts out to the private sector the production of the goods or services, but maintains control of the activity. The issue is that

government, instead of using its employees and facilities, pay private actors from its funds to perform specific tasks or supply goods. Road construction and maintenance are among several public functions that are amenable to contracting out (Birner, 2007; World Bank, 1999).

Contracting out is an important element of the NPM approach to public service delivery. It inspires and encourages governments to be more efficient and responsive by applying market principles and strategies to public service provision. The deriving notion is that outsourced jobs can be done more efficiently by private actors because they are specialists in their fields and work in a commercially competitive context. Price competition is introduced through the open invitation of tenders from private providers (Awortwi, 2012; World Bank, 1999).

When public service delivery is contracted out to private and non-governmental providers, the government maintains the responsibility for determining the quality, timing and quantity of services by assuming oversight and providing training and technical information to the organizations that have been contracted. By doing so, government can promote the ultimate objective of better service delivery to citizens at lower cost (Awortwi, 2012; World Bank, 1999; Anderson and Van Crowder, 2000). According to Anderson and Van Crowder (2000), contracting out has several anticipated benefits, including to: create more operationally efficient and cost-effective services; hold service providers more accountable for their performance and results, and employ different types of providers to different services.

Public–private partnerships (PPPs) are institutional arrangements for service delivery that create joint responsibilities for financing and providing services and infrastructure. It refers to the combination of a public need with private capability and resources to create a market opportunity through which a public need is met and a profit made. Urban water supply and roads are two of the services, which can be implemented using this approach. Of course, public-private partnerships are not necessarily suitable for targeting the poor, but they can free up public resources through which government can focus on the poor and underserved (ECA, 2005; Birner, 2007).

There are different PPPs arrangements through which different levels of partnership are established to improve levels of efficiency, effectiveness, responsiveness and adequacy of public services. The contractual arrangements range from service contracts, management contracts, leases, operations and maintenance concessions, capital investments to divesture, and asset ownership. Public sector agencies can establish any form of partnership with small-

scale independent providers, nongovernmental organizations (NGOs) or the private sector. In most cases, the arrangements are service or sector specific; i.e., not all arrangements best fit to every sector nor does every non-state actor have the capacity and expertise to effectively undertake public service delivery in every sector. Moreover, PPPs are not magic bullets for achieving desired outcomes; their successes depend on certain key factors, including: thorough planning, good communication, strong commitment from parties and effective monitoring, regulation and enforcement by the government (ECA, 2005b).

Privatization is well suited for services that are not confronted with market failure. If market failures are unavoidable due to natural monopolies and other reasons, as with water and electricity supplies, privatization needs to be combined with regulation to ensure that the poor have access to such services (Birner, 2007).

- The private sector can be involved in public service functions through a wide range of forms of privatization. Thus, to select the most appropriate type of private sector involvement, there is need for a careful appraisal of ing the costs and benefits of each alternative organizational arrangement. The appropriateness of selecting an alternative organizational arrangement depends on the particular circumstances. Cost-effectiveness; opportunity to introduce competition into the service market; attractiveness to the private sector; ease of administration and post privatization regulation; and the capacity to service customer are important criteria against which alternatives may be evaluated. The alternative forms of service delivery through privatization include: contracting out services to private firms; franchising services to the private sector; the use of grants and vouchers; build-own-operate-transfer projects (BOOT); mobilizing NGOs, community groups, residents' associations, and charitable organizations; introducing self-service and self-reliance measures; employee buy-out schemes (selling an enterprise to the workforce); as well as selling out of public enterprises (privatization)to private firms (World Bank, 1999).

Public–private-civil society partnerships involve the collaboration between public, civil society and private organizations to produce and deliver public services. This approach not only helps to mobilize resources from different sectors, but also management experiences that may enhance the efficiency and effectiveness of service delivery (Birner, 2007; Fenta, 2007).

3.1.2 The demand side of public service delivery

The demand-side of public service delivery refers to community members and their organizational capacities to aggregate and articulate demand towards service providers with the objective of influencing the quality, quantity and time of services provided as well as to claim accountability.. Aggregation of demand is critical in public service delivery because demands for better service can only be responded to in an effective manner if a critical mass of people shares the same problem and organize their demands (Birner, 2007). Of course, the degree of assertiveness of citizens is influenced by the level and type of information they have about their rights, regulations, and financial sources and allocation mechanisms. All these require strengthening the capacity of citizens in general and poor people and disadvantaged groups in particular to demand better services, and creating institutional arrangements that help them channel their demands to public agencies and hold them accountable. The demand side of public service delivery thus, focuses on the voice, regulation, financial management, and transparency and accountability dimensions of governance (Birner, 2007, AfDB, n.d, Trémolet and Halpern, 2006; Rouse, 2007).

Voice – citizens need to have voice, and government should provide avenues so that they can express it effectively. Nonetheless, only few governments, particularly in developing countries, recognize the real value of providing open and responsive avenues for consumers to exercise their voice (e.g. complaint mechanisms). Even if some governments have established higher level systems of voice and recourse through regulatory bodies such as human rights commissions, ombudspersons and the judiciary, these are inaccessible to the vast majority of the target population (AfDB, n.d.).

***Regulation* – a** functioning regulatory system is a central feature of good service delivery governance. It is characterized by effective regulatory framework that basically provides a set of rules, processes, and monitoring and enforcment mechanisms. In the absence of a regulatory framework that calls for compliance by t the provider, the situation is not different from a monopolisitc environment. Thus, effective and sustainable services are wholly dependent upon effective institutional structures and regulation (Trémolet and Halpern, 2006; Rouse, 2007).

***Financial management* –** refers to two broad issues: sector financing methods and financial governance (budgeting and accounting mechanisms). In terms of financing mechansims a particular service delivery could be financed through different methods which incude inter-

ministerial transfers, intergovernmental transfer, off-budget allocations (such as donor funding), taxation, user fees, and public-private partnerships. In most African countries, taxation and user fees are not reliable sources of financing water service delivery; donor and government support is still crucial. Allocating resources is not a gurantee for effective service delivery. Strong accounting and monitoring systems should be in place to ensure that resources are allocated equitably to meet the diverse needs of various users groups. Year-end financial statements and budget execution reports should be made available to the public so that the monitoring mechansims can achieve the desired outputs (AfDB, n.d).

Transparency and accountability are intrinsically linked in such a way that the former is a prerequisite for the latter. Citizens can hold service providers accountable for their decisions and the use of resources only when they have access to information. Service providers have to constantly provide information to clients about various dimensions of the services they provide. This in turn necessitates service providers being responsive and thereby accountable to the clients they serve. Sector budget analysis and publication, community-based management, citizen report card, involvement of private sector operators; reporting and disclosure of targets and achievements are important mechanisms that can increase transparency and accountability (AfDB, n.d).

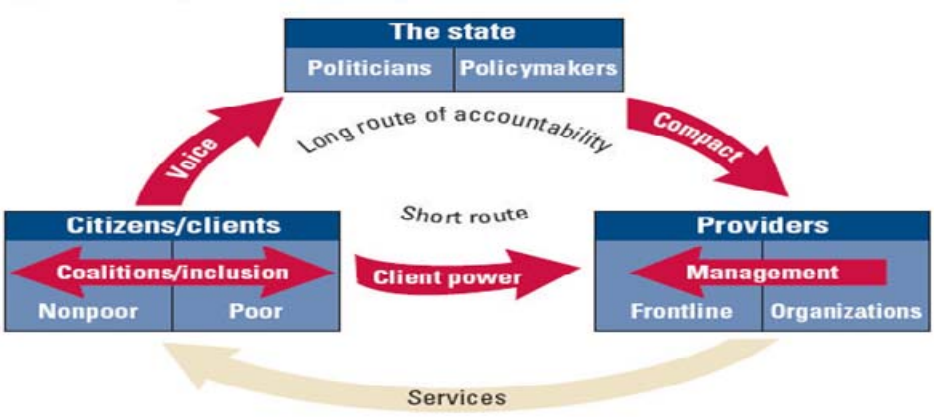
The agenda of public administration reforms, accompanied with several models, so as to improve the effectiveness and efficiency of government in providing services has been the subject of experimentation for several years. Many of the reforms were preoccupied with the supply side as they aimed at improving public service delivery through training, introducing merit-based recruitment and promotion, and creating incentives by adjusting payment structures. Such reforms were basically confined to the public sector. Public service production and delivery in the recent reforms, however, transcended the public sector domain and included several non-state actors. Nonetheless, improving the supply of public goods and services is not an end in itself nor is it possible to achieve responsive and accountable service delivery (Birner, 2007).

Accountability an institutional relationship (with five features: delegation, finance, performance, information about performance and enforceability), is at the heart of effective and efficient public service delivery. Reducing information asymmetry among parties in the service provision system is key to strengthening the accountability relationships in service delivery. The literature

suggests that increasing client power over service providers can increase efficiency and control in the system. The principal-agent theory provides a framework for understanding of accountability in public service delivery (World Bank, 2004; GDN, n.d.; Ferris and Graddy, 1996; Gauthier and Reinikka, 2007; AfDB, 2005; Awortwi, 2012).

Public service delivery involves three broad categories of actors, viz. clients/citizens, politicians/policy makers, and providers (public, private or self-organized groups). The accountability framework thus refers to the relationships between these actors, which may take either a "long-route' or "short-route" (see Figure 1) (Birner, 2007; GDN, n.d.; World Bank, 2004).

Figure 1: Key relationships of power



Source: The World Bank (2004)

The "long route" of accountability refers to a relationship through which clients as citizens influence policymakers, and policymakers in turn influence providers. In principle, citizens contribute to defining society's collective objectives, and they try to control public action to achieve those objectives. Practically, however, this does not always work effectively because, either they are excluded from the formulation of collective objectives or they cannot influence public action because of weaknesses in the electoral system.

In the case of the short route, citizens or citizen groups are empowered to provide direct feedback to service delivery agencies. Participatory planning and budgeting methods also increase voice and accountability. It is argued that the short route can improve service outcomes by increasing the client's power over providers. The short route is not, however, a

simple, quick and complete fix to the accountability problem. The viability and characteristics of potential "short route" solutions depend on certain technical characteristics of the services. These include whether there are economies of scale and network arrangements that lead to "natural monopolies" and that may require centralized supply; the degree of technological change, which favors decentralized and competitive provision, and the extent of externalities, which favors more centralized or coordinated solutions. Furthermore, the sustainability and effectiveness of short route accountability depend on developing strong accountability relations between policymakers and citizens, and between policymakers (specially, regulatory agencies) and providers. Thus, decisions between short and long route solutions are often complementary options, rather than alternatives (GDN, n.d.; World Bank, 2004)

4. Methodology

4.1 Selection of study cities, sites and sample respondents

In this research, two cities (Addis Ababa and Hawassa) were selected and thus, a multiple case study design was adopted. Multiple case studies are preferred than single case study since evidences from multiple case studies are often considered more compelling (Yin, 2003). A number of criteria were considered while selecting Addis Ababa and Hawassa. Addis Ababa has a long history of urban service delivery. It is the federal capital and seat of regional and international organizations having many economic and political functions; a city government status. Hawassa was selected because it is the seat of one of the nine regional states[2] and is among the fast growing cities of the country. This study, therefore, aimed at understanding the nature of the governance of roads and water supply service delivery in the two cities which have different historical contexts.

The team used different sampling designs for the water and road sectors. This is because there was a clearly observable distinct pattern in the two sectors as a result of which designing similar sampling approaches was difficult. For instance, for the water sector, the coverage based on households' connections (measured in terms of frequency of service delivery per day) was considered as a very important variable in clustering the water branches engaged in water

[2] It is a seat for Southern Nations, Nationalities and Peoples Regional State

provision. These were segmented into: high, medium and low in both Addis Ababa[3] and Hawassa[4]. Using such an approach, Addis Ketema, Mekanisa and Akaki-Kaliti were selected for Addis Ababa, while Alamora, Dato Odache and Tula were taken for Hawassa. Thus, a total of 300 household heads from Addis Ababa and 200 from Hawassa were randomly sampled from the selected sites in the respective cities.

A multi-stage sampling technique was also used for the road sector. In the first stage, the population density was taken as a defining variable in clustering sub-cities into some manageable size from which sample respondents were drawn. Unfortunately, there were no data on road coverage in each sub-city, which would have helped to establish a sampling frame using road density. The road coverage data was available only for the entire city. Therefore, taking the total population and area of each sub-city, the ten sub-cities in Addis Ababa were classified into three (high, medium and low)[5].

In the second stage, purposive sampling technique was used, as there were still other distinct variations among the sub-cities in each cluster. Some of the most conspicuous variations include: development gap, proximity to the city centre and availability of new construction of houses for different purposes. Taking these issues into account, one sub-city was purposively selected from each cluster. The first sub-city selected was Arada owing to its dense population and associated road access problems and being at the centre of the city. Kolfe-Keranio sub-city was selected from the second group due to the fact that it accommodates newly established areas where the problem of access to the road network is being observed. From the third cluster, Bole was chosen, as it is one of the developed areas in the city (apart from it being sparsely populated). This classification was considered to provide an interesting picture with regard to obtaining representative samples from the city.

In the fourth stage, 100 households from each sub-city and a total of 300 respondents were randomly selected. The same approach was adopted for Hawassa; Menaheria, Misrak and Tula were selected from which a total of 200 households were randomly selected.

---

[3] There are ten branches in Addis Ababa.
[4] There are four branches in Hawassa,
[5] Addis Ketema, Lideta, Arada and Kirkos sub-cities fall in the densely populated group. Gulele and Kolfe-keranio sub-cities are designated as medium. The sparsely populated sub-cities include Nefas Silk Lafto, Yeka, Bole and Akaki-Kaliti.

4.2 Methods of data collection

The study employed both quantitative and qualitative data collection methods with the objective of triangulating and checking the validity of information collected from different sources. The data collection methods include desk review, survey, key informant interview, observation, and focus group discussions (FGDs).

A desk review was conducted to gather information on policies and strategies for road and water sector development. Survey questionnaires were designed and administered to 1000 households (500 for each sector) in Addis Ababa and Hawassa. Similarly, key informant interviews were designed and conducted with officials of water supply and roads agencies. Interview questions covered such diverse issues as capacity, partnership, accountability and transparency mechanism, citizens' involvement and voicing mechanisms, and major challenges and opportunities.

In order to enhance the arguments, four focus group discussions were held for each sector, with clients consisting of a minimum of seven and maximum of ten members in a group. The water focus group consisted of users/clients who have their own connections (meters) and those who do not have. Members of the focus group discussion in the road sector consisted of drivers and pedestrians.

4.3 Type of data and measurement of variables

Both qualitative and quantitative data were collected. While most of the qualitative data in the road and water sectors were collected from clients, quantitative data emanated from secondary sources and household surveys. Sector outcome variables are more quantitative in nature (measured in terms of availability/regularity, access and quality in both road and water sectors), while governance indicators are more of qualitative (assessed in terms of responsiveness, accountability relationships, transparency and voicing mechanisms).

For the water sector, the degree of difficulty in getting water from the source as well as difficulty to get own connection are used as indicators of access to water. Regularity on the other hand, measures the degree of availability of water services. The purity of water, as perceived by

customers, measures its quality. In both sectors, clients' satisfaction was examined across these variables.

Table 4.1: Description of data type and source for road and water sectors

Road Sector		
Data	**Type**	**Source**
Household travel patterns	Primary	Clients
Clients' perception and awareness about existing road infrastructure	Primary	Clients
Clients' satisfaction with provision of road infrastructure	Primary	Clients
Major challenges of road infrastructure development	Primary	Clients
Clients' suggestions for future interventions	Primary	Clients
Actors and their roles	Primary	Clients (primary data), Addis Ababa Road Authority and Hawassa Municipality (primary + secondary)
Budget, procedures, resource allocation	Secondary	
Reforms and decentralization	Secondary	
Partnership	Primary + secondary	
Road type, length, quality, maintenance, construction	Secondary	
Accountability and voicing mechanisms	Primary + secondary	
Major challenges	Primary + secondary	
Water sector		
Availability, access , quality, adequacy	Primary	Clients
Responsiveness and effectiveness of the service delivery	Primary	Clients
Decentralized service delivery and reforms	Primary	Clients
Accountability and voicing mechanisms	Primary	Clients
PETS (clients' participation)	Primary	Clients
Challenges and opportunities	Primary	Clients
Budget, procedures, resource allocation	Secondary	Clients (primary), Addis Ababa water and Sewerage Authority and Hawassa Water Supply and Sewerage Service Enterprise (primary + secondary)
Reform and decentralization	Primary + secondary	
Accountability and voicing mechanisms	Primary + secondary	
Water production, delivery, maintenance	Secondary	
Major challenges	Primary + secondary	
Partnership	Primary + secondary	

Based on theoretical and empirical literature, it is expected that:

1. Weak capacity of the actors (technical and financial resources) is the cause for poor water and roads services delivery, which reduces the satisfaction level of clients; and
2. Weak transparency, accountability and voicing mechanisms have contributed to the dissatisfaction of clients

Table 4.2: Road and water sector variables (dependent), indicators and parameters of governance (independent variables)

Road sector			
Dependent Variables	**Indicator**	**Description**	**Explanatory variable/independent variables (parameters of governance)**
Availability	Type of road	Type of road available (main or feeder of asphalt, earthen, compact, cobblestone, etc)	
Access	Travel patterns	Mean distance from roads (as measured in both minutes and km). Here, distance between: i) home and feeder road, ii) home and main road, and iii) home and work place are considered	
Quality	Width	Percentage of clients responding that there are roads of relatively good quality in terms of width	• Availability of effective accountability and transparency mechanisms
	Safety	Percentage of clients indicating that the traffic signs, lights, pedestrian routes and safety cares are available in crossroads and in areas where there are construction and maintenance works in their localities	
	Construction Material	Ratio of each road length to the total road available in the study areas	• Capacity of service providers
Water sector			
Availability	Source of drinking water	Percentage of respondents obtaining drinking water per source type	
Access	• Degree of difficulty in getting the water from the source • Difficulty in getting own meter connection	• Difficulty in getting the water from the source measured in terms of mean values of clients' satisfaction on a Likert Scale • Difficulty in getting own meter measured in terms of mean values of satisfaction on a Likert Scale • Percentage of respondents with own meter connection who indicated that the monthly charge is fair	• Existence and involvement of non-state actors
Regularity	• Availability	• Average hours of availability of water supply per day for customers. Availability for less than 16 hours is said to irregular supply	
Quality	Customers' response	• The percentage of respondents who indicated that the water they use is of good quality	

4.4 Model/Equations to be estimated and tested

In this study, a blend of qualitative and quantitative data analysis approaches was used. In order to explain clients' satisfaction with water delivery and road service provision, we used both

econometric models and statistical techniques. In order to check whether there is a problem of multicollinearity, the rule of thumb, according to Gujarati (2004), is a value >= 0.8 in correlation coefficients between variables. Accordingly, Variance Inflation Factor (VIF) was computed for the variables used in regressions and no problem of multicollinearity was found. Similarly, the Breusch-Pagan test revealed that no problem of heterosckedasticity was observed in the data. To check for model fit, the Hosmer and Lemeshow Test was used, which correctly predicted more than 80% of the variables.

The binary logistic regression model was used to determine factors affecting the extent to which clients are satisfied with water or roads service delivery. If a household reports a satisfaction level denoted by S, which takes a value of "1" when "satisfied" or "most satisfied" and "0" otherwise. - is not observable, as it is a latent variable. What is being observed is S^*. The relationship between S and S^* is expressed in the following mathematical notations:

$$S_1 = 1, \text{if } S_i^* = \alpha_{1i}X_{1i} + \alpha_{2i}X_{2i} + \alpha_{3i}X_{3i} + ... + \alpha_{ni}X_{ni} + \varepsilon_{1i} > 0 \quad \text{and} \quad S_1 = 0, \text{ otherwise} \qquad (1)$$

Where X is a vector of socio-economic variables including governance parameters (such as responsiveness, capacity and transparency), S is a dummy variable with a value of one if the major drinking water source is an improved one and zero otherwise, $\alpha_1 ... \alpha_n$ are vector of parameters to be estimated, ε_1 is a disturbance term and i represents an index for clients. Then a logit model was specified to identify correlates of satisfaction in each variable of interest.

$$\log it(p) = \ln\left(\frac{p}{1-p}\right) = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + ... + \beta_n x_n + \varepsilon \qquad (2)$$

Where X stands for socio-economic, demographic characteristics of households and governance variables, ε_i stands for a white noise error term.

In addition to regression, independent samples t-test, ANOVA and Chi-Square tests were used to analyze the data.

5. Results and discussions

5.1 Organization and management of water and road service delivery

The organizational and management structure of water and roads services delivery agencies are quite different for the two cities (see Annexes 1 and 2) are discussed in the following sub-sections.

Since the post 1991 Ethiopian politico-administrative reorganization, Addis Ababa has gained an autonomous status having its own elected council. Using its legislative power, the City Council re-established[6] an autonomous agency called Addis Ababa Water and Sewerage Authority (AAWSA). The Hawassa City Water Service Enterprise (HWSE) was established in 2003[7]. Both AAWSA and HWSE are fully responsible for the production and delivery of water services to their residents. The water supply agencies in both cities have somewhat similar structures. They are organized into a Board, a Head Office and Branch Offices. The Board of AAWSA is appointed by and is accountable to the Executive Organ-Cabinet of the Addis Ababa City Government. Unlike the case in Addis Ababa, the Board of HWSE is appointed and remains accountable to the City Council. In both cities, the boards are made up of City Managers and representatives of various bureaus of the cities. Chaired by the Mayors of the respective cities, the boards are the highest governing bodies and functionally play a supervisory role.

The Head Office of AAWSA is directed by a General Manager, three Deputy General Managers and a Project Officer. The Deputy General Manager for water supply is responsible for production; quality control and distribution of water. Water supply has been decentralized to eight branch offices, each of which are responsible for new line connection, line relocation, line maintenance, water meter testing, leakage detection, and billing.

[6] AAWSA was established by the Imperial Government through Order No. 68/1971. It was re-established through Proclamation No. 10/1995 with the major objective of conferring more powers and duties to meet the growing demands of the city's population

[7] Established through Regulation No. 2/2003 of the Southern Nations, Nationalities and Peoples' Regional Government

Headed by a general manager, HWSE is organized into three processes and one case team. HWSE has also decentralized water supply to four branch offices. Unlike f AAWSA, the branches of HWSE are not involved in financial matters.

In road services, the two cities exhibit different governance and management structures of roads service delivery. The Addis Ababa City Government has established an autonomous authority (Addis Ababa City Roads Authority-AACRA) responsible for roads construction and maintenance. The organizational structure of AACRA consists of a board, head office and project offices. The Board, reporting to the City Council, provides policy direction and supervision. The General Manager, into whose hands decision-making powers are concentrated, is responsible for the overall managerial supervision. There are nine process units, which are accountable to the General Manager (see Annex 3).

The development of the road sector in Hawassa City is a relatively new phenomenon. Unlike that of Addis Ababa, the road sector activities are organized under the generic municipal functions called the City Land and Related Services Administration Supply Process (see Annex 4). The process undertakes supervision and delivery of several infrastructural services including roads, drainage lines, street lights, solid waste management, markets, residential buildings and parks. This arrangement has overburdened the single unit, thus adversely affecting the emphasis on, and efforts to roads service delivery.

5.2 Types and roles of actors in water and roads services

Service delivery in water and roads requires various activities and inputs from different actors. The actors include state institutions (mandated to manage water and road services delivery) and non-state actors such as NGOs, contractors (local and international), donors and community members. Results of the assessment in the two cities indicated that multiple actors have been involved in water service delivery and road development in different, complementary way. It was observed that production of water has benefited more from partnership than distribution and delivery since these functions are almost under the monopoly of the water supply agencies in the respective cities. A summary of the main actors and their roles in water and roads service delivery is provided in Annex 8.

Bilateral and multilateral development agencies, NGOs, private sector actors, and communities have been working with water and road service providing agencies in order to bridge the capacity gaps of the agencies (see sub-section 5.3).

The involvement of these actors is formal in nature. Bilateral and multilateral donor agencies work in partnership with water and roads agencies through financial and capacity building support initiatives that aim at improving service delivery. NGOs are t important actors in water and roads services delivery. They work in partnerships with water agencies and local governments with a major objective of improving access to safe drinking water for the poor. They usually cover the cost of construction and installation of public fountains in poor neighborhoods. In the case of roads, they cooperate with local governments and community members. They specifically finance construction of feeder roads and drainage canals.

Private actors are also important partners of water and roads service delivery. In Addis Ababa, local and international private actors participate in the construction of boreholes, distribution lines and reservoirs. They undertake such activities through formal contractual arrangements negotiated and signed with AAWSA. In the case of Hawassa, only local private actors participate, mainly undertaking civil works for installation of water supply lines. In 2010, HWSE tried to contract out some of its functions (meter reading and bill collection) to Micro and Small Enterprises (MSEs). Unfortunately, the MSEs could not undertake effective meter reading[8], as a result of which the enterprise discontinued working with them. The involvement of small scale private plumbers in maintenance is another component of private sector participation in the water supply efforts of the two cities.

As in the water sector, partnerships between road agencies and other private actors were observed in both cities. Their participation is limited to new road construction due to their lack of interest in road maintenance. As a result, road maintenance in the cities is the sole responsibility of the road agencies. The government in general and road agencies in particular, have shown interest in building the private sector capacity for the road sector. The road agencies have floated several bids and contracted out road construction projects to international and local private contractors. Moreover, the government has been engaged in enhancing the

[8] Lack of regular monthly readings and exaggerated readings were the most critical problems discovered by the Enterprise.

capacity of local private contractors through facilitation of loan services, exemption of duties for imported machineries, and provision of capacity building training.

Community members also participate in the development and delivery of water and road services provision. In water service delivery, for example, communities contribute finance and labor voluntarily to facilitate the installation of water system. In the roads sector, they participate in the construction of feeder roads, with extensive cobble stone roads constructions in both cities having been put in place with the participation of communities.

5.3 Features of water and roads service delivery governance

In this study, features of water and roads service delivery are examined from the viewpoint of important governance variables, which include capacity, transparency, responsiveness, accountability and voicing mechanisms.

5.3.1 Capacity

Findings of the study show that water and roads service agencies have limited financial and human resource capacities to meet the growing demands of the population.

The laws that established AAWSA and HWSE stipulated that the agencies finance their own functions. However, none of them is able to cover their recurrent and capital budgets. For instance, in the period between 2001/02-2009/10, AAWSA was able to cover, on average, only 40.5 percent of its total (recurrent and capital) annual expenditures with the corresponding figure for HWSE being 86.5 percent. AAWSA depends heavily on the budget support of the City Government and financial support of donors. HWSE does not receive additional budget support from the City Administration and meets all operating costs from its own sources. It, however, obtains financial support from donors, NGOs and the regional government for its capital expenditure.

Table 5.2: Average annual revenue and expenditures (in ETB) of AAWSA and HWSE (2001/02-2009/10)

	Average revenue (a)	Average expenditure			% a/b
		Recurrent	Capital	Total (b)	
AAWSA	136,831,205	159,099,858	178,601,418	337,701,276	40.5
HWSE	5,151,110	3,458,359	2,495,894	5,954,253	86.5

Sources: AAWSA, June 2011; HWSE, July 2011

Respondents from road agencies also claim that they have insufficient financial resources to effectively undertake their responsibilities. According to respondents, the major source of finance is the Federal Road Fund, which cannot meet their needs. A review of the budget utilization of AACRA, however, indicates that during the period 2007-2011, the utilized funds for new road construction were far below the approved budget except for the year 2010. This may be attributed to constraints related to capacity as well as the failure of road contractors to meet their obligations in accordance with the agreements.

In Hawassa, too, the Federal Road Fund is the main source of funds for road construction. The allocation, however, is characterized by great fluctuations over the years. The World Bank, which finances cobblestone road construction, is another financial source through a project known as Urban Local Governance Development Project (ULGDP).

An assessment of the human resource capacity of water service providers indicates that AAWSA and HWSE are constrained by lack of trained personnel. AAWSA has a total of 1,888 (1,850 permanent and 38 contract) employees. About 85% of these are semi-skilled (AAWSA 2011). HWSE, on the other hand, has a total of 110 staff, of which 95 percent are semi-skilled. According to respondents, the human resource constraint is severe at the decentralized level (i.e., branch offices, which are expected to facilitate effective public service deliveries to the local people). FGD participants in both cities stated that the role of local government agencies in water service delivery is very limited.

5.3.2 Transparency

Transparency of water and roads service delivery is measured in terms of information flow from citizens to service delivery agencies and vice versa. The transparency situations of the two sectors are briefly discussed as follows.

AAWSA's respondents stated that the Authority provides information to citizens about distribution problems, cost and quality. The channels through which AAWSA provides such information include a 30 minutes weekly radio program, quarterly bulletins and issue based TV and radio announcements. The program covers live transmission that involves customers and responsible officials/experts of the Authority. Cost and quality related information is provided upon request during live radio programs. FGD participants in both cities indicated that customers usually know about the cost of water from the monthly bill.

With regard to transparency in financial resource allocations in the water sector, AAWSA's respondent indicated that there is no special mechanism in place to provide the people with budget information. Interested citizens, however, can have access to financial data upon request. HWSE's respondents indicated that since the 2010/11 fiscal year, the budget of the Enterprise is posted on public notice board. Periodic (quarterly and annual) reports to the Board of Directors by the respective water supply agencies are the most important means of promoting transparency in budget utilization. Household respondents were also asked to rate the degree of transparency of budget allocation and utilization by water supply agencies. The views of respondents do not complement the views of the key informants – the heads of agencies. According to the survey results, 95.7 percent of the respondents in Addis Ababa indicated that they did not have any information as to how much money was allocated and how much of it was utilized for what purpose. The situation in Hawassa is almost the same where 96.6 percent of the respondents had concurring views. FGD participants also corroborated the views of the household respondents. The local people did not have information about allocated and utilized budget.

The availability of information to clients was also used to assess the extent to which road agencies are transparent in bidding and other decision-making processes. Key informants indicated that road agencies use notice-boards to keep the public informed about their activities. However, results of the descriptive analyses based on the views of respondents show that there is a perceived lack of transparency in roads services, especially in the bidding process. Survey results further reveal that the majority of respondents in both Addis Ababa (87.5%) and Hawassa (91%) do not have information as to how roads agencies float bids. Results from FGD participants also confirmed these findings.

5.3.3 Responsiveness

Responsiveness in the context of this study refers to the degree to which water and road service providing agencies take actions to correct the problems clients grapple with and satisfy their demands. In the water sector, the key informants from AAWSA and HWSE stated that lack of customer oriented behavioral change among employees and officials of the agencies is one of the most serious constraints the agencies face. In spite of the behavioral challenge, respondents argue, the changing political context (the process of democratization) in post 2005 and service delivery reforms have influenced citizens' participation in service delivery, which in turn has influenced the degree of responsiveness of water agencies at all levels. According to HWSE's respondent, citizens are encouraged to actively take part in service delivery processes and demand their rights. For example, the key informant stated, the HWSE decentralized water service delivery by establishing four branch offices in response to customers' consistent demands for improved services. Generally, the increasing political space for popular participation and the growing awareness of the people about their rights have transformed service delivery from supply to demand driven. However, results of the households' survey show that only 47.6 and 38.3 percent of the respondents in Addis Ababa and Hawassa respectively indicated that the degree of responsiveness of the water supply agencies is modest, while 32.8 and 19.8 percent of the respondents in the respective cities rated it as low/very low.

Table 5.3: Responsiveness of the water supply agencies to customers' demands

City	Degree of responsiveness					
	Very high	High	Modest	Low	Very low	Total in %
Addis Ababa	6.1	13.5	47.6	27.1	5.7	100
Hawassa	4.3	37.6	38.3	14.8	5.0	100

Source: Household Survey (2011).

In the roads sector in Hawassa, 44.5 percent of respondents indicated high or very high responsiveness, while 41 percent of the respondents rated it as modest. In Hawassa, the key informant indicated that there is a council in each *kebele*, which listens to communities' complaints and dissatisfactions. The Municipality has also established a closer link with the *kebele* councils that would enable it to be responsive to and follow up on citizens' demands. In contrast, 83.8 percent of the respondents in Addis Ababa indicated the responsiveness of AACRA to be low or very low. This could be because of the mismatch between the growing demand and the capacity of AACRA to supply the services. However, key informants at AACRA

claimed that the authority responds to clients' complaints earnestly. In Addis Ababa, if citizens' complaints are technical, the authority solves the problem by itself. If the problem is associated with budgetary issues, the authority presents the case to the board for resolution.

5.3.4 Complaint handling and voicing mechanisms

In both water and roads service delivery, respective agencies have established different voicing mechanisms through which community members air out their concerns and complaints. For instance, key informants from AAWSA and HWSE indicated that these agencies have established complaint handling units at head office and branch levels to which customers are encouraged to submit their concerns either in writing or orally. Clients can also use other channels such as newspapers, audio (radio) and audiovisual media (TV) and public meetings at *kebele* level and/or direct meetings with officials. For instance, AAWSA sponsors a 30 minutes weekly radio program through which customers can ask questions and express their dissatisfaction with the service offered. A respondent from the Mayor's Office of Hawassa City also noted that his office sponsors live FM radio programs through which the residents of the city voice their problems with service delivery. Other channels they use are the monthly newsletter (*Hawassa* Newsletter). and regional and national TV services. For FGD participants, however, personal visits to head and branch offices of the water supply agencies are the most common means of submitting complaints about water service delivery. Participants stated that, despite gradual improvement, responses to complaints are below satisfactory.

Household respondents were asked whether there are ample and effective voicing mechanisms when the roads agencies fail to meet public demands. The key informants indicated that there are different mechanisms through which clients voice their complaints. Usually, a group of community members present their complaints directly to the respective agencies. In Addis Ababa for example, AACRA has designated a system through which community members submit their complaints to the Manager every Thursday. A suggestion box is another alternative community members can use to forward their complaints. If complaints are not effectively and satisfactorily addressed by the roads agencies, the public can take the issue to the Mayor's Office in the respective cities. The case of Asko-Wenget road in Addis Ababa can be cited as a good example of complaints presented to the Mayor's Office due to unsatisfactory response from AACRA.

In Hawassa, the key informant indicated that citizens can voice their complaints not only to the Mayor's Office, but also to the City Council. In addition, monthly public discussions are conducted in each *kebele* during which the residents present their complaints. The results of such discussions were compiled and brought to the attention of the City Council. The key informant further noted that people may voice out to the regional government. Radio, TV and newspapers are other voicing mechanisms identified by key informants. Alternatively, they could drop their complaints in the suggestion box. Moreover, according to the key informant, the Authority has dedicated every Thursday for public complaint hearing during which clients call or present their cases in person to the Manager.

5.3.5 Accountability mechanisms

The laws stipulate that AAWSA and HWSE are accountable for their decisions, actions and results thereof. They are accountable to the Boards, which, in turn, are accountable to the Cabinet and Council of the Addis Ababa City Government and Hawassa City Administration respectively. This represents the long route of accountability. It is even longer in the case of Addis Ababa than in Hawassa. In Hawassa, the HWSE is accountable to a body directly elected by residents – the City Council. In the case of Addis Ababa, AAWSA is accountable to the Cabinet, which is in turn accountable to the Council of the City Government.

In most of the cases, supervisory agencies try to ensure accountability by seeking periodic reports about resource utilization and performance against planned activities. The Boards in both cases have the right to dismiss the general and deputy general managers if they believe that water supply agencies have failed to provide the desired level of service. Of course, the Boards can play such roles if customers effectively communicate their complaints and problems. According to the respondent of AAWSA however, not many customers have information about the Board, which is a major limitation in the accountability and voicing mechanisms. The new reform (BPR) aspires to promote direct accountability between customers and water supply agencies, a process which yet to be strengthened. The AAWSA has started encouraging water users to establish their own "Customers' Forum".

Household respondents were asked to indicate whether they know of any clear legal and practical mechanisms put in place to ensure accountability of the water supply agencies. In Addis Ababa, only 12.2 percent of the respondents replied "yes' while 16.5 percent replied "no". The majority (71.3%) however, did not have any knowledge whether it exists or not. In

Hawassa, 55.8 percent of the survey respondents indicated the existence of legal and practical accountability mechanisms. A good proportion (30.6%) of the respondents, however, still does not have knowledge about the issue.

AACRA is accountable to the Addis Ababa City Council. With regard to funds secured from the Federal Road Fund, the Authority directly accounts to the same. The Hawassa Municipality, which is responsible for roads construction, is also accountable to the City Council. However, FGD participants indicated that there is no system that enables citizens to hold roads agencies directly accountable to the public. This clearly shows that the accountability mechanism for roads follows a long route.

5.4 Assessment of customers' satisfaction

Customers' satisfaction with regard to both water supply and roads services provision was examined in terms of availability, access, and quality based on data obtained from households.

5.4.1 Access

In this study, access to water refers to the degree of difficulty for customers to get water from the source as well as have an own meter connection. Access to roads, on the other hand is about the degree of connection citizens have to feeder and main roads. It can also be seen in terms of the time taken from home to the roads.

For water, evidence shows that the two cities are far from achieving universal access to potable water because of their expansion and population growth. According to data obtained from water agencies, access to safe drinking water has reached 75 and 60 percent in Addis Ababa and Hawassa respectively. Household respondents were asked to evaluate access to safe drinking water. With regard to difficulty in getting water from the source, 49.4 percent of respondents in Addis Ababa indicated that it is easy or very easy. Some 26 and 24.7 percent of the respondents reported it to be difficult/very difficult and modest respectively. In Hawassa, 87.2 percent of the respondents reported that getting drinking water from the source is easy or very easy. There is slight difference between branches in Addis Ababa, which may be attributed to differences in managerial capacity at the branch level.

The results of the analysis indicate that 82.8 percent of respondents in Hawassa and 75.6 percent in Addis Ababa have never faced any difficulty in getting their own meter connection. However, there are variations between branches in both Addis Ababa and Hawassa. Mekanisa leads with 66.2 percent of the respondents reporting very easy or easy access to their own meter connection followed by Addis Ketema and Akaki Kality. In Hawassa, Dato Odache is the first in terms of getting own meter connection with 62 percent of respondents indicating easy to get own meter connection followed by Tula and Alamura.

With regard to access in roads sector, respondents in Hawassa reported that they could access feeder and main roads, on average, within 2.25 and 9 minutes walk from their homes respectively. The corresponding figures in Addis Ababa are 5.16 and 11.45 minutes. The comparison of satisfaction level of households with regard to access to main roads was also done across sub-cities in both Addis Ababa and Hawassa. In Addis Ababa, results suggest that clients in Bole are the most satisfied (61%) followed by Arada (55%) and Kolfe (35%). The difference in the satisfaction level across sub-cities is statistically significant at 1% level in a Chi-Square test, results of which were confirmed by ANOVA. The difference in the satisfaction level of clients across sub-cities in Addis Ababa is in line with *apriori* expectations given the development gap and availability of roads, where Bole is one of the most developed and well-networked areas of the city.

A similar analysis was done for Hawassa in which results of the descriptive analysis reveal that there is difference among sub-cities, suggesting that respondents in Misrak sub-city are the most satisfied (93.1%) followed by Menaheria (91.9%) and Tula (82.3%). The differences are statistically significant at 1% level in a Chi-Square test.

Table 5.4: Mean comparison of access to road and water in Addis Ababa and Hawassa

Variables	City	Mean	Std. Dev	t	Sig.
Access to roads	Hawassa	4.26	0.806	12.234	.000
	Addis Ababa	3.07	1.202		
Degree of difficulty in getting water from the source	Hawassa	2.39	1.243	-2.656	.008
	Addis Ababa	2.71	1.111		

Results of the regression analysis provide explanations about factors affecting the satisfaction level of households with regard to access to main roads. According to the results shown in Table 5.5,

governance parameters (such as voicing mechanisms and responsiveness) are found to be significant in affecting access to main roads, which goes in line with the *apriori* expectations.

This suggests that a higher existence of functioning voicing mechanisms would have an important impact on the expansion of main roads in the cities, thereby increasing the satisfaction of clients. Likewise, responsiveness to public demands has a significant impact on the expansion of main roads.

Table 5.5: Determinants of access (Hawassa and Addis Ababa)

	Hawassa		**Addis Ababa**	
Variables	***B***	***S.E. (Wald-test)***	***B***	***S.E. (Wald-test)***
Tula	-1.021	.602 (2.879)	-	-
Misrak	-.531	.704 (.568)	-	-
Arada sub-city	-	-	-.635	.312 (4.145)
Kolfe sub-city	-	-	-1.321	.309 (18.262)
Voicing mechanism	1.852	.990 (3.498)*	.616	.255 (5.805)***
Responsiveness	.945	.550 (2.949)*	1.087	.489 (4.932)**
Education status	.083	.198 (.175)	-.199	.083 (5.801)
Constant	.112	.217 (.268)	.977	.433 (5.093)

Note: *, ** and *** show significance in 10%, 5% and 1% respectively.

5.4.2 Water supply regularity and road availability

Regularity of the water supply refers to the average hours of availability of water supply per day for customers. Availability of roads signifies the presence of different roads and related services. For water, FGD participants from Hawassa and Addis Ababa indicate that water supply during the day is limited in most cases. Many housing units connected to water supply system get water during the night when there is less competition from hotels, industries and other sectors. Such an arrangement for water supply, they say, has given rise to critical problems for customers who use public fountains, which do not function during nights.

Table 5.6: Degree of regularity of water supply service delivery in Addis Ababa and Hawassa Cities

Response variables	Addis Ababa		Hawassa	
	Frequency	%	Frequency	%
Regular (16-24hours per day)	84	37	13	9.1
Irregular	143	63	130	90.9
Total	**227**	**100**	**143**	**100**

Findings from the survey also indicate that 63 and 90.9 percent of the respondents in Addis Ababa and Hawassa respectively reported that they get water on an irregular basis (see Table 5.6). Moreover, it was learned that there is no appropriate and effective maintenance, which results in wastage of water from leaking pipes.

As can be seen in Table 5.7, in the period 2007-2010, on average, only 56 percent of the water produced in Addis Ababa was actually delivered to users. The corresponding figure for Hawassa during the same period was 63 percent.

Table 5.7: Amount of water produced and delivered per annum

Year	Addis Ababa			Hawassa		
	Production in meter cub (a)	Delivery In meter cub (b)	**% of b/a**	Production in meter cub (a)	Delivery In meter cub (b)	**% of b/a**
2007	86,278,589	53,285,620	**62**	2,470,807	1,418,539	**57**
2008	88,360,209	53,668,505	**61**	2,370,087	1,577,569	**67**
2009	95,465,576	58,140,850	**61**	2,320,807	1,595,838	**69**
2010	105,317,576	46,810,711	**44**	2,305,807	1,359,327	**59**
Average	**93,855,488**	**52,976,422**	**56**	**2,366,877**	**1,487,818**	**63**

Findings of the study show that there are different types of roads in Addis Ababa and Hawassa. The type of roads in Addis Ababa includes asphalt (49.9%), gravel (48.2%) and cobblestone (1.9%), which make up a total of 3,522 kilometers (AACRA, 2011). Correspondingly, the road density of the city is 6.3km/km^2 and 1.1km/1000 population. These indicators reveal that the road network of the city is underdeveloped. The road distribution in Hawassa is such that earthen pavements are the largest, which make up 45.4 percent followed by gravel (32.1%), asphalt (13.9%) and cobblestone (8.5%). The total length of roads in the city is 374.275 kilometers with 1.28km/km^2 and 2.38km/1000 population. Earthen roads are not all-weather roads; thus, motorable roads constitute only 54.5 percent, which clearly shows the poor development of the road network in the city. Evidence from the municipality also indicates that the development of asphalt road is a relatively new phenomenon, which extensively started in 2002.

A disaggregated analysis at sub-city level shows that there is a statistically significant difference in the association between the satisfaction level of clients and sub-cities as far as availability of roads is concerned in both Addis Ababa and Hawassa. In the context of Addis Ababa, results of the descriptive analysis indicate that clients in Bole Sub-City are relatively the most satisfied[9] (65%) followed by Arada (62.2%) and Kolfe (41.6%). The difference is statistically significant at 1% level with X^2 value of 22.498.

In Hawassa too, there is a statistically significant association at 1% level between satisfaction level of households and sub-cities with Menaheria Sub-City scoring the highest (94.6%) followed by Misrak (89.7%) and Tula (77.9%). This could be attributed to the fact that Menaheria is at the heart of the city where roads radiate to all directions, whereas Tula is part of the city comprising some rural *kebeles* with inadequate road networks. ANOVA results and regression analyses reveal that governance parameters (such as voicing mechanisms, responsiveness of roads agencies and participation of non-state actors) significantly affect the likelihood of clients being satisfied in terms of roads availability. While voicing mechanisms and responsiveness of roads agencies have significant effect on roads availability, participation of non-state actors is significant only in Addis Ababa. This corroborates with the key informant from AACRA who stated that a number of local and international NGOs are actively participating in road construction. However, information from Hawassa reveals that only limited or few local and international NGOs participate in road construction.

5.4.3 Quality

Quality of water supply as measured in terms of the purity[10] of water is an important component of customer satisfaction in water service delivery. However, the quality of roads in this study is measured in terms of its width and availability of safety signs, pedestrian pathways and traffic lights.

With regard to water, household respondents were asked about their perceptions of the purity of water supplied. The majority (70.1 and 76.4 %) of respondents in Addis Ababa and Hawassa respectively reported the quality of water either as very good or good. Results of the regression analysis show that the higher the responsiveness (which is one of the measures of quality of governance in service provision), the higher the likelihood of clients being satisfied with regard

[9] For ease of elucidation, responses designated as “satisfied” and “most satisfied” are taken together

[10] Water quality is more of a technical issue and thus, it could have been best measured through assessment of periodic laboratory tests. Nonetheless, attempts to get such data did not succeed.

to water service provision in both Addis Ababa and Hawassa at 1 percent significant level. This result is in line with findings of Holmberg and Rothstein (2011), which indicate that government effectiveness and quality of governance have significant positive impacts on the provision of quality water services. Results of this study also corroborate with findings of McNeil, *et al.* (2009) where responsiveness was found to be one of the most important factors determining quality water provision in Bosnia and Herzegovina. As indicated in Table 5.8, the same relationship is identified between the capacity of actors, voicing mechanisms and clients' satisfaction in overall water service provision including quality, which are significant at 1 and 5 percent, respectively.

In terms of road quality, survey results indicated that the percentages of respondents who were most dissatisfied and dissatisfied were 67.8 and 73 percent for Hawassa and Addis Ababa respectively. Analysis between sub-cities of Addis Ababa shows that the satisfaction level of households is the highest in Bole Sub-City followed by Arada and Kolfe. ANOVA test also offers similar results. Results for Hawassa show that 82 percent of the respondents in Tula indicated they were most satisfied and satisfied, while the corresponding figures for Meneharia and Misrak were 78 and 69 percent respectively. The difference between sub-cities is therefore significant at 10 percent level.

Table 5.8: Determinants of degree of satisfaction of customers in water service delivery in Addis Ababa and Hawassa

Variables	***Addis Ababa***	***Hawassa***
Responsiveness of water service providing agencies	1.137 (.421)***	2.943 (.743)***
Voicing mechanisms (good or otherwise)	1.074 (.479)**	.493 (.239)**
Capacity of service providing agencies	1.559 (.456)***	1.654 (.812)**
Education level of respondents	-.172 (.175)	-.368 (.774)
Age of respondents	.029 (.016)*	1.300 (.747)*
Nefas Silk	-.203 (.466)	-
Addis Ketema	1.201 (.571)**	-
Dato Odache	-	-0.221 (.162)
Tula	-	2.807 (1.397)**
Sex of the respondents	.130 (.461)	.307 (.728)
Constant	-1.677 (1.062)	-1.561 (1.360)

*Coefficients (Standard errors), *, ** and *** indicate significance at 10%, 5% and 1% respectively*

From the regression analysis, it was possible to learn that the most important governance variables determining clients' satisfaction in the quality of roads are: voicing mechanism, accountability, supervision, and use of standard materials (see Table 5.9).

Table 5.9: Determinants of roads quality (Hawassa and Addis Ababa)

Variables	Hawassa		Addis Ababa	
	B	***S.E.***	***B***	***S.E.***
Tula sub-city	-.386	.513 (.566)	-	-
Misrak sub-city	-.611	.446 (1.876)	-	-
Arada sub-city	-	-	-.718	.336 (4.574)
Kolfe sub-city	-	-	-1.348	.315 (18.342)
Voicing mechanism	.556	.115 (23.350)***	.186	.259 (.516)
Follow up/accountability	.652	.250 (6.807)***	.536	.284 (3.558)*
Education level	.300	.203 (2.187)	-.002	.086 (.000)
Use of standard materials	1.669	.526 (10.057)***	.593	.274 (4.691)**
Transparency	.411	.857 (.230)	-.029	.336 (.007)
Constant	.556	.115 (23.35)	1.500	.660 (5.167)

Note: *, ** and *** represent significance at 10%, 5% and 1% levels respectively
Values in parentheses are Wald-tests.

The Hosmer and Lemeshow Test correctly predict 81.9 percent of the variables in Addis Ababa and 89.3 percent in Hawassa. It is possible to conclude that important governance variables such as voicing mechanisms and responsiveness are key factors that determine the outcome of water service delivery, confirming *apriori* expectations.

5.5 Challenges and opportunities

Challenges

According to Mark *et al*. (2003), governance of urban service delivery challenges are mostly related to capacity, financial resources and authority. In what follows, findings on the challenges and opportunities of water and roads service delivery of the two case study cities are presented. The major challenges in water service supply include:

- Water supply agencies do not have sufficient human, financial and material resources (applies to both public agencies and private contractors);
- Inadequate water sources;
- Insufficient information flow to citizens about resource allocation and utilization;
- Inefficient accountability mechanisms;
- Limited effort to initiate and facilitate the establishment and functioning of partnership; and
- Lack of coordination mechanisms between utility and infrastructure providing agencies

In road service provision, the major challenges include:

- Problems related to delineating boundaries (in Addis Ababa);
- Financial problems;
- Road users related problems (misuse of road infrastructure and poor sewerage disposal);
- Lack of skilled human resources;
- Contractor related problems (managerial, financial and material related problems); and
- Lack of coordination among service providers.

Opportunities

Addis Ababa is the center of multi-layer political and economic functions (international and regional), which can be considered as good opportunities for the development of its water supply and road network. As such, the MDGs and the GTP emphasize on water and roads as priority on the list of services that have received special attention of the Government. For the roads, economically, the Addis Ababa–Nazareth belt is one of the areas of the country with a high concentration of manufacturing industries that demand well connected and accessible roads as well as sufficient water supply for industrial activities.
The emergence of big private investors (in and around the city) with better resource capacities presents as an opportunity to establish partnerships with AACRA and AAWSA.

Hawassa as a capital city of SNNPR assumed political and socio-economic significance. Many districts surrounding Hawassa town are known for coffee production, processing and exports. It is also one of the famous tourist attraction sites within the Ethiopian Rift Valley System. All these are expected to create a good opportunity for the development of water supply facilities and road networks to cater for the rapid rate of urbanization.

6. Summary of key findings, conclusion and policy implications

This study attempted to explore the governance of service delivery of roads and water supply in Addis Ababa and Hawassa cities. The key research questions that guided the study focused on water and road service delivery agencies in terms of organization, capacity, voicing and accountability mechanisms, transparency and satisfaction of the clients with the services

provided. This section presents summary of the key findings, the conclusions drawn and the policy recommendations of the study.

6.1 Summary of key findings

Water service delivery has received due policy attention by the Ethiopian Government. The adoption of the National Water Policy, and the Water Strategy and Water Sector Development Program (WSDP) are evidence of the prominence given to the sector. Furthermore, the new national Growth and Transformation Plan (GTP) aspires to achieve coverage of 98 and 100 percent for rural and urban areas respectively by the year 2015. Current performances of Addis Ababa and Hawassa, however, show that unless extra effort is made, they may not achieve the set targets.

Due to concerns of equity, the distribution and supply of water services are under the monopoly of public agencies. There is a major conviction among policy-makers that the high tariffs associated with private distribution and supply of water will exclude the poor from receiving service. Unfortunately, public agencies did not have the requisite financial, human and material capacities to effectively distribute and supply water. This was evident from the fact that considerable amount of water is lost in the course of distribution and supply in both cities. Regardless of the equity concern, there is no guarantee that private actors would ensure better distribution and supply of water than public agencies. The failure of MSEs in Hawassa to effectively undertake the activities of water meter reading contracted to them by the HWSE is testimony to this.

The nature of partnership between state and non-state actors in the two cities is mostly demand driven. Non-state actors that include multi- and bilateral development agencies, NGOs, private actors, and communities are involved in one or more activities in the water service delivery efforts. City governments and water agencies neither took initiative nor formulate strategies on how to promote partnerships among multiple actors.

The limited partnerships experienced in the two cities were initiated by non-state actors. This undermines the development of effective partnership as its success depends not only on the demand side (participation of non-state actors), but also on the supply side (enabling environment). The problem is not only limited to lack of effective partnership between water agencies and non-state actors, but also between local governments and autonomous public

agencies. The study revealed that local governments have little or no role in water service delivery since they do not influence resource allocation, nor are they involved in regulatory activities. This defeats the purpose of decentralized local governance, which is basically promoted with the major conviction of improving public service delivery to the local people.

The transparency and accountability mechanisms in water service delivery were found to be unsatisfactory. The system of information provision by the water agencies is demand driven in nature; i.e., water agencies have not yet considered it mandatory to provide information to customers about water quality and cost, and resource allocation. Furthermore, the degree of transparency suffers from perceptual difference between public officials and customers. Officials believe that after the introduction of the BPR, the system is transparent enough, while customers believe otherwise. Such a gap is a barrier to further improving transparency, as officials are less receptive to customers' complaints.

Assessment results showed that there are no legal and structural bottlenecks not to ensure the accountability of water supply agencies. Nonetheless, accountability is not effectively practiced since customers do not have sufficient knowledge about the legal and structural mechanisms put in place, nor have supervisory agencies taken steps to make themselves visible to the public.

Most customers are not aware of the existence and role of Boards as supervisory bodies. Thus, the boards seldom receive information from customers about the performance of water supply agencies. They largely depend on the reports produced by the water supply agencies which are less effective in revealing public complaints about the cost and quality of service delivery. Despite some initiatives in Addis Ababa, the absence of customers' forum is a major limitation in the accountability system.

In both cities, a big gap was observed in the degree of customers' satisfaction with regard to access, availability and quality of water services. Lack of appropriate responsiveness to customers' demand, limited capacity and weak transparency and accountability mechanisms are the major causes of customers' dissatisfaction.

Despite bottlenecks for the emergence and functioning of effective water service delivery governance, the increasing political and administrative space for citizens to voice out their

problems about the service delivery is an encouraging move to improve the performance of the sector.

In general, challenges of public sector monopoly, weak capacity and limited partnership are among important factors that have affected the development and expansion of water supply in the two cities.

The Government of Ethiopia has placed increased emphasis on improving the quality and quantity of road infrastructure in the country. To this end, it has formulated the Road Sector Development Program (RSDP).

Despite the efforts by the government and the involvement of different non-state actors in the development of roads in the two cities, the services are behind the expansion of the cities and the demands of citizens. The major problems explaining the limited roads services in both cities are not different from that of the water sector. The AACRA and Hawassa City Municipality have limited capacity to effectively meet the fast growing demands for roads services. The huge gap between the approved and utilized budget for roads construction reflects the limited managerial and technical capacity of the agencies. Contractors are no exception in this regard.

Partnership between state and non-state actors in road construction is not well developed. However, the situation in Addis Ababa is relatively better than that of Hawassa. This is mainly attributed to the involvement of multiple private contractors in Addis Ababa, while Hawassa is under the monopoly of a single contractor.

Despite significant variation in the satisfaction level of households between cities showing Hawassa to be performing relatively better, transparency, accountability and voicing mechanisms are generally weak, and these have contributed to the dissatisfaction of clients. Regression results also showed that the governance variables determine the outcomes of roads services, thereby impacting the satisfaction level of clients in both cities.

The problem of perceptual difference between officials and clients is also evident in the roads sector. Officials still maintain the view that there is significant improvement in responsiveness, transparency and accountability of road agencies. However, this was not complemented by citizens, which is not a favorable deviation for further improvement.

6.2 Conclusion

Water is one of the most critical resources, and is more so in sub-Sahara Africa where water scarcity is highly felt due partly to poor service delivery governance. Similarly, roads serve as lifelines to the economies of the countries. Therefore, in order to boost their economic performance, countries in sub-Sahara Africa like many in the developing world have been attempting to create availability, enhance access and improve quality of water and roads services, which have been entrusted into the top of the policy agenda. The Ethiopian Government has also been giving due policy emphasis to both water and roads service delivery.

In order to achieve these objectives, efforts have been and are being made by the Government. Bilateral and multilateral development agencies, NGOs, the private sector, and communities have been working with water and road services providing agencies towards this end. At face value, this was a shift from the historical state monopoly (being practiced prior to 1991) to the restructuring of the public sector where multiple actors would get involved in the overall development arena in response to the advent of a new socio-political setting in the country along with the establishment of a Transitional Government in 1991.

Practically, however, the reality on the ground shows that distribution and supply of water services are still under the monopoly of public agencies suggesting that the prevailing system is the traditional approach of public service delivery. At its strength, this approach has an equity concern which bases itself on the major premise that private distribution and supply of water will exclude the poor due to high tariffs. However, the strength of this equity concern is rather illusory in the sense that public agencies alone do not have the requisite financial, human and material capacities to effectively distribute and supply water that would enable them satisfy the demands of clients. Such capacity limitation of public agencies was evident from the fact that considerable amount of water was being lost in the course of distribution and supply in both cities.

In the roads sector, it has been observed that private actors, community members, NGOs and donors get involved in the construction of roads though the nature of the partnerships is still weak.

In both cities, both water and roads agencies have put in place voicing mechanisms and are increasing political and administrative spaces for citizens to air out their problems about service

delivery, which is an encouraging move to improve the performance of the sectors. Despite these, however, bottlenecks for the emergence and functioning of effective water and roads service delivery governance still abound, which impede accountability relationships, responsiveness and transparency.

Like most countries in the developing world, African countries have major difficulty in providing effective and equitable public services. Poor quality and lack of widespread availability of water services are quite common in many SSA countries (ECA, 2005b). Many countries are in a state of water service delivery 'crises', which is mainly attributed to a crisis in the sector's governance. Therefore, improving the governance of water service delivery is a crucial step for developing infrastructure and ensuring effective water service delivery to citizens (ECA, 2005a; Rouse, 2007; Kallidaikurichi E., 2009).

6.3 Policy implications

Based on the findings and conclusions drawn, the following recommendations are forwarded:

- **The need to strengthen transparnecy and accountablity:** Water supply and roads agencies should introduce a system of information that is sensitive to supply and demand oriented information. They have to introduce a system that ensures periodic flow of information to customers with and without specific request. In order to promote accountability, citizens should be given opportunities to participate in the planning, design and management of services. Furthermore, service providing agencies need to introduce performance-based evaluation system that captures customers' viewpoints.
- **The need for alternative service providers:** The development of urban water supply infrastructure and provision of service typically requires a mixture of public and private institutions. The term "alternative service providers" captures not only big private actors, but also small-scale independent providers or independent water entrepreneurs, which are often relegated to illegality. They usually operate on an informal basis and fill the demand for water services from households (mostly from the poor) beyond the reach of public WSS infrastructure. Thus, water retailers from private connections should be legally recognized and appropriate regulatory mechanism should be put in place to regulate unfair tariffs they charge.
- **The need for strengthening partnerships between state and non-state actors:** Certain partnerships are already established to improve water and roads services.

However, there is no well formulated strategy that would promote and sustain the partnerships. Thus, there is need for clear strategies that establish the basis for and promote effective partnerships between state and non-state actors. Furthermore, the experience of informal contributions made by community members, in Addis Ababa, to support the expansion of main water supply lines into new settlement areas should be institutionalized to boost cost sharing mechanisms. However, care should be taken not to make it a mandatory requirement for all customers, as it will cause a big burden on the poor or will marginalize them from getting the service.

- **The need for having an autonomous body**: The road sector in Hawassa does not have an autonomous institution, which has undermined its capacity to seek and negotiate for resources. Thus, there is a need for establishing an autonomous body.
- **The need to improve the capacities of actors**: Water and roads services would benefit a great deal from the active involvement of both public and private actors. However, neither public nor private actors in the two sectors have the requisite capacity to ensure effective service delivery. Thus, donors and NGOs need to focus on building the capacities of both actors rather than preoccupying with the public actors.
- **The need for further research**: This study did not cover institutional efficiencies of public and private agencies engaged in the production and delivery of roads and water services. Thus, further research should be conducted in this direction.

References

Addis Ababa City Roads Authority (AACRA) (2011). Annual Report

Addis Ababa Water and Sewerage Authority (AAWASA) (2011). Business Plan Phase II (Draft Report)

African Development Bank (AfDB) (2005). Public Sector Management in Africa. Economic Research Working Paper No 82.

African Development Bank (AfDB) (n.d.). Water Sector Governance in Africa. Volume 1 Theory and Practice.

Anderson, J. and L. Van Crowder (2000). The Present and Future of Public Sector Extension in Africa: Contracting out or Contracting in? In Public Administration and Development: 20, 373-384.

Awortwi, N. (2004). Getting the Fundamentals Wrong: Woes of Public-Private Partnerships in Solid Waste Collection in Three Ghanaian Cities, in Journal of Public Administration and Development: 24, 213–224.

Awortwi, N. (2012). "Contracting out Public Services to Private Agents: Lessons from the Management of Local Government Contracts in Ghana" in International Journal of Public Administration (forthcoming).

Batley, R. (2004). "The Politics of Service Reform in Development" and Change: 35(1) 31-56.

Batley, R. (2006). Engaged or Divorced? Cross-Service Findings on Government Relations with Non-state Service Providers" in Public Administration and Development: 26, 241–251.

Besley, T. and M. Ghatak (2007). "Reforming Public Service Delivery" in Journal of African Economies: 16, AERC SUPPLEMENT 1, 127–156.

Birner, R. (2007). Improving Governance to Eradicate Hunger and Poverty. 2020 FOCUS BRIEF on the World's Poor and Hungry People.

Brown, T. et al. (2008). Accountability and Voice for Service Delivery at the Local Level: A background paper for the UNDP regional training event.

Economic Commission for Africa (ECA) (2003). "Public Sector Management Reforms in Africa: Lessons Learned".

Economic Commission for Africa (ECA) (2005a). Partnership Modalities for Enhancing Good Governance.

Economic Commission for Africa (ECA) (2005b) "Public-Private Partnerships for Service Delivery: Water and Sanitation".

Ethiopian Roads Authority (ERA) (2009) *RSDP Performance: Twelve Years Later*.

Fenta M. (2007). "Beyond the Public Realm: Local Governance Network and Service Development in Amhara and Tigray Regions, Ethiopia." PhD Dissertation, Institute of Social Studies, The Hague.

Ferris, J. and E. E. Graddy (1996). "Institutional Economics and Government Contracting: Lessons for the New Public Management." Paper prepared for the conference on The New Public Management in International Perspective Institute of Public Finance and Fiscal Law, St Gallen, Switzerland, 11-13 July 1996.

Forum for Social Studies (2010). *Digest of Ethiopia's National Policies, Strategies and Programs.*

Gauthier, B. and R. Reinikka (2007). "Methodological Approaches to the Study of Institutions and Service Delivery: A Review of PETS, QSDS and CRCS."

Global Development Network (GDN) (n.d.). Verities of Governance: Effective Public Service Delivery. Concept Note (Ninth Global Research Project).

Gujarati D. (2004) Basic Econometrics 4th edition Mcgraw−Hill Companies

Holmberg, S. and B. Rothstein (2011). *Quality of Government and Access to Safe Water.* QoG working paper series 2011.

Ibrahim W. (2011). *Road Sector Development and Economic Growth in Ethiopia*. EDRI Working Paper 004. Addis Ababa: EDRI.

Joshi, A. (2010). Review of Impacts and Effectiveness of Transparency and Accountability Initiatives: Annex 1 Service Delivery. Prepared for the Transparency and Accountability Initiative Workshop, October 14-15,

Kallidaikurichi E., S. (2009). 'Effective Water Governance and Development: Asia's critical Challenge, in INNOVATION Magazine, Vol. 9. No.1, 33-34

Kiragu, K. (2002). "Improving Service Delivery through Public Service Reform: Lessons of Experience from Select Sub-Saharan African Countries."Paper for presentation and discussion at the Second Meeting of the DAC Network on Good Governance and Capacity Development held at the OECD Headquarters, February 14-15, 2002.

McNeil, M., *et al*. (2009). *Citizen Review of Service Delivery and Local Governance in Bosnia and Herzegovina,*Governance working paper series.

Mekonnen T. (1986). *The Development of the road transport Network of Ethiopia: A geographical Study,* Unpublished Master Thesis, Geography Department, Addis Ababa University.

Milward, H. B. and K. G. Provan (2000). "Governing the Hollow State", in *Journal of Public Administration Research and Theory:* 10(2000):2:359-379.

Ministry of Finance and Economic Development (MoFED) (2010). *Ethiopia: MDGs Country Report 2010 Trends and Prospects for Meeting MDGs by 2015.* Draft.

Ministry of Finance and Economic Development (MoFED) (2006). *Plan for Accelerated and Sustained Development to End Poverty (PASDEP*).

Ministry of Water Resources (MoWR) (2001a). Ethiopian Water Sector Policy.

Ministry of Water Resources (MoWR) (2001b). *Ethiopian Water Sector Strategy.*

Ministry of Water Resources (MoWR) (2002). *Water Sector Development Program Voume II*

OECD (2008). 'Service Delivery in Fragile Situations. Key Concepts, Findings and Lessons', *Journal of Development*, 9(3), pp.34.

Pankhurst, R. (1968). *Economic History of Ethiopia (1800-1935),* Addis Ababa, Haile Sellassie University Press.

Pankhurst, R. (1961). 'Transport and communications in Ethiopia, 1835-1935.' *The Journal of Transport History*, Vol. 5, No. 2.

Paul, Samuel (1992). Accountability in Public Services: Exit, Voice and Control, in World Development, Vol. 20, No. 7, pp. 1047-1060,1.

Rouse, M.J. (2007). Institutional Governance and Regulation of Water Services: The Essential Elements. IWA Publishing.

Sahu, B.P (2010). "Transparency, accountability in water service delivery, problems and prospects: A case of Brahmapur city in Orissa, India." IRC Symposium 2010 Pumps, Pipes and Promises.

Smith, S.R and J. Smyth (1996). "Contracting for Services in a Decentralized System", in Journal of Public Administration Research and Theory: 6(1996):2:277-296.

Trémolet, S. and J. Halpern (2006). Regulation of Water and Sanitation Services: Getting Better Service to Poor People.

United Nations Development Program (UNDP) (2006). Human development report: Beyond scarcity: Power, poverty and the global water crisis. New York: United Nations Development Program.

World Bank (1999). “Alternative Methods of Service Delivery.”

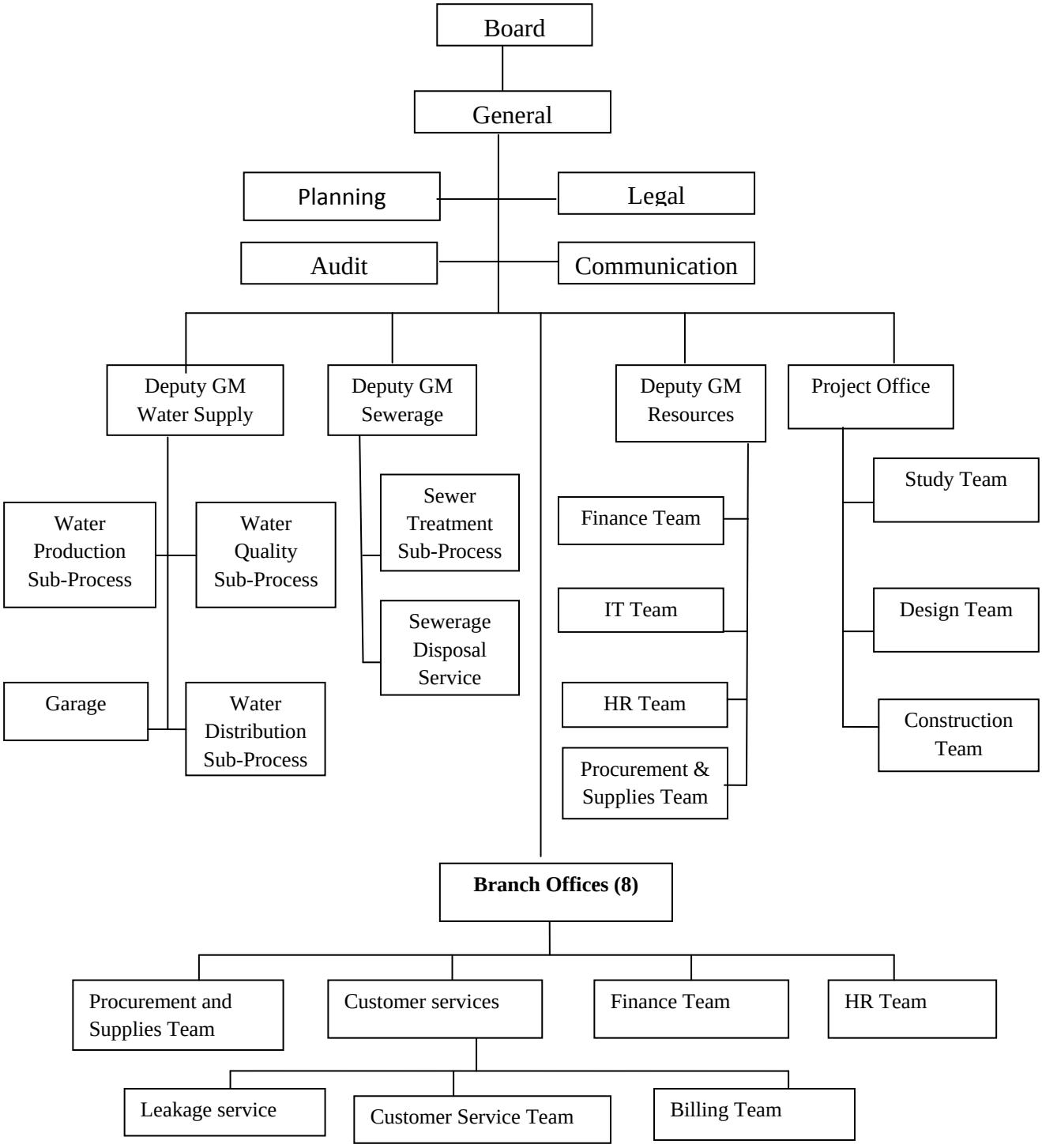
World Bank (2004). World Development Report 2004: Making Services Work for Poor People. Washington, DC: Co-publication of the World Bank and Oxford Press.

Yacob, A. (2007). *Ethiopia and the Nile Dilemmas of National and Regional Hydropolitics.* Centre for Security Studies, Swiss Federal Institute of Technology, Zurich.

Yin, R. K. (2003). *Case study research. Design and Methods*. Sage.

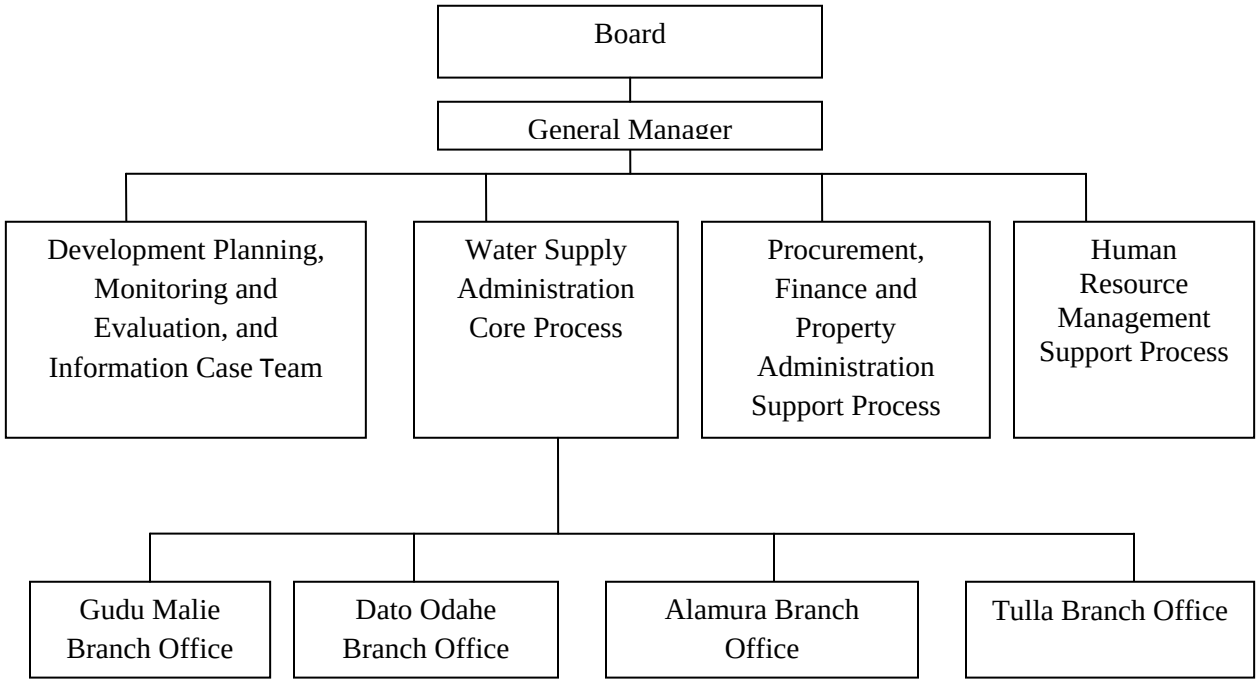
Annexes

Annex 1: Organization structure of Addis Ababa Water and Sewerage Authority

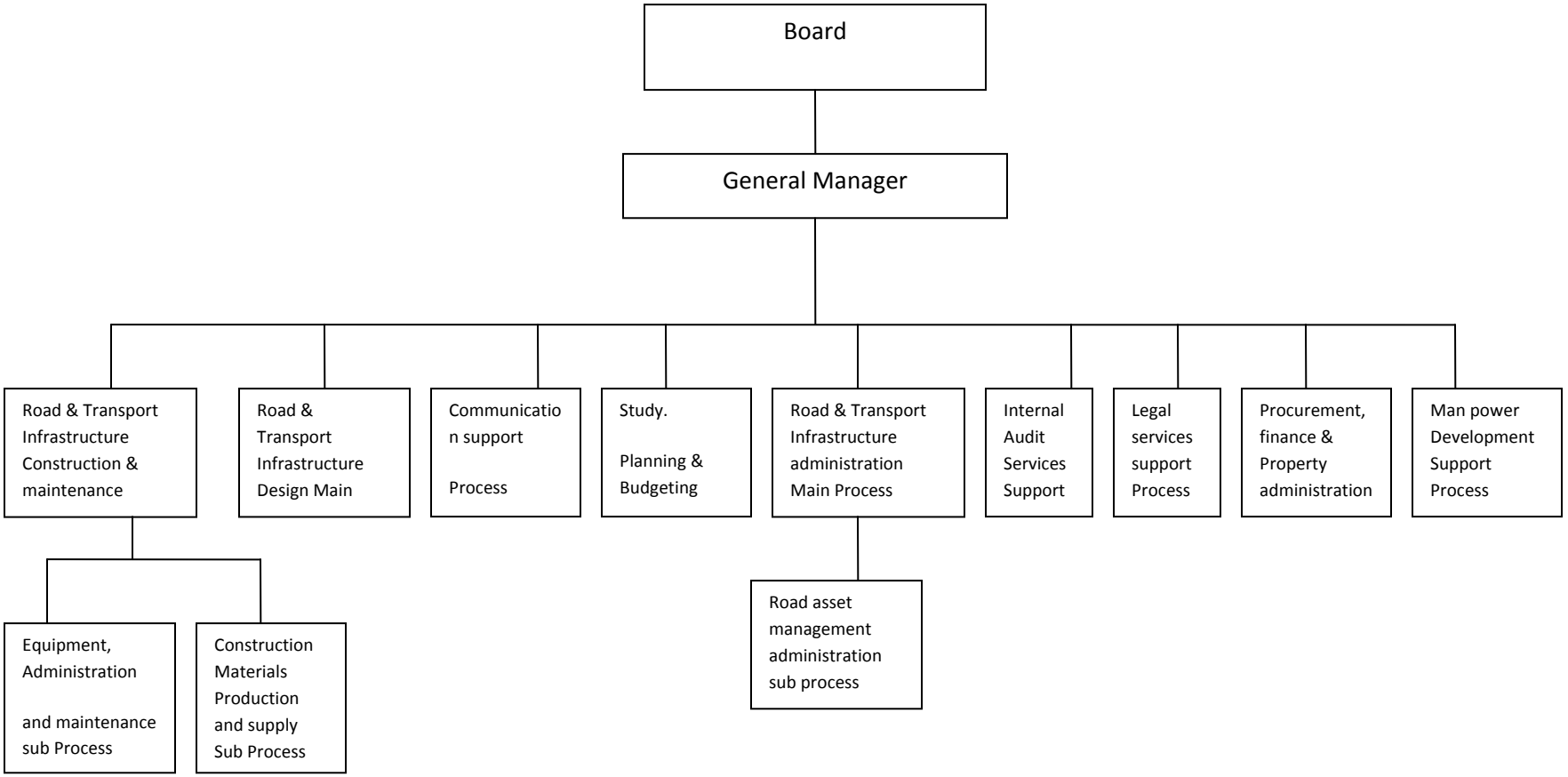


Source: Addis Ababa Water and Sewerage Authority (2011:3)

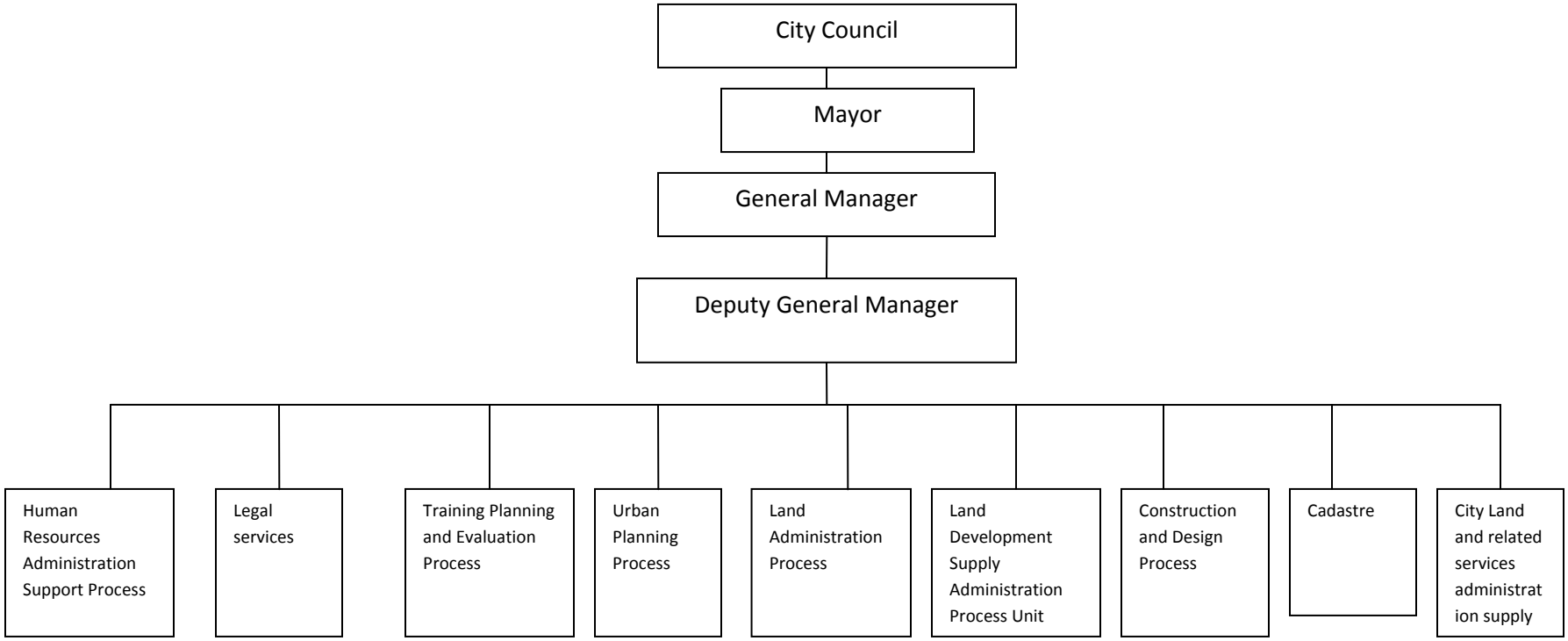
Annex 2: Organization structure of Hawassa City Water Services Enterprise



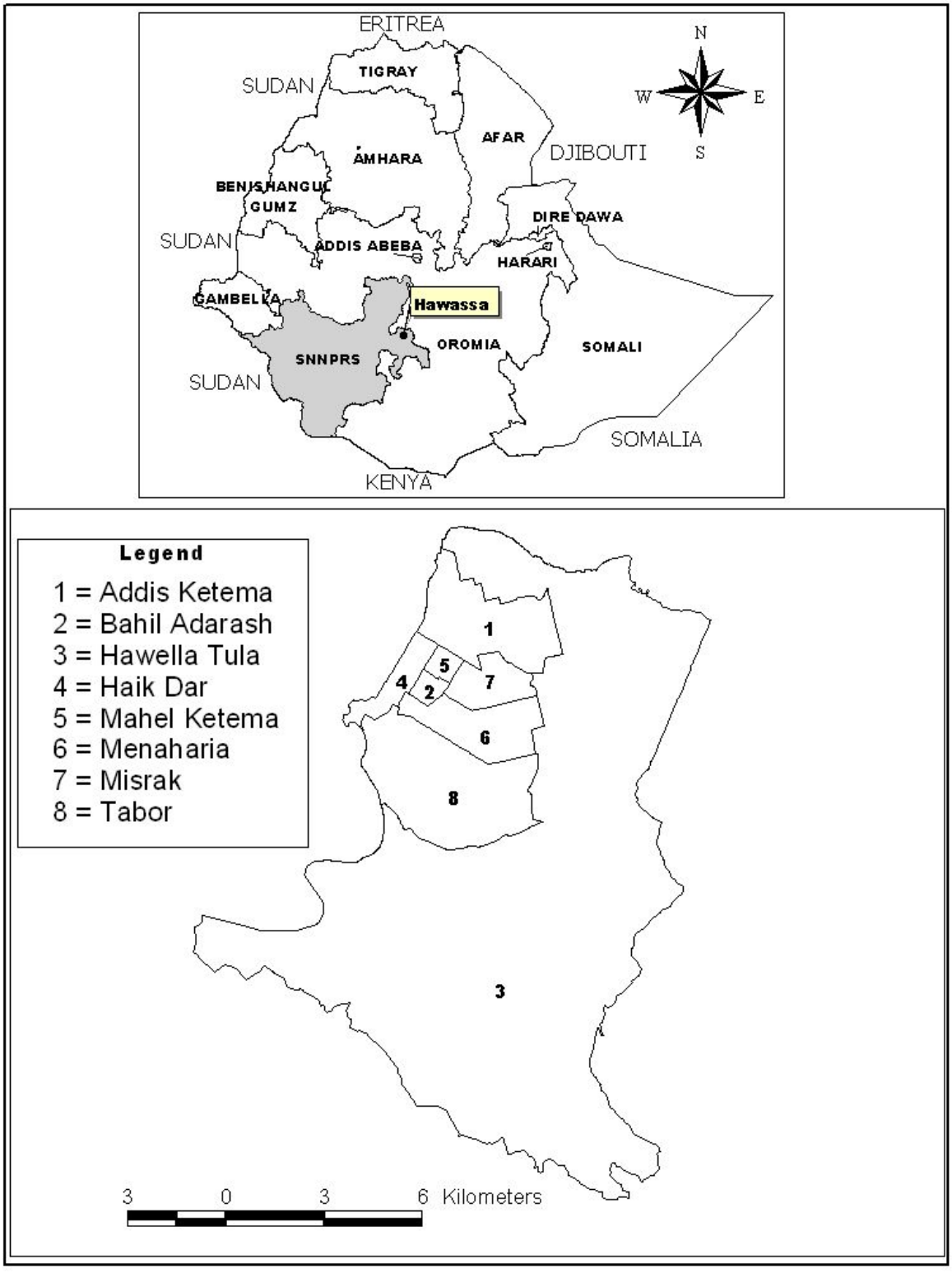
Annex 3: The Organizational Structure of Addis Ababa City Roads Authority (AACRA)



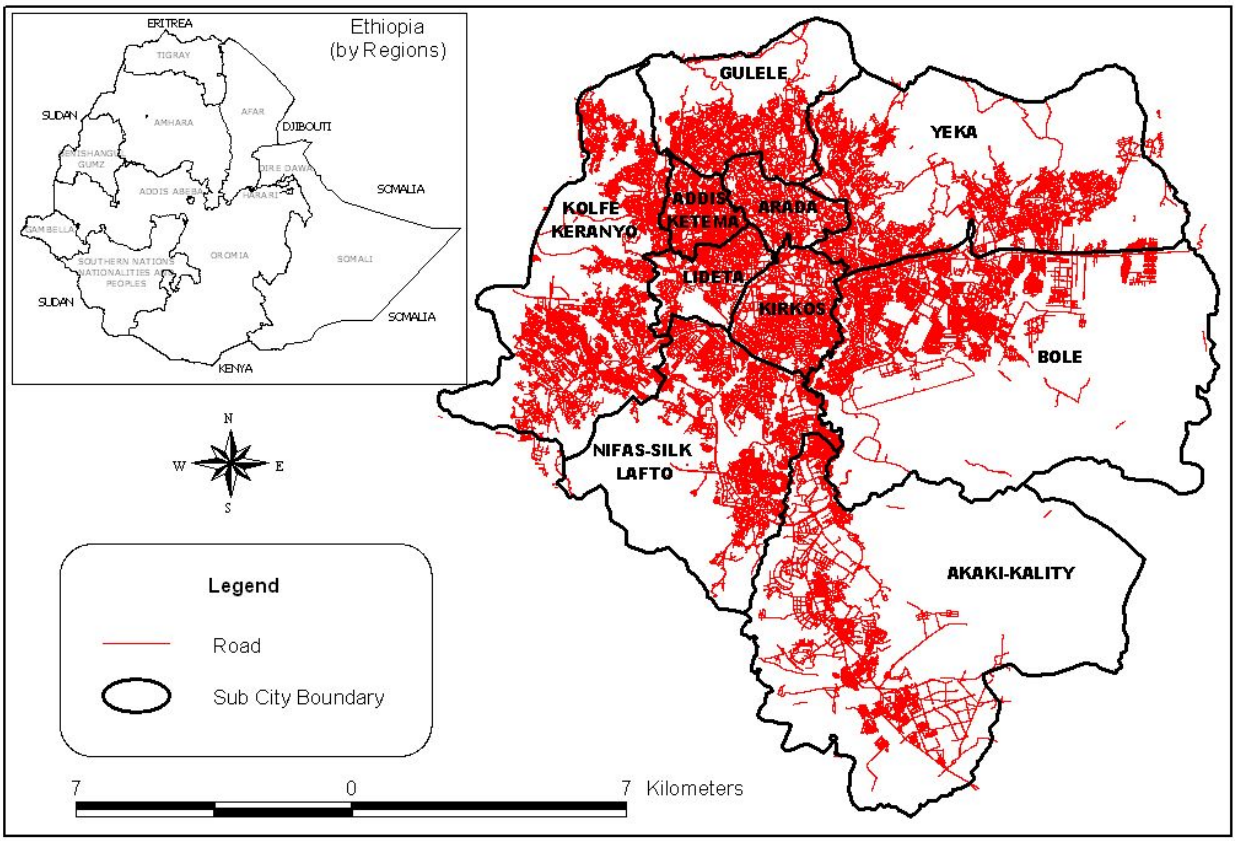
Annex 4 : Organizational Structure of Hawassa City Municipality



Annex 5: Location of Hawassa and its Sub-cities

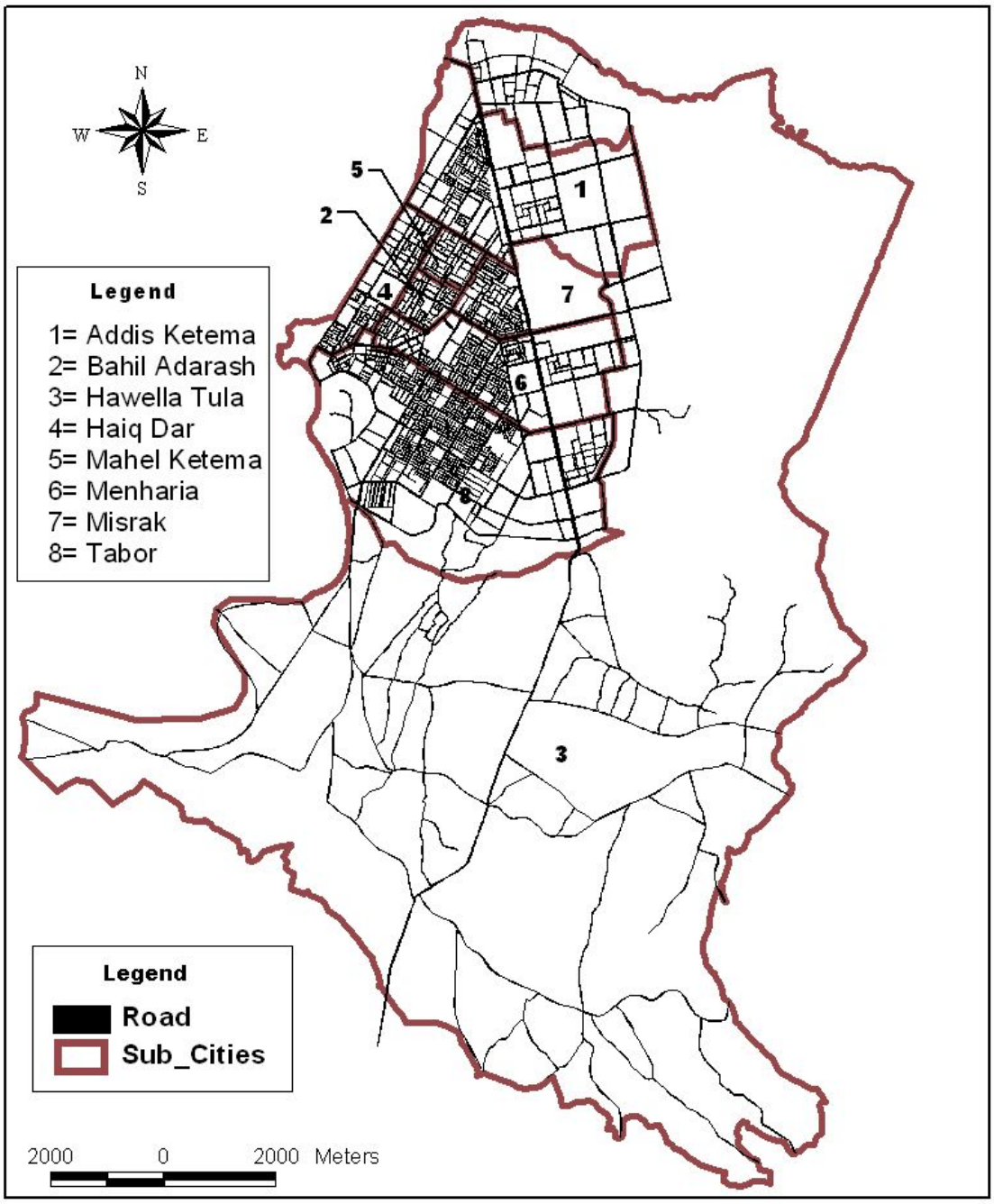


Annex 6: Addis Ababa road network by sub-cities



Note: Roads network with high densities look like area coverage while areas with low densities depict linear features. This is mainly due to the smaller scale map utilized to depict road network in the city.

Annex 7: Hawassa city road network by sub-cities.



Annex 8: **Actors involved in the delivery of water and roads services in Addis Ababa and Hawassa Cities**

Addis Ababa (Water)	
Actors	**Roles**
AAWSA	Installation and maintenance of water supply systems, production and delivery of water
City Government	Budget support, supervision
World Bank	Funding (loan and grant)
French Government	Funding (aid)
Japanese Government	Funding (aid)
UN Habitat	Capacity building (training and equipment)
NGOs	Funding of construction and installation of public fountains in poor neighborhoods
Private sectors (local and international companies)	Civil work for installation of main distribution lines, construction of reservoirs, and construction of boreholes and deep wells
Community	Contribution of finance and labor for the installation of new water supply line
Hawassa (water)	
HWSE	Installation and maintenance of water supply systems, production and delivery of water
Regional Government	Budget support
City Administration	
Water and Construction Design Enterprise	Construction of dams, deep boreholes and wells
World Bank	Funding (loan and grant)
NGOs	Funding of construction and installation of public fountains in poor neighborhoods
Private actors	Civil work for installation of water supply lines
Addis Ababa (roads)	
AACRA	Administering roads construction and maintenance Constructing and maintaining roads
Addis Ababa City Council	Regulating the activities of AACRA and approving road design and budget
The Board	Initiating and providing policy ideas and directions
Federal Road Fund	Allocating road construction and maintenance budget
Local contractors	Constructing roads
International Contractors	Constructing roads
Consultants (local and International)	Designing roads and supervising road construction
NGOs	Financing constructions of feeder roads, drainage canal construction and community latrine
CBOs	Mobilizing community members in drawing financial resources for feeder road construction
Local administration (kebele/woreda)	Mobilizing local people for feeder roads construction and maintenance Mobilizing local people in cleaning drainage canals
Community members and small and micro enterprises	Constructing community roads (through labour and money contribution) with the support from AACRA in design and material inputs. Cobblestone production (raw material production) and cobblestone road making
Hawassa (roads)	
Hawassa City municipality	Administering road construction and maintenance of roads
Hawassa City council	Approving budget and regulating the activity of municipality in road construction and maintenance
Federal Road Fund	Allocating fund for road construction
SNNPR – regional government	Allocating fund for road construction and formulating policies and regulations
Local contractors	Constructing asphalt road
Private consultants	Designing and supervising road constructions
The World Bank	Funding cobblestone road construction through Urban Local Governance Development Project
Micro and Small Scale Enterprises – community members	Cobblestone material production and road making
Private investors	Financing cobblestone/other feeder roads leading to own community and enterprises