International Journal of Sciences: Basic and Applied Research (IJSBAR)

ISSN 2307-4531
(Print & Online)

http://gssrr.org/index.php?journal=JournalOfBasicAndApplied

Sectoral Integration of Urban Service Sectors of Dire Dawa, Ethiopia, East Africa

Abenezer Wakuma Kitila*

PHD Student, MA in Urban and Regional Development Planning. Lecturer at Haramaya University, P.O.Box 138, Dire Dawa, Ethiopia

Email: arsemawitgod@yahoo.com

Abstract

The urban areas of the developing countries are not only faced with problems of poorly developed physical infrastructure, but they are also suffering from destruction of utility lines. The study explores the integration of urban service sectors of Dire Dawa, Ethiopia. The objective has accentuated around stating of the planning approach, challenges in implementation, and effects of poor coordination. It was delimited to four urban sectors namely water supply, telecommunication, transportation and electricity. The findings of the study highlighted that cross sectoral planning approach has not yet adopted and implemented among the urban service sectors of the city due to administrative/political, economic and social factors. Because of this it has been frequently observed that destruction and disruption of utility lines caused by those sectors. The major factors that have contributed to the less likely performance level of the urban sectors are weak institutional arrangements, lack of budget and monitoring by the concerned parties, poor coordination among the sectors in all phases of urban management stages. The study, above all, recommends cross-sectoral planning approach to be adopted and exercised by the urban sectors to plan, organize, implement, monitor and re-plan jointly to minimize costs, energy and time in maintaining infrastructural lines.

Keywords: cross sectoral planning; integration; maintenance; performance; utility lines; urban service.

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* Corresponding author.

E-mail address:arsemawitgod@yahoo.com.

1. Introduction

Urban areas are critically important to national economic development. The vast majority of manufacturing and service industries are based in urban areas, providing jobs, incomes and the national product on which a country's economic and social development is based. Transportation, water supply, solid waste and sanitary waste disposal, electricity reticulation and telecommunications services provided by urban areas are essential to the operation of national economic and social systems. Factories, offices, shops, institutional facilities and other buildings are required, and the urban activities that they make possible are often decisive for national growth in manufacturing, marketing, financial and business services, education and government [7].

The delivery and management of urban infrastructure is a critical and essential driver of economic growth for nations in both the developed and developing world. The provision of this infrastructure is a major determinant of how cities can expand and is a key component of city and regional leaders' investment [10]. Beside this better management of urban settlements in the less developed countries has become a priority if the aspirations of citizens, governments and the concerned international community are to be realized. Recognition of this need has been prompted by a growing awareness that cities, towns, and villages have functions to perform which are as important as those of rural areas [6].

The urban areas of the developing countries are not only faced with problems of poorly developed physical infrastructure. They are also suffering from woefully inadequate provision of municipal services. Especially, their efficiency in the provision of such services as water supply, electricity, transport and communication and the management of municipal waste is awfully low. This is mainly because their service giving institutions, which are found at different levels of development, do not have integration, are extremely bureaucratic and very much lacking as regards access to and the use of a qualified workforce and the state of the art technology [5].

Likewise, in the case of Ethiopia the supply of infrastructure and services is continually lagging behind the population growth rate. Ethiopian Urban centers are characterized by, among others, lack/shortage of basic urban infrastructure and services. It is also vividly observed that the existing scanty infrastructure and services in the urban centers are deteriorating mainly as a result of poor design and installation practices and due to lack of timely maintenance [5].

1.1. Statement of the problem

Many cities struggle to keep pace with existing and new demands for adequate industrial, commercial and household infrastructure and services as a result of increasing urban growth. In some instances, the maintenance of critical basic infrastructure, such as roads, power, water and sanitation is dangerously low. In the worst cases, in some cities major components of infrastructure have deteriorated to the extent that they can no longer be rehabilitated and must be replaced. Similarly, economic decline affects the ability of city managers to maintain and improve infrastructure and services, making it difficult to compete regionally and internationally [7].

Although the existing urban buildings and service infrastructure of developing countries were created by extraordinary effort, they are still, generally, insufficient for the development tasks at hand and much more so

for the future economic intentions of governments. The overall performance of tasks typical of municipal and metropolitan governments has been very inadequate. Urban infrastructure in the developing world is often subjected to haphazard planning, disjointed implementation and poor post installation management. Usually adequate attention is given to the interdependencies between infrastructure systems, the urban functions to be served and to the sustainability of the facilities [5].

The management of the relationships of the various key actor-organizations might see them as resources to be marshaled in the best way for best results, like money or skills. Some of these deficiencies arise from technical shortcomings particular to a task, yet there are similar causes which appear in many tasks. These have to do with such matters as inadequate staffing, insufficient financing, lack of coordination, poor maintenance, strategies and policies which are not comprehensive enough and failure to appreciate that the task is one which must be managed. Moreover, inter-sectoral coordination and integration for ECD is not working well in many countries due to: sectoral "institutional cultures "competition for budgets inter-ministerial rivalries and politics lack of leadership for multi sectoral and integrated approaches lack of experience in: conducting ECD policy planning, enabling participatory processes, negotiating with other sectors, and building consensuses [7]. He added that the public sector does not have a unified overall view of urban management objectives, even though its constituents are linked in a common structure of government. This is because the members tend to take different perspectives from their different organizations with different sectoral interests.

Consequently, due to lack of sectoral integration, economic productivity and the quality of life of urban residents suffer and reduce productivity. Interventions to support sustainable approaches to the management, maintenance and extension of urban infrastructure and services are needed in cities to avoid entering a spiral of decline [12]. The outcome is poor facility functions, early deterioration and unwanted settlement development, implying wasteful use of scarce resources.

On top of this, lack of coordinated and integrated infrastructure and services planning and implementation has exacerbated the problems observed in the infrastructure development effort of the country. An integrated urban infrastructure and service development planning is a tool required to complement the present sectoral infrastructure planning practices mainly by reducing the apparent fragmentation of infrastructure and services provision.

Consequently there is a complex network of relationships and decision-making entities that affect the actual management of urban services. This relates to the interplay of activities between the various organizations and institutions involved in its delivery, with those who receive the services [2].

Though, there were some efforts of urban infrastructure and services planning in Ethiopia, they were however, not systematically developed. Evidently, almost all infrastructure and service institutions (water and sewage, transport and drainage, electricity and telecommunications) always tried to integrate their plans with the existing and proposed road networks. Nevertheless, due to lack of consistent follow-up, the initiatives could not be as successful as expected. Due to uncoordinated planning and design and weak institutional arrangements redoing faulty designs and rebuilding utility lines have wasted a significant amount of resources [5].

Therefore, the study was aimed to analyze the sectoral integration of urban service sectors of Dire Dawa, Ethiopia with the objectives of examining the extent to which urban service sectors are adopting and practicing/exercising the cross-sectoral planning approaches of urban management, to highlight the challenges and prospects in adopting and implementing of this approach.

1.2. Literature

1.2.1. Cross Sectoral Approach: The Evolving Approach

Given the scale of the township urban management challenge relative to municipal urban management capacity, approaches based on a traditional 'control and command- based' mode (where the public sector commands and other sectors passively wait for state delivery) are likely to fail. Instead the mobilization of the capacity and of groups outside government is needed and this requires the adoption of 'negotiated ways of enforcing bylaws and partnership-based approaches'.

A shift in management style is required to bring about effective governance of public places in townships. This shift requires that urban management goes beyond the classic notion of participatory urban planning. It involves joint actions with end users of public amenities and services. Most importantly it includes them in their effective involvement in the implementation, operation and maintenance of public facilities. ?

Urban infrastructure is invariably linked with productivity of urban economies and macro -economic development. That is why upgrading urban infrastructure has received increasing attention over the past few years. The focus on urban infrastructure is particularly visible among developing countries, which are making serious efforts to enhance the productivity of their economies through improved provision of infrastructure [13].

The development of urban infrastructure and municipal services is of paramount importance for economic growth and for the improvement of the quality of life in the cities of the developing countries. However, the development and improvement of infrastructure and services requires appropriate investment decisions and effective utilization of scarce municipal resources. To this end, integrated infrastructure development planning plays crucial role to effectively guide and promote urban development as well as to significantly increase the gross national product of developing countries [5].

1.2.2. Understanding Cross-Sector Collaboration

Cross-sector collaboration is now increasingly both necessary and desirable as a strategy for addressing many of society's most complex public challenges. Collaboration as *the linking or sharing of information, resources, activities, and capabilities by organizations to achieve jointly an outcome that could not be achieved by the organizations separately*. Note that, by this definition, the power sharing in collaboration does not imply equal power nor does it necessarily imply much in the way of shared interests and goals. Indeed, in our experience, collaboration typically involves uneven power and mixed motives.

Cross-sector collaboration occurs for many reasons. The first is simply that we live in a shared-power world in which many groups and organizations are involved in, affected by, or have some partial responsibility to act on

public challenges [15]. Beyond that, in the United States, advocates of power sharing across sectors are often responding to a long-standing critique of the effectiveness of government when it acts on its own.

At the same time, cross-sector collaborations do not solve all of the problems they tackle. Indeed, some are solved badly, and some solutions have created more of the problems they were meant to solve. Collaboration—especially cross-sector collaboration—is no panacea. This is partly because of the interconnectedness of things, such that changes anywhere reverberate unexpectedly and sometimes even dangerously throughout the system. Complex feedback effects abound. How to respond collaboratively and effectively to problems that are so interconnected and encompassing is a major challenge [4].

1.2.3. The Need for Cross-Sectoral Approach

In the process of urbanization, policies and programmes for the sustainable development of human settlements in both rural and urban areas require strong subnational governmental institutions working in partnership with all interested parties. Such institutions are still weak in many countries, and their effectiveness is threatened by increasing problems of political regionalism and ethnic strife. All these concerns and demands require a regional and cross-sectoral approach to human settlements planning, which places emphasis on rural/urban linkages and treats villages and cities as two ends of a human settlements continuum in a common ecosystem [9].

Participatory planning has proven to be an essential element for developing sustainable and inclusive services. Working with relevant stakeholders from all the sectors being analyzed, together with city officials and civil society living in the defined area(s), helps generate new ideas and understanding of the problem. If these ideas become incorporated into a proposed project, greater commitment results, as does enhanced responsibility for achieving the full objectives [11].

2. Methods and Materials

It is survey research. Qualitative and quantitative research methods using a case study approach was chosen as the most appropriate mode of inquiry. Data for the research were obtained by adopting multiple methods of data collection namely questionnaires, interviews, observations and review of documents. The analysis conducted using the information gathered from the responses obtained through questionnaires, in depth interviews and observations.

Based on the research design (where data collection methods have been determined) and the research questions, appropriate respondents were selected using purposive sampling techniques. Accordingly, four head officers, four deputy head office, eight planning and technical teams have been selected to fill the questionnaires and interviews. Both qualitative and quantitative data analysis techniques were employed. The data then have been presented using bar graphs, charts, and tables in frequency and percentages.

3. Results and Discussions

The respondents were asked about when their office prepares annual plan, it is reported that majority 83% of the

urban infrastructure bureaus prepare the annual plan for the office work at the end of the year. It is also the time when the implementation level and the performance of each urban sector have to be evaluated vis-à-vis what has been planned. Concerning to the awareness about cross sectoral approach of urban planning, it was realized that majority 72%of the respondents have not aware of it, while the remaining have little concept of this type of planning.

When questioned either cross sector planning (integrity approach) or sectoral planning (the traditional approach) has implemented, it was confirmed that nearly 98% of the sample respondents argued that the sectoral planning approach has been adopted and implemented in all urban service sectors of the city. This means each urban sector has to prepare, implement and evaluate plan only from its own perspectives. On the other hand, most of the sectors (84%) do not invite other infrastructure service officials whenever the need for planning arise. Regarding to the stakeholders involving in preparing the annual plan, it was reported that head officers, deputy heads, planning teams, directors, technical teams, and to some extent the community are get involved. Beside the fact, of the given four urban management stages such as planning, implementing, evaluating and monitoring; 86% of the sample respondents confirmed that most of the stakeholders are participated at planning stage. Therefore, it can be concluded that the crucial elements of urban service management stages as of implementing, evaluating and monitoring are left behind.

Concerning to rating of the performance level of the sectors, about 22% rated very good, 36% rated good and 42% as satisfactory. It can be said that the performance level of all urban service sectors in the city is low. According to the interview results obtained from the head officers, deputy heads and planning teams, the major factors that have contributed to the less likely performance level of the urban sectors are due to weak institutional arrangements, lack of budget and monitoring by the concerned parties, poor coordination among the sectors in all phases of urban management stages.

For the question item whether the urban sectors came across with line damage in urban utility by other urban sectors, nearly 67% of the sample respondents replied yes. It is emerged from the fact that there is poor coordination among the sectors at planning, implementation, monitoring and evaluation stages.

From figure 1 we can understand that three sectors such as water and sewerage (56), Power and Electricity (48), Road and Drainage (42) has experienced the highest frequency of service cut in a year due to line damage. Whereas telecommunication networks achieved the lowest value in all consecutive years.

The figure 2 it can be depicted that water and sewerage line has greatly destroyed in all years than others. And the estimated cost allocated for maintenance is ranging b/n 1200 US$-3467US$. Whereas it is relatively very low for road and drainage, telecommunication networks and power and electricity which was mostly less than 500US$ every year.

Urban utility, as indicated in the table 1, has been destroyed by one or the combination of other sectors. Thus among the listed urban service sectors, road and drainage played the leading role to be the first responsible sector for the destruction of urban service lines for water and sewerage, telecommunication networks, and to

some extent for power and electricity. Whereas the effect of PE for utility line destruction is not as such significant. Beside this, for the destruction of road and drainage both WS and TN have taken the responsibility respectively in all consecutive years. Ultimately, TN has took the leading responsible role for the destruction of PE line in the city.

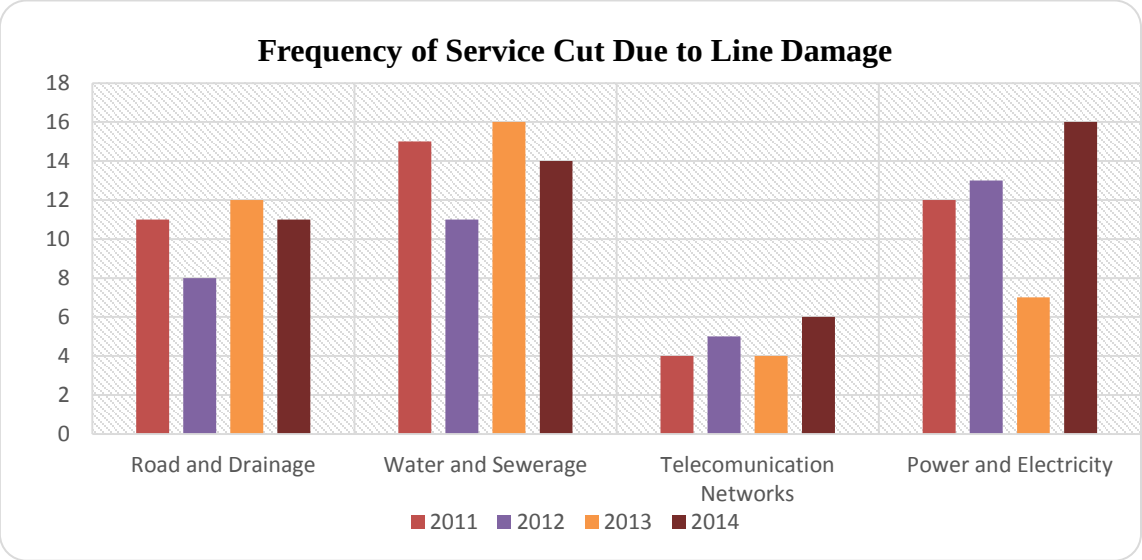

Figure 1: Frequency of Service Cut Due to Line Damage. Source: Field Survey, 2014

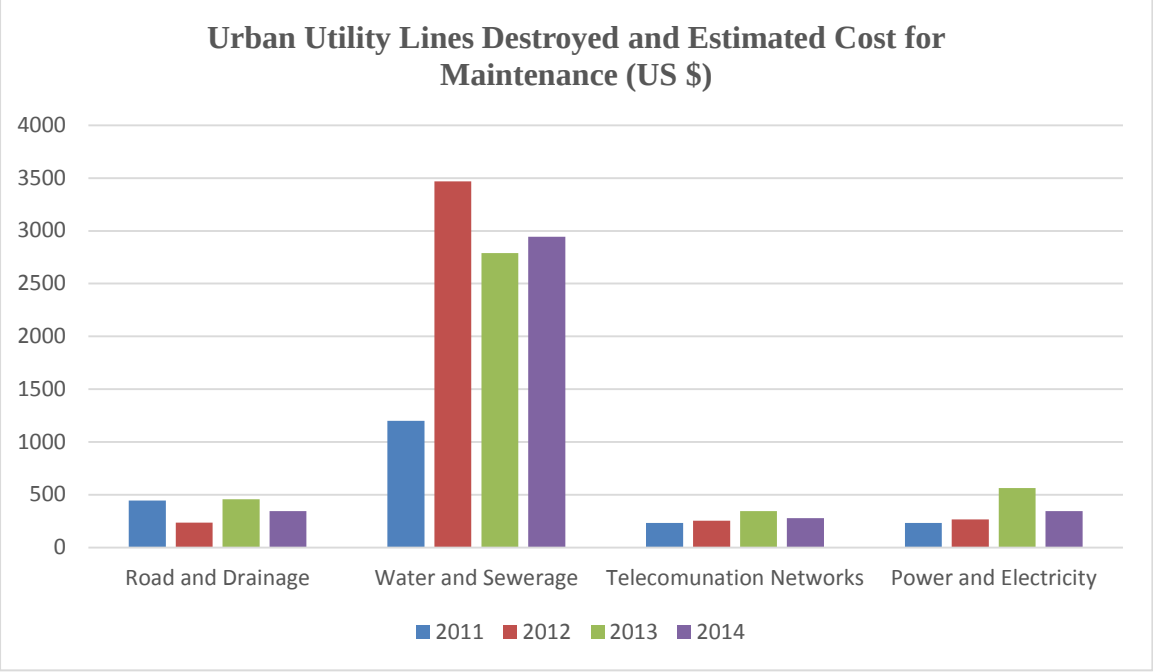

Figure 2: Urban Utility Lines Destroyed and Estimated Cost for Maintenance (US $). Source: Field Survey, 2014

Table 1: Urban Infrastructure and Responsible Sector for the Destruction of Utility Lines

S. N	Urban Infrastructure	Budget Years	Utility line Destroyed (length in meter)	Estimated Cost Allocated for Maintenance($)	Responsible Urban Sector for the breakup of utility line
1	**Water and Sewerage**	2011	12	1200	RD*1/TN*2/PE*3
		2012	24	3467	RD*1/TN*2
		2013	21	2788	TN*2/PE*3
		2014	22	2945	RD*1/TN*
2	**Telecommunication networks**	2011	-	234	RD*1/WS*2
		2012	-	256	RD*1/WS*2
		2013	-	345	RD*1/PE*2
		2014	-	278	RD*1/
3	**Road and Drainage**	2011	303	445	WS*1/TN*2
		2012	242	236	WS*1/TN*2
		2013	357	457	WS*1/TN*2
		2014	345	345	WS*1/TN*2
4	**Power and Electricity**	2011	-	234	RD*1/WS*2
		2012	-	267	TN*1/RD*2
		2013	-	564	TN*1/RD*2/SW*3
		2014	-	345	TN*1/RD*2
Total				14406	

NB: RD (Road and Drainage), TN (Telecommunication Networks), WS (Water and Sewerage), PE (Power and Electricity) *1= the first responsible sector, *2= the second responsible sector, and *3=the third responsible sector. Source: Field Survey, 2014

The sample respondents were asked concerning to the efforts made to adopt cross sector approach type of planning in all management phases for infrastructure development. In doing so, at planning phase, 56% of the deputy heads, 78% of heads, and 55% planning teams replied that, they tried to invite other urban service sectors to be actively involved in planning activities. However, during construction process and in operation (repairing and maintenance, billing) the invitation of other sector is very less as reported by 89% of deputy heads, 94% of heads, and 96% of planning teams.

Concerning to the major challenges that hinder adopting and exercising a cross sectoral approach of urban management. In relation to the economic challenges; lack of budget to organize various trainings, workshops and regular meetings to aware the officials working in those urban service sectors. On the other hand, the administrative challenges include; absence of clear cut policy frameworks on which approach is to be adopted

and exercised, lack of commitment and responsibility towards the new approach, lack of political will and biasness towards the traditional approach, lack of coordination within and in between sectors, unwillingness of some individuals and so on.

With regard to the perception of the sample respondents' weather cross sector approach is indispensable, about 78%, 89%, 67% and 91% of heads, deputy heads, directors and planning teams reported that cross sectoral approach is very crucial to ensure effective and efficient urban management in the city. For the questionnaire item that requires the sample respondents to explain the imperatives of this approach if it is to be adopted and exercised within the sectors, they stated as follows;

Adopting and incorporating this approach in to the policy framework is very important for the institution/sector and the community. Among the institutional benefits of cross sectoral approach; firstly it will enhance the performance level of the sector by minimizing the huge cost that will be allocated for maintaining the utility line destroyed by other sectors. In short it will save the time, energy and resources invested by the sectors to repair infrastructures. On the other hand, the community is beneficial in that it could improve the urban service distribution, accessibility and quality. Explicitly, when infrastructure service sectors plan, implement, monitor and implement jointly it could be easier to address the very need of the community when, where, how and why to locate infrastructures. Thus, it can be possible to satisfy the community's need by reducing the frequency of utility line destruction.

In addition to this, respondents were surveyed on the problems prevailing in the city as a result of uncoordinated or lack of integrity within and in b/n the urban service sectors, the results obtained from interview indicates sectoral approach (the traditional approach) has negatively influenced the performance of the sectors by affecting the efficiency and effectiveness of their achievements. The major effects are economic, social, and administrative. Economically, the allocation of huge cost to maintain the destroyed line, labor cost, purchasing of the materials and time and energy cost. Socially, when utility line is destroyed the service will be disconnected and the community is going to suffer from long lasting loss of services. Because the time interval since the destruction of utility line to the maintenances becomes longer, hence, the bureaucracy, to identify the responsible body for the breakage of the line, takes time. Finally, the problems related to administrative aspects are the potential rise of conflicts, disagreements and unnecessary dialogues among various sector officials. Thus it will contaminate the working environment and dwindle the spirit of jointly working to rise the performance of the sector.

Concerning their future plan to adopt the cross sectoral approach, 67%, 89%, 76%, 73% of heads, deputy heads, planning teams and directors have replied as they have planned to adopt this approach respectively. However, they enhanced their response saying it has to be adopted only when specific policy is released from the higher level of government structure.

4. Conclusion

The survey results have highlighted that sectoral planning approach is dominantly practicing among the urban

sectors of the city. They have invited each other mainly during planning phase, however, it not during implementation, evaluation and monitoring phases. Thus, their performance status, when evaluated vis-à-vis what has been planned, is poor. This was mainly because their service giving institutions, which are found at different levels of development, do not have integration, are extremely bureaucratic and very much lacking as regards access to and the use of a qualified workforce and the state of the art technology. It was reported that cross sectoral approach is very crucial to ensure effective and efficient urban management than sectoral planning approach, hence, it allow the sectors to plan, implement, evaluate and monitor jointly. Consequently, it will minimize the cost, energy, time invested to maintain urban infrastructural lines.

5. Recommendation

Based on findings of the study and empirical reviews it is highly recommended that urban service sectors of the city needs to critically see their planning approach towards urban service delivery. Based on the results obtained it can easily be decided to which approach the sectors should incline. The urban sectors of the city should come together to plan, implement, and monitor and evaluate the infrastructural services. They have to consider the big picture of the city than relying on specific sector when to plan and implement developments. In addition to this, it is strongly encouraged for the sectors to be sensitive about the implication of working in collaboration on service delivery performances. Furthermore, adopting and exercising the cross sectoral planning approach or integrity approach will minimize unnecessary costs, energy and time that will be invested to maintain the damaged service lines. Besides, it is better for the national government to formulate and implement a comprehensive urban policy particularly in relation to the planning approach to enhance the efficiency and effectiveness of urban service sectors in all phases of urban management.

6. Limitation of the Study

Although the study has produced original, detail and relevant information to the existing body of knowledge, there are some limitation on methodological and theoretical aspects of the work. First, data obtained via interview was not well articulated and stated because all have been discussed in questionnaires. Secondly, it was hard to find strong theoretical frameworks for the topic understudy to support the arguments. Thus, instead of that empirical studies were widely used to enhance the findings of the study.

Acknowledgment

It is with immense gratitude that I acknowledge the support and help of Dr. Awol Akmel, who is an assistant professor at Haramaya University, in preparing the questionnaire guide. Then, I would like to express my deepest gratitude to Dire Dawa city urban sector managers, whose role have been great in generating data pertaining to the study topic. Finally, my thanks go to my beloved Maraki (Seham) Abdusemed for the contribution she made in collecting the data.

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