

## **Title: Governance and Non-State Actors in Municipal solid Waste Management.**

### **Abstract:**

A study of governance and urban waste must examine not only the formal structures of government but also the informal structures created by the society, such as community-based institutions, associations, and organizations; their relationships; and the relationship between the formal and informal structures for collection, transportation, and disposal of waste.

It is evident that municipalities in developing countries and particularly so in East Africa, typically lack the financial resources and skills needed to cope with the crisis of solid waste management. This raises the important issue of how to deliver quality service in the face of the financial and skill constraints of the public sector. Comparing governance arrangements that incorporate non-state actors in three urban authorities Kisumu (Kenya); Jinja (Uganda) and Mwanza (Tanzania) in East Africa, allowed this study to describe and appraise performance of these non-state actors in solid waste management at the municipal level with an aim of recommending policy options. Issues addressed are legitimacy and influence on decision-making; relations and alliances and the payment systems. Theoretical arguments of neo-developmental states versus network states in governance, guided the discussion. Household surveys; interviews and document analysis were the method used to gather data, SPSS-PASWStatistics\_17.0 is used to make analysis of the quantitative data while coding is helpful in handling the qualitative data.

The study concluded that a mixed modern approach in governance is needed to achieve sustainability. This would bring together the best features of central system of governance and the decentralized system to obtain an optimum mix.

**Key words:** Solid Waste Management; Mixed Modernities; Developmental state, Network state; Non-State actors.

### **1.0 Introduction:**

This study has been produced in the context of the project Partnership for Research on Viable Environmental Infrastructure Development in East Africa (PROVIDE), which focuses on and contributes to the improvement of urban sanitation and solid waste management in East Africa (Kenya, Uganda, and Tanzania), with an emphasis on the Lake Victoria Region. The project seeks to identify and assess viable options for improving the sanitation and solid waste situation in East Africa and for realizing the millennium development goals (MDG). Emphasis for this paper is on examining not only the formal structures of government but also the informal structures created by the society, such as community-based institutions, associations, and organizations; their relationships; and the relationship between the formal and informal structures for collection, transportation, and disposal of waste.

To advance this discussion, this paper builds on the debate of neo-developmental vs. network governance state of affairs in service provision. Several authors, as well as large sections of the public opinion in Africa, criticize the suggestion of a minimal state and insist on a return to an active involvement of the government as the promoter of development (Mkandawire, 1998, 2007; Menocal and Fritz, 2006). On the other end are scholars who consider the current African state fundamentally incapable of delivering services in a reliable manner (Callaghy, 1993; Lewis, 1996; Kutting, 2004) and therefore to implement and manage urban environmental infrastructures active involvement of private companies, non-governmental organizations and local communities should be promoted.

For the East African states, there is no case where the state is acting in isolation, neither are there cases where the non-state actors take the lead in SWM. Yet it is clear from empirical work that municipal authorities have not performed adequately in SWM.

Important questions arise therefore as to whether to strengthen governmental authorities to take their responsibilities more seriously (the developmental state) and/or to actively involve private companies, non-governmental organizations and local communities in implementing and managing urban environmental infrastructures (the network governance). Based on arguments for modernized mixtures approach on which this study is founded, especially in the field of waste, building relationships with non-state/civil society actors gains special significance since the past performance of the state in this field is not very good, and citizens tend to use this kind of (lack of proper) performance as an important indicator for the legitimacy and authority of the state and in turn the local authorities.

This paper compares the involvement of non-state actors at the municipal level in three towns (Jinja, Mwanza and Kisumu). Based on empirical findings made, the paper presents the arrangement in the three towns alongside three models: market dominance for Jinja, community-dominated for Mwanza and a hierarchical arrangement for Kisumu. Under each section legitimacy and influence on decision making; relations and alliances as well as the payment systems all of which take on a specific meaning are looked into as aspects of governance which in turn influence accessibility, flexibility and sustainability of SWM services. Matovu, (2002) asserts this by writing that that good governance occurs only if there is legitimacy of authority, public responsiveness, public accountability, and public tolerance of other actors with a public character, information openness, and public management effectiveness.

The paper starts by giving a theoretical perspective on which the study is founded and then presents the finding and discussion for each urban centre in section 3.

## **2.0 Theoretical Perspective:**

A number of studies provide evidence of inadequacies in the role of African state in Urban environmental infrastructure development in East Africa and the presence of non-state actors in the scene of SWM. Questions regarding the adequacy of the structural arrangements of public authorities are raised. Therefore there is the 'neo-developmental state' which suggests a renewed and active role for governments in promoting development and ensuring adequate service provision also for the poor, and, on the other hand, the 'network state' which acknowledges the limitations to state capacity and suggests further involvement of other societal actors in the governance of urban environmental infrastructures.

For proponents of Developmental state- In terms of urban environmental services this means insistence on strong and effective governmental institutions, supported by a legal framework that is strictly upheld also against political interference. Securing the services delivered by these institutions necessitates an increase in government budgets. Privatization is not excluded but should be firmly controlled (against corruption and underperformance) and not be limited to allowing contracts to large (foreign) companies, but include smaller local companies and NGOs/CBOs (See Oosterveer, 2009). Proponents of this view claim that it is only through active government interventions that access of the poor to environmental infrastructures can be secured, as their economic and political power is too limited to realize this in another way. Stronger national and municipal governments are also considered better able to bridge the gap that very often exists between the formal laws and regulations and their limited implementation in practice. Effective market economies are essential but require functioning and capable state and societal institutions in order to operate and grow. Critics claim that assigning an active developmental role to the contemporary African state is anachronistic (Kütting, 2004). A developmental state demands strong governmental organizations, which becomes increasingly unlikely under the present economic and international conditions.

Instead of strengthening the African states' capacity to intervene they suggest to limit their role even further (Callaghy, 1993, Lewis, 1996).

A network approach on the other hand permits inter-organizational interactions of exchange, concerted action, and joint production in a more or less formal manner. The composition of such networks vary from domain to domain, but they are likely to consist of government agencies at different levels, key legislators, pressure groups, relevant private companies and civil society organizations such as Non Governmental Organizations (NGOs) and Community Based Organizations (CBOs) (Keeley and Scoones, 1999 in Oosterveer (2009)). Network governance arrangements intend to achieve their objectives through the combined efforts of these different sets of actors, but their respective roles and responsibilities remain distinct without the state being the sole locus of authority (Black, 2008). These non-state actors start developing their own sets of rules or standards to fill 'institutional voids' where rules to guide behavior are needed but not provided by the state. The national government remains an important political actor and a point of orientation for citizens but must today compete with others and can no longer assume a monopoly on legitimate political rule. Network-based views are criticized for the lack of legitimacy of the actors involved. Unlike state-based regulators, whose actions can be legitimized via formal, representative democratic procedures and supported by law, non-state actors cannot rely on legal authority to motivate people, nor derive legitimacy from their position in a wider official order. Network forms of governance are furthermore inherently weaker than state bureaucracies because they need to coordinate activities through continuous negotiation, coordination, monitoring, holding third-parties accountable, and writing and enforcing contracts (Brinton Milward and Provan, 2000).

This study employs the modernized mixtures approach whose arguments here build upon the theoretical presentations and debates between developmental state and network governance. The modernized mixtures (MM) approach seeks to narrow down the dichotomy existing between these two schools of thought and proposes an approach that gets the best mix out of the two extremes. A good example of these would be the public private partnership, which as reported by Oosterveer and Spaargaren (2010), has been heralded as an attractive instrument for public policy implementation. Bringing together the best from the public and the private sector, facilitating the creation of cost-efficient and effective delivery services. Although understandings of the concept and its implementation in practice vary widely, in general governments are involved through the development, implementation and enforcement of regulation, while the private sector assumes particular responsibilities for the collection, transport and disposal of sanitary and solid waste flows. Private sector involvement may range from contracting out services to large private firms, via concessions to local entrepreneurs, to franchises to CBOs, and combinations of these.

The MM approach employs the criteria of accessibility, flexibility and ecological and institutional sustainability to make the assessment (see Spaargaren et al., 2006; Oosterveer and Spaargaren, 2010).

## **2.1 Methodology:**

The study employed Parallel Multiple Case studies research design. The cases are the three urban authorities (Kisumu, Jinja and Mwanza) and it is parallel because all the cases were studied at the same time and not one leading to the other. Certain data collection methods were used to get information.

Interviews were conducted with resource persons from the municipal offices and non-state service providers. They were 63 interviews in total. Questioned based survey amongst households was conducted in all the three urban centres. A minimum of 200 questionnaires were administered in each of the three towns. Observation of the SWM management infrastructure was also helpful in drawing conclusions about their status. SPSS-

PASWStatistics\_17.0 was used to make analysis of the quantitative data while coding was helpful in handling the qualitative data.

### 3.0 Findings and Discussion:

#### 3.1 Jinja -Governance as markets and networks

Governance as markets and networks refers to an arena of economic actors with a reduced political sphere in SWM management. These economic actors dominate the scene and when it comes to SWM, it is a matter of preference and choice on the side of the client and competition amongst the service providers. The networks aspect is because of the inclusion of other actors who also take part in SWM issues albeit to a lesser degree.

Of the three towns, Jinja is a close representation of market and networks. This is because of the presence of economic actors in the SWM arena. It is a close representation because as will be read below, these actors are not exactly the determining players in the field of SWM, yet they provide most of the SWM services to the council and its people.

Jinja has three administrative divisions: Central, Walukuba and Mmpumude. Due to efforts at privatization in the country, the council through open bidding contracted out solid waste management specifically collection and transfer to disposal site.

The arrangement is an annual contract and in the last financial year (2008/2009) two contractors won the tenders. One serves two divisions: Central and Walukuba while the other contractor provides service to Mmpumude. These contractors are actually private entities in form of companies with several employees/casuals. The casuals do the collection and sweeping. Payments from the council to the contractors are made as per the number of skips emptied to the disposal grounds. The contractor earns Ugshs.28,000 (US dollar 20) per small skip (3 tons) emptied and Ugshs.30,000 (US dollar 21.4) for a bigger skip( 3.5 tons) emptied. On average the contractor serving the two divisions empties 18 skips per day while the one serving Mmpumude division empties on average 7 skips per day.

One outstanding aspect of the Jinja arrangement which is not the case for Mwanza and Kisumu (and which is also contrary to the ‘markets’ arrangement), is that households do not pay for the service. The reticence to pay for SWM is because households believe it is the responsibility of the council to provide the service and at no cost such that attempts to introduce a fee of Ugshs.2000 (US dollars 1.42) per household per month at one point were not successful.

**Table 1: Perceived Service Provider By households in Jinja**

Service Provider	Frequency	Percent
CBO	1	.5
Municipality	84	38.5
Private Company	45	20.6
Others	88	40.4
Total	218	100.0

N= 218

Source: Household survey in Jinja, 2009.

This is further depicted in the results of a household survey done which revealed these percentages (See table 1) about who the households perceived to be their service providers: 38.5% of the household interviewed perceive the council to be the one collecting their waste, yet from the field work, it is very clear that the solid waste collection and disposal from

households is done by the two contractors (companies) awarded contracts by the council. Another reason for this percentage could be because the contractors use council vehicles branded- Jinja Municipal Council- to collect the skips, which may appear as if the council is doing the collection. It is therefore important for the council to have the capacity to rally around the citizenry behind public and private sector partnerships even through civic education. This will help in sensitizing the households on who provides them with SWM service and the subsequent need to pay for it.

The 40% which represents –others- includes 38.5% of households who responded to providing their own service (self). These are households that manage their own waste either through burning or burying or re-using on farms and (1.9)% whose response was just categorised as ‘none.’

#### *Networks:*

Even with the ‘market scenario,’ the study established that there are other actors with common interest in SWM though the degree of cohesion varies. There is the involvement of women and youth groups in road sweeping and clean-ups which are done occasionally and mostly on a voluntary basis. There are also environmental groups actively involved, not to mention National Environmental Management Authority (NEMA) as a wing of government which has established pedagogic centres to show case exemplary activities and is helping to source additional skips to be used in the council. This effort by NEMA augments the services of the contractors who are actually paid depending on the number of skips emptied, therefore newer and better quality skips is a plus for the work of contractors. Also involved are international institutions like Lake Victoria Region Local Authorities Cooperation (LVRLAC) who have been active in promoting exchange of practices within council members of the LVRLAC and International Labor Organization (ILO) and Lake Victoria Basin Commission (LVBC) who have actively taken part in capacity building. These efforts by different actors towards SWM not only depict flexibility of SWM systems but also ensure that the system remains sustainable.

#### ***Legitimacy and influence on decision-making:***

In a market situation, legitimacy and influence on decision making captures a number of things. Inherent in the formal authority given to the contractors to operate, is a suitable environment for competition, speed, allowing greater room for market forces and use of commercial criteria as appropriate. In the market sector, time is of essence. Thus timeliness in ratifying contracts, paying on schedule with minimal bureaucracy are essential to making good return on investment (Adei, 2009).

Legitimacy of the contractors is evident in a number of ways. First the Jinja Solid Waste Management By-Laws 2005, in their objectives recognize the role of private companies in collection and disposal of waste in a sustainable manner and at a fee. The two contractors serving currently are thus officially recognized by the council and in turn the clients they serve (20.6% in Table 1).

The tenders for contracts in SWM are advertised through media and as earlier mentioned, there is open bidding. Contracts for companies involved previously can only be renewed based on performance. Prior to their commencement of work, they took part in an induction training facilitated by the council and ILO. Payments to the contractors are made from Property rates accounts, indicating that they are factored-in in the council budget. The arrangements is however not free from complaints like delayed payments which affect the robust nature of the system. Adei points out that such delays can only be taken care of if the

regulatory framework is changed to make delays and inefficiency costly to an official (in this case, the council official in charge) in terms of promotion, remuneration and overall performance assessment .

As far as decision making is concerned, the council is still at the helm of SWM, making policies and seeing to their implementation. The contractors do not attend council meetings and therefore are unable to make or influence decision-making. From an interview with one of the contractors however, they are free to voice their opinions directly to the town clerk, which may not necessarily be taken to account when formulating policies.

***Relations and alliances:***

Focus here is on the stability of the relationship between the municipality and the contractors and also amongst the contractors themselves. To find out whether it is a strong relationship (based on a written agreement or contract) or one that is as loose as a simple supportive relation (based on verbal agreement) ( See Grafakos and Baud 1999). Further, the relationship between households and the contractors in this study is assessed by looking at satisfaction from service provided.

a) With Municipality:

As mentioned earlier, the arrangement in Jinja is a formal contract. The study found out that the contractor works together with a Divisional Health Inspector in identifying which skips are full and therefore need emptying. This exercise is done every day. There is therefore monitoring of waste-flows (a very relevant authority doing the monitoring on a very regular basis) and there is also monetarisation of the waste flow going on (contractors get paid for skips delivered) and this in itself is a first step in (ecologically) modernizing<sup>1</sup> the waste handling system. The arrangements are a mixture of market and state dynamics.

In addition, the contractors use council vehicles for transportation of the skips to the dumpsite. They hire the vehicles at Ugshs.100,000 (US dollars 71.43) per truck per month. They pay costs for minor and major repairs and fuel as well. The drivers for the trucks are employed by the council and not the contractor. This is to allow the municipality to control and monitor the disposal of waste because the contractor is paid as per the number of skips emptied

b) With other Contractor:

As far as relations between the contractors themselves is concerned, it was noted during the field interview that market competition prevents the two contractors in Jinja from having any form of cooperation. Its an annual contract and one needs to stay on top of the game to win the contract the coming year.

c) With Households:

**Table 2: Household perception towards SWM services in Jinja**

<b>Service rate</b>	<b>Frequency</b>	<b>Percent</b>
Satisfactory	75	57.7
Very satisfactory	6	4.6
Not satisfactory	49	37.7
<b>Total</b>	<b>130</b>	<b>100.0</b>

N=130.

Source: Household survey in Jinja, 2009

Of the 130 households who responded to be receiving service either from the municipality, CBO or private sector, their rating on satisfaction of service is as indicated in Table 2 below with about 62.6% (57.7%-satisfactory plus 4.6%- very satisfactory) responding to being satisfied with the service provision ; In case of filled-up and uncollected skips, households have been able to raise complaints through the local media or directly reported to the Health inspectors .From council record, waste collection in Jinja since privatization has gone up and varies between 40-60% of the waste generated.

An arrangement such as this one in Jinja in an ideal setting, ensures that every household in the council receives service because contracts are awarded year after year, depending on performance.

***Payment systems:***

The contractors are paid by the council per skip disposed off. Households do not pay for waste management per se. Payments to contractors are made from property tax, ideally this is the most efficient and effective way to fully cover all solid waste costs but there are issues related to the adequacy of property cadastral and appraisal systems and tax collection efficiency making recovery payments from all residents through property tax an un-feasible option.

Charges for waste collection should be introduced. Only a fee reflecting the costs will encourage users to correctly value the service they receive (McDonald and Pape, 2002). The fee can be introduced gradually.

To this point, the risk with such a structure (market arrangement) as discussed by Rakodi (2003) and also revealed by the study is that since its market driven in a way with contracts renewed annually, it is likely to be short term and fragmented. No investor would like to invest adequately with uncertainties of whether they would win the contract the coming year or not. Therefore any efforts in their activities are just to keep the payments from the council coming but not progressive efforts to improve solid waste management as a whole. The current arrangement of service provision is not dictated by income levels but in the event that households are made to pay for the service, there would arise questions with regard to service provision in low income households because as Prasad (2006) in Oosterveer (2009) suggests, there is a significant conflict between social development on the one hand and the private sector's motive for profit maximization on the other. From the private sector's perspective, low-income areas are unattractive and have high levels risks. The existing networks are useful but they are not active in the day to day affairs of SWM.

**3.2 Mwanza -Governance as communities and networks**

In Governance as communities and networks, the communities are the major implementers in SWM with minimal state involvement. The networks aspect is because of the inclusion of other actors in SWM with varying degrees of participation..

Mwanza's SWM governance arrangements comes close to that which can be described as communities and networks. They come 'close' to because of the question of extent to which these CBOs can exercise power. As much as the SWM arena is dominated by CBOs and these CBOs are the major implementers, the council still dictates, awards the contracts and generally steers everything to do with SWM.

There are 21 wards in Mwanza, out of which only 14 wards receive solid waste management services. These are the wards in the urban set up of Mwanza city. Privatisation of solid waste management resulted in the council awarding contracts to groups and in the last financial year

(2008/2009) contracts were awarded to Community Based Organisations and two private companies that serve the wards in the Central business District. The incorporation of the different actors and leaving the CBD which is a prime area to the private companies is a first step in the direction of MM approach in Mwanza. Every other ward is served by one or two CBOs. The contracts are annual and like in Jinja, this has not been a positive aspect because it does not encourage the contractors to improve on their SWM efforts as they do not know whether they would win the tender the following year or not.

The contractors charge different rates for different land uses but all households pay a standard fee of Tshs 400 (US dollars 0.28) per household per month. At the time of field work, all the CBOs and the private companies interviewed stated that a number of households still do not comply to making the payments of the US dollars 0.28 because of among many reasons the belief that it is the council's responsibility to provide the service and this impacts negatively on the sustainability of the groups providing the services.

**Table 3: Perceived service provider in Mwanza**

<b>Service Provider</b>	<b>Frequency</b>	<b>Percent</b>
CBO	88	44
Municipal	50	25
Private Co.	27	13.5
Self	35	17.5
Total	200	100.0

N=200

Source: Household Survey in Mwanza, 2009

Like in Jinja, a household survey carried out revealed that 25% know that it is the council who manages their waste (see Table 3 ) despite the clear revelation from field work that this work has been fully contracted out to CBOs and private companies. Just like in Jinja, again, this could be because of the assumption that since the council is in charge of waste management, it is the one providing the service.

*Networks:*

Networks in the Mwanza arrangement are visible in the different actors involved in SWM albeit to different degrees. Apart from the council, CBOs and the private companies, just like in Jinja, there is NEMA, different government ministries and regional organizations, in particular, LVRLAC to which Mwanza is a member and the LVBC. ILO has been very instrumental in training the CBOs to earn from the waste collection and also urging them to form an association.

***Legitimacy and influence on Decision-making:***

Here, emphasis is on legitimacy as a moral justification for political and social action. And Bratton, 1989 says it is a question of Who has the right to assert leadership, to organize people, and to allocate resources in the development enterprise.

First, the CBOs and the two private companies are legitimate organizations officially recognized by the council and the people they serve. They are awarded contracts after having won through a democratic process (but not without complains of political interference).

They work under formal contracts. The groups undergo registration as solid waste management service providers, paying registration fee of Tshs. 25,000 (US dollars 17.85). The Private companies pay taxes to the Tanzania Revenue Authority.



Secondly these contractors are well known to the people they serve because members of these groups are locals and belong to/are residents in the wards they serve. Of the 82% who responded in the table 3 above as having known who their service provider is, about 70% are aware it is either a CBO or a private company.

SWM management provides a form of employment to these groups and in turn they are able to keep their surroundings clean. During the field study, all the sixteen groups were interviewed. They are groups made up of members ranging from six to as many as 30. And it emerged clear that each contractor is to:

- Sweep waste from the roads, drainage systems and open areas
- Remove sand on tarmacked roads and drainage systems
- Unblock the drainage systems where there is dirt
- Collect waste and take it to transfer stations apart from the private companies who take their waste directly to the dumpsite
- Collect the fee from clients according to the Refuse Collection and Disposal By-law
- Ensure the respective areas served are clean
- Prepare a programme/timetable for cleaning to be followed by the clients
- Submit to the council an outline proposal or Action plan showing how the work will be done in the respective ward
- Submit to the council a list of clients every three months
- Submit a monthly report of work to the City head of public health.
- Ensure workers have proper outfits and protective gears for work.

One unique feature about the Mwanza arrangement is that all households are to pay a standard fee of US dollars 0.28 per household per month and the contractors can seek redress from the council legal office in the event of non-payments. Legal action has however been expensive and a politically sensitive measure to take. This is so especially when political elections are about to take place as no political aspirant would like to go against his/her voters interests. It is also challenging to follow up on households that do not pay because the legal fee maybe more than even the SWM fees to be paid.

Even with such an arrangement of massive community involvement which according to Pierre and Peters (2000) should result to minimum local government involvement with communities solving their own problems, the city council is still at the helm of service provision, awarding contracts, allocating roles and responsibilities.

As much as the groups are legitimate outfits with formal contracts and recognition by society, their role in SWM is weakened because of minimal influence on decision making, non-payments by households who still perceive waste management as the responsibility of the council and political interference when elections draw close.

### ***Relations and alliance:***

Just like in Jinja, an assessment is made of the relationship amongst the different actors. While the relationship between the contractors and the municipality in Jinja is more of sharing SWM responsibilities, in Mwanza, there is the sharing of SWM responsibilities and the financial burden as well.

#### **a) With The Municipality:**

The groups were asked how they communicate their needs to the council and all the 16 interviewed responded to be communicating through a Public Health Officer representing the

council in every ward. The officer monitors SWM activities in the assigned ward and communicates the concerns of the CBOs to the city director.

Further on assessing relations and alliances, it emerged that every ward has at least two transfer stations either in the form of open grounds or a skip. The location of the transfer stations is decided upon by the public and the CBOs. Then the council is responsible for collecting the solid waste from the transfer stations to the disposal grounds. (The interplay of different actors in designating transfer stations location and even in transporting waste from point of generation to transfer stations by CBOs and to disposal sites by council is another step in line with the MM approach). The CBOs pay Tshs 8000 (US dollars 5.7) to the council for transfer of waste to disposal grounds per trip. The private companies however take their own waste to the disposal grounds and pay for disposal of waste.

On being asked if they receive any assistance from the council to further gauge their relationship with the council, all the groups responded to be getting occasional legal assistance from the council to tackle defaulters of payments especially business premises defaulters.

b) With other Contractors:

Unlike the situation in Jinja, as far as the CBOs relating with each other is concerned, all the 16 groups interviewed belong to an association called Mwanza Solid Waste Management Association- MASMA which meets once per month to share ideas on problem solving and opportunities that can be explored. Apart from the association, neighbouring CBOs (that is CBOs working in neighbouring wards) work together in sharing experiences and sometimes even equipment used in case the work load is more than expected in a day.

c) With Households:

Household satisfaction in Mwanza is low compared to that in Jinja. Where n=165, only 51% indicated satisfaction of the service provision. Possible reason for this could be that the largest percentage of service providers are the CBOs who, as it emerged, have no incentive to invest and improve SWM given the 'short' contract duration.

Generally though, privatization with the involvement of communities in SWM in Mwanza has considerably improved waste collection. Of the 296 tonnes of waste generated daily, 261 tonnes gets to the dumpsite. This is about 88% of waste generated. Before privatisation however only 28% of waste generated got to the dumpsite.

***Payment systems:***

As mentioned earlier, households pay Tshs 400 (US dollars 0.28) for waste per household per month. This is paid directly to the contractors, and of the 165 households (82.5%) who responded to be receiving services either from municipality or CBO or private company, only a paltry 3.6% do not pay for services.

In the end analysis, although CBOs are perceived to be more participatory, less bureaucratic, more flexible, cost effective, with an ability to reach the poor and disadvantaged group, using CBOs as the bulk service providers on the other hand also brings to question issues regarding the sustainability of the groups given that some are small scale and depend on aid from other sectors of society. Non-payments by some households also contribute to unsustainability of CBOs operations. This has resulted in the reduction of membership from some of the groups

meaning less amount of work is done. Some of the Groups have had to diversify their activities, some are engaging in poultry keeping, stationery services (like photocopying and printing services) and others have sought loans from financial institutions to keep running. Just like in Jinja, the existing networks are not active in the day to day running of SWM activities.

### **3.3 Kisumu -Governance as hierarchy and networks**

Governance as hierarchies and networks refers to governance conducted by and through vertically integrated state structures with imposition of laws and other forms of regulation. The network aspect is because of the presence of other actors in the scene of SWM.

Kisumu presents a picture close to that of a hierarchy and networks. This is because the council is still solely responsible for solid waste management and the style of management is actually the command and control type, with the Department of Environment receiving directions and authority from the line ministry of Local Government. Unlike Mwanza or Jinja, Kisumu has no formal/official arrangements that involve other non-state actors in collecting or sweeping or transporting waste.

The council itself does sweeping, collection, transfer and disposal of waste, but these services are concentrated in the Central Business District and only a few residential areas benefit from the council services. Non-state actors unofficially provide service to most of the residential areas.

There are networks however, because a number of other actors take part in SWM including the informal/Unofficial groupings, government ministries ,NEMA, international organizations among others.

**TABLE 4 :SWM Groups in Kisumu City Council**

<b>SWM</b>	<b>Numbers on The Ground</b>	<b>Numbers Interviewed</b>
Recyclers	23	6
Groups-CBOs and Youth groups	27	17
Private Companies/Individuals	18	8
<b>TOTALS</b>	<b>68</b>	<b>31</b>

Source: Field work in Kisumu, 2008-2009

The field survey revealed the groupings of actors involved in collecting, transporting, recycling and re-use of solid waste from different residential areas as shown in Table 4 above. Out of the 68 groups, 31 groups were interviewed under the categories the different categories and these are groups made up of members ranging from 2 to 80. Those interviewed revealed they take part in different activities in solid waste management including:

- Collection of scrap metals and plastics
- Re-use of containers
- Composting waste from households waste
- Recycling plastics and metals from household waste
- Collecting household SW/transporting to transfer stations and dumpsite

#### ***Legitimacy and influence on decision making:***

Even with the municipality as the locus of authority, concern for legitimacy here is to be able to ascertain the legal mandate (if any) accorded to the groups providing SWM. Therefore in addition to the moral and social dimensions mentioned under the Mwanza arrangement, the legal dimension is vital (See Vedder Anton, 2003). Most of these groups are registered by the

ministry in charge of community development, they are however, not formally recognized by law as actors under solid waste management. The presence and activities of these groups however are known by the council and some even responded to be operating some form of ‘franchise’<sup>ii</sup> in areas allocated to them by council.

**TABLE 6: Legitimacy of Groups**

Form of arrangement	Numbers
‘Franchise’	11
Quasi contract	1
Partnership	1
Unwritten authority to operate	2
Pay rent to council	1
None	15
<b>TOTAL</b>	<b>31</b>

Source: Field work in Kisumu, 2008-2009

A question posed to the groups to try to establish their legitimacy , got the responses shown in Table 6. With no legal papers to show arrangements, most if not all are not legitimate groups in the SWM arena. This impinges on a number of issues for instance, seeking legal redress incase of payment defaults becomes a problem. Getting donor assistance also becomes a problem because questions will arise as concerning ties to the public, transparency and adherence to the mission of a group, representative status and the relationship of the group to the community served. On the other hand though in terms of community support, openness of information, democratic decision-making, these groups can be more legitimate than some official actors are. They are made of local members, some serving their own residential areas and others doing it at no cost.

**Table 6: Service providers to Households in Kisumu**

Service provider	Frequency	Percent
CBO	21	10.5
Municipality	18	9.0
Private Company	54	27.0
Others	107	53.5
	200	100.0

N=200

Source: Household survey in Kisumu.

As it turned out from the household survey, these groups form the largest percentage of SWM service providers (37.5%)-that is CBO-10.5% and Private company -27% (see Table 6)

NB: For the category of –Others- that account for 53.5% in Table 8 above, were responses like dumping in pits, burning or landlord comes to collect the waste.

As far as decision making is concerned, like in Jinja and Mwanza, the council remains at the helm of SWM activities. The groups mentioned do not attend council meetings and therefore cannot influence decision-making.

### ***Relations and alliances***

#### **a) With The municipality**

The groups were asked how they communicate their needs to the council to assess if there is any communication and therefore relationship with the council.

**TABLE 7: Means of Communication Between Groups and Council**

<b>Means of communication</b>	<b>Numbers</b>
Through Dept. of Environment	21
Through NGO called SANA <sup>iii</sup>	1
Through The Association (KIWAMA)	5
Through a broker	1
None	3
<b>TOTAL</b>	<b>31</b>

Source: Field work in Kisumu, 2008-2009.

Table 7 shows the responses made on how they communicate. About 68% communicate through the Department of Environment which further indicates that the council is aware of their existence and their activities are also known by the council.

When asked if they receive any form of assistance from the council in order to further gauge the relationship they have with council, the groups gave the following responses:

- Capacity building- 35%
- Trucks for transportation-35%
- Networking-9.7%
- Dumping waste for free-3%
- Conflict resolution-3%
- Managing dumpsite-6%
- Helps to get fee from defaulters-6%
- None-19%

In all the responses above, n=31.

These percentages show that the council is working together with the different groups. The 35% under capacity building is because a number of the groups have benefited from workshops and seminars facilitated by Shelter Forum, Practical Action and UN-Habitat under the auspices of the Council. These training sessions take place whenever funds are available and they have mainly been on recycling opportunities, waste sorting and re-use.

#### **b)With other service providers**

In terms of relationships amongst the groups themselves, the groups revealed that they work together with each other, they collaborate during cleanups and some even share the working equipment. Like in Mwanza, they also have formed an association called Kisumu Waste Managers Association (KIWAMA).

16% of those interviewed are also in a Scrap dealers association. This is different from the Jinja situation where the two contractors do not work together and they cite business competition as the reason.

c) With the households:

When it comes to relationship between the service providers and households, the household survey revealed that that 70.6% (where n=93) are satisfied with service provision. In trying to understand this occurrence, a detailed analysis revealed that of those receiving waste collection services, 58% (where n=93) receive service from the private companies and 87% of these (where n=54) responded to being satisfied with service provision and this is where the 70.6% general satisfaction comes from. Given that private sector is driven by profit and ingenuity, which keeps it innovative and competitive, it comes as no surprise then that a high percent of those served (and in this case by the private sector) expressed satisfaction in the service provided.

**Payment Systems:**

Kisumu’s scenarios is different from the other two councils when it comes to the payment systems. Areas served by the municipality have their cost taken care of in the water bill and some of the households responded to paying for waste as part of house rent. The private companies are operating in open competition purely on a willing-buyer-willing-seller basis. From the survey, their services are mostly in high and middle income estates. Payments are made at the end of the month as per a verbal agreement with the household. CBOs operate mostly in middle and low income they also charge fees agreed upon with the household.

**Table 8: Payment Rates for SWM services**

Residential area	Payment rates (Ksh./Month)
Low income areas	40.00 – 100.00
Middle income areas	150.00 – 250.00
High income areas	250.00 – 500.00

Source: Household Field Survey in Kisumu, 2009

Given the many informal operators, fees charged for waste collection vary and the household survey revealed the figures shown in Table 8. Out of the 93 households that receive service from either the municipality, private company or a CBO, 79.6% where n= 93, pay for it.

The undoing of this arrangement in Kisumu is that it lacks steering and integration which ought to be the role of government in a wider governance system but on the other hand as argued by Rakodi, in a system in which municipal capacity is almost lacking, resources inadequate and bureaucratic processes lack efficacy, it is important for residents and businesses to cultivate not only political but also bureaucratic relationship- porous bureaucracy, the informal exchange relations between clients at all levels which ultimately may provide some of the poor with channels for obtaining access to services as personal or group favours. An example is that of *Manyatta*-a low income residential estate in Kisumu-where ten youth groups have come together and formed one group. They provide waste collection services to the residents at no fee. This complements the activities of other private collectors who provide service to some of the *Manyatta* residents at a fee.

**4.0 Conclusion:**

As mentioned at the beginning of this paper, whereas some observers suggest strengthening governmental authorities to take their responsibilities more seriously, others consider the

current African state fundamentally incapable of delivering such services in a reliable manner and therefore active involvement of private companies, non-governmental organizations and local communities should be promoted to implement and manage urban environmental infrastructures (Oosterveer,2009) and this is network governance. Network governance arrangements intend to achieve their objectives through the combined efforts of the different sets of actors, but their respective roles and responsibilities remain distinct without the state being the sole locus of authority (Black, 2008 in Oosterveer, 2009). Network governance arrangements create room for effective local communities' participation in developing their own preferred approach while harmonising with other stakeholders and other levels of governance.

Jinja, Mwanza and Kisumu display significant variation as to how municipal authorities have shaped their relationships with the non-state actors in the field of solid waste management (SWM).The field studies reveal that in all the three councils, the local government is still at the helm of SWM so it is not a full market-governance for Jinja neither is it full community-governance for Mwanza. Governments in the three case studies still enjoy an unrivalled position in society, they are still the obvious loci of political power and authority. Though they have been engaged in some type of negotiations with these other significant structures in society, their dominant role remains unquestioned. These local governments are becoming increasingly dependent on the other societal actors but they have evolved as actors who remain in control of some unique power bases in society such as legislative powers, powers to award contracts, to determine service charge. Therefore while network governance could be the most appropriate to manage SWM, the realities on the ground echo the need perhaps for a renewed interest for and recognition of the importance of an active state in managing SWM. Therefore as much as effective market economies and societal institutions are essential they require functioning and capable state in order to operate and grow. This calls for certain improvements within the existing arrangements that build on the strength of the state and the non-state actors (modernised mixtures approach).

To this end, the answer is not community dominance and networks as in Mwanza, nether is it market dominance and networks as in Jinja. Hierarchical arrangement in Kisumu can not benefit all in society either. It is clear that involving non-state actors is truly plausible and these actors need to work under an effective and strengthened government in order to afford all income groups solid waste management services and to ensure flexibility and sustainability of the services provided.

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<sup>i</sup> From arguments of Ecological Modernization Theory (see Chapter Two of this Thesis; Mol and Sonnenfeld, 2000; Spaargaren et al., 2005)

<sup>ii</sup> The word franchise is in quotation marks because there are no legal papers to show for it and the arrangement is only franchise by name but not in actual sense.

<sup>iii</sup> SANA is an registered NGO in Kenya established to encourage water and sanitation development in the Nyanza region. It has supported a number of CBOs involved in solid waste management. See <http://sanainternational.20m.com/About%20Sana.htm>

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