

Research Focus

Factors impeding efficient functionality of community operated urban water schemes: the experience of Kisumu, Kenya



Presentation Outline

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Theoretical Framework

- The management of water resources has traditionally been considered as a government responsibility in accordance with the supply driven model
- Advocates of state-controlled strategies argue that access to water is a human right and that it is the state's obligation to ensure its access to the public

Theoretical Framework Cont.

- Private sector participation, although controversial, has been touted as an alternative strategy for managing water resources
- Proponents of privatization argue that it improves efficiency and performance by reducing the red tape

Theoretical Framework Cont.

- The other approach which has been entertained in the water service delivery sector is the demand responsive approach which calls for Citizen Participation (CP) in water resource management
- CP has become popular because it has provided what the market/the state has failed to achieve.
- That is, (1) aligning development priorities with those that reflect the community goals; (2) improving accessibility; (3) encouraging conservation and sustainability

Theoretical Framework Cont.

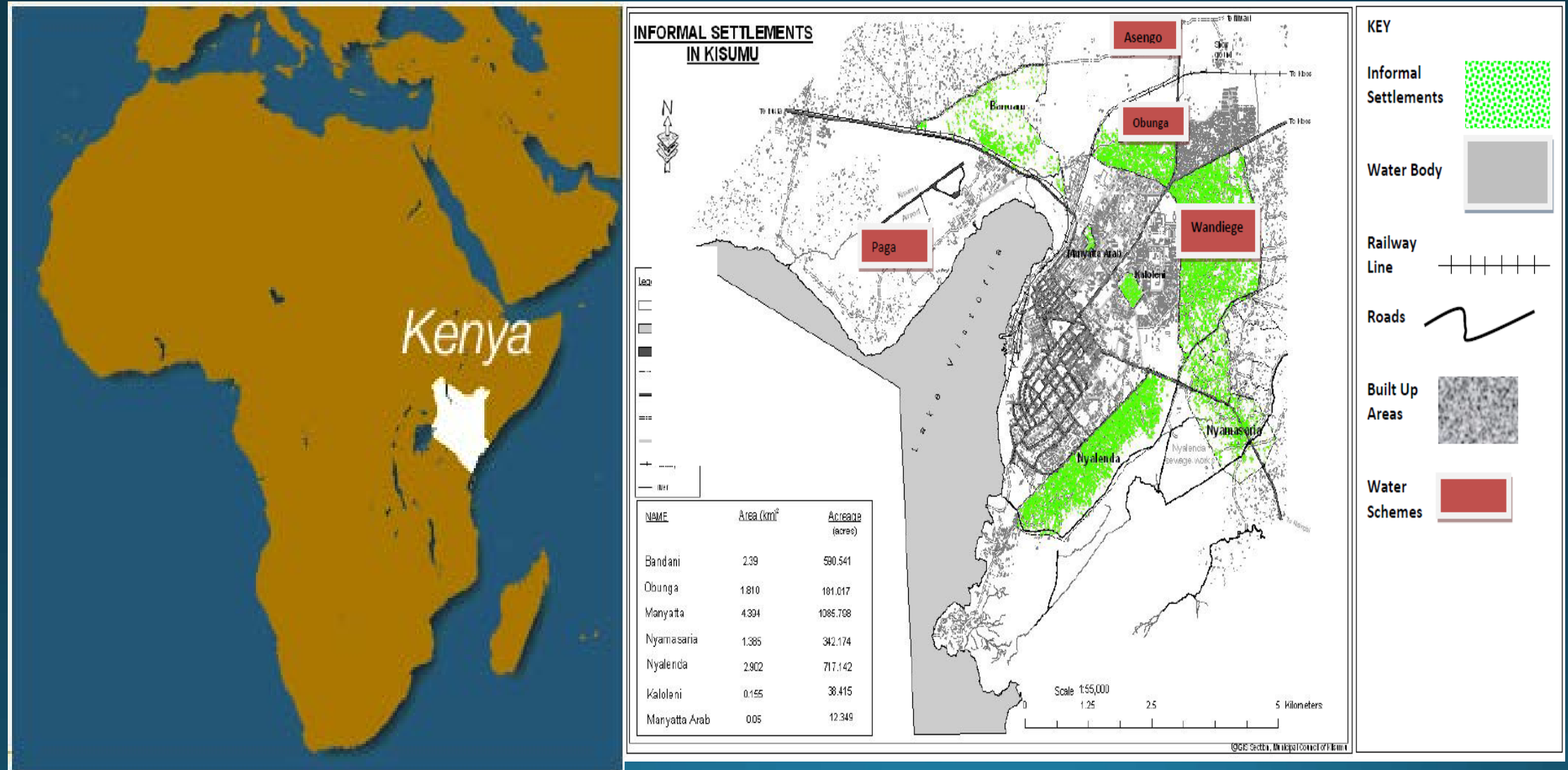
However, within the participatory discourse there is scarce literature on what may impede the effectiveness of citizen participation in urban water provisioning?

Research Objective

Now the objective of our research is therefore to evaluate factors which might impede efficient functionality of community operated urban water schemes – specifically in urban centers

Our study site is a city in Kenya called Kisumu

Description of the Study Area



The Schemes Key Attributes

Attributes	Wandiego	Obunga	Asengo	Paga
Year started	2001	2003	2005	1989
Role played by the community	<ol style="list-style-type: none"> 1. Donated land 2. Identified locations for water kiosks 	<ol style="list-style-type: none"> 1. Management of water kiosks 2. Identified locations for water kiosks 3. Provide security to the schemes assets 	<ol style="list-style-type: none"> 1. Provided labor and land 2. Identified sites for the intake tanks 	<ol style="list-style-type: none"> 1. Identified the need to clean potable water 2. Donated land and labor
Role played by SANA	Provided funds and technical know how	<ol style="list-style-type: none"> 1. Provided funds and technical support 2. Sourced for collaboration between the community and Kisumu Water and Sewerage Company 	<ol style="list-style-type: none"> 1. Provided funds for upgrading the spring water 2. Provided technical support 	<ol style="list-style-type: none"> 1. Provided Funds 2. Provided Technical support
Population served in 2014	15,000 people	30,000 people	20,000 people	17,000 people
Schemes Assets	<ul style="list-style-type: none"> • A borehole • Two storage tanks • A pipe line system • 24 water kiosks • 148 metered connections • Chlorine dozer 	<ul style="list-style-type: none"> • Three water storage tanks • 60 water points • 10 water kiosks • Several individual water connections 	<ul style="list-style-type: none"> • 2 intake tanks • 6 water kiosks • Several individual water connections 	<ul style="list-style-type: none"> • 75,000 liter water tank • 12 kilometer pipe line • 3 water kiosks • Several stand pipes

Research Question and Hypothesis

Question - What are the participation-related factors impeding the performance of these schemes?

Hypothesis - There are several location specific participation-related factors which may affect the performance of community-operated water schemes in urban centers

Methods

Methods

- Primary data were collected through a combination of focus group discussion (FGDs) and in situ field observation
- Participants were selected by purposive non-random sampling technique
- They included water management committees, women groups and water consumer groups

Methods Cont.

- A total of 12 FGDs were carried out with approximately eight participants in each group.
- Each FGD took approximately one hour twenty minutes.
- The FGDs were carried out at the community water offices.

Methods Cont.

- The FGD data were collected using a questioning route.
- The questioning route included the following items:
 1. Two introductory questions
 2. Three transition questions
 3. Three key questions, and
 4. A concluding question where participants were welcomed to add any comments they may have wished to express

Methods Cont.

Table 2 Characteristics of the focus group discussion participants

Water scheme	FGD subgroup	Number of FGD participants	Mean age in years	Education		Source of Income		
				At least secondary (%)	At least secondary (%)	Trader/small business (%)	Salaried (%)	Wage (%)
Wandiego	Women Group	8	34	100	50	75	0	0
	Consumer Group	8	30	100	86	88	0	13
Asengo	Women Group	7	29	100	29	71	14	0
	Consumer Group	5	31	100	40	40	20	20
Paga	Women Group	7	34	100	43	71	14	14
	Consumer Group	5	36	100	100	20	40	0
Obunga	Women Group	12	37	100	33	75	25	0
	Consumer Group	8	30	100	63	75	13	0
All	Management	11	52	100	91	55	36	0

Methods Cont.


- Data analysis was based on an inductive research strategy.
- Specifically, constant comparison analysis technique was employed
- That is themes (codes) that emerged from the FGDs were processed and then corroborated with supporting evidence from data gathered through observation and transect walks

Findings

Findings

Factor	Component
Clannism	<p>Plays a role in excluding communities seen as outsiders from participation in the water project activities</p> <p>“The element of clannism has prevented our water project from getting the right and dedicated people who are prepared to manage this project. Every clan from the three sub-locations wants their people to be the majority in the management committee. Unfortunately some of the people who fight for the available twelve posts are driven by the expectation of financial gain. After being in the committee for a few months, they realize that there is no money and thus leave the project hanging. When this happens we are forced to recruit a new team and the scenario repeats itself over and over again””</p>

Findings

Factor	Component
<p>Colonial planning/zoning laws</p>	<p>Affect the development of water planning infrastructural expansion</p> <div data-bbox="980 401 2117 1320"><p>Fig. 2 Damaged pipes due to highway construction in Obunga</p></div>

Findings

Factor	Component
Physical/geographical constraints	<p>This has made it difficult to install water pipes</p> <p>One FDG participant from one of the schemes stated that on some occasions they have been unable to dig trenches when the pipes are being networked. As a result of this difficulty, workers often leave pipes above the ground which are later stolen by scrap metal vendors</p>

Findings

Factor	Component
Population increase and community fatigue	<p>These schemes were designed to serve a approx population of 15, 000 people per scheme, however, currently the population in the locale where the schemes are located have increased three fold</p> <p>“One of the major obstacles which (have) hindered our growth as a community water service delivery scheme is population increase which is associated to poverty and unemployment. High rate of unemployment in this area has forced people to depend on the water catchment area for survival. They harvest stones from Riat hills watershed which they sell for Kshs 1500 per seven ton truck. Besides this, the youths also engage in charcoal burning which has devastating effects on the forests. The forest cover in Riat hills is getting destroyed up to the roots, because the youths go as far as digging out the tree stumps. For the women, they fetch firewood for sale. These activities if not curtailed is affecting the well-being of our water scheme.”</p>

Conclusion

Conclusion

- The evidence which exist in literature indicates that CP is effective in the establishment of well-functioning water systems and sustainable rural based water schemes
- However, what was still lacking in literature are more specific case studies on factors which might impede the effectiveness of CP in urban water service delivery
- As compared to previous works, this study fill that gap by identifying four more factors which might effect CP in urban water service delivery in the context of a developing country

Policy Recommendations

Policy Recommendations

- One, feasibility studies should precede the execution of any future urban based community operated water schemes in the developing world.
- Such studies should take into account expected population expansion of the community, the city's existing zoning laws, physical geographical constraints and most importantly the socio-economic realities of the community

Policy Recommendations

- Second, development funding agencies should develop strategies to collaborate with the affected communities upon the completion of the projects.
- Most water schemes in the developing world fail, because the communities are not adequately prepared for confronting the potential difficulties which often arise once the schemes are in operation for a significant period of time

Policy Recommendations

- Third, managing community urban water systems in an efficient way requires integration and coordination with regard to land use and planning issues.
- A key factor which has contributed to the scheme's losses is road expansion



Factors impeding efficient functionality of community operated urban water schemes: the experience of Kisumu, Kenya

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Abstract

Numerous studies have measured the benefits of community participation in promoting equity and efficiency in the water service-provisioning sector. However, few have focused on factors which affect functionality in community operated water schemes in urban centers. The purpose of this study is to fill this gap in knowledge. Using qualitative data gathered through focus group discussions and employing constant comparative analytic techniques this study identify four unique factors which affect functionality in community operated water schemes in Kisumu, an urban area in Kenya. The following factors seem to influence this process: (1) clannism; (2) colonial planning/zoning laws; (3) physical/geographical constraints; and (4) population increase/community fatigue. Three policy suggestions are made which can be adopted to address these impediments. One, feasibility studies should precede the execution of most future urban-based community operated water schemes in the developing world. Two, funding agencies should focus on developing strategies to collaborate with the communities upon the completion of the projects. Third, managing community urban water systems requires adequate integration and coordination between the beneficiary community and city planners on issues of land use.

Keywords Community participation · Urban water systems · Planning · Developing countries

Thanks for your attention – any questions