The influence of governance rearrangements on flood risk management in Kampala, Uganda

Simbarashe Chereni | Richard V. Sliuzas | Johannes Flacke | Martin V. Maarseveen

PJM Department, University of Twente, Enschede, Netherlands

Correspondence
Simbarashe Chereni, PJM Department, University of Twente, Hengelosestraat 99, 7514 AE Enschede, Netherlands.
Email: simba.chereni@gmail.com

Abstract
The importance of governance rearrangements (reassignment of positions, roles, and responsibility among actors in governance processes) and their implications on flood risk management has gained currency in evaluative environmental governance literature. However, much work has concentrated on building and applying frameworks to evaluate impacts of decentralisation, such that frameworks to evaluate impacts of recentralisation are still lacking. This paper uses the case of Bwaise III informal settlement in Kampala, Uganda, to assess the impacts of local government rearrangements on flood mitigation. We adapted a Water Governance Assessment Framework and conducted 22 in-depth interviews with stakeholders, searched documentary sources, and carried out transect walks. We generated qualitative data on stakeholder experiences and perceptions regarding governance quality and flood mitigation prereform and postreform. The data were analysed using thematic content analysis to produce a scoreboard measuring changes in governance dimensions against progress in flood mitigation. In a follow-up survey, 24 structured interviews were conducted to validate the data. Results show that the rearrangements led to time and cost savings, increased revenue, and sped up the implementation of flood management strategies and measures. The findings can be useful to policymakers at the interface of governance and flood management.

Keywords
centralisation, efficiency, flood management, governance rearrangements, WGAF

1 | INTRODUCTION
Flooding is one of the most dangerous disasters in the world. In 2015, floods caused 3,310 deaths and affected more than 27 million people (UNISDR, USAID, and CRED, 2015). Although Africa accounts for only 5% of the deaths, situated statistics depict worrying trends especially in the wake of climate variability (Guha-sapir, Hoyois, & Below, 2017). In these studies, governance has been seen as critical in providing an enabling environment for disaster risk management (Alexander, Priest, & Mees, 2016; Matczak, Lewandowski, Choryński, Szwed, & Kundzewicz, 2015; Perry, De Graaf, Van der Wal, & Van Montfort, 2014; Plummer et al., 2018; Renn, 2008; Tullos, 2018a). Governments in many countries across the globe have therefore reworked their institutions to prevent, mitigate, and help communities to recover from a flood disaster. This process, in some cases, has brought about hybridised governance regimes (Plummer et al., 2018). However, critical questions arise about how these governance rearrangements support or constrain flood management efforts (Alexander et al., 2016, ...
p. 38). This question has been extended to the whole disaster risk management community because governance improvement has proved to be a potential way to reduce disaster risk (Matczak et al., 2016; Renn, 2008; Scolobig, Prior, Schröter, Jörin, & Patt, 2015).

Theoretically, these dynamics have been viewed with a lens of governance regime shifts from Progressive Public Management—top-down approach, to New Public Management (NPM)—consumerism, and recently to New Public Governance (NPG)—co-production (Wiesel & Modell, 2014). Consequently, governance evaluation frameworks have evolved from being results based under Progressive Public Management, to citizen satisfaction based under NPM, and to network efficiency based under NPG. Because these processes are never perfectly linear, in some cases, iterative processes have ushered in hybrid governance systems (Plummer et al., 2018; Wiesel & Modell, 2014). Within the NPM and the NPG, principles of good governance have dominated both discourse and methodology.

Good governance principles are mainly linked to governance assessment frameworks from international development agencies such as the UN Habitat’s Urban Governance Index and the UNDP’s Methodological Guidelines for Local Government Analysis (UNDP, 2009) in measuring governance reform progress. Governance assessment frameworks have also been used by the World Bank and other international development agents to diagnose governance systems in countries where reforms or aid were/have been targeted (ODI, 2007). These frameworks mainly hinge on the assumed benefits of decentralising authority to lower levels and ensuring accountability, transparency, and popular participation. Popular participation is believed to result in the legitimacy of central institutions and their actions (Pettersson et al., 2017).

Following these frameworks, much of the literature of governance rearrangements follow principles of good governance through the decentralisation philosophy, as pillars of their analytical frameworks and their conclusions are largely critical of the re-emerging centre–local relationships (Alexander et al., 2016; Kaufmann & Wiering, 2017; Lambright, 2014; Madinah, Boerhannoeddin, Noriza Binti Raja Ariffin, & Michael, 2015; Matczak et al., 2016).

As it turns out, besides the costs of monitoring local level institutions and lack of resources at the local level (Crona, 2014; Jensen & Meckling, 1976; Lacruz, 2016; Scolobig et al., 2015; Stelman, 2012; Wild, King, Chambers, & Harris, 2012), elective democracy in Africa may be creating divided lines of authority that limit flood risk management and service delivery capacity in more decentralised systems (Resnick, 2014a, 2014b). This trend is causing governments to rearrange institutions of governance by rerolling out the state to improve service delivery including flood mitigation. In such instances, new approaches to evaluate governance performances without romanticising the conventional “principles of good governance” are needed.

Our research was, therefore, guided by the following questions:

i. How best can we assess impacts of governance rearrangements on flood mitigation where democratic space is reduced?

ii. What are the impacts of such rearrangements on flood mitigation?

2 | TRENDS IN GOVERNANCE AND FLOOD GOVERNANCE REARRANGEMENTS

A number of governments across the world are rearranging institutions of governance to improve service delivery (Akilli & Akilli, 2014; CEMR, 2013; Jonga, 2014; Kostka & Nahm, 2017). Research on the impact of these trends is still in its infancy, especially as it relates to flood mitigation (Alexander et al., 2016; Driessen et al., 2018; Matczak et al., 2015; Mees, Alexander, Gralepoids, Matczak, & Mees, 2018; Tullos, 2018b; Wiering et al., 2017). Issues related to participation, efficiency, policy, legislation, and diversification have been at the core of debates surrounding flood risk management. Key questions often asked in the light of current consensus that diversification results in a holistic flood management approach where actor collaboration is promoted (Hegger et al., 2014; Renn, 2008) are as follows: (a) How can we make informed decisions to foster institutional rearrangements for diversification? (b) Which factors drive the desired change and which ones stabilise the status quo? Wiering et al. (2017) identified drivers of change in the form of the European Union’s Floods Directive, climate change, and the ecological turn in different forms in six European countries. In many of these countries, these drivers had a tendency to encourage diversification and an integrated approach. However, these scholars do not delve deeply into the quality of governance regimes and performance.

Using the Bwaise III case in Kampala, Uganda, we add methodological diversity to this growing literature on governance rearrangements for risk management by using a different methodological framework—the Water Governance Assessment Framework (WGAF). A modified version of this framework was applied by Vinke-de Kruifj, Kux, and Augustijn (2015) in Romania but without necessarily contrasting governance quality and flood risk management performance. Assessing drivers and stabilisers of change was also outside their scope. By examining the relationship between institutional reforms where representatives of the centre are put in lower level governance structures, we provide empirical evidence on the positive impacts of the roll-out of the state on integrated flood mitigation as a driver of change vis-à-vis other stabilisers and factors of change.

2.1 | Conceptual and evaluative frameworks

The WGAF was used as a methodological tool applied with conceptual guidance from Matczak et al.’s (2016) conceptual framework for comparative analysis of governance arrangements and flood mitigation that was done within the European Union StarFlood project. Figure 1 illustrates this.

2.1.1 | Flood risk governance arrangements and subarrangements

In the framework above, flood risk governance arrangements (FRGAs) and subarrangements occupy a central position and act as the
intermediary variable. Governance refers to the interaction between civil society, the private sector, and government in determining governmental action (Wilson, 2000). Wiering et al. (2017, p. 17) define FRGAs as “institutional constellations resulting from an interplay between actors and actor coalitions involved in all policy domains relevant for flood risk management; their dominant discourses, formal and informal rules of the game; and the power and resource base of the actors involved.” In this paper, we consider sectoral constellations related to flood risk management as FRGAs, for example, in fiscal and revenue administration, disaster management, spatial planning, and water and sanitation. Over the years, the role of the state and municipal departments has evolved in search of effectiveness and efficiency in delivering flood risk measures and deliver service in other countries in general (Runya, Qigui, & Wei, 2015), and this applies to Kampala as well.

In practice, flood risk governance can be observed and assessed by looking into the FRGAs and subarrangements related to water management. Therefore, we hypothesised that administrative rearrangements in Kampala have contributed to a positive thrust on the delivery of flood risk management measures in the slum settlement of Bwaise III. We assume that flood management strategies and measures are an outcome of forces at work in governance processes (Kaufmann & Wiering, 2017; Matczak et al., 2016; Wiering et al., 2017) and measure these dynamics using the WGAF as indicated in Figure 1.

2.1.2 | Flood risk management strategies

These are the actual measures and strategies implemented in the area to reduce flood risk, which, in this case, are dependent on the risk situation (hydro-physical setting and climate change discourses), and how it is perceived by responsible institutions depending on how these institutions respond to stabilising factors or change factors. These strategies and measures are related to the frame of the disaster management cycle, that is, prevention, mitigation preparation, response, and recovery (Matczak et al., 2015; Plummer et al., 2018).

2.1.3 | Stabilising factors and change factors

Stabilising factors and change factors are the elements and characteristics of a governance system and its environment that either gives
stability or promotes change in the adoption of flood risk governance strategies and instruments. They include path dependencies (e.g., ongoing programmes and projects) and reproduction mechanisms (Figure 1). Reproduction mechanisms are fixed costs, opportunity costs or growing returns, and strong/institutionalised priority associated with certain FRG measures and ways of working in divisions of responsibilities for producing FRG measures (Wiering et al., 2017).

Change factors include agency, policy entrepreneurs, windows of opportunity, and counter framing. Agency means acting in place of another—a principal (Jensen & Meckling, 1976). Policy entrepreneurs are entities or individuals who sell policy ideas and consequently influence policy direction (Bakir & Jarvis, 2017). Windows of opportunity are situations that create a need for change, for example, gaps in service delivery. Counter framing refers to the process in which politicians’ policy ideas and/or those of interest groups compete about an issue (Chong & Druckman, 2013).

### 2.1.4 | General area characteristics

Environmental factors affect the type of FRGAs that can be put in place because the form and magnitude of the risk at hand, in terms of hazard frequency, intensity, exposure, and vulnerability, determine to an extent the organisational infrastructure required.

### 2.1.5 | Driving forces

Driving forces are the push factors that compel a governance system to implement/enforce flood management strategies and instruments, for example, climate change, sustainability discourses, and local government directives.

### 2.2 | The WGAF

The WGAF is basically a matrix of governance dimensions (five rows) and quality criteria (four columns). The governance dimensions are (a) levels and scales; (b) actors and networks; (c) problem perspectives and goal orientation; (d) strategies and instruments; and (e) responsibilities and resources. Levels and scales can be defined as the institutional (administrative, legal, and policy) tiers, whereas actors are stakeholders involved. Problem perspectives are perceptions about the nature of the problem among the different stakeholders. Strategies and instruments are the methods used to address problems; and last, responsibilities and resources are the roles and money, and people and goods used in service delivery, respectively; in this case delivering flood mitigation measures. In the columns (governance quality criteria), extent refers to the adequacy of the dimensions in relation to the problem at hand, and coherence is the rhythm of operation in a governance dimension; flexibility is the tolerance of various ways of dealing with the problems; and intensity refers to commitment and thoroughness in operation in a governance dimension. For further detail regarding questions asked in each cell, please refer to Appendix S1. The questions are related to a combination of viewpoints from PPA, NPA, and NPG.

### 3 | METHODOLOGY

#### 3.1 | Case study: Kampala City and Bwaise informal settlement

##### 3.1.1 | Kampala flooding

The flash floods in Kampala City have over the years induced economic losses and deaths. Kampala’s hilly terrain, coupled with rapid urban growth and encroachment into wetland areas, has contributed to increasing flood events, from five in 1993 to eight in 2007 (Lwasa, 2010). The city has a resident population of about 2 million; its population growth rate exceeds the national average, standing at 3.9% per annum in 2014 (World Bank, 2014). Its growing population, high level of informality, and service delivery problems are typical of many African cities.

Poor service delivery is manifested in poor drainage systems, poor state of roads, fiscal problems caused by lack of a strong vision, “…human resource incapacities, political interference and poor internal control systems which are at the core of governance. These issues directly impacted on the areas of procurement, financial management and public disclosure, and subsequently affected Kampala City Council’s public image” (World Bank, 2014, p. 2). By 2015, flood events per year had increased significantly due to increased unplanned development, causing more economic losses in assets, labour time, and the spreading of water-borne diseases (Lwasa, 2016). Such flood losses and service delivery problems were identified as early as the late 90s. These triggered the central government of Uganda to rearrange administrative structures in Kampala, following reform calls by development partners (Lambright, 2014).

##### 3.1.2 | Governance rearrangements in Kampala

Municipal reforms started as early as 1997 in Kampala through the first Strategic Framework for Reform that aimed at administrative restructuring; privatisation of some service delivery; and financial and fiscal reform (World Bank, 2014). As the first phase of the Strategic Framework for Reform yielded little results, the Government of Uganda (GoU) developed a second phase coupled with a request for technical assistance from the World Bank, in order to speed up the reform process and, in turn, service delivery. To this effect, the World Bank in conjunction with the GoU and Kampala City Council (KCC) established the Kampala Institutional and Infrastructure Development Programme (KIIDP) through an Adaptable Programme Loan. This project was implemented between January 2008 and December 2017 in...
three phases. Its objective was to first strengthen institutions, laying a foundation for delivery of infrastructure in the later phases. Its targets included reducing liabilities, increasing own-source revenue, and improving service delivery.

In 2010, the GoU enacted the Kampala Capital City Act, replacing KCC by the Kampala Capital City Authority (KCCA) in response to calls for reform (Lambright, 2014). On top of KCC’s four local administration levels (LCs), KCCA’s organisational structure includes a Minister for Kampala (Lambright, 2014; Madinah et al., 2015; Muriisa, 2008; Ojambo, 2012; Onzima, 2013). There are also an Executive Director at the rank of a Permanent Secretary (instead of a Town Clerk) and a Deputy Executive Director, both appointees of the President. They are supervised directly by central government and have overriding powers over lower level structures (Stelman, 2012; World Bank, 2014). Consequently, the mayor’s role can be seen as purely ceremonial (Madinah et al., 2015). These rearrangements can be viewed as an act of centralisation that created a hybrid governance system.

3.1.3 | Bwaise III case study

Bwaise III is one of the 24 parishes under the Kawempe Division of Uganda's capital city, Kampala—a low-lying area with around 1,600 housing units on 57 ha of land. Its population is around 22,035 people constituting about 4,081 households mainly involved in informal activities (ACTogether Uganda, n.d.). The settlement is one of the 57 informal settlements in Kampala (Richmond, Myers, & Namuli, 2018). We purposively selected Bwaise III for study because it is one of the worst affected areas by flash floods in Kampala City.

The settlement also epitomises pockets of African informal settlements that are home to 37.4% of the urban population in Sub-Saharan Africa and 51.4% in North Africa (UN-Habitat, 2002). Discussing evidence on governance rearrangements and service delivery using such a case, therefore, contributes more insight into debates on governance and resilience building in such communities.

3.2 | Data gathering methods

The data mainly consist of experiences and perceptions of government, private, non-governmental, and quasi-governmental actors about the governance qualities of the KCC and KCCA administrations. The data were first collected in September 2015 via 22 interviews with experts, residents, and non-governmental organisation (NGO) staff (Table 1), transect walks, and documentary sources. In November 2018, a further 24 structured interviews were conducted to validate the initial results. Table 1 shows details of interviewees whom we selected through snowball sampling.

The interviews generated data on governance arrangements and risk framing during the KCC regime and the current KCCA regime and how the governance change influenced resource raising, planning, and implementation capacity of flood risk management measures. As already alluded to, questions to guide the interviews were adapted from the WGAF (Bressers et al., 2013). The WGAF was appropriate for guiding this research because it enabled the assessment of an innovative, hybrid system of governance without preoccupation with traditional “good governance” principles.

Other data collected were also based upon concepts in the WGAF and the conceptual framework (Figure 1). Household perceptions about floods and government flood management actions and the level of participation in community cleaning activities were generated through a semistructured questionnaire administered to 228 respondents. To explore the mitigation efforts implemented by the KCCA in Bwaise III, two transect walks were conducted: The first walk was during a clear day, whereas the second one was just after heavy rain. The walks were conducted to observe the state of garbage dumping in drainage channels that had been mentioned as a serious concern during several interviews.

Documentary sources, in the form of annual reports, ministerial reports, audit reports, and strategic planning documents from the KCCA and an NGO ACTogether, were used to understand changes in risk framing, resource raising capacity, and flood management projects including refuse collection. We also reviewed academic papers both to embed this study and to support and augment the general fieldwork findings.

To assess the government dimensions, we used the matrix of questions (Appendix S1) that generated rank data. The rank data were analysed in Excel to produce governance quality scores that were used in the scoreboard. Qualitative data were coded into themes whose characteristics were intersubjectively (Zanotti & Aquino, 2007) used to put government dimension scores in the scoreboard.

3.3 | Data analysis and validation

Data from interviews, transect walks, and documentary sources were analysed using thematic content analysis mainly looking for signals of change in the governance criteria in the WGAF (Table 2) and also in the conceptual framework (Figure 1). Changes in different dimensions were visualised in an initial version of Table 2—Scoreboard visualisation of qualitative governance context and flood management performance in Section 4.1. Data from the validation questionnaire were analysed in Excel to produce clustered column graphs comparing different dimensions in the evaluative criteria. Please refer to Appendix S1. The graphs were compared with the visualisation from our initial thematic analysis from qualitative data. Differences between results from the initial fieldwork and those from the validation survey were noted in six governance quality dimension matches in Table 2. These are the extent of actor networks; the number (extent) of policy instruments; coherence of levels and in scales; coherence of problem perspectives and goal orientation; flexibility of levels and scales; flexibility of actors and networks; and flexibility of problem perspectives. These differences caused us to revisit our interview data to look for new patterns.

The new patterns were fed into the governance quality visualisation scoreboard to produce Table 2 in the next section.
TABLE 1  Overview of interview respondents

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Type of organisation</th>
<th>Office designation</th>
<th>Purpose of interview</th>
</tr>
</thead>
<tbody>
<tr>
<td>KCCA</td>
<td>Urban governing authority</td>
<td>Director of Gender, Community Services and Production</td>
<td>Initial fieldwork</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Head of the preventive section of the public health department</td>
<td>Appointed his junior</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The Town Clerk of Kawempe division</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Physical planner at the LC IV level</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ward coordinator of Bwaise III</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ward councillor for Bwaise III</td>
<td>✓</td>
</tr>
<tr>
<td>Min of Land, Housing and Urban Development</td>
<td>Central government ministry</td>
<td>Urban development commissioner</td>
<td>✓</td>
</tr>
<tr>
<td>Uganda Prime Minister's Office</td>
<td>Executive government arm</td>
<td>Commissioner for disaster preparedness and management</td>
<td>✓</td>
</tr>
<tr>
<td>ACTogether</td>
<td>Non-governmental organisation</td>
<td>Executive Director</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Head of Department, Profiling, Enumerations and Mapping</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Administrator and Documenting Officer</td>
<td>✓</td>
</tr>
<tr>
<td>Bwaise Slum Dwellers Association</td>
<td>Civil society organisation</td>
<td>Chairperson</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Secretary</td>
<td>✓</td>
</tr>
<tr>
<td>Makerere University</td>
<td>Academic</td>
<td>Associate Professor</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Student researcher</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Student researcher</td>
<td>✓</td>
</tr>
<tr>
<td>Independent</td>
<td>Urban development consultancy</td>
<td>Consultant</td>
<td>✓</td>
</tr>
<tr>
<td>AMREF</td>
<td>Non-governmental</td>
<td>Chairperson</td>
<td>✓</td>
</tr>
<tr>
<td>Bwaise residents</td>
<td></td>
<td>Nine households</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Five households</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Five businesses</td>
<td>✓</td>
</tr>
</tbody>
</table>

4  | RESULTS

4.1  | Governance rearrangements

This section describes changes that were made in the configuration of actors, policies, and rules of the game in Kampala City administration. Because we embedded the WGAF into the conceptual framework (Figure 1), we discuss each governance dimension in connection with the evaluative criteria (Table 2; Bressers et al., 2013) but also in connection with subarrangements for governance, in this case, revenue and fiscal management, spatial planning, roads and works, and water and sanitation, as identified in Figure 1. However, because revenue and fiscal management as a subarrangement overlaps with the “resources” dimension in the WGAF, it is discussed both as a dimension and as a subarrangement.

Table 2 is a visualisation of changes in qualitative governance context as explained in Section 2.2, and how they compare with performance in flood risk management in Kampala.

Upward and downward pointing arrows indicate improvement or reduction in the governance quality, respectively. In our case, we relate the improvement or weakening of the governance regime to the implementation of flood mitigation strategies and measures, in line with the assumption that governance (re)arrangements impact on flood mitigation. A detailed description of the noted changes in the governance dimension quality is given in the sections below.

4.1.1  | Levels and scales

In terms of extent, KCCA’s governance levels and scales are largely the same as those of KCC, but the administrative authority has been...
altered. Under KCC, there were four administrative levels, each having both a technical wing and a political wing. The first and lowest was the village (LC I), which comprised about nine community representatives headed by a chairperson. The second was the parish (LC II), principally an administrative council made up of village chairpersons, a councillor on the political side, and a parish chief/ward administrator on the technical side. It was run by a chairperson and an elected executive committee, chosen from the chairpersons. The third was the division/town level (LC III), chaired by a directly elected Town Clerk and consisting of councillors from parishes, other government representatives from line ministries, and NGO representatives. The fourth was the municipality (LC IV), which comprised the executive members of affiliate divisions. From among themselves, they elected an executive committee. At city municipality level (LC IV), the Mayor chaired and worked with the Executive Committee and the council. Under KCC, local councillors made technical decisions in a system that was riddled with corruption (interview with Bwaise Ward Administrator). Under KCCA, the four lowest administrative levels were maintained but overseen by the newly created Minister for Kampala, Executive Director, and Deputy Executive Director at a new LC V level. Flooding in Bwaise III was discussed at all levels in both regimes, but the direct involvement of the Minister for Kampala increased the political weight in flood reduction and in other issues that affect the city.

The appointment of a Mayor and an Executive Director for Kampala City also boosted coherence among actors. According to the ward administrator, this arrangement "has brought sanity to the city because the directorate monitors activities of the council while the Minister monitors it." These changes yielded power in the technical wing and have created a quick avenue for the Minister to discuss issues affecting Kampala at central government level. At lower levels, the ward administrator (LC II chief) is a nonvoting member in the LC III council and is able to discuss development issues with the ward councillor and table technical issues that fundamentally need the full council's attention. To synchronise development issues such as flood management, ward co-ordination committees are chaired by the Kawempe Town Clerk. There is, therefore, an increase in trust between the technical wing and the political wing. For example, the ward administrator of Bwaise III showed a high degree of understanding and mutual dependence with the councillor in executing their tasks. Commenting on his working relationship with the councillor, he said, "... our relationship is mutual; if I have development concerns that I would want to be discussed, I speak through the councillor since I do not speak in council." This finding strengthens Madinah et al.'s (2015) finding that the new governance arrangement increased both bottom-up and top-down accountability and reduced misuse of resources. Consequently, it sped up implementation of flood mitigation measures such as widening of drainage channels.

However, the ward administrator pointed out an operational gap between the division level Town Clerk and the ward administrators under KCCA. This concern, linked with the slight difference in score on the existence of gaps in levels and scores between the two regimes, resulted in a very small improvement in the governance quality scoreboard.

Flexibility was noted in both KCC and KCCA regimes. For example, the Lubigi-Nsooba primary drainage plan was managed at city level under both KCC and KCCA, despite the fact that the most affected areas were Bwaise III and other informal settlements. By contrast, some other issues were completely dealt with at local level, for example, community cleaning campaigns that are coordinated by LC I Chairpersons as a preventive measure. However, intensity is higher under KCCA than the former regime because of more recognition of the technical wing. This has led to a waste management policy reform orchestrated by the Directorate of KCCA, resulting in behavioural change and less garbage dumping, among other changes.

<table>
<thead>
<tr>
<th>Governance dimension</th>
<th>Quality of the governance regime</th>
<th>Flood mitigation Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Levels and scales</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actors and Networks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem Perspectives and goal orientation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instruments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Responsibilities And Resources</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Colours: Red: not yet at the desired level; Orange: Neutral; Green: At/above the desired level. Arrow up: Positive trend from KCC to KCCA time; Down: negative trend; White arrow: Slight change; No arrow: no change.
4.1.2 | Actors and networks

Actors involved either directly or indirectly in Bwaise III flood mitigation include international development agencies, NGOs, KCCA, and the Buganda Kingdom. The NGOs include ACTogether, World Vision, and AMREF. Although these organisations operate more at grassroots (mainly parish) level, KCCA headquarters is their entry point for approval purposes. They have also formed a consortium to synchronise their activities. At the time of the initial fieldwork, their consortium was headed by AMREF (interview with an ACTogether official).

As noted above, the NGOs and community representatives also meet the KCCA representatives in council meetings, mainly at LC III level. In such meetings, development matters including flood mitigation are discussed. On assessing the actors and networks extent, we found that actor types and numbers did not change much from the KCC regime but networks increased because of the municipal development fora initiated by KCCA around 2015. These fora are periodic and sometimes ad hoc; for example, if much rain is expected or after very high rainfall, stakeholders are gathered for information dissemination. For example, the forum held on August 24, 2016, was attended by MoLHUD (Ministry of Lands Housing and Urban Development) Lord Mayor, Minister for KCCA, Town Clerks, KCCA Directors, Municipal mayors, URA, Municipal Development Forum presidents from the different municipalities of Kampala with their committee members, members of the National Slum Dwellers Federation of Uganda (NSDFU), Kampala Slum Transformation Initiative (KASTI) partners, Shelter and Settlement Alternatives (SSA), Environmental Alert, ACTogether, Water Aid and Uganda National Housing Cooperative Union. (ACTogether Uganda, 2016)

Different ideas are shared on how to prepare for, mitigate, and recover from floods and other issues (interview with the emergency and disaster preparedness commissioner, Prime Minister’s Office, ACTogether, 2015). All interviewees perceived an improvement in networking during the KCCA regime. In terms of coherence, we established an improvement from consultation with high interest stakeholders to consultation with both stakeholder types and a slight move in innovation and collaboration—cocreation with high interest stakeholders. Overall, this quality dimension shows a remarkable improvement.

Both regimes show flexibility, for example, by giving space for civil society organisations and NGOs to operate in Bwaise III and even lead some projects. For example, the Buganda Kingdom leads the Bulungi Bwansi (for the good of everyone) cleaning campaign, whereas ACTogether in collaboration with the National Slum Dwellers Federation are encouraging savings groups that capacitate them to put up on-site flood mitigation measures like small dykes on their properties. In the validation survey, both regimes ranked high in sharing of social capital. The only change is that there is intensity in behavioural change campaigns in the KCCA regime and more stakeholder engagement in the municipal development fora. However, there is still a need to increase household participation.

Although current flood mitigation efforts are diverse and encourage participation at all levels, as was also the case in the KCC era, the current authority also uses some top-down coercion with minimal grassroots consultation. This compromises the effectiveness and sustainability of some flood risk mitigation measures. A case in point is the Lubigi-Nsooba primary drainage channel that, after its widening, is now difficult to dredge and consequently may increase the probability of flooding in the future. Furthermore, the widened channel does not have safety barricades on its banks, creating even more hazard when it rains strongly (ACTogether Uganda, 2016).

4.1.3 | Problem perspectives and goals

Under both regimes, there was some disagreement on the causes of flooding in Bwaise III. Both KCC and later KCCA viewed informal development as a root cause of flooding. According to them, settlement in sensitive areas, coupled with illegal garbage dumping, result in increased run-off and blockage of drainage channels that eventually cause flash floods to occur (interviews with ward administrator and health department official). By contrast, respondents in Bwaise III blamed flooding on the KCC/KCCA (interview with community leader). According to him, the construction of the Northern Bypass and other developments upstream are the major causes of flooding in their area. He claimed that there was no environmental impact assessment before adoption of the Northern Bypass project, a claim supported by an opposition political activist in Bwaise III. Therefore, different problem perspectives are taken into account from a very low extent. For example, although the Health and Sanitation Supervisor for Kampala agreed that the problems of flooding in Bwaise are partly caused by the construction of the Northern Bypass, he largely blamed settlement in the swamps for the flooding problems.

Although KCCA and KCC have similar perceptions of the flood problems in Bwaise, the former has increased the level of community engagement and sensitisation on the issue. However, we should stress that by community engagement we do not imply popular participation because KCCA uses a relatively command-driven governance approach. Nevertheless, goal ambitions improved from “vote protection” under KCC to sustainable development in the current regime (interview with ward administrator). Regarding flexibility, all interviewees indicated that politics still hinders objectivity in addressing flood problems in some way. Although municipal development fora, the settlement fora, and the ward co-ordination committees provide opportunities to reassess and alter development goals, the top-down approach used by KCCA closes out different angles of viewing the flooding problem in Bwaise. By and large, this governance quality shows a slight improvement. Validation results also confirm this with 20 out of 24 respondents indicating a slight growth of opportunity to reassess goals with KCCA establishing more ambitious development goals than KCC. Moreover, KCCA pursues these goals with greater intensity.
4.1.4 Strategies, measures, and instruments

Our findings show an increase in types of measures/instruments from four during the KCC era to five during the KCCA era. Privatisation of solid waste management is the new measure, which, together with the other four, is explained below:

i. Revenue reform
The appointment of an Executive Director with revenue management experience helped in the implementation of revenue reform. An in-house, independent revenue collection directorate that relegated inefficient private revenue generation enterprises was put in place as part of the reform process. The new directorate concentrates solely on revenue collection and has three departments: revenue collection, research and analysis, and audit and compliance. Through these departments, the directorate identified a large taxpayer base and applied the 80:20 principle to identify the 20% taxpayers with 80% tax contribution. These were given their own client relations office. Moreover, educating taxpayers has led to more compliance. This, coupled with flexible payment arrangements (possibility to pay in instalments), acceptance of mobile money payments, and adoption of a digital revenue administration environment, has led to a big upsurge of tax revenue. The digital revenue environment (e-citie) automatically generates a taxpayer’s number once they make a payment and create an account that the client can access through a mobile phone. The system also reminds the client when a payment is due and flags the same for management to see and target collection follow-ups (Andema & Haas, 2017). Owing to these changes, the Ward Administrator for Bwaise III estimated an increase of 200% in tax revenue. Some sources also claim over 100% increase in 4 years of the new administration (Andema & Haas, 2017; Kompanyi, 2015). Waiswa (2015) asserts that own-source revenue increased by over 270% from UGX 28 billion in 2010/2011 to UGX 75 billion in 2015, rising from 40% to above 60% compared with government transfers, and 30% of all revenues including donor funding (Kompanyi, 2015). Part of this revenue was used in flood management and its increase raised trust from international development partners, unlocking more funding towards the cause.

ii. Privatisation of solid waste collection
As a flood preventive measure, KCCA was also able to put in place an integrated solid waste management system with assistance from the International Finance Corporation. Consequently, garbage collection also increased by 95% from 16,000 metric tonnes in April 2011 to 31,246 metric tonnes in December 2012. KCCA also increased secondary channel desilting activities due to improved revenue streams, especially in flood-prone areas like Bwaise. They also increased garbage collection by forming Community-Based collection entities with the view of forming a Savings and Credit Co-operative using garbage collecting teams (KCCA, 2013). This was confirmed by both KCCA officials and residents in Bwaise III. The principal researcher also observed extensive drainage cleaning activity in secondary and tertiary drains in Bwaise. Such efforts by KCCA also helped to create awareness among communities about the bad effects of illegal garbage dumping and the good associated with a new requirement to pave the yards. However, as previously mentioned, silting in the primary channel remains of concern.

iii. Community activities and awareness
Both regimes embraced the Bulungi Bwansi, Buganda Kingdom’s culturally based cleansing rituals, which shows the flexibility in both governance systems. However, there has been increasing sensitisation of communities under KCCA as compared with KCC (interviews with the Director of Gender, Production and Community Service, Physical planner of KCCA Kawempe division, and the Ward Administrator of Bwaise 3). As mentioned above, KCCA convened municipal development fora to generate more awareness and synchronISE development efforts. During fieldwork in September to October 2015, one such forum was held in preparation of a cyclone that was envisaged in the near future. Here, specific stakeholders were tasked to act in their capacity to mitigate flood effects. For example, the works and engineering department of the KCCA were encouraged to dredge channels, whereas civil society organisations were tasked with cleaning rubbish and raising public awareness.

iv. Spatial planning instruments and development control
Both KCCA and KCC used the same spatial planning and development control instruments in preventing and mitigating against flooding. However, the KCCA administrative framework enables more effective enforcement and integrity of the governance system. For example, both regimes used Statutory Instrument 246–1 (SI 246–1) of the Regional Town and Country Planning Act, specifically Part 1, Section 2, Subsection 1 to control development (Government of Uganda, 1951). The administrative framework created through the KCCA Act 2010 reinvigorated development control using the statutory instrument and other related instruments while promoting zero tolerance to corruption, leading to improved revenues. In turn, the frequency of development control visits increased from one per month to one per fortnight (interview with Kawempe division physical planner).

There is also a requirement for property yards close to drainage channels to be paved, in order to reduce siltation of the channel. The roads authority has moved to comply by installing perforated concrete blocks to sieve out garbage from storm water entering the drainage channels close to the main roads.

Therefore, under KCCA, instruments and strategies show more coherence and are applied with more intensity than under KCC. The Town Planner at KCCA headquarters also indicated innovations in procedures to obtain permits to build on land leased by the Buganda Kingdom, which resolved tenure security problems that previously caused illegal development. In light of this, the KCCA governance arrangement also shows more flexibility in adoption of planning and development control instruments.
v. Engineering solutions
The engineering projects to curtail flooding that were planned for Bwaise III and surrounding areas under the Kampala Master Plan included widening of the Lubigi primary channel, upgrading of secondary channels, repairing black spots on tertiary channels, and dredging and maintaining the channels. The implementation of the KIIDP was a key driver and also provided some path dependence. Although governance rearrangements were nested within the KIIDP, one can identify the impact of governance recentralisation or hybridisation in that the World Bank prioritised institutional reform in the early stages of KIIDP, as a way of creating a conducive environment for implementing the engineering measures. Before governance reconfiguration, few of the engineering projects under KIIDP were actually implemented. Consequently, KIIDP’s midterm review date was moved from April 2009 to December 2010, ultimately leading to an extension of the project by 24 months. Some key targets were readjusted; for example, works to improve the tributary secondary and tertiary channels to the Lubigi-Nsooba primary channel were dropped, whereas only 3.6 km of the primary channel was finally upgraded. The KIIDP project report cites problems such as failure of the GoU and KCCA to fulfill their financial obligations to the project, long procedures for budget approval, red tape in procurement, inadequate human resource capacity, and transition friction (from KCC to KCCA) as major causes of such delays (World Bank, 2014).

Results from the validation survey strengthen the view that the use of governance instruments and measures improved under KCCA. Eighteen respondents felt that there were opportunities to combine different instruments under KCCA compared with 13 respondents who said the same for KCC. The difference is constituted by households and businesses who indicated a negative rating for KCC administration. One of them mentioned that under KCCA enforcement is done by the national police service and municipal police service showing a one-size-fits-all approach to enforcement, which naturally combines all instruments. This signifies a degree of authoritarianism that may also detract from the gains of synergy. Owing to the two balancing views, flexibility of strategies and instruments in the scoreboard show neither an improvement nor a deterioration, but it is stable and in a good state. On the other hand, intensity increased through more monitoring and enforcement of regulations. The validation exercise also shows that with regard to implied behavioural deviation, 18 respondents (mostly local government officers, community leaders, and academics) felt that there was either unclear deviation with unclear mandate or clear deviation with unclear mandate under KCC, compared with only 10 such cases under KCCA.

4.1.5 | Responsibilities and resources for implementation

A noticeable change in responsibilities under KCCA is the reappropriation of technical tasks to the technical wing alluded to previously. In terms of extent, responsibilities and resources scored higher under KCCA than under KCC. Results indicate positive changes in clarity of responsibility and resource allocation together with monitoring and enforcement. Nineteen out of 24 respondents in the validation survey confirmed inclusion of monitoring and enforcing instruments under KCCA, and 18 respondents (mainly KCCA officers, NGO officials, businesses, and households) confirmed clarity in assignment of roles and resources compared with 10 respondents under KCC. Under KCCA, there are more resources for implementation of flood management strategies and instruments due to increased own-source revenue and a great increase of possibilities to pool resources (15 respondents in the validation exercise indicated a greater possibility of pooling of resources under KCCA—the majority being KCCA officials, NGO officials, and community leaders—compared with three respondents who indicated the same under KCC) as shown in Appendix S1.

5 | DISCUSSION

The main questions that we sought to answer were as follows: (a) How best can we assess the impacts of governance rearrangements on flood mitigation where democratic space is reduced? (b) What are the impacts of such rearrangements on flood mitigation?

By adding a flood risk performance cell on the WGAF scoreboard, and using governance dimensions and quality elements of the prereform and postreform regimes as assessment criteria for activities and measures in different municipal sectors related to flood risk management, we provide a robust methodological approach for evaluating the implications of both decentralised governance and recentralised governance on flood risk management. This adds to the work of Driessen, Dieperink, van Laerhoven, Runhaar, and Vermeulen (2012), Driessen et al. (2018), Hegger et al. (2014), and Paavola and Gouldson (2009) in two ways: first, by demonstrating that shifts in modes of environmental governance can take the form of recentralisation, which when combined with existing decentralised structures, result in hybridised regimes, and second, by providing a modified framework to evaluate such regimes.

The study established that the appointment of an Executive Directorate and Minister for Kampala empowered the technical wing of the city administration and improved both bottom-up and top-down accountability, culminating in improved revenue collection, spatial planning, waste management, and stakeholder engagement. The increase in networks through the municipal development fora and the flexibility shown by the new regime at lower levels of governance led to increased resilience building by encouraging more community cleaning activities and encouraging saving, which, in turn, culminated in increased property level mitigation measures.

The findings invoke a discussion on the successes and failures of decentralisation in African cities. Contrary to the findings of Thiel (2014), in the Guadalquivir River basin in Spain, political appointees in Kampala did not directly take technical responsibilities, but they empowered the technical wing administratively and financially. At the
centre of the decentralisation–recentralisation debate is the need to improve service delivery. Decentralisation is believed to promote popular participation, bottom-up accountability, transparency, and equity, which improves service delivery (Cheema & Rondinelli, 2007; Rondinelli, 2006), and it has been promoted by international development agencies like the World Bank for some time. On the other hand, recentralisation is seen as “good governance principles” with a consequence of poor service delivery (Kim, Evans, Scherl, & Marsh, 2016; World Bank, 1999). However, as is evident from our results, a largely decentralised KCC regime had more service delivery problems than the recentralised KCCA regime. This supports other evidence that decentralisation has largely failed to improve service delivery in Africa (Jonga, 2014; Resnick, 2014b) because of corruption at lower levels of governance and high monitoring costs at the centre.

Public administration scholars attribute this failure to the often conflicting meanings of “good governance,” which results in disagreement about the meaning of the value itself and the development dimension it has to foster (Cowell, Downe, & Morgan, 2014; Lawton & Macaulay, 2014; Mandeli, 2016; Neshkova, 2014; Oldenhof, Postma, & Putters, 2014; Perry et al., 2014). Is it equal to economic and administrative efficiency or something leading to such efficiency? Should it be applied universally or rather be contextualised to different administrative cultures? (Rothstein & Teorell, 2012). Efforts to answer these questions have raised more questions than answers. For example, Neshkova (2014, p. 65) documents “tension between economic efficiency and democratic legitimacy” in the United States. Such questions related to good governance led Perry et al. (2014, p. 27) to conclude that “the concept of good governance is both appealing and annoying.”

From the foregoing, one can conclude that, as governments are modifying governance arrangements to better manage floods, recentralisation of some functions may help to bolster efficiency. Contrary to the conventional belief that centralisation causes inefficiency, in the case of Bwaise III, sharp revenue increases and extensive flood mitigation activity was reported due to acceleration in implementation of KIIDP following the appointment of representatives of the centre.

However, questions of legitimacy (acknowledgement of upper level institutions’ right to lead and broader acceptance of strategies and measures) have been raised where the centre takes more responsibility (Alexander et al., 2016; Bevir, 2010; Matczak et al., 2015; Mees et al., 2016; Neshkova, 2014). Although Madinah et al. (2015) expressed concern that recentralisation in Kampala threatened bottom-up accountability, we argue that the high levels of corruption and illegal development before reform point to a lack of capacity in lower level authorities to ensure that politicians and local officials are accountable. Theoretically, this finding raises questions about the universal applicability of recent developments in Public Management. The use of markets and tendering for resource allocation in risk management and service delivery espoused in the NPG (Osborne, 2009) can result in corruption where central governments (principals) do not have enough resources and political power to monitor the local government officials (agents). Although NPM has led to efficiency in service delivery in some contexts, in Kampala, it has been ineffective in providing public goods, such as roads, solid waste management, drainage expansion, and maintenance. Although the NPG has been promoted as a solution to such challenges, it has not managed yet to deal with the problem of relatively weak governance systems. As we have seen, in Kampala and perhaps in other developing world cities, some form of traditional public administration with a degree of recentralisation and executive power may be more effective than decentralisation. Consequently, we argue that in the management of flooding, “good governance” must be contextualised with regard to resource availability and maturity of the administration system.

By providing evidence of flood management success, owing to hybridisation of governance systems in Kampala, our results reaffirm a growing voice in literature (Baker & Schuler, 2004; Adelekan & Asiyani, 2016; Jonga, 2014; Onzima, 2013; Porras, 2007; Resnick, 2014a, 2014b; Runya et al., 2015; Wiesel & Modell, 2014), which has noted a recentralisation trend associated with service delivery improvements in African cities. Although our claims that the relationship between changes in the governance system and flood management are clear, as evidenced by perceptions of all stakeholder types interviewed, we acknowledge that other factors might also have played a part. However, we perceive them to be secondary and therefore beyond the scope of our analysis.

6 | CONCLUSION

By applying the WGAF (Bressers et al., 2013), we have provided a methodology to assess the quality of centralised or hybridised governance regimes at the same time assessing the flood management impacts (or any other service delivery front), which can be helpful for policymakers working in areas where the principle of subsidiarity is failing to yield desired goals. Therefore, we recommend politicians and municipal officers in the global South, where the cost of monitoring lower level institutions is high, to adopt hybridised governance systems when dealing with urgent problems like flood risk. However, in doing so, they should be more flexible to allow different viewpoints. This ensures legitimacy of institutions from the centre and guarantees sustainability of risk management strategies and measures.

6.1 | Areas for further research

Further research is needed in terms of both theoretical development and empirical studies. Review studies can examine governance rearrangements in flood management from different parts of the world—identifying patterns and linking them to public administration theories. In search of broader recommendations, empirical studies can relate governance rearrangements to performance in flood risk management (as in this study), taking note of different contexts in which the rearrangements occur.

CONFLICT OF INTEREST

We declare that there are no other conflicts of interest related to this work, except that looking for reviewers from our affiliated institutions can result in picking reviewers who are familiar with our work.
REFERENCES


CMECR. (2013). Decentralisation at a crossroads territorial reforms in Europe in times of crisis. CEMR, Brussels.


KCCA (2013). KCCA at 2 years perfomance highlights. KCCA, Kampala, Uganda.


UNDP. (2009). Enhancing the contribution of weather, climate and climate change to growth, employment and prosperity, UNDP Oslo Governance Centre, Norway.


SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of this article.

How to cite this article: Chereni S, Sliuzas RV, Flacke J, Maarseveen MV. The influence of governance rearrangements on flood risk management in Kampala, Uganda. Env Pol Gov. 2020;1–13. https://doi.org/10.1002/eet.1881