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Leveraging Formal and Informal practices towards the just, resilient and sustainable urban development of Kampala

AR3U115 - Graduation Lab Urbanism Studio - Planning Complex Cities MSc Architecture, Urbanism & Building Sciences Technische Universiteit Delft

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Introduction

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Introduction to Kampala



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Image source; Author, 2015

Introduction to Kampala

Location and Urban growth





Source; KCCA ,2012.

Current trends Primacy and In-migration





Source; KCCA ,2019.

Kampala in 1985



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Image source; googleearth.com

Kampala in 2015



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Image source; googleearth.com

Current trends - Informality



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Current trends Wetland encroachment



Image source; Author, 2018

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10 year flood risk



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Population density



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Population density and Informal settlements



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Image source; Author, 2022.

Where spatial planning failure meets climate change....

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Flooding



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Flooding



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BUT Flooding is not the problem, it is the consequence....

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The problem can be traced from a critical review of Kampala's planning history

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History of Planning in Kampala

Pre-Independence - 1910-51 Kampala Planning scheme



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History of Planning in Kampala

Post-Independence - 1963-current



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History of Planning in Kampala

Conclusion

Non-implementation a problem with the planning process

planning approach/processes doesn't reflect the 'duality'
centred on Western ideals with no appreciation of the realities on ground

-no collaboration with the existing informal processes

Spatial segregation a problem with the planning outcome

- spatial segregation inherited from colonial times continues to persist, with little to no input from formal planning



Image source; KCCA, 2010.



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Informal and formal practices work parallel to each other, leading to conflicting and uncoordinated efforts towards tackling the city's urbanisation challenges.



How can *a strategic framework* combining both the *formal and informal practices* lead to

the *effective planning implementation* for a sustainable and flood resilient Kampala?

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Sub Research Questions

Formal practices

1. What formal planning practices on flood resilience in wetlands exist in Kampala?

Informal practices

2. What informal practices on flood resilience in wetlands exist in informal settlements in Kampala?

Combined

3. How can the informal practices be combined with formal practices?

Methodology

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Existing Theories



Image source; Author, 2022.

Existing Theories



Image source; Author, 2022.

Theoretical Framework



Image source; Author, 2022.

Why the Pattern Language

Pattern

Pattern Field



Image source; Bruin, 2010.

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Image source; Bruin, 2010.

Conceptual Framework



Image source; Author, 2022.

Methodology



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Image source; Author, 2022.

Methods





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Combined

SRQ 3

Informal Practices

How can the informal practices be combined with formal practices?

Workshops with the community representatives and city authorities

 \checkmark

Workshop

ITERATIVE PROCESS

Image source; Author, 2022.

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Research focus

Intersection of issues

Nakivubo Wetland



Image source; Author, 2022.

Image source; Author, 2022.

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Research Focus



Nakivubo Channel



Image source; KCCA , 2010.

Image source; Author, 2022.

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Research Focus

Plans for a Central Urban Park

Expansion of Kasanvu Informal settlement





Image source; KCCA, 2012.

Image source; Author, 2019.

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Answering the Questions

Formal practices

1. What Formal planning practices on flood resilience in wetlands exist in Kampala?

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Answering the Questions

Institutional analysis

1. What are the Key institutions concerned with Wetland Management in Kampala?

2. What are the Key Policy documents governing wetland management in these institutions?

3. Which are the **repeated/common actions** or recommendations put forth in the documents?



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and demonstration purposes; Introduce high value animals and crop varieties -some of the enterprises to be demonstrated and which the youths will be supported to adopt include; greenhouse farming, hydroponics vegetable and fodder production, aquaculture, piggery, poultry, mushtroom production, kitchen gardening and briquette making; Promote modern agricultural technologies ideal for urban farming; hment of value chains linking farmers to the urban m

tock foods f





Slum upgrading projects

Detailed Neighbourhood Plans

Connected green spaces

Upgrade of drainage channels

Wetland conservation and Management Strategies

Agriculture Resource Center







Kampala Sanitation Project

The high rate of urbanization in many African cities sulted in a big gap b ce of this gap is seen in the high incidence elated diseases reported in the city, especially the informal he urban poor. Currently the sewered area of Kampala serves about in covering the Central Business District and the affluent areas, 92.7%. inhabited by a large p or the drinking water supply of Kampala.

o the deterred investment in sanitation and compounded the sanitation Kampala. The Bugolobi Sewage Treatment Plant, which is the main tre I reamplate the Digotout service reaction in rank which is the fraim designed to a samplate is currently not capable to complying with intrinst and colliform removal standars urthermore, the location of the plant is such that low lying areas are drained by a series phons and through pumping stations. Experience has shown that only about 55% of t wavage through the low level system reaches the BSTP. Owing to operational problem equent blockages of the siphons, low operation of the pumping stations, the rest of t ewage is discharged untreated into the environment.

wage is discharged understanding achieves and the second s ractures are very evident in namipal especially along the towardcome residents. These is even in the high incidence of similation related fillnesses such as diamhoea, cholera e idicating the need for urgent improvement to match socio-economic and environmen-eeds of the people. Improving the sanitation condition of the people has a direct impr in their health: reduces morbidity and mortality caused by sanitation related illness ases productivity through a healthier population, increases child education leve nrough reduced d

The quality of public sanitation is still in a sorry state and then Inequality or puties can taken to be solution as only state and the time of a sensor back or waterious severage systems. while the rest use on-site or collective canabians facilities were when a when systems, while the rest use on-site or collective canabians facilities were when a severage by statem with a Social services and inclusion Project

sewerage Corporation and other agencies undertake the follow to its unique needs.

natural resources. (UNIPCC 2007). Whereas Kampala has remained largely exempt from natura disasters, given a range of geographic factors (land locker and in an area not heavily affected by major weather-relater natural disasters), research evidence suggests that Kampala in line with the East African States could be affected by increasing The wind the cast intra states could be an ected by increasing changes to weather patterns in the future. These could ris from increased temperature and rainfall. Increased rainfall events may lead to greater risk of urban flooding, but may als provide opportunities for water harvesting. The poor will be disproportionately affected by climate change, and related risk such a flooding in what share and dispurities of urban eccenary.

Climate change Climate change is driving multiple crises across the globe and undisputed scientific evidence indicates that climate change is an inevitable part of our present reality. It is recognised that cities and their populations will be disproportionately affected by climate change in the future, and will have to allocate time, human capital and financial resources to develop

mitigation and adaptation responses. Moving to a low-carbon economy means more than just becoming energy-efficient. It means producing goods and services that are not resource intensive. The net impact would reduce carbon emissions. When we reduce carbon emissions, e mitigate climate change, but we also become more resource-secure, as we save scare



Mitigating and reducing climate change

Mechanisms to mitigate and reduce climate change (such as, in terms of the latter, a transition ; to a low-carbon economy), are both key elements of a climate change strategy. Integration o isi to a low-carbo ^{es.} climate change objectives into various policies and plans, in particular the City's energy policy ^{tork} and transport policy, is critical, if we are to play our part in this global effort. Mechanisms ^{Be} that will be considered for implementation at the City level to reduce climate change and to ^{Be} mitigate the risk include the following:

KCCA is proposing to introduce solar panels at all its installations as a way of encouraging the use of alternative energy and reducing on energy cost.
 Developing of disaster management plans in different areas of the City;
 The development of a new system for the evaluation and the rick management of times to hance.

the risk management of climate change; Undertake to plant over 500,000 trees by FY 2018/19 Undertake a comprehensive flood risk assessment and developing new 'natural systems' to minimise the impact of urban flooding of urban flooding Encouraging of non-motorised transport, by providing cycle and footpaths that are safe and shaded, and encouraging low-volume non-motorised public transport; Improving local food self-sufficiency through urban agriculture schemes, that makes use of resource-efficient restorter.

methods; pment of emergency strategies for dealing with The deve the adveropment of emergency strategies for dealing with the aftermath while ensuring these strategies are backed

up with resources Introducing local renewable energy networks an products in new (and where feasible, existing) residential developments, to reduce reliance on electricity and wood energy. KCCA shall endeavor

to promote the use of solar energy and eco-stoves and other environmentally friendly

The social fabric in the city is undergoing constant rapid transformation as a result of the higher of government, colleague in libraring to the voice of stakeholders in a server people migrate to the city, a city in which many residents are already in need of assistance and aid. As in any other city, Kampala requires a community life, tailor to to is unique needs.

Sewerage Corporation and opter agencies undertake the follow Construction and opter analization of more free public Construction of VIP toilets in City Schools and Health Cent Statemion of VIP toilets in City Schools and Health Cent Statemion of VIP toilets in City Schools and Health Cent Statemion of VIP toilets in City Schools and Health Cent Statemion of VIP toilets in City Schools and Health Cent Statemion of VIP toilets in City Schools and Health Cent Statemion of VIP toilets in City Schools and Health Cent Statemion of VIP toilets in City Schools and Health Cent Statemion of VIP toilets in City Schools and Health Cent Statemion of VIP toilets in City Schools and Health Cent Statemion of VIP toilets in City Schools and Health Cent Statemion of VIP toilets in City Schools and Health Cent Statemion of VIP toilets in City Schools and Health Cent Statemion of VIP toilets in City Schools and Health Cent Schools and H directing investment and implementation of these services

The project will focus on the following project components:

a. Sports development and Sports facilities construction

Kampala requires significant improvement and investment in its sport and sports facilities order to meet current and future needs. Organized sports activities in general are quite ^c limited in the City due to limited resources. Lack of funding prevents the development of ccced in sustaining human and econ-biblity is often viewed as an aftertho. An adequate, more diverse and modern public sporting infrastructure. At present, the open scholden, if Kampala is to reality where this mir fields in the city in which sporting events take place serve as the only communal open space, faced demand a reality where this mir. ar and are thus used for a range of public sporting and other collective activities.

Table: Projected Demand for Sports Facilities Area in Kampala

	Stadia & Sports Centres (Ha.)	Local Sports Fields (Ha.)	Golf Courses (Ha.)
CCA	30	190	68

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Upscale the Kyanja Agricultural Resource Centre to suppot youyj em

The NextGen-Ka

Formal practices on Flood resilience in Wetlands

Natural flood mitigation systems

The NextGen-Kampala initiative shall be aimed at giving the 18-35 year olds a how they want to shape the dty into a great place for us all to live, work and play. Kampala shall be a platform for the young, passionate, community-minded indivio are willing to look into the future, create a city that attracts and gives a voice to the start of the start

Upscale the Youth employment Services Bureau as a Business Processing Centre to create and harness opportunities associated with outsourced employment opportunities. The Ner-Ser platform shall be used to support the Business process Outsourcing and enhanced interaction between employers and youth seeking employment. Considerations shall be made on the Involuction of employment Service Bureaus ad huldion level.

Set up a platform for Youth volunteering to City Development - Collaborate with development partners to implement volunteer initiatives such as "I-Serve" (connecting university students to volunteer in bettering KCCA)

Increasingly create linkages and synergies with financial institutions to enable youths access funding for innovation and enterprises growth

acilitating meaningful stakeholder collaboration, participation and engagem-participation of residents in City governance issues is critical as rooted in KCC Act community empowerment arrangements, characterised by involvement of all oful input for a pro-active and resp



KCCA cannot function without an informed view of the realities and needs of all the stakeholders it serves – and it cannot be effective in delivering true value without their rticipation, and the active use of partnerships. As evidenced through the p

· Building platform for participatory planning and budgeting - with focus placed or holders, alongside a recog

Public Citizen accountability engagement program (Barazas)

Conduct citizens satisfaction surveys Introduction of the KCCA Radio and community newspapers – as platforms for continued engagement with the City residents Support the establishment of Multi Agency Action Forums (MAAF) at community level as

tools for transparency and accountability for results. Creater civic education and opportunities for mutual learning. There is an increasing need for greater participation by citizens and residents, in terms of both the resolution of their own problems, and their role in serving as responsible citizens – and understanding and delivering on their rights and duties in this capacity. Waste management Initiatives

Sanitation projects

Co-ordinated community initiatives

Build environmental sustainability

Disaster Management Plans

Participatory planning platforms

Youth employment agencies



16.8 New Employment Centre (Industrial Area Precinct) PPDP

Precinct) PDDP In proximity to the existing and new CBD there is a large area which nowadays contains an industrial zone. These areas is located in a very attractive and accessible area which has greater potential than serving as a low-tech industrial site. Under the assumption that the existing Nitional water and severage treatment centre which is located within the industrial zone will be relocated in the near fiture, the entire site can be relevelyeded. With the development of the wetfand mer the edge of the industrial zone as an urban park, the entire area can be uggraded. If sedereloped in a higher density and with appropriate infinituruture the area can serve as a new employment centre for flowsmals and become an important part of the city centre. The new employment centre should be developed in coordination with the development of the new CBD as the two sites are both physically and functionally limbed.

The consultant recommends the New Employment Centre receive a PPDP as part of the City Centre Quarter for redevelopment of the area as a modern employment 3. Lubia and Lubaga Precime 3. Lubia and Lubaga Precime

16.10 New Commerce and Service Centre Pilot Project

3. Lubia and Lubaga Precincts

SDP
A main component of the KSPA and KCCA structure is the creation of a
hierarchy of focal service centres. The local service centres will be distributed in a
manner ensuing that every point in the KCCA will have access to a service centre system will be divergence and services along main roads through foca
quarters public services, commerce, and emergency services in an organized an
accessible manner. Each centre should receive it own SDP.
The working the mathematic the service centre sould constante an alternative
accessible manner. Each centre should receive it own SDP.
The working the mathematic the service centre sould constante and services along main roads through foca
quarters public services, commerce, and emergency services in an organized an
accessible manner. Each centre should receive it own SDP.
The working the service contres and service centre service for the present and
the present service and emergency services in an organized an
accessible manner. Each centre should receive it own SDP.
The working the service and emergency services in an organized an
accessible manner. Each centre should receive it own SDP.
The working the service and service centre service for the service and service for the service for the service and service for the service and service for the service for th The consultant recommends three New Commerce and Service Centre Pilo inhabitants, efficiency and economy in the process of development and Projects be developed in two stages: 1st stage: 1. Buriga Precinct Pilo inhabitants, efficiency and economy in the process of development and improvement of communication. Every Precinct/Neighborhood shall have a Physical Development Plan. The PPDP will address all precinct planning layers.

The consultant recommends four Precinct/Neighborhood Physical Development Pilot Plans be developed in two stages: ¹⁴ stage: 1. Lubia Precinct. 2nd stage: 2. Banda Precinct 3. Busega Precinct

4.Bogolobi-Luzira Precinct



mpala today lacks organized green open spaces and parks. Though some urbar

16.3 Lakefront SDP arks do exist (eg beg off course) its far from enough to asticly the needs growing city One of the natural resources that do exist within the city as One of Kampala's landscape resources with the greatest unfulfilled potential is the paces are the wellands. The wellands, however, are under the threat of the lakefront as a chement and do not currently serve the city to their full potential. The recreation, business and service centre, through proper drainage and design, williamt propose transforming the wellands within the city boundaries to a help protect the lakeshore and stop encroachment and created a mixed use area; of urban parks which will function as the city's green system. help protect the lakeshore and stop encroachment and created a mixed use area; of upon parks which will function as the city's green system. The Lakefront development will develop Kampala as a Lakefront city and connectprent of the wetland areas as urban parks will allow the preservation of the lake to the liner City. The Lakefront will combine nature and public service; stlands role in the cological system while eliminating the problems that and form a link between the natural and the urban. The two will have an importand to their location within the city. The stans of the wetlands as urban role in the wellbeing of the city's inhabitants by offering them a green open space and recreational area as well as encourage tourism. The consultant recommends the Lakefront area be declared a Special Planning The wetlands which are located in proximity. Zone within the KCCA and have a PDP developed for the entire area (see map). The transmission of the areas of wetlands within the KCCA one area was chosen for development as a Central Urban Park. The wetlands within the KCCA one area was chosen for development as a Central Urban Park. The wetlands is located in Quarter 3, near

i: Kampala's Hills er oom uroan and natural tocal points. The following Map 122: Lakefront SDP





Map 123: Central Urban Park SDP

Map 77: Green System and Lakefron



development as a Central Urban Park. The wetland is located in Quarter 3, near Boglobi and Luzira, its edge reaching the area designated to become a new occupation centre. This wetland was chosen due to its substantial size, its proximity to the city centre, and its accessibility to the Lake Victoria shoreline. The project is complementary to the development of the Lake Victoria shoreline as a Lakefront. The Central Urban Park will have an important role in the wellbeing of the city's inhabitants by offering them a green open space and recreational area as well as encourage tourism. The park will offer a green open space for public use within the KCCA including facilities for recreation, sport and culture. The park development will be consistent with environmental regulations and include comprehensive drainage planning to ensure the protection of the ecologic system.



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es, parks and lakefront





Formal practices on Flood resilience in Wetlands

Linear Lake front system

Open Spaces and Urban Parks

Central Urban Park

Employment and service centres

Ministry of Water and Environment		al environment committ wetland resources in its
	4.2.5 Promoting Urban Tourism In Kampala (3) The spec	ecific functions of the Lo
) ensuring that any activ les not affect the water le
	cultural and religious tourism, is significant but has not been exploited, m) regulating activities wh hing, swamp adage gard
	supporting infrastructure still very limited. The vast bulk of Ugandans ar) advising the Authority,
X44	these facilities, while at the same time the tourists and visitors to oganda jus	area a "protected wetlar
(📀 NFMA 🥪 🔪	Kampala generally staving in the Lity for a given period of time and not ta) issuing local guidelines
National Environment Management Authority	(1) A lead agency shall prepare environment action plans for	ovisions of these Regulat with the approval of the
		a wetland or an area wit
Pour Anna	(1) The relevant lead agency shall, in collaborati (0)) declaring that a wetland generation;
SUSTAINABLE DEVEL	shall be reviewed every two and a half years. (h)) formulating bye-local a
	(i) State	performing any other du atute.
	(3) An urban or district council shall prepare an urb environment action plan. (2) Government or a local government shall not rease ou otherwise 6. Technical Committee on Biodiversity C	
		Jonservation
Department of wetland	(4) The environment action plan made under st following (1) The Technical committee on Biod shall— (1) The statute shall be responsible	
management	(a) be prepared every five years and reviewed every five years and	and one of a load ag
	A lead agency	y shall—
		lan, regulate and vithin its mandate
Policy Planning and	(c) take into account village, parish and (b) ca	arry out strat
enforcement management	(a) reviewing the action of the second secon	ccordance with s repare an enviro
	(II) The traditional uses of wetland resources referred to in xecutive Direct(subsection (10) include-	ection 45;
	(a) harvesting of papyrus, medicinal plants, trees and reeds; (d) pu	repare the state o ection 46;
ACTS	(6) The Minister may on the recommer other than weirs; 1e Authority to (e) un	indertake envir
SUPPLEMENT No. 2 7th March, 2019	in consultation with the lead agency, by st (d) hunting subject to the provisions of the Uganda Wildlife Act.	nvironment asse
ACTS SUPPLEMENT		nsure that any act s in compliance v
to The Uganda Gazette No. 10, Volume CXII, dated 7th March, 2019 Printed by UPPC, Entebbe, by Order of the Government.	(7) A declaration made under subsection (6) shall state (g) in	mplement the de
	7. Functions of district and environment committees	he segment of en eport on progress
Act 5 The National Environment Act 2019	(a) a for the former of the fo	or the execution nanagement with
THE NATIONAL ENVIRONMENT ACT, 2019	👔 👔 (1) The District Environment Committees shall be responsi 👘	inancial year; and
Section ARRANGEMENT OF SECTIONS	co and advising District Councils on all aspects of wetland res (i) in	mplement and en
Pakt I—Preliminary.	(8) A fu 55. Restrictions on the use of wetlands.	
	and national in importance, lanoscape, natural of curtural neuroge of courisus purposes (1) A person shall not, without the written becapet using in accessible to the state of the state o	
	in which the following activities may be permitted— (a) research; (a) research; (a) restance of the following activities of the following act	.umonty —
	(b) tourism; and (b) erect, construct, place, alter, exte	end, remove or
The National Environment (Wetlands, River Banks And Lake Shores	(c) restoration or enhancement of the wetland.	
Management) Regulations, No. 3/2000	(9) A partially protected wetland shall be an area in which the that has or is likely to have an adve	
(Under section 107 of the National Environmental Act Cap 153)	regulated activities specified in Schedule 6 may be permitted. (d) deposit in, on or under any wet	tland any substa
STATUTORYINSTRUMENTS	(10) A wetland subject to conservation by the local community manner that has or is likely to have shall be an area in which a person may carry out traditional activities wetland;	e an adverse effe
2000 No.3.	referred to in subsection (11), subject to such restrictions as may be	wetland in a may
Part I: Preliminary.	imposed by the lead agency. 56 56 animal or its habitat; or	se effect on any
1. Citation.	34. Environmental impact assessment. (f) introduce any alien plant or animal	al in a wetland.
These Regulations may be cited as the National Environment (Wetlands; River Banks and Lake Shores Management) Regulations, 2000	(1) A developer desiring to conduct a project which may have a significant impact	
2. Interpretation.	on a wetland, river bank or lake shore, shall be required to carry out an	
In these regulations, unless the context otherwise requires -	environmental impact assessment in accordance with sections 19, 20 and 21 of the Act.	
"agriculture" means all farming activities including cultivation, agroforestry, bee keeping, livestock	0	
management and aquaculture;	Cap. 269.	
"alien specie" means any specie of a plant or animal whose natural range does not or did not in the past exist in a specific part of Uganda or the whole of Uganda;		

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nittee shall be the implementing organ in conserving and its area of jurisdiction. Lower Local Government Council includes -

ctivity undertaken within the catchment area of a wetland er level of the wetland;

which may include supply of water for domestic purposes, ardens, grazing, papyrus harvesting to ensure sustainable

rity, after the prior approval of the District Council, to declare vetland" in accordance with these Regulations;

h activities in a protected wetland; nes and directives for the better carrying out of the ulations and ensure wise use of wetlands;

the district environment officer, under directing that an sessment be carried out on a project that involve the use within ten metros of the edge of a wetland;

tland be closed from some or all activities for purposes of

al and lows on the proper management of wetlands; and r duty assigned to it by the Executive Director under the

on.

Conservation established under section sing the Board and the Executive agency.

nd manage the segment of the environment late;

rategic environmental assessments in th section 47; vironment action plan in accordance with

e of environment report in accordance with

avironmental inspections and review assessments and environmental audits in the this Act and any other applicable law; activity undertaken in its area of jurisdiction with this Act;

decisions of the Authority with respect to environment under its mandate;

ress quarterly and account to the Authority ion of its role in relation to environmental within three months after the end of the and

enforce the provisions of this Act.

ities with the

the relevant

nsuring public awareness d r demolish

ny wetland; iting to conservation and

he wetland; stance in a effect on the

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Formal practices on Flood resilience in Wetlands

Environmental Action plans

Local Community Conservation

Research and tourism activities

Habitat for flora and fauna

Technical committee on Biodiversity conservation

District Environment committees

Environment officer

Strategic environment assessment

Interviews



Image source; www.kcca.go.ug/news.

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Highlights

- **1.** Institutional capacity gaps
- 2. Overlaps between departments
- 3. Minimal Coordination (sectors operate separately e.g NEMA and KCCA)
- 4. Planning is not prioritised
- 5. Implementation strategies not included
- 6. No one on ground to check/implement

Local Governance structure in Uganda



Image source; Jones et al., 2016 (Re-adapted by author 2022)

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Institutional mapping



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Framework



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Vision of formal practices





Image source; Author, 2022.

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Answering the Research Questions

Informal practices

2. What informal practices on flood resilience in wetlands exist in informal settlements in Kampala?

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Informal Practices

Kasanvu and Kitintale informal settlements



Image source; googleearth.com.

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1. What practices can be observed from Kitintale and Kasanvu informal settlements?

2. At what scales do these practices occur?

3. Aside from the spatial, in what other **dimensions** do these practices exist?

Informal Practices



Image sources; Author, 2022.

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Informal practices on Flood resilience in Wetlands

Chanel street	
Acces bridges over drains	
Street drains	
Community open grounds	
Waste filters	
 Raised floor level	

Informal Practices



Image sources; Author, 2022.

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Informal practices on Flood resilience in Wetlands

Waste recyling

Brick making

Urban Agriculture

Centralised service point

Urban green space

Water harvesting



Network of Public Spaces

Kasanvu Informal Settlement

Kitintale Informal Settlement



Image sources; Google earth (Re-adapted by Author, 2022).

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Scales of informal practices



Image source; Author, 2022.

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Dimensions of informal practices



Political function

9-Youth groups

Social function

- 8 Church
- 7 Arts Centre
- 6 Skate Park

Economic function

- 5 Brick making
- 4 Waste recycling
- 3 Urban farming

Spatial function

- 2 Streets
- 1 Open grounds













Image source; Author, 2022.









Framework of Informal practices



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Vision of informal practices





Industries Wetland communities

Wetland

Channel

Image source; Author, 2022.



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Answering the research question

Combined

3. How can the informal practices be combined with the formal practices?

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Combined Framework



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S		POLICIES		INITIATIVES	ON GROUND
	Ministry of Water and Environment	NEAP	National environment action plan	CSS	Community social space
	Ministry of Kampala and Metropolitan affairs	CEAP	City environment action plan	WR	Waste recyling
	National Environment Management Authority	DEAP	Division environment action plan	BM	Brick making
	Kampala Capital City Authority (KCCA)	ZEAP	Zone environment action plan	CWP	Centralised water points
	Technical Wing	GOALS/ ACT	FIONS	СТ	Communal toilets
	Directorate of Public Health services and Environment	NFMS	Natural flood mitigation systems	COG	Communal open grounds
	Lead Agency	WUP	Wetlands to urban parks	SAD	Streets as drains
	Environment Officer	CGS	Connected green spaces	ABD	Access bridges over drains
	Environmental Management Unit	ESUP	Environmental slum upgrading projects	WFD	Waste filters on drains
	Department of Public Health and Environment	RTI	Research and Tourism initiatives	SAC	Street along channel
	Secretary for Production and Environmental Protection	WHF	Wetland Habitat for flora and fauna	OSBH	Open Spaces between houses
23	5	СТР	Community Training programmes	EFL	Elevated floor level
	Community leaders	UAS	Urban Agricultural Schemes	AR	Animal rearing
	Shop keepers	UDC	Upgrade of drainage channels	GAL	Garden/ Agriculture lots
	Attendants	WMI	Waste management initiatives		
	Residents	SP	Sanitation projects		



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63 The New(In)Formal



64 The New(In)Formal



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The Framework



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S		POLICIES		INITIATIVES	ON GROUND
	Ministry of Water and Environment	NEAP	National environment action plan	CSS	Community social space
	Ministry of Kampala and Metropolitan affairs	CEAP	City environment action plan	WR	Waste recyling
	National Environment Management Authority	DEAP	Division environment action plan	BM	Brick making
	Kampala Capital City Authority (KCCA)	ZEAP	Zone environment action plan	CWP	Centralised water points
	Technical Wing	GOALS/ ACT	FIONS	СТ	Communal toilets
	Directorate of Public Health services and Environment	NFMS	Natural flood mitigation systems	COG	Communal open grounds
	Lead Agency	WUP	Wetlands to urban parks	SAD	Streets as drains
	Environment Officer	CGS	Connected green spaces	ABD	Access bridges over drains
	Environmental Management Unit	ESUP	Environmental slum upgrading projects	WFD	Waste filters on drains
	Department of Public Health and Environment	RTI	Research and Tourism initiatives	SAC	Street along channel
	Secretary for Production and Environmental Protection	WHF	Wetland Habitat for flora and fauna	OSBH	Open Spaces between houses
23	5	СТР	Community Training programmes	EFL	Elevated floor level
	Community leaders	UAS	Urban Agricultural Schemes	AR	Animal rearing
	Shop keepers	UDC	Upgrade of drainage channels	GAL	Garden/ Agriculture lots
	Attendants	WMI	Waste management initiatives		
	Residents	SP	Sanitation projects		

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Workshop

Practices to Patterns

PATTERN



















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Workshop

Stage 1 - Prioritising patterns

Explaining the process



Image source; Author, 2022.



Workshop

Stage 1 - Prioritising patterns

Forming two teams



Image source; Author, 2022.


Stage 1 - Prioritising patterns

Translating



Image source; Author, 2022.



Stage 1 - Prioritising patterns

Voting



Image source; Author, 2022.



Stage 1 - Prioritising patterns

Voting



Image source; Author, 2022.



Stage 1 - Prioritising patterns



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Stage 2 - Identifying areas where patterns can be implemented

Building a shared vision



Image source; Author, 2022.



Stage 2 - Identifying areas where patterns can be implemented

Building a shared vision



Image source; Author, 2022.



Stage 2 - Identifying areas where patterns can be implemented

Building a shared vision



Image source; Author, 2022.



Stage 2 - Identifying areas where patterns can be implemented

Building a shared vision



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Stage 3 - Reflection and Discussion

Feedback on Workshop and patterns



Image source; Author, 2022.



Stage 3 - Reflection and Discussion

Feedback on Workshop and patterns

1. Were the workshop instructions clear and understandable?



3. Did you understand the results /output of the workshop?



2. Were you able to follow all the sessions of the workshop?



4. Were you able to freely express yourself in the workshop?



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5. Did you enjoy the workshop?



2. Which was your favourite stage of the workshop?



- **Stage 3 Reflection and Discussion**
- **Feedback on Workshop and patterns**

Points of improvement

- -Clearer Imagery
- -Abstract Images for formal patterns
- -Simpler descriptions
- More representatives from the formal institutions
- -Alternative language





Sketches

Icons

Images

P5 Pres

PATTERN CARD LAYOUT



Image sources; Author, 2022.

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PATTERNS		SOCIO-ECONOMIC PATTERNS		SPATIAL PATTERNS	
	National environment action plan	CSS	Community social space	NFMS	Natural flood mitigation systems
	City environment action plan	WR	Waste recyling	WUP	Wetlands to urban parks
	Division environment action plan	BM	Brick making	CGS	Connected green spaces
	Zone environment action plan	ESUP	Environmental slum upgrading projects	COG	Communal open grounds
	Directorate of Public Health services and Environment	RTI	Research and Tourism initiatives	SAD	Streets as drains
	Lead Agency	WHF	Wetland Habitat for flora and fauna	ABD	Access bridges over drains
	Environment Officer	СТР	Community Training programmes	WFD	Waste filters on drains
	Environmental Management Unit	UAS	Urban Agricultural Schemes	SAC	Street along channel
	Department of Public Health and Environment	GAL	Garden/ Agriculture lots	OSBH	Open Spaces between houses
	Secretary for Production and Environmental Protection	WMI	Waste management initiatives	EFL	Elevated floor level
	Community leaders	SP	Sanitation projects	UDC	Upgrade of drainage channels
	Shop keepers	CWP	Centralised water points		
	Attendants	СТ	Communal toilets		
	Residents	AR	Animal rearing		

Spatial Patterns

















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Socio-economic patterns



























Political Patterns



















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ТЗ

Lead Agency

T2 U3





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Guiding principles



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SOCIO-ECONOMIC

Synergize Environment Institutions

Lead Agency

Environment Officer

- Environmental Management Unit
- **Directorate of Public Health** services and Environment
- Department of Public Health and Environment
- **Secretary for Production** and Environmental Protection

Integrate Environment Action Plans

- National environment
- action plan
- City environment
- action plan
- **Division environment** action plan
- Zone environment action plan

Custodians over public space

- **Community leaders**
- Shop keepers
- Attendants
- Residents

Upgrade Wetland Communities



Socio-economic activities in open space

CSS	Community social
	space
WR	Waste recyling

Brick making



BM

Centralise Sanitary facilities



Communal toilets

SPATIAL

Wetlands with a function



Leave room for water



Continuous mobility



Streets as drains

Connect green spaces



Connected green spaces

Demarcate settlement boundary



Street along channel

Versatile drains



Access bridges over drains

Guiding principles







Integrate environment action plans



Social economic activities in open space





Custodians over public space







Demarcate settlement boundary



Using the principles



2. Expand the patterns

3. Integrate existing Frameworks

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Spatial Vision for Nakivubo Wetland



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Using the principles



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Using the Framework



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SPATIAL

WFD

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Leave room for water

Secretary for P	roduction
and Environme	ntal Protection

Integrate Environment Action Plans

Zone environment action plan

Community leaders

Shop keepers

Residents

Upgrade Wetland Communities

Environmental slum upgrading projects Urban Agricultural Schemes Upgrade of drainage channels

Socio-economic activities in

Community social space Garden/ Agriculture lots

n tection	COG	Communal open grounds
	OSBH	Open Spaces between houses
	EFL	Elevated floor level

Waste filters on drains

Implementation



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Using the principles



Using the Framework



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Centralise Sanitary facilities

Synergize Environment Institutions

Lead Agency

- Environmental Management Unit
- **Department of Public Health** and Environment
- **Secretary for Production** and Environmental Protection

Integrate Environment Action Plans

- National environment
- action plan
- City environment action plan
- **Division environment** action plan
- Zone environment action plan

Custodians over public space

- **Community leaders**
- Attendants

- Community social space Waste recyling
- **Brick making**
- Urban Agricultural Schemes

CWP	Centralised water points		
СТ	Communal toilets		
SPATIAL Wetlands with a function			
vvetianus v			
	Natural flood mitigation systems		
WUP	Wetlands to urban parks		
RTI	Research and Touris initiatives		

'ks and Tourism initiatives Wetland Habitat



Implementation



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CONCLUSION

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Conclusion

Answering the Research Question

How can a strategic framework combining both the formal and informal practices lead to the effective planning implementation for a sustainable and flood resilient Kampala?

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Conclusion





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Conclusion

Potential Obstacles and points for further research

- Assumes the existence of formal structures-institutional gaps that need to be filled or reconciled

- Assumes that the 'social rules' that organise informal communities are the same - dynamics of informal communities differ from one place

- Where to begin? - Framework doesn't clarify which stakeholder or actor kick starts the process

-Doesn't consider other intermediary actors such as NGO's and the Private sector who also play a key role in a project implementation

Reflection



20/07/2011

КРDР

Research Project

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thank you for listening

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