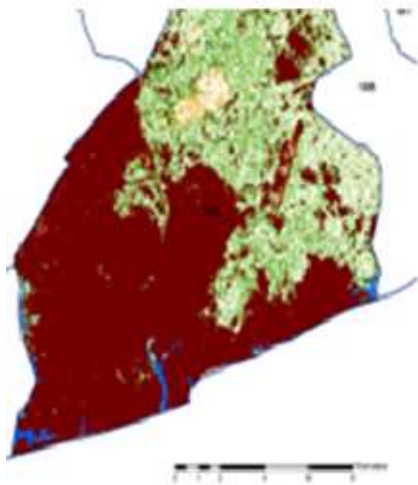
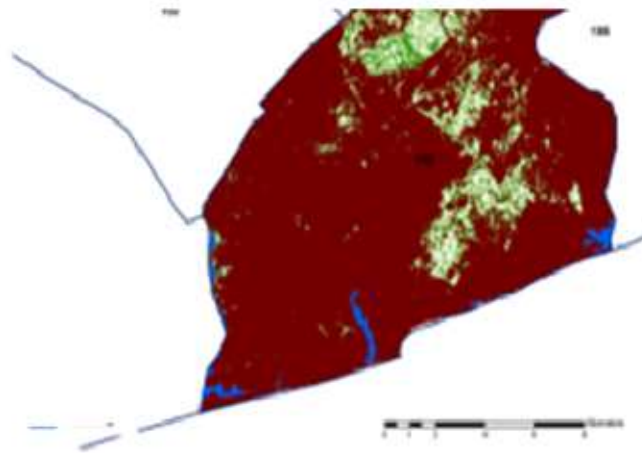


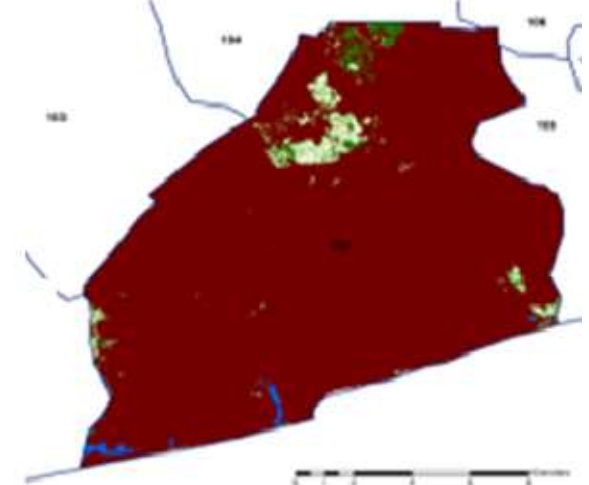
Flood Risks, Scale and Policy Coherence in Accra, Ghana



Land Use Cover 1990



Land Use Cover 2000



Land Use Cover 2010

Delali B. Dovie

Research Scientist, University of Ghana, Ghana

Email: dbdovie@rips-ug.edu.gh

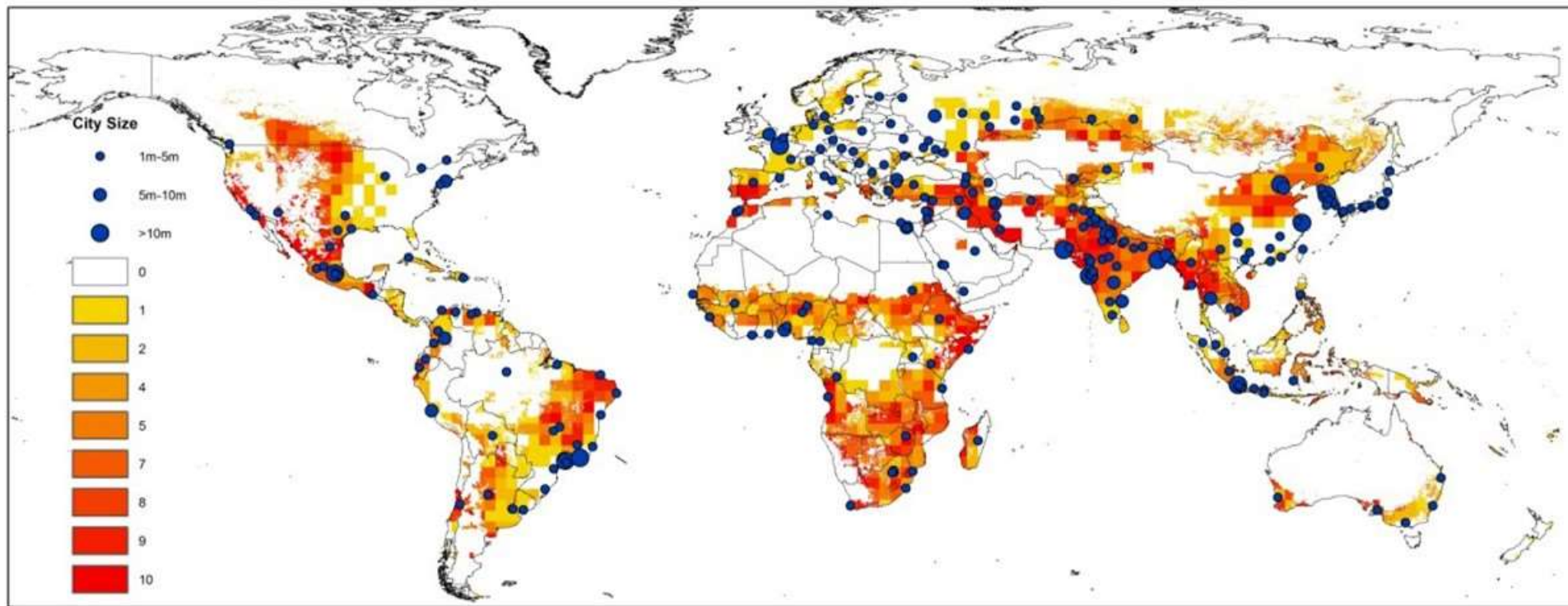
June 28, 2019

Order of Presentation

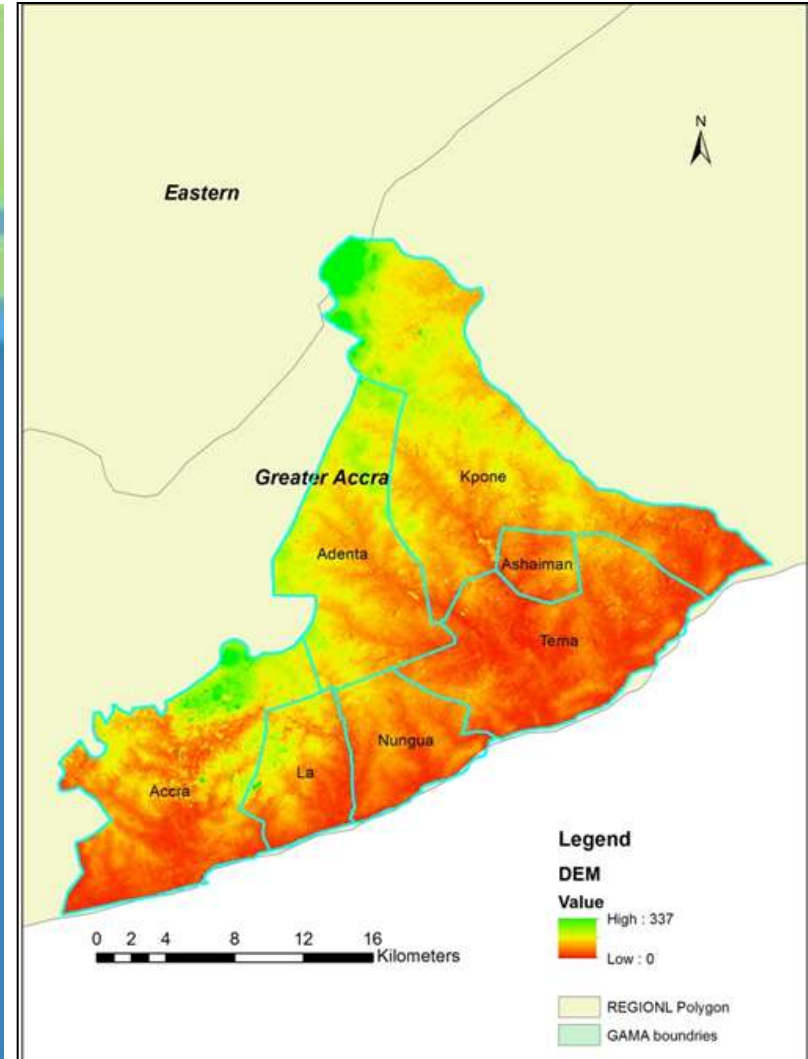
- Background and context
- The Complex Challenge – Floods
- Partnerships for managing floods and risks
 - ✓ Community level
 - ✓ Districts / Municipals / Metropolitans
 - ✓ National level
- Lower and national level action
 - ✓ Strengthening institutions
 - ✓ Policy coherence and integration
- Key lessons and conclusions
 - ✓ Building policy synergies and bridges
 - ✓ Scaling local level interventions

Background and context

Cities in Relation to Current Climate Related Hazards



Background and context



Background and context

Accra's Floods - Complex Challenge

- Rainfall frequency and intensity
- Land use and cover change
- Internal immigration
- Population growth
- Political economy factors
- Spatial planning
- Service demand and supply
- Institutional arrangements
- Political interest
- Lifestyle
- Waste

1 June 2019 06:58AM GMT+1 20190619 1:05 PM Page 19

16 **The FINDER** Wednesday, June 26, 2019

Feature

AKA's Environment Folder
Ama Kildorn-Agyemang

Incidence of Accra flooding to increase in the face of poor solid waste management, says RIPS Research findings

Preliminary findings of a research project on urban resilience to climate-induced flooding in Ghana's urban centers, particularly the Greater Accra Metropolitan Area (GAMA), suggest that the incidence of flooding is likely to increase in the face of poor solid waste management, poor drainage system, inadequate spatial planning and lack of data and human attitudes.

The findings further indicate that flood risks are now undermining regional planning results due to cross-border effects.

To effectively deal with the situation, will require measures including joint and inter-municipal and district planning to ensure that development activities in one municipality or district does not create or transfer the flood hazard to neighbours.

Another measure proposed is the development of a cross-sector diverse integrated flood management strategy targeting relevant issues including solid waste as a return to floods and its management.

These are some of the recommendations from the research project, known as "Managing socio-demographic change and climate-induced flood risks in Greater Accra". The project is being implemented under the Urban and Climate Change Initiative of the Regional Institute of Development Studies (RIDS) of the University of Ghana, with support from the International Development Research Centre (IDRC) of Canada.

The project was motivated by evidence that Ghana's capital city Accra has been showing signs of shocks and stresses of urbanisation and population growth, as demand for social amenities has expanded available resources, including land.

These are coupled with heightened awareness to increased climate change-induced frequency and intensity of rainfall. While poor and indiscriminate disposal of solid waste, clogged water channels and drains.

"There are rapid transformations of building in the city of Accra, including Accra's location between the sea and the surrounding activities of the Accra urban region," according to the principal investigator, according to the principal investigator, according to the principal investigator, according to the principal investigator.

In an interview, he revealed, "It is these...

...has over the years become a perennial occurrence in Accra in particular," adding, "The city's increasing flooding situation is also attributed partly to poor spatial planning and irregular infrastructure."

Therefore the project aims to improve the management of flood risks and enhance resilience to Accra's residents for future floods by developing an integrated climate smart flood management framework and singular evidence-based policy action.

"This was linked to baseline studies that identified links to climate hazard and how it affects population across scales from household to communities, to districts and the entire nation."

The project, which started in November 2018 and will end in November 2019, is being implemented in two communities each from seven assembly areas namely, Ashanti Metropolitan Assembly (AshMA), Akyem Metropolitan Assembly (AKMA), Ashanti Municipal Assembly (AshMA), Kwame Ninsin Municipal Assembly (KNMA), La Dade Nkwanta Municipal Assembly (LDNMA), Tema Metropolitan Assembly (TMA) and Laikipia Kwame Municipal Assembly (LKKMA).

These areas were selected based on their geographical sites, environmental, social and economic context of their vulnerability to flooding, and their population densities.

Since its inception, the project team has been working with assemblies, institutions, the relevant assembly areas and communities as well as other relevant stakeholders to enhance climate-smart effective and efficient management of floods in the Greater Accra Metropolitan Area.

The methodology for data collection included gathering baseline information on physical indicators of flood exposure such as water marks on structures to know the depth of flooding, presence of muddy patches over drying water flows, and water levels of drains in residential areas.

The project team also held several focus group meetings for relevant stakeholders from the 14 project communities and public officials within the seven assemblies.

These were followed by household sur-

veys and focus group discussions. The combined data gathering techniques facilitated the collection of a comprehensive set of data more than a diversity of stakeholders belonging to different groups.

They established that communities such as Dzorwile, Ashanti East around the Command area, Dzorwile, Ashanti East, Tema New Town, Teshie and Dzira in the project area are among the most susceptible to flooding within the Greater Accra Metropolitan Area.

Community members appreciated the assessment process that enabled them to establish links between changes in their livelihood and rainfall frequency and intensity of rainfall.

Additionally, officials of the Assembly who benefited from the Project Policy Plan, were advised under the Theory "U" Learning Model, were urged to change agents for adaptation planning and resilience building.

The study also covered urban national institutions such as Town and Country Planning, Ministry of Land Use and Spatial Planning Authority, Ministry of Local Government and Rural Authorities, Ministry of Environment, Science, Technology and Innovation, and Environmental Protection Agency.

The others were Ministry of Water Resources, Works and Housing now split into Ministry of Sanitation and Water Resources and Ministry of Works and Housing, National Disaster Management Organisation, Ministry of Lands and Natural Resources and the National Development Planning Commission (NDPC).

The assessment revealed glaring deficits in skills, capacities and logistics for flood risk management, inadequate comprehensive, inter-sectoral and integrated flood risk management and protection, and non-recurrence of standard procedures for integrated flood risk assessment and policy coherence.

Other gaps identified were inadequate use of data and information and several management decisions, deficit in knowledge and practice of geo-spatiality of staff in flood risk assessment and management, weak appreciation of the conceptual basis

of climate smart integrated flood risk management and non-recurrence of operational integration planning at the Assembly.

As part of its recommendations, the project team is calling for a joint evaluation of knowledge management, including networks, data and processes of information to help enhance the transfer of flood hazard from neighbouring districts and communities to previously flood-free areas.

The project team also called for the use of remote surveillance such as monitored cameras to monitor solid waste management and drainage networks.

It further recommended the need to enhance knowledge and skills on the effective use of technology for flood management such as Remote Sensing and GIS as well as other technologies.

The team proposed the adoption of proactive proactive flood management of flood risks that cuts across several sectors and systems. It will also require the development and deployment of climate flood dissemination guidelines and flood early warning systems.

Besides, the team is calling for the presence of the Urban National Spatial Development Framework to guide evidence-based development and revision of law and regulations on land use in Ghana.

Dr Dzikri explained that the project team is working closely with the National Development Planning Commission to incorporate the recommendations and findings into the existing pool of knowledge and data to support Ghana's Medium Term Development Planning.

The NDPC's online efforts that coordinate will further support the strengthening of the adaptation component of Ghana's National Adaptation Contributions (NAC) on resilient infrastructure.

The NDPC's online efforts that coordinate will further support the strengthening of the adaptation component of Ghana's National Adaptation Contributions (NAC) on resilient infrastructure.

It is further to enhance national institutions and adapt to the impacts of climate change, NDPC at the heart of the Paris Climate Agreement of 2015, which among other goals sought to lower greenhouse gas emissions in a manner that does not threaten food production.

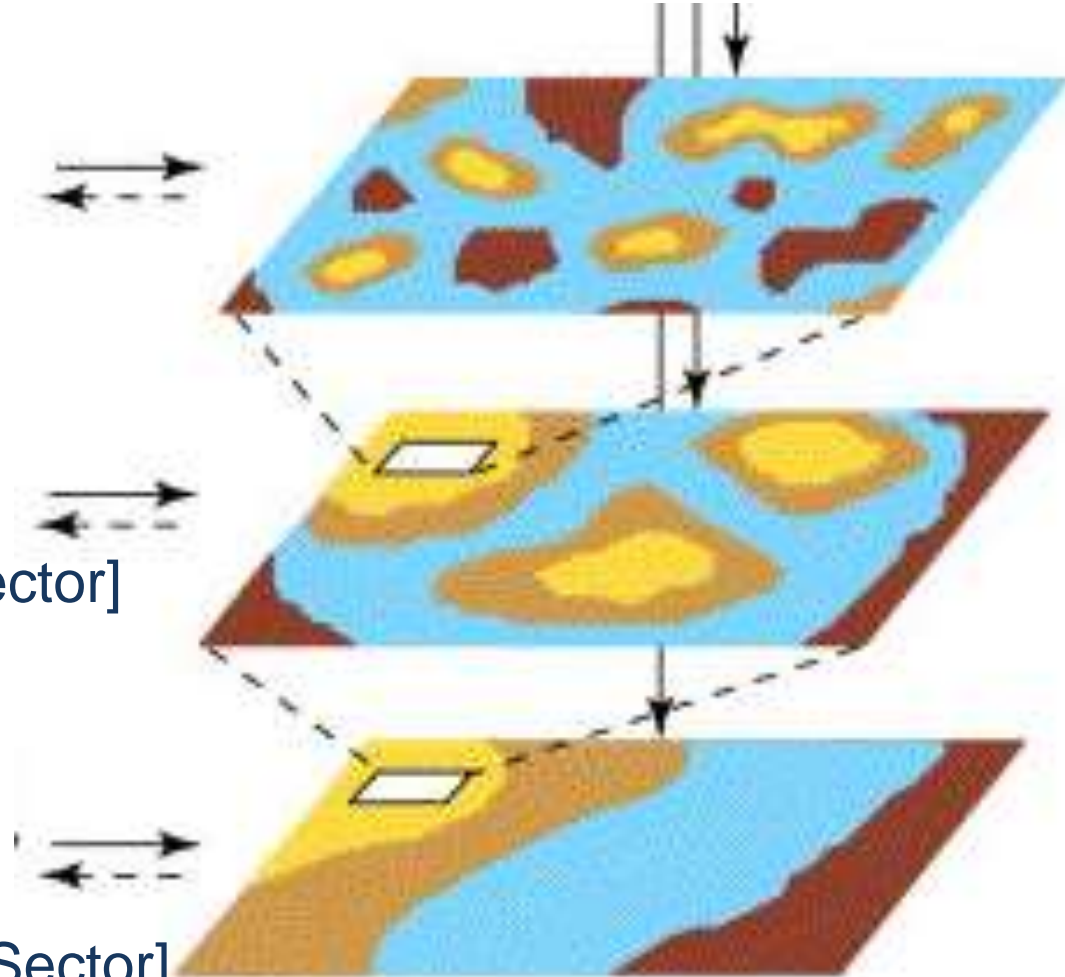
Partnerships across scale

Managing different interests

Community level
[HHs, Civil Society]

District / Metropolitan
[Depts, Civil Society, Private Sector]

National
[Political, Civil Society, Private Sector]



Lower and national level action

- Policy fellows – [capacity for managers]
- Townhall meetings [convergence]
- Community facilitators [sustainability]
- Policy mainstreaming [financing & sustainability]



Lessons & Conclusions

Adaptation

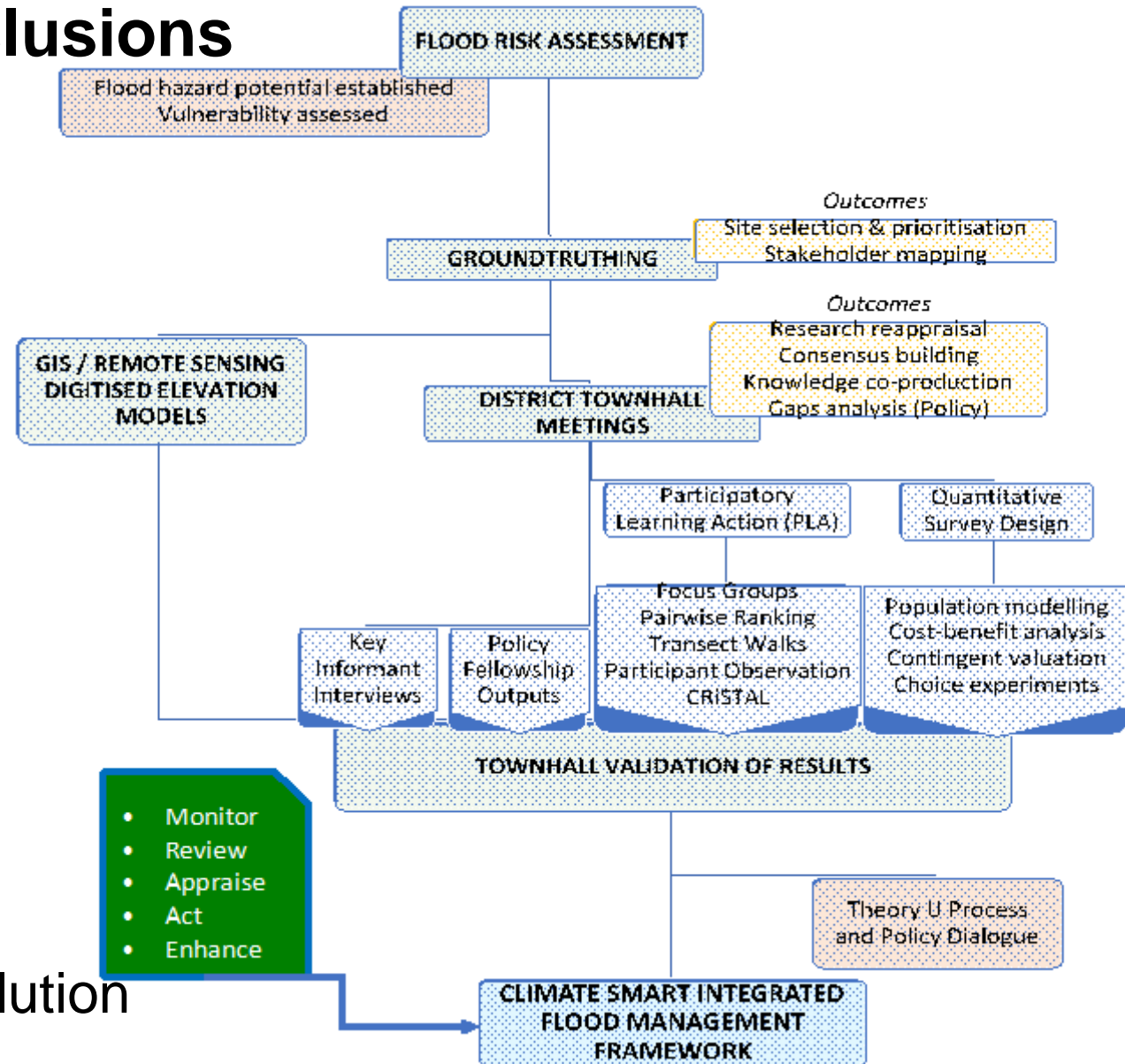
- Smart solutions
- Efficient tools
- Synergies

Resilience

- Scaling up
- Options
- Sustainability

Political economy

- Policy integration
- Knowledge coevolution





UNIVERSITY OF GHANA



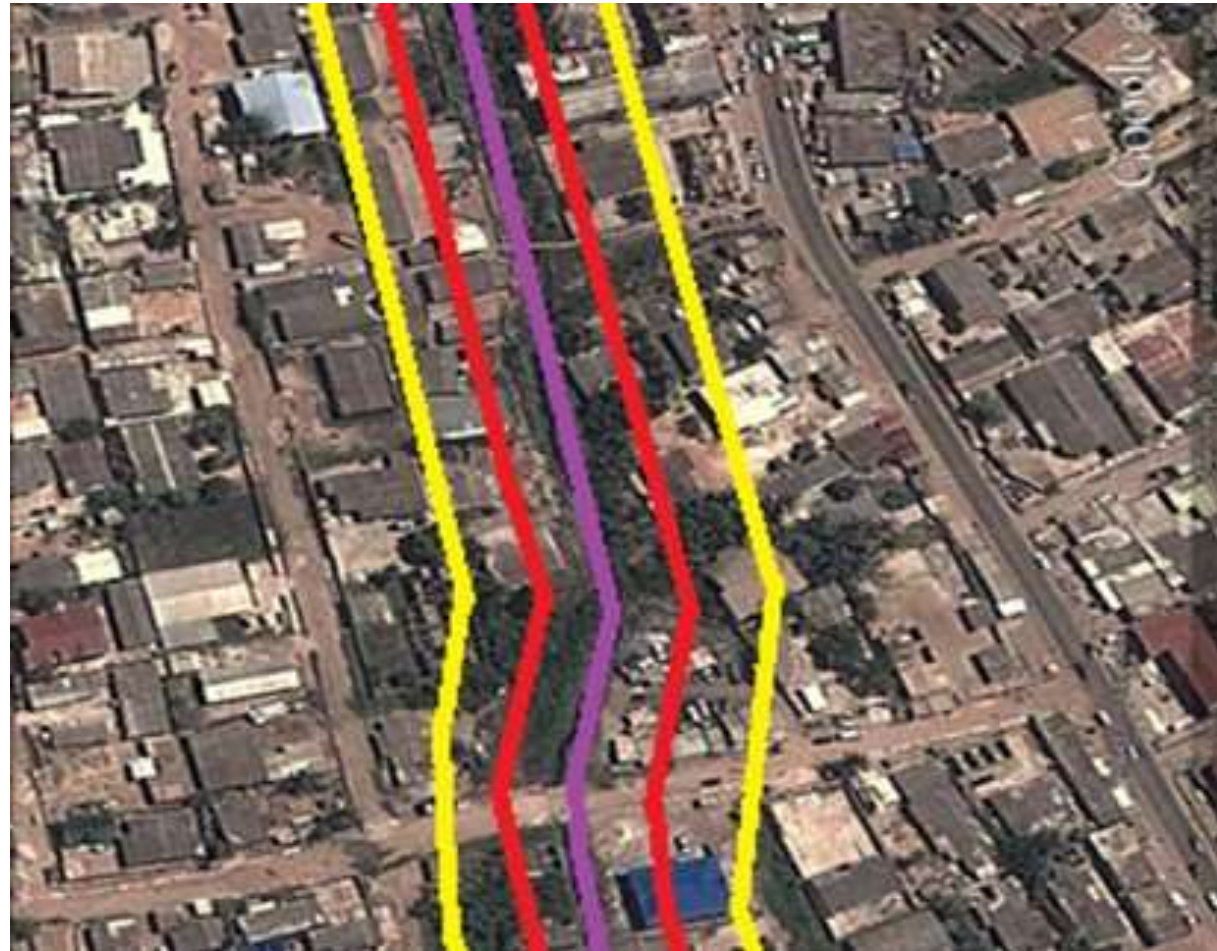
THANKS

DISCUSSION POINTS

Barriers of managing floods and risks in Accra

POLICY

- National level
- Incoherence
- Fragmented
- Politically-driven
- Obsolete framework



Barriers of managing floods and risks in Accra

THE POPULATION

- The residents
- Solid waste
- Poverty

One more body found in Odaw River after Sunday's downpour in Accra

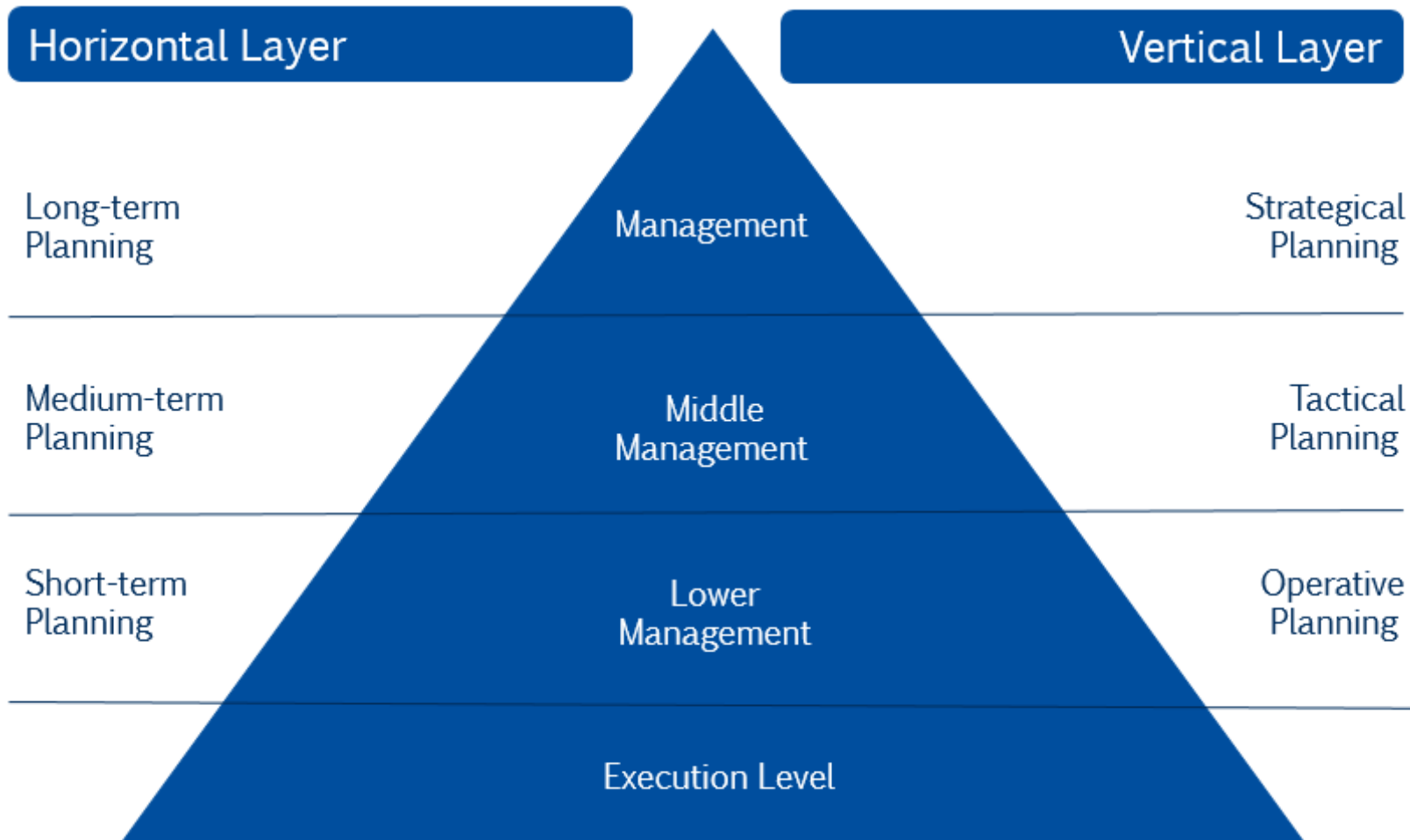
Date: Apr 09 , 2019 , 11:56 BY: Getrude Anka Nyavi | Category: General News



Body of a man believed to have drown after Sunday's downpour

Enabler 1: Scale

Vertical and horizontal integration and collaboration at all levels [Deepening]



Enabler 2: Availability of local resources and skills

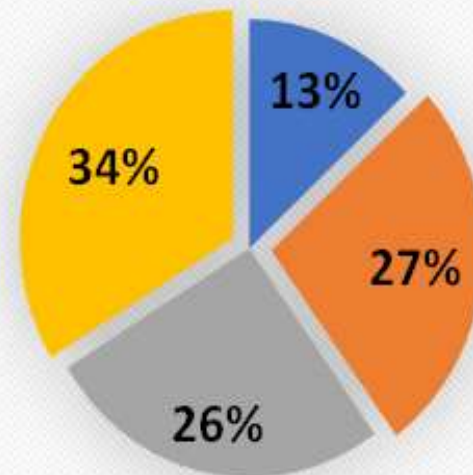
- Multi-stakeholder participation & engagement in flood risk assessment, interventions and policy
- Community-based contingency planning, data management and assessment



Enabler 3: The Population

- Well-defined cultural landscape
- Societal coherence (existing groups)
- Well-informed communities – Actions

Prevention of floods by households



- By constructing water channels
- By desilting (cleaning gutters)
- By not dumping water into the gutters
- Others