

Major Issues of Urban Drainage Management in Ghana

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Outline of Presentation

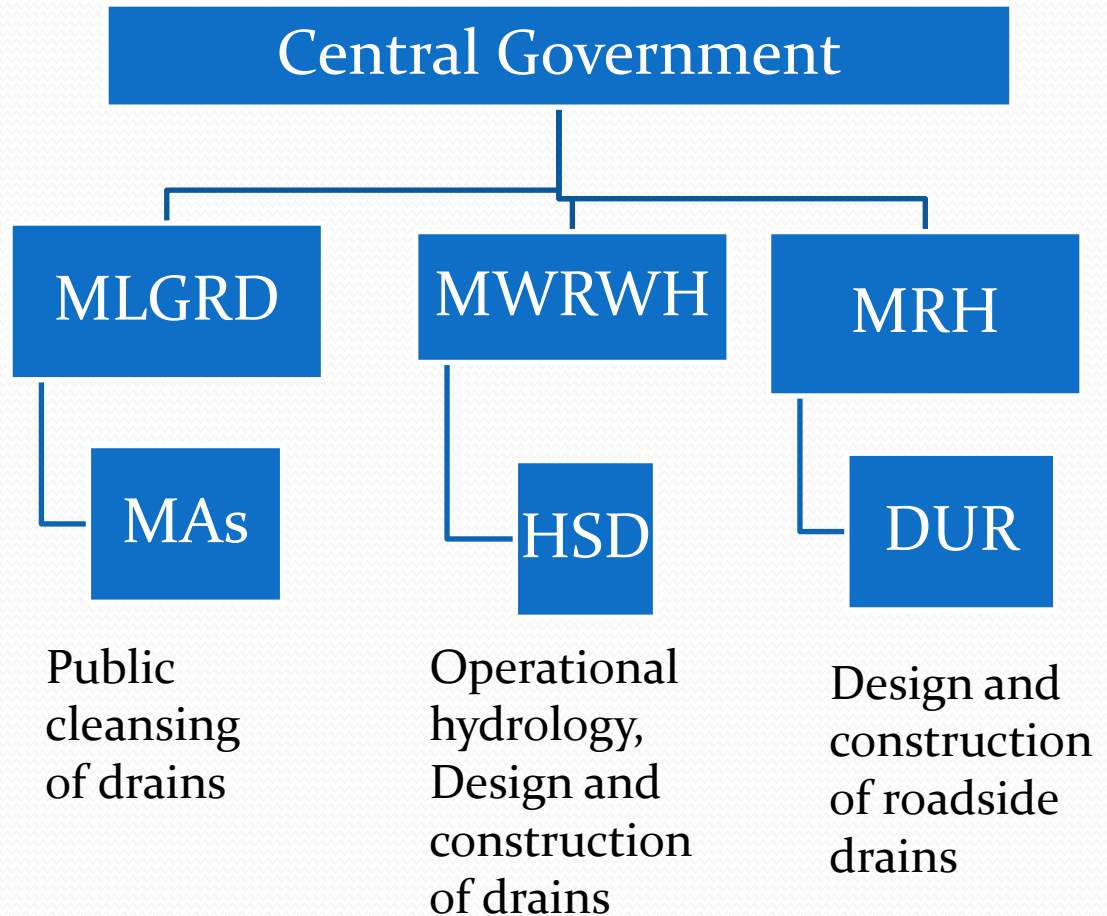
- **Background**
- **Urban drainage management in Ghana**
- **Problems and Challenges of drainage management in Ghana**
- **The way forward for sustainable drainage management**
- **Conclusion**

Background

- **For sustainable drainage management:**
 - ❑ Development of drainage master plan
 - ❑ Implementation of the drainage master plan
 - ❑ Efficient and effective maintenance of drainage scheme.
- **Efficient drainage system prevents flooding, hence loss of properties and lives and environmental disaster.**
- **The focus presentation is on the review of major drainage management issues in Ghana, and the way forward.**

Urban drainage management in Ghana

- **Municipal Authorities (MAs).**
- **Hydrological Services Department (HSD).**
- **Urban Roads Department (DUR).**



Problems of drainage management in Ghana

Siltation problem

- Solid waste deposits.
- Sediments from erosion.



Problems of drainage management in Ghana

- Vegetation growth problem .



Problems of drainage management in Ghana

- Lack of coordination among institutions for town planning and drainage improvements.
- Weak enforcement of land-use and building regulation .
- Encroachment of flood plains by informal settlers.



Problems of drainage management in Ghana

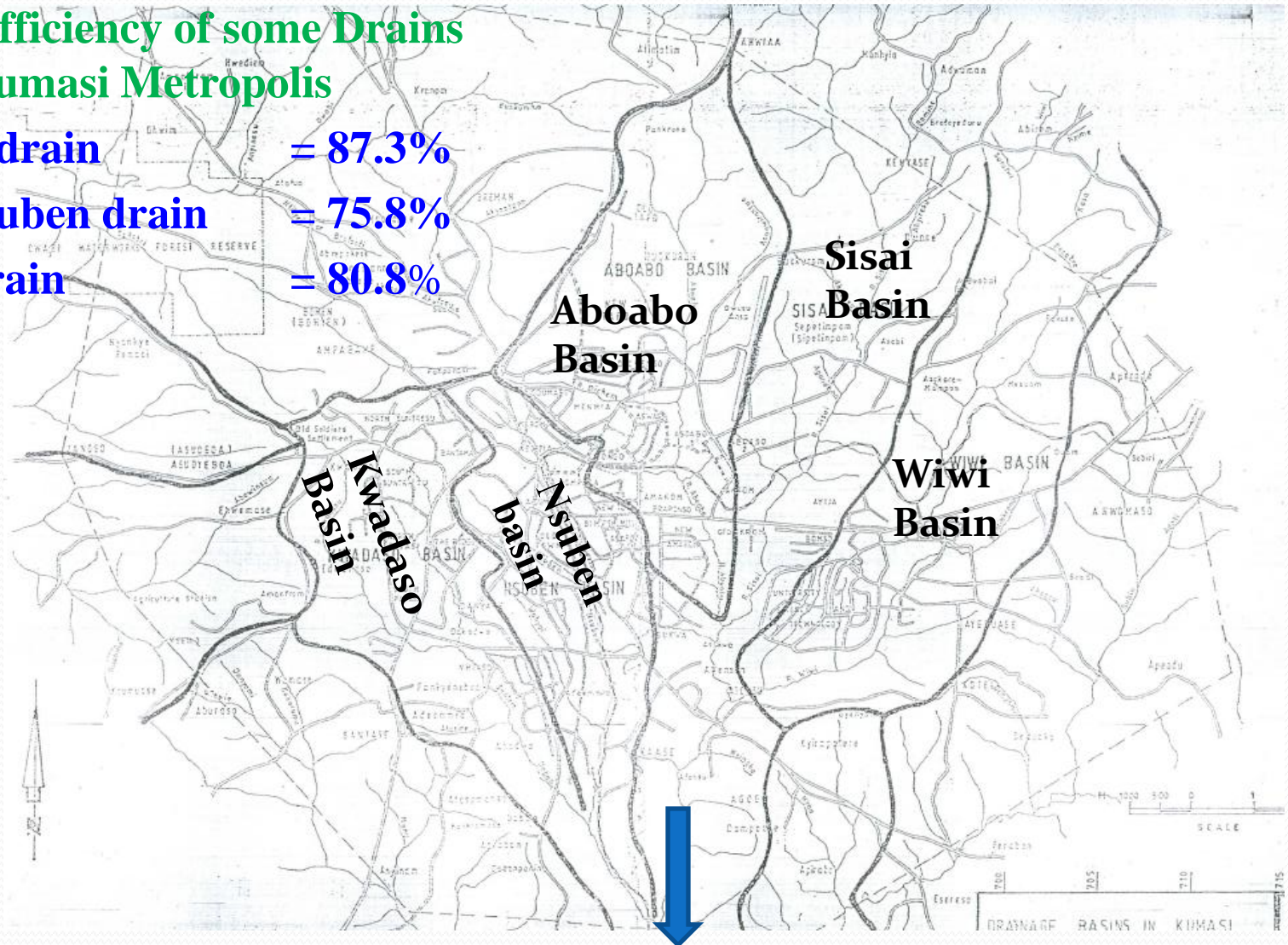
- **Obstruction of drains by utility lines.**



Major drainage basins in part of Kumasi and drainage efficiency

Reduced Efficiency of some Drains in the Kumasi Metropolis

- Nsuben drain = 87.3%
- West Nsuben drain = 75.8%
- Asafo drain = 80.8%

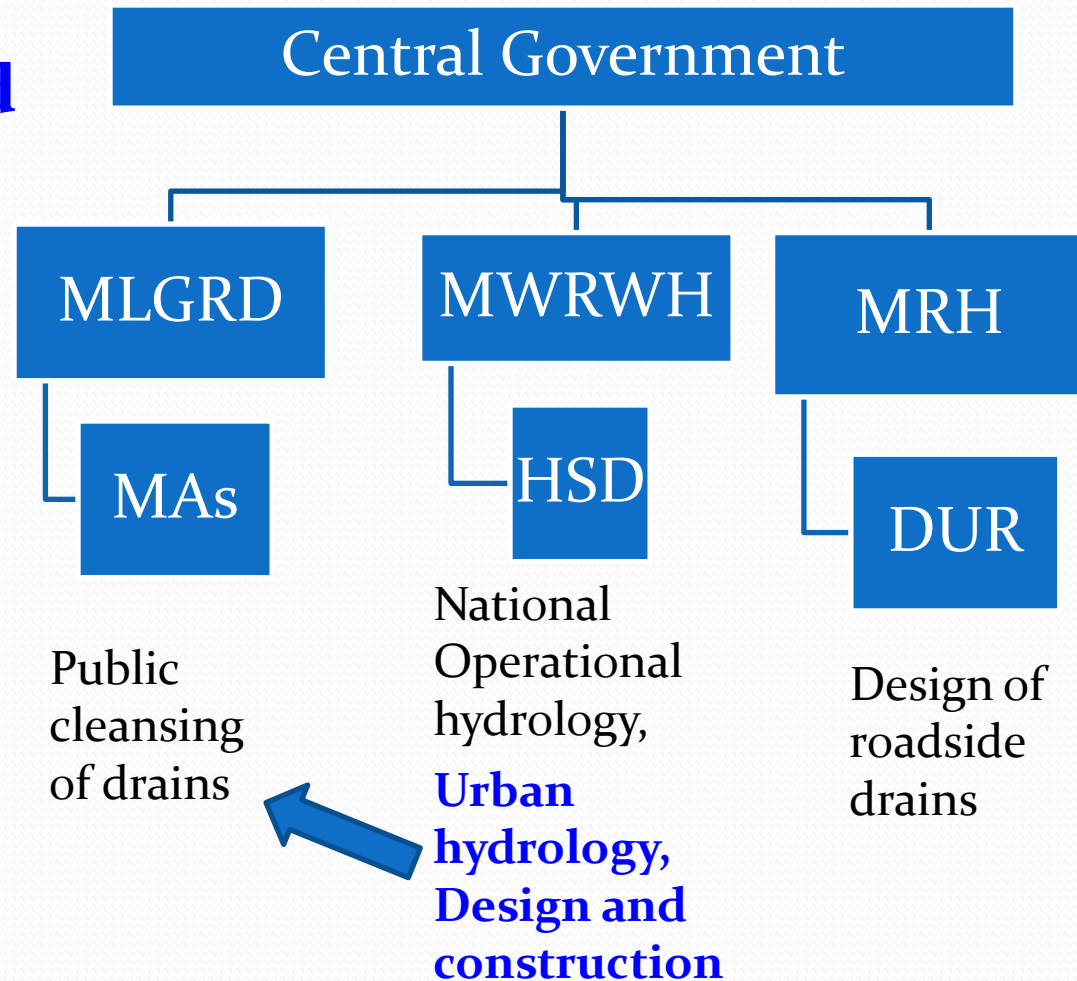


The challenging issues of drainage management

- **Weak institutional arrangements, resulting in the absence of coordination among institutions involved in drainage management.**
- **Weak regulation of acquisition of land and building permit.**
- **Strong opposition by informal settlers in flood-prone areas to demolish buildings in water ways.**
- **Financial constraint and lack of priority for drain construction and maintenance.**
- **Weak political will for drainage improvement.**

The way forward for sustainable drainage management

- The responsibility of urban drainage should be given to the MAs and transfer staff of HSD dedicated to drainage, to the MAs.
- Transfer funding (budget allocation) of the HSD to MAs.



The way forward for sustainable drainage management

- Enforce land-use and building regulation.
- Avoid development in the flood-prone areas.
- Integrate town planning and drainage improvements.



The way forward for sustainable drainage management

- Apart from central government funding for structural works, property owners be charged drainage fee as part of the property rate for maintenance.
- Prioritize implementation of drainage master plan and maintenance.



The way forward for sustainable drainage management

- The water quality of streams be improved by identifying sources of pollution along all streams (source control).
- Enforce treatment prior to discharge into drainage.
- Improve solid waste management.



Conclusion

- **There are serious problems with drainage in Ghana.**
- **Addressing these problems need integrated approach.**
- **The Municipal Authorities (MAs) be made responsible for drainage management and improvements.**



Thank You