



Geospatial Information for Climate Change and Disaster Mitigation

Determining Information Needs

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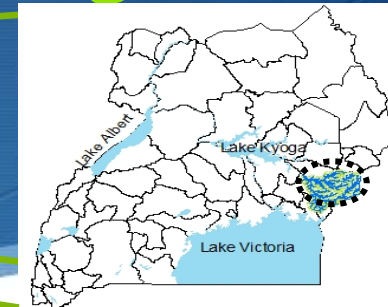
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Climate Change and Disaster Mitigation



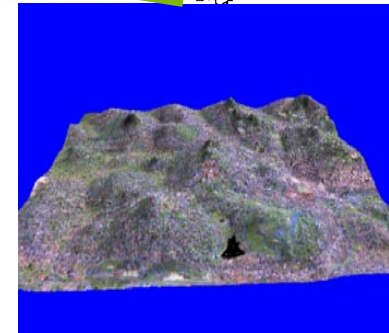
Issues



Largely slow-onset disasters

- Geophysical
- Hydrological
- Meteorological
- Climatological
- Biological

Rapid-Onset disasters



Disasters and processes leading to the disasters are less systematically monitored



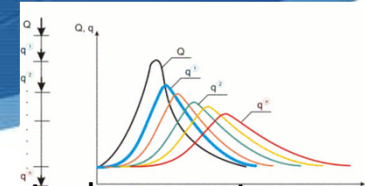
Runaway cities



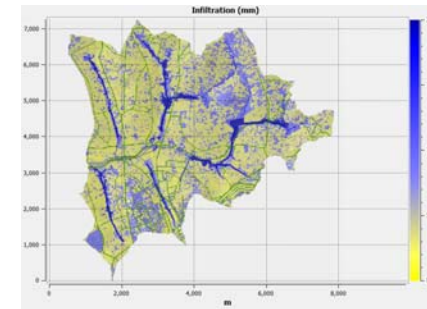
Lessons learned and gaps



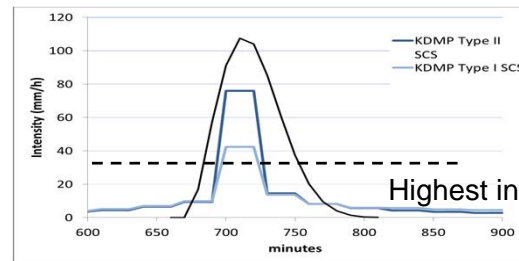
High temporal resolution weather data



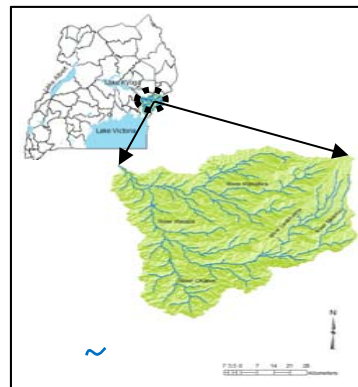
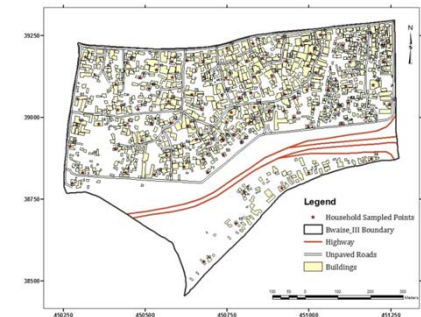
Hydrological scenarios



Base maps



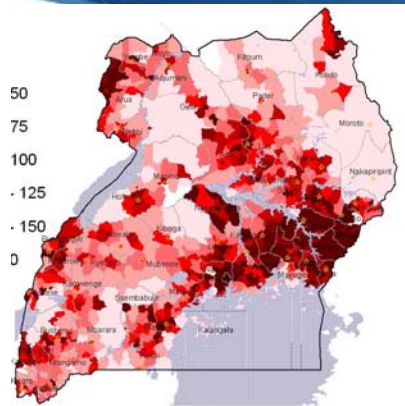
Hydrology data



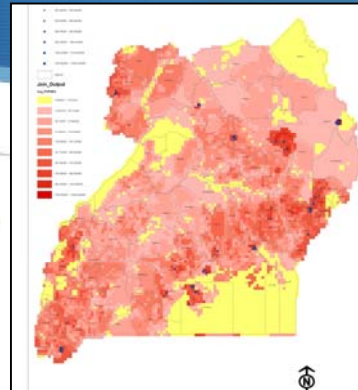
Spatial cascade of disasters



Some Ideas on how to address data gaps



Administrative boundary approach

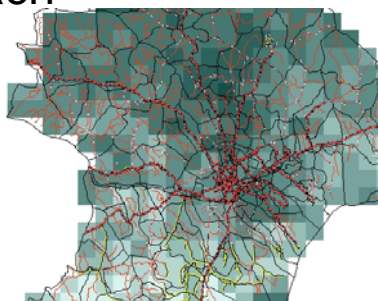


Grid-based approach

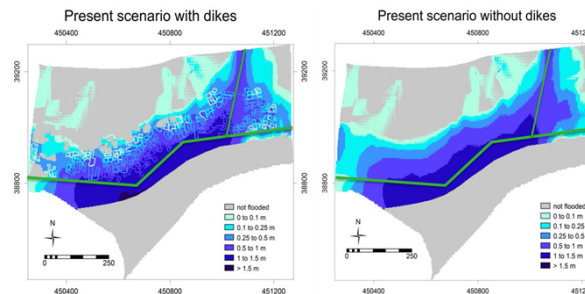
Scenarios, planning for preparedness



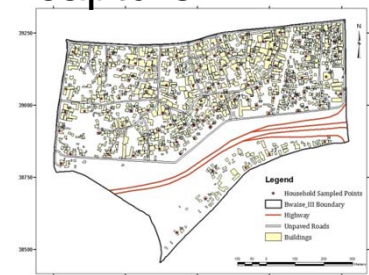
Multi-level system for data capture



Vulnerability Assessments



Episodic monitoring of Disasters and Loss Data
Peril and Hazard Classification



Key Messages

- Integrating climate change and disaster into planning
- Timely production of credible, easy-to-use information
- Multiple scales at which geocoded socio-economic information is required
- Mixed approach of grid-based and administrative boundary based
- Importance of Prediction and Scenarios; improvement of climate models

| A | B | C | D | E | F | G | H | I | J | |
|----|---------|----------|----------|---------|----------|---------|---------|------------|----------|----------|
| 1 | Date | Time | Temp Out | Hi Temp | Low Temp | Hum Out | Dew Pt. | Wind Speed | Wind Dir | Wind Run |
| 2 | 6/12/11 | 6:30 AM | 13.8 | 13.8 | 13.7 | 99 | 13.6 | 0 | --- | 0 |
| 3 | 6/12/11 | 7:00 AM | 14.5 | 14.5 | 13.8 | 99 | 14.9 | 0 | --- | 0 |
| 4 | 6/12/11 | 7:30 AM | 15.8 | 15.8 | 14.5 | 99 | 15.7 | 0 | --- | 0 |
| 5 | 6/12/11 | 8:00 AM | 17.3 | 17.3 | 15.8 | 97 | 16.8 | 0 | --- | 0 |
| 6 | 6/12/11 | 8:30 AM | 19.2 | 19.2 | 17.3 | 89 | 17.4 | 0 | --- | 0 |
| 7 | 6/12/11 | 9:00 AM | 21.1 | 21.1 | 19.2 | 78 | 17.1 | 0 | --- | 0 |
| 8 | 6/12/11 | 9:30 AM | 23 | 23 | 21.1 | 66 | 16.3 | 0 | --- | 0 |
| 9 | 6/12/11 | 10:00 AM | 24.3 | 24.3 | 23 | 62 | 16.5 | 0 | --- | 0 |
| 10 | 6/12/11 | 10:30 AM | 24.3 | 24.4 | 24.1 | 65 | 17.3 | 0 | --- | 0 |
| 11 | 6/12/11 | 11:00 AM | 24.8 | 24.8 | 24.1 | 67 | 18.2 | 0 | --- | 0 |
| 12 | 6/12/11 | 11:30 AM | 24.4 | 24.9 | 24.3 | 69 | 18.3 | 0 | --- | 0 |
| 13 | 6/12/11 | 12:00 PM | 23 | 24.4 | 23 | 73 | 17.9 | 0 | --- | 0 |
| 14 | 6/12/11 | 12:30 PM | 21.8 | 23 | 21.8 | 84 | 19 | 0 | --- | 0 |
| 15 | 6/12/11 | 1:00 PM | 20.3 | 21.7 | 20.3 | 91 | 18.8 | 0 | --- | 0 |
| 16 | 6/12/11 | 1:30 PM | 20.6 | 20.6 | 20.3 | 91 | 19 | 0 | --- | 0 |
| 17 | 6/12/11 | 2:00 PM | 20.2 | 20.6 | 20.2 | 92 | 18.9 | 0 | --- | 0 |
| 18 | 6/12/11 | 2:30 PM | 20.2 | 20.2 | 20.2 | 93 | 19.1 | 0 | --- | 0 |
| 19 | 6/12/11 | 3:00 PM | 19.9 | 20.2 | 19.8 | 93 | 18.7 | 0 | --- | 0 |
| 20 | 6/12/11 | 3:30 PM | 20.6 | 20.6 | 19.9 | 92 | 19.3 | 0 | --- | 0 |
| 21 | 6/12/11 | 4:00 PM | 21 | 21 | 20.6 | 92 | 19.6 | 0 | --- | 0 |
| 22 | 6/12/11 | 4:30 PM | 21 | 21.1 | 20.9 | 91 | 19.5 | 0 | --- | 0 |
| 23 | 6/12/11 | 5:00 PM | 20.1 | 21 | 20.1 | 93 | 18.9 | 0 | --- | 0 |
| 24 | 6/12/11 | 5:30 PM | 19.2 | 20.1 | 19.2 | 94 | 18.2 | 0 | --- | 0 |
| 25 | 6/12/11 | 6:00 PM | 18.6 | 19.2 | 18.6 | 96 | 18 | 0 | --- | 0 |

