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# TECHNICAL RESILIENCE OF STORMWATER MANAGEMENT SYSTEMS TO FLOODING

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**ENGINEERING**

# Problems

Definition

Focused on Urban Resilience

Lack of technical framework





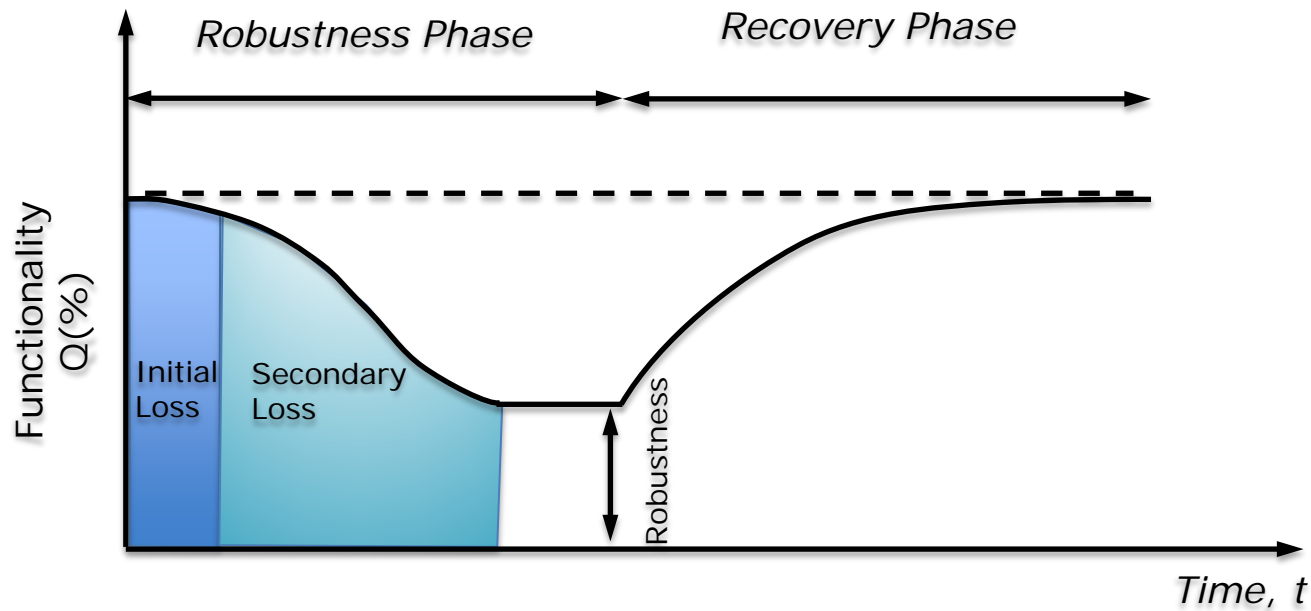
# Stormwater System Resilience

Magnitude of Flood Generated(Robustness)

How Fast Recovers (Rapidity)

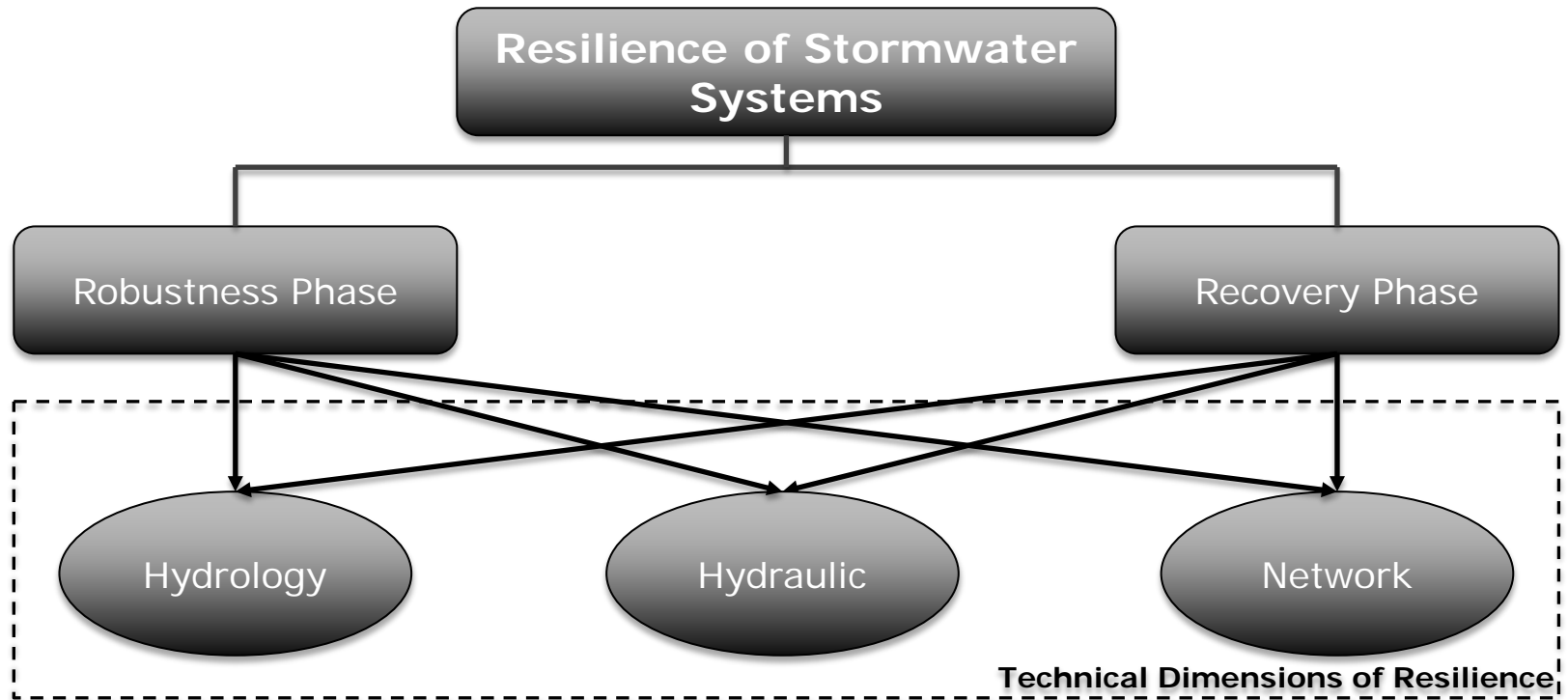


# Method

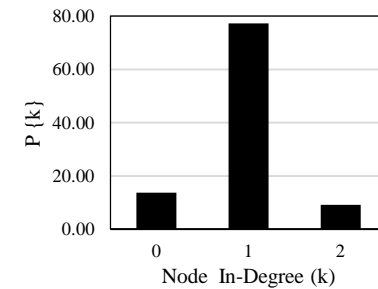
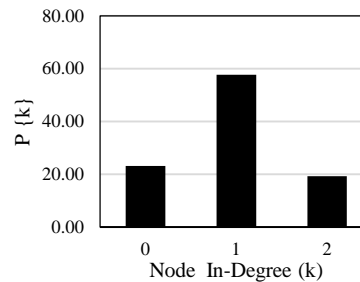
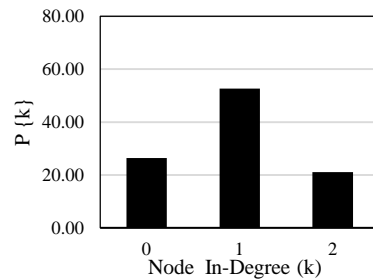


Schematic of Resilience phases in Stormwater management system

# Method



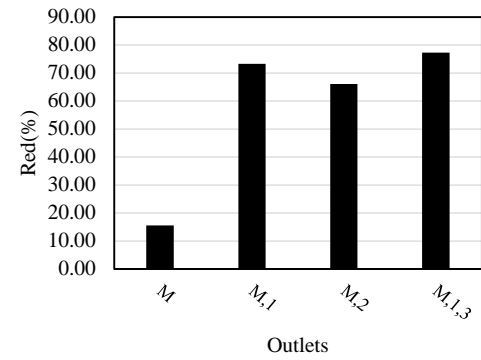
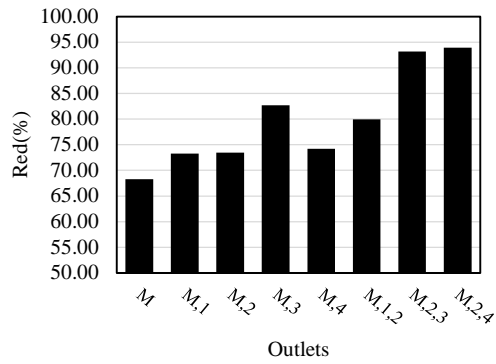
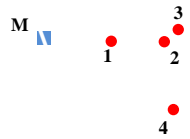
# Network Structure Analysis



<b>Node In-Degree</b>	1.21
<b>Drainage Order Dis.</b>	1.38
<b>Drainage Density</b>	927
<b>Red(%)</b>	55.6%

1.19
1.15
954
68.3%

1.09
2.1
1207
15.6%



# Ongoing Study

- Temporal Hydraulic Capacity of the system.
- Hydrological Characteristics influencing on the System Resilience
- Total temporal functionality of the system.
- Calculate the minimum technical robustness of the system in different  
ARI
- Time required to recover the system to dry condition.