

# NORMALISASI IN JAKARTA: A CURE OR A RESPITE?

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## ABSTRACT

Governance deficit in Jakarta in Indonesia is often associated to its pressing issues of too much, too little and too dirty water. Although flood has become an important political issue and the government is pushing a landscape change in the riverbank areas, public policy in Jakarta is yet to comprehend the complex linkages between gap in water provisioning and issue of flooding.

Flood is one major issue that has affected Jakarta as early as 1872. Subsequently, major flood events have occurred with the most recent being in 2015. The government has implemented several policy initiatives, with the most recent one named as "Normalisasi". This initiative focuses on increasing the flow capacity of the river, in order to prevent it from overflowing during heavy rain events. To fulfil its goal, the government claims eviction of informal settlements from the riverbank areas; widening width of rivers and canals; and dredging of the river beds. Many scholars have criticized the overly technocratic framing of this policy, it's covert agenda for attracting investments in infrastructure development in catchment areas, lack of empathy towards agency of informal settlers along with lack of vision for an inclusive and resilient socio-hydrological system.

This study uses system dynamics modelling to understand current vulnerability to flooding and explores future policy pathways for managing resilience in the context of Jakarta. The modelling analysis raises serious questions on the efficacy of the current policy of "Normalisasi" and points out its inability to comprehend the dynamic complexity of the socio-hydrology of flooding issue. Policy testing and further comparison revealed the opportunities and challenges of two policy pathways, namely Increase in Dredging Efficacy and Waterscape Policy. Although increase in efficacy of dredging seemed to be cost-efficient in short term and less complex for institutional interplay, an integrated policy, named as Waterscape Policy, will help in long term resilience. However, implementation of such an integrated policy will require institutionalization of polycentric governance with initiation of a boundary organization.

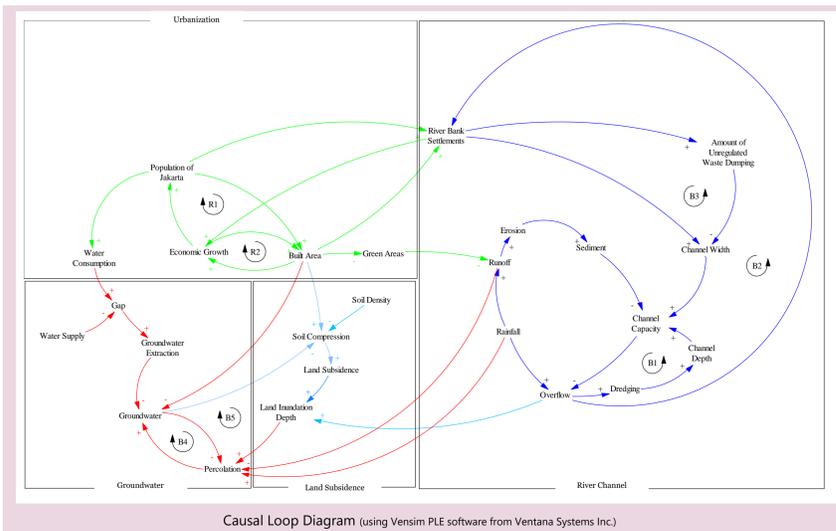
## 1. BACKGROUND

- *Daerah Khusus Ibukota Jakarta* (Capital Special Region of Jakarta) is one of the 34 provinces in Indonesia. Being the capital region, it is currently undergoing rapid urbanization.
- Such rapid urbanization is leading to issues, like excessive ground water extraction; land scarcity; and unregulated settlements, which often are held responsible for issues of 'too little, too much, and too dirty' water in urban spaces of global South.
- Flood is a major issue that has affected Jakarta since 1872. One of the highest floods occurred in 2015, which required the evacuation of 231,566 people and caused a financial loss amounting to 1.5 trillion Rupiah (approximately USD 112,500,000). Although flood has become an important political issue and the government is pushing for change in the riverbank areas, public policy in Jakarta is yet to comprehend the complex linkages between gap in water provisioning and issue of flooding.
- The most recent flood control policy initiative called "Normalisasi" focuses on increasing the drainage capacity of the rivers through dredging the river bed and evicting settlements from riverbank areas. The jury is still out on the success of this ongoing policy initiative. Currently, there is criticism about the lack of proper relocation of evicted settlers, uncertainty of funding for dredging and lack of mainstreaming of climate change risks into policy design.

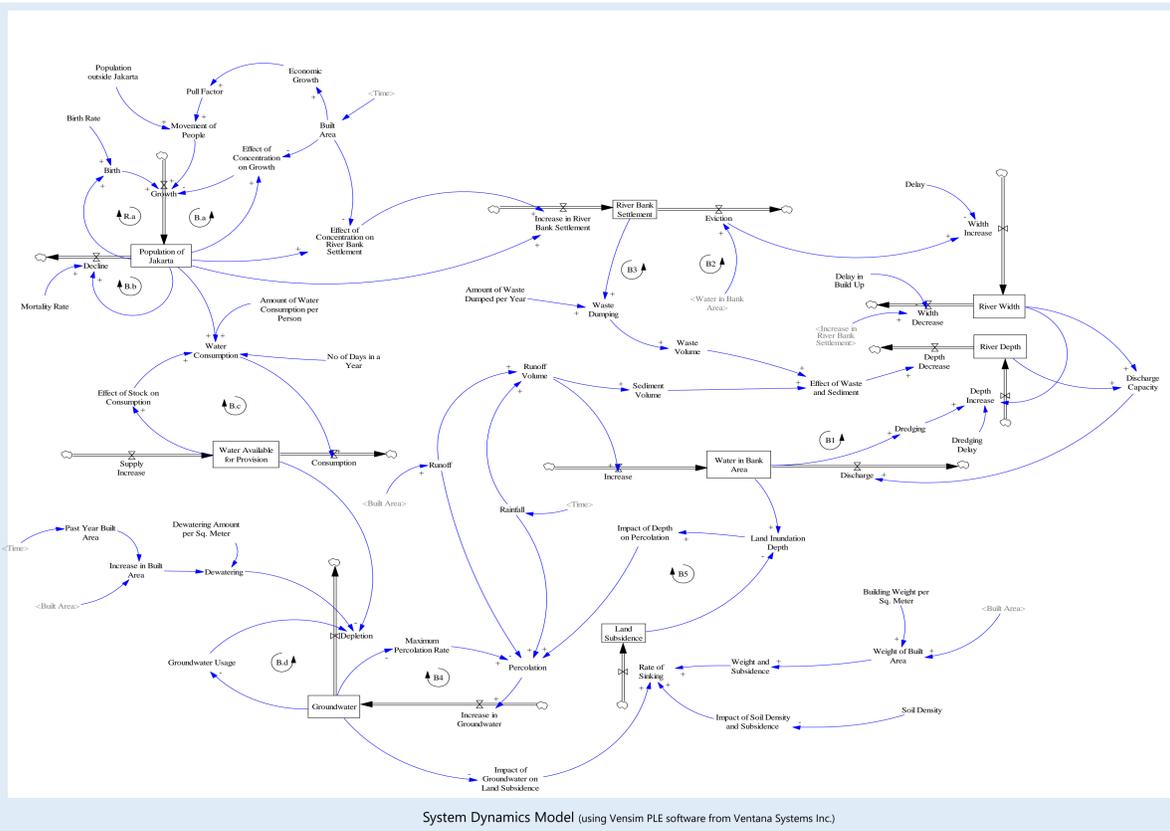
## 2. OBJECTIVES

- To explore the interlinkages of social and hydrological factors that can influence vulnerability to flooding in Jakarta
- To explore the efficacy of "Normalisasi" policy in reducing vulnerability to flooding in different social-hydrological scenarios
- To explore policy pathways for water management in Jakarta to reduce current vulnerability to flooding and manage resilience for future.

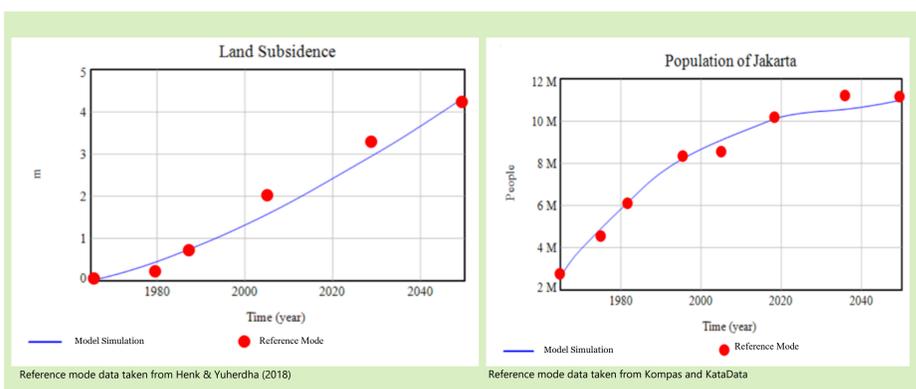
## 3. CONCEPTUAL MODEL



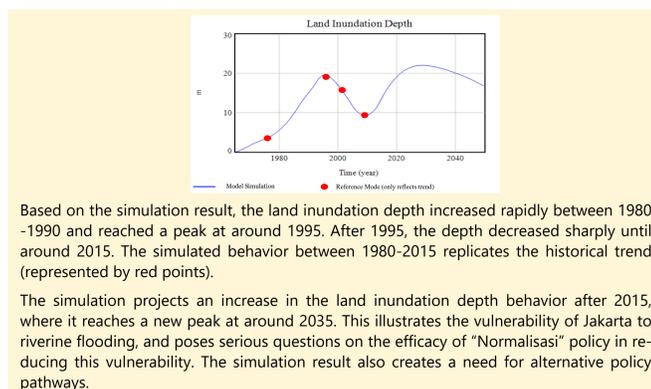
## 4. SYSTEM DYNAMICS MODEL



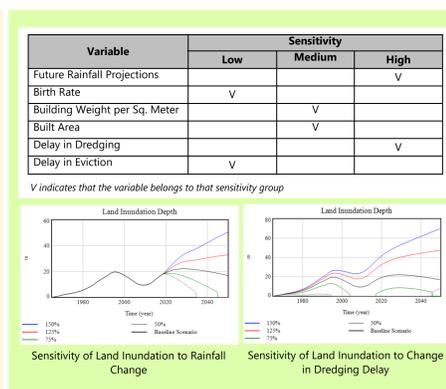
## 5. VALIDATION



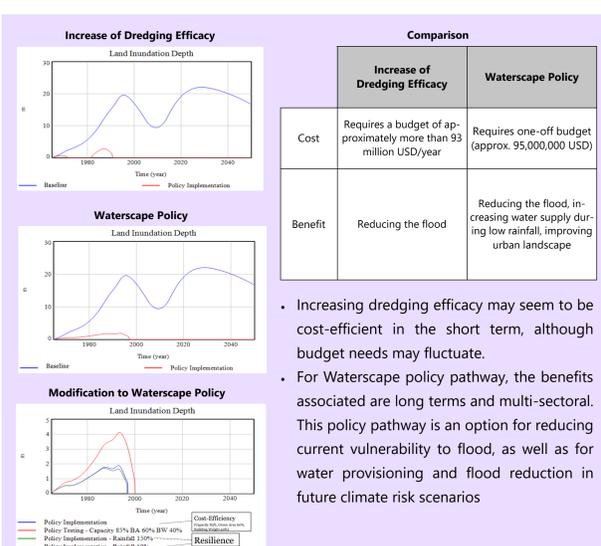
## 6. KEY FINDINGS



## 7. ANALYSIS



## 8. POLICY TESTING



## 9. WATERSCAPE GOVERNANCE

| Institutes       | Increasing Dredging Efficacy  | Waterscape Policy  |
|------------------|---|--|
| Provincial Level | Pemerintah Provinsi DKI Jakarta   | <ul style="list-style-type: none"> <li>• Pemerintah Provinsi DKI Jakarta</li> <li>• Dinas Sumber Daya Air DKI Jakarta</li> </ul>           |
| National Level   | <ul style="list-style-type: none"> <li>• Balai Besar Wilayah Sungai Ciliwung dan Cisadane</li> <li>• Kementerian Pekerjaan Umum dan Perumahan Rakyat</li> </ul> | <ul style="list-style-type: none"> <li>• Badan Standarisasi Nasional</li> <li>• Kementerian Pekerjaan Umum dan Perumahan Rakyat</li> </ul> |

- Increase in dredging efficacy may seem to be less complex for governance
- But a lack of participation of greater number of institutions in policy planning and implementation, however, may just reinforce the already existing 'policy myopia'.
- As for Waterscape policy, there is a need to bridge greater number of institutions in different levels of jurisdiction for policy planning.
- In such a governance context, a boundary organization with stakeholders from government, academia and civil society can be helpful

## 10. CONCLUSION

- Based on the simulation results (see Key Findings), the long term efficacy of "Normalisasi" policy to reduce vulnerability of Jakarta to flooding in the future is questionable.
- Policy testing and primary cost-benefit analysis reveals the effectiveness of the Waterscape policy (see Policy Testing). The implementation of the policy will not only help reduce flood, but also increase resilience of water-sector in future. However, implementation of such an integrated policy may require more complex governance mechanisms.
- However, future researchers could study on how built area and population of Jakarta relates to each other, as well as how sea level influences land inundation depth. A more downscaled climate change projections for Indonesia would also have helped this research.

## EXTRA INFO

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