POLICY CONTEXT AND KEY CHALLENGES

Greater Jakarta is a low-lying delta metropole through which 13 rivers flow for the discharge of water into the Jakarta Bay and is home of about 30 million people. It has known floods since ancient times to persist through colonial Batavia and today’s Jakarta. Over recent decades, however, the flooding problem has gravely intensified due to among other key factors land subsidence driven by the excessive extraction of groundwater and soil compaction due to loads from constructions and buildings.

A relatively new flooding context for Jakarta is climate change. Sea-level rise, intense rainfall and extended wet monsoons induced by climate change have become increasingly key driving factors for incidences of floods.

Early flood mitigation measures for Jakarta date back to 17th century Dutch times. In order to obtain control over the city’s hydrology, for 400 years infrastructure-focused engineering solutions have become the mainstream paradigm in flood mitigation.

Over time, little attention has been paid to the ‘anthropogenic root causes’ of Jakarta’s floods, the social and ecological impacts of infrastructural measures, as well as to public participation and social justice in policies and measures to mitigate flood.

WHO WE ARE

This Policy Brief draws on the outcomes of the Focus Group Discussion: Dealing with Greater Jakarta Floods in Times of Climate Change held at the Indonesian Embassy in The Hague on 27 February 2020 and is authored by (in alphabetical order):

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front image: Aria S, Flood proxy map, Indonesia Floods, 2 January 2020
OUR RECOMMENDATIONS

We would recommend:

1. Reduce exposure of people and assets to future floods by providing a map showing flood-prone areas in Jakarta to the public and accordingly stricken the issuance of building permits in flood-prone zones.

2. Carefully assess policy options to alleviate floods, their distributional effects on the diverse groups in society, and ways to mitigate the inevitable consequences to the most vulnerable groups.

3. Enable interactive and integrated flood policies with careful considerations of future complexities and uncertainties due to climate change and urban sprawl without neglecting the principle of human rights and social justice, prioritising the most vulnerable communities in policy implementation.

4. Create a delta commission which plays the role of a boundary organisation mandated for a period longer than and independently from a five-year political cycle to enhance collaboration between all stakeholders (including representatives of multilevel government authorities, local communities, non-governmental stakeholders, practitioners and science and technology actors), to facilitate inclusive learning, experimentation, knowledge exchange and integration, as well as to mobilise resources to improve the governability of Greater Jakarta as a delta megacity.

5. Accelerate the implementation of an integrated, high scale approach for flood protection, but also taking into account water supply, sanitation, improving infrastructures (e.g. port development, road network), strengthening coastal communities and revitalizing the environment.

6. In the design and implementation of flood measures, connect to local stakeholders and communities and incorporate their interests and needs. This reduces resistance and creates opportunities to solve multiple problems (community-based development, livelihoods improvement, opportunities to improve Jakarta's coastline, opportunities for tourism, etc.)

7. Minimise the risks of flooding by applying landscape ecological approaches to flood mitigation, including water harvesting and floodplains while using the concept of ecosystem services payment to incentivise stakeholders to pay for the ecosystem services provided, e.g. consumable drinking water.

8. Establish a Greater Jakarta regional-level public agency that is responsible to study the costs and benefits of potential flood measures for Greater Jakarta and to conduct economic analysis of flood risk management to assist decision-makers in identifying solutions for effective flood risk reduction.

9. Involvement of Liveable Cities IDN-NL (consisting of a.o. architects/landscape architects/ urban designers) who can contribute to envision an inclusive long term strategy as well as mid- and short term plans and translate these into spatial plans and visualizations, which is crucial for effective communication with diverse stakeholders.

10. Continuation long term programs in capacity building for a.o. government officials as now performed through e.g. the Dutch Training and Exposure Program (DUTEP) and through IHE Delft Institute for Water Education. As well as continuation of involvement of IDN-NL Liveable Cites and TYK research & action consulting (in collaboration with the Indonesian Embassy) in knowledge sharing sessions for visiting delegations from Indonesia to The Netherlands.