



Transforming Adaptation Planning and Governance in Jakarta, Indonesia

In many developing countries with unplanned urbanization, urban poor people settle along riverbanks, near reservoirs, and in protected areas and conservation reserves. Urban flood adaptation then mostly focuses on providing more space for water, to reduce flood impacts, which leads to space contestation. Findings from the Jakarta case study from the project *Transformative Adaptation to Climate Change in Coastal Cities* illustrate the social justice implications of adaptation policies in the context of urban informality, and highlight the pivotal role of inclusive urban planning in reducing future climate risks and enabling transformative adaptation.

The Issue in Context

As a rapidly growing and developing city, Jakarta is characterized by the coexistence of formal and informal urbanization patterns in which high-rise towers stand side-by-side with densely populated informal settlements, known as *kampungs*, that are scattered along riverbanks, lakesides and in low-lying coastal areas. Located in a coastal and deltaic area that is shaped by 13 main rivers and two canals, Jakarta is highly sensitive to floods. The human cost included loss of 137 lives and displacement of hundreds of thousands of people between 2005 and 2019 (BNPB 2020).

While the general situation resembles that of other coastal cities confronting climate change impacts and development challenges concurrently, rapid land subsidence complicates an already dire situation in Jakarta. With 40% of the city already below sea level and coastal areas sinking fast, implementing effective flood protection and adaptation measures is both urgent and without alternative. Relocation and resettlement are thus, to some extent, rational decisions for building flood resilience. In 2019, the Government of Indonesia announced plans to move the capital from Jakarta to East

Kalimantan in an attempt to tackle inequality between Java and other islands of Indonesia and to reduce the population pressure on Jakarta.

The government of DKI Jakarta province (Daerah Khusus Ibukota Jakarta Raya, or Special Capital City Region) has taken numerous measures to adapt to and manage flood risks. These measures range from building a sea wall on the shoreline, to dredging rivers and lakes, to providing reforestation support to neighbouring cities upstream. At the community level, via modest actions, urban poor people and informal dwellers also implement individual adaptation and flood protection strategies.

Towards Inclusive Adaptation Planning

Areas targeted for flood protection measures are often also home to some of the most vulnerable people in the city, including *kampung* dwellers. They need to be relocated because their settlements are flood-prone and hinder the installation of protective infrastructure. But many people oppose resettlement due to its livelihood impacts (see box), and they are made to leave by force. Furthermore, because of the insecurity of land tenure, evictions are often



Transformative Adaptation to Climate Change in Coastal Cities

Research for the project *Transformative Adaptation to Climate Change in Coastal Cities* was undertaken in 2019 and 2020. It examined adaptation decision-making processes and barriers to transformative solutions in the case studies of Ho Chi Minh City, Viet Nam, and Jakarta, Indonesia, in order to inform more progressive policy making in the context of Southeast Asian coastal cities. This brief draws on the findings of the case study research paper "Adaptation to Climate Change. Decision Making and Opportunities for Transformation in Jakarta, Indonesia" by Hendricus Andy Simarmata and Gusti Ayu Ketut Surtiari.



The project was sponsored by the Rosa-Luxemburg-Stiftung (RLS) with funds from the German Federal Ministry for Economic Cooperation and Development (BMZ).

For more information and other project outputs please see www.unrisd.org/climate-change-coastal-cities

Key impacts of resettlement in Waduk Pluit

- One resettlement option meant moving far away from the *kampung*, which disrupts social networks
- Significant lifestyle change: moving from an individual house with direct access to the street, convenient for running a small business, to a high-rise apartment building
- Reduced income earning opportunities and insufficient social support: employment opportunities were only available in the further away site, not in the preferred site in close proximity to the *kampung*
- Moving from own house to rental system that requires regular payments offers little flexibility for people with unstable incomes
- Limited participation meant affected households had limited input to the design and implementation of the resettlement and they were left with unmet needs
- Lack of transparency in communicating the official plans gave rise to rumours and perceived unfairness



Flood management strategies	Before 2017	After 2017
Approach to improving the capacity of rivers	"Normalization": the construction of embankments or walls along the Kali Ciliwung and other rivers	"Naturalization": efforts to reduce the flow of water from upstream to downstream by developing a number of infiltration wells and greening floodplain zones
Response to settlements affected by flooding	Relocation, followed by building <i>rumah susun</i> (cheap apartments) for relocated flood-affected residents	Land consolidation, keeping residents in flood-affected areas but with major improvements, involving local residents in preparing a local Community Action Plan
Flood emergency response	Using water pumps (especially in flood gates) to pump water out and distribute it to the canals, reducing water inundation	Using vertical drainage, putting water into the soil through infiltration wells
	Creating a rainbow team: The blue team deals with inundation; the orange team deals with cleanliness, including clogged drains; and the green team focuses on gardening (greening) the city	The rainbow team still exists, and participation of the local community is encouraged to handle local inundation

Source: Simarmata and Surtiari 2020

used to make space for urban development mega-projects and regulation of public spaces. As a result, ensuring the right to the city among the urban poor is a real challenge in urban flood protection.

While resettlement remains a contentious issue with serious social justice implications, political leadership and inclusive urban governance can greatly improve the outcomes of adaptation planning for urban poor people. In the case of Jakarta, a change in provincial government in 2017 opened up possibilities for greater participation of *kampung* residents in urban planning and development, contributing to greater procedural justice. The table compares flood management strategies under different provincial governments, highlighting the importance of leadership in adaptation governance.

Despite the many challenges it faces, Jakarta nevertheless envisions a future as a city free from the threat of flooding and drowning. For the government, the scattered *kampungs* located in green spaces or flood-prone zones are one of the causes to be managed (causing flooding by obstructing waterways)—and resettlement often presents the easiest solution. While the government of Jakarta tries to relocate *kampung* residents to formal housing, this fails to reduce their long-term vulnerability to uncertainties and the risks that generates. Such a pattern can be found in many resettlement examples around the world. As a result, relocated families often get trapped in new risks by returning to the original hazard-prone areas, or remain in their new settlement but with increased socioeconomic vulnerability.

Limits to Transformation Persist

While there have been improvements in participation and in communication between the city and its residents, the overall development vision for Jakarta is as a world-class waterfront city. This leaves little to no room for *kampungs* in the future. Researchers and civil society representatives have pointed to the important knowledge, creativity and potential of *kampungs* and their inhabitants who have been living with floods and adapting to them for a long time. Such localized adaptation knowledge derived from *kampung* practices is rarely transmitted to and taken up by official planners at the city level, however.

Given the limits of local knowledge with regard to future climate impacts and the high levels of flood exposure, one could argue that the large-scale infrastructure measures and upgrading efforts are necessary to protect the people of Jakarta. Without transparent and inclusive deliberations on the future development of the city, the main approaches to adaptation will continue to reflect business-as-usual political economy that favours elites and reproduces existing inequalities. This will miss the mark on transformative change, and fail to promote the more profound shifts that are necessary to tackle the processes of exclusion and marginalization that put people at risk in the first place.

Sources

BNPB (Badan Nasional Penanggulangan Bencana). 2020. *Data & Informasi Bencana Indonesia*. <http://dibi.bnpb.go.id/DesInventar/profiletab.jsp>. Accessed 7 November 2020.

Simarmata, Hendricus Andy and Gusti Ayu Ketut Surtiari. 2020. "Adaptation to Climate Change. Decision Making and Opportunities for Transformation in Jakarta, Indonesia". Research paper. Geneva: UNRISD.

The United Nations Research Institute for Social Development (UNRISD) is an autonomous research institute within the UN system that undertakes multidisciplinary research and policy analysis on the social dimensions of contemporary development issues.

Through our work, we aim to ensure that social equity, inclusion and justice are central to development thinking, policy and practice.

UNRISD gratefully acknowledges support from its institutional and project funders. See www.unrisd.org/funding for details.

Our work would not be possible without their support.



Research and Policy Briefs

UNRISD Research and Policy Briefs aim to improve the quality of development dialogue. They situate the Institute's research within wider social development debates, synthesize its findings and draw out issues for consideration in decision-making processes. They provide this information in a concise format that should be of use to policy makers, scholars, activists, journalists and others.

This Research and Policy Brief was prepared by Dunja Krause based on Simarmata and Surtiari 2020. The opinions expressed do not necessarily reflect the views of UNRISD or RLS.

Copyright © UNRISD. Short extracts may be reproduced unaltered without authorization on condition that the source is indicated. For rights of reproduction or translation, apply to UNRISD.

ISSN 1811-0142. Download free from www.unrisd.org/rpb36

Photo Tom Fisk (public domain via Pexels).

www.unrisd.org

Palais des Nations
1211 Geneva 10
Switzerland
info.unrisd@un.org



UNRISD
United Nations Research Institute for Social Development