



INDONESIA COUNTRY REPORT

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SUMMARY

Indonesia is the 4th most populated country in the world with more than 240 million people. 52% of the population lives in urban centres. Most of these are rapidly expanding secondary cities. Indonesia has 98 cities, 28 of which have a population over 300,000 people. Whereas overall population growth rate, 2010-2015, is estimated to be around 1%, the urban population growth rate is 2.5%. The National Development Planning Agency ([BAPPENAS](#)) estimates that 65% of Indonesians will live in urban areas by 2025.

Within Indonesia, as elsewhere in Asia, rapid urbanization is transforming land-use and communities. The politics behind planning processes are malleable. Trade and the private sector are drivers of urban expansion and able to influence urban development plans. Resilience dialogue, however, generally rests among small groups of civil society actors and rarely includes those wielding direct powers over urbanization processes.

Cities are growing into a startling range of habitats that increase urban vulnerability, especially among the poor. Examples include the densely-populated island of Java, where urban development exposes communities to salt-water intrusion of fresh-water aquifers, and cities in deforested areas of Sumatra and Kalimantan, suffering life-threatening risk from forest fire haze.

Efforts have been made to tackle a lack of trans-boundary coordination, however commitment is low, especially for government administration upstream from where disaster hits. ACCCRN-commissioned interviews and learning events have identified causes as being rooted in a lack of resources to develop and apply solutions.

Political obstacles are also a challenge for governments trying to follow plans implementing better practice when political and personal agendas intervene, especially those involving higher-level decision makers. There are many cases where conservation sites, for example, are rezoned as industrial or residential areas due to a “political agenda” from decision makers attempting show development progress, or increase a city’s economic return. Such cases sacrifice long-term resilience to a short-term vision involving political re-election or receiving good grades from national government, based on monitoring and evaluation tools focused on income generation and expenditure.

Researcher involvement in government programmes, or in other modes of providing information to decision makers is common in Indonesia. Yet their involvement is usually highly technical, such as providing a detailed engineering design for an infrastructure project, and not political. There is therefore no assurance that the research will be used for decision making without political will.

Researchers from local university do become involved in mid / long-term development planning through series of workshops, however this can happen only when there are already strong connections to government officials responsible for the planning development, who have invited the researcher's participation. Personal relationships are a critical asset in influencing city decision-making, and not surprisingly, also for national government.

As building city resilience requires a comprehensive understanding of numerous sectors, to support city governments and surrounding administrations, researchers should seek to play roles in addition to technical information providers, acting as facilitators for different city government agencies and administration to work together, building capacity and knowledge over areas of common interest.

Research conducted in collaboration amongst several different institutions is recommended to strengthen influence and power. Current opportunities include

- Currently the Indonesia government nationally and locally is prioritizing climate change resilience into their agendas. Although this process has only recently started it presents a window of opportunity for researchers to play roles in leading assessments that will need to be undertaken by governments as required by national policy.
- Donor culture has now shifted to providing funding to cities that have already prepared vulnerability and risk assessments, and resilience strategies. This presents opportunities for researchers in provide input to the required documents the local government needs to access donor investment for government program implementation
- Cities in Indonesia are now competing to become the most innovative and SMART (usually relating to use of technology in government administration and management). Demand for innovative solutions to urban and climate change problems are very high, and this can be an opportunity to improve researcher influence through applicable technology, prototypes, and practical solutions for decision makers.

BACKGROUND

Indonesia, with the world's second longest national coastline and around 13,000 islands, has a host of disaster-related challenges likely to be exacerbated by climate change. The [Indonesia Climate Change Sectoral Roadmap \(ICCSR\)](#) identifies climate hazards that will have an impact on key sectors including water access, marine fisheries, health, agriculture and forestry [1]. In the water sector alone, climate change presents four main hazards: water resource scarcity, flood, landslide, and drought. The number of climate-related extreme events is increasing significantly, both qualitatively and quantitatively. Data from the National Disaster Management Agency demonstrate that from 2000-2010, hydrological disasters caused 4,936 casualties and impacted 17.7 million people, 80% of the country's total

Indonesia is the 4th most populated country in the world with more than 240 million people. 52% of the population lives in urban centres. Most of these are rapidly expanding secondary cities. Indonesia has 98 cities, 28 of which have a population over 300,000 people [2]. Whereas overall population growth rate, 2010-2015, is estimated to be around 1%, the urban population growth rate is 2.5%. The National Development Planning Agency ([BAPPENAS](#)) estimates that 65% of Indonesians will live in urban areas by 2025.

URBANIZATION TRENDS

Within Indonesia, as elsewhere in Asia, rapid urbanization is transforming land-use and communities. The politics behind planning processes are malleable. Trade and the private sector are drivers of urban expansion and able to influence urban development plans. Resilience dialogue, however, generally rests among small groups of civil society actors and rarely includes those wielding direct power over urbanization processes [3].

Cities are growing into a startling range of habitats that increase urban vulnerability, especially among the poor. Examples include the densely-populated island of Java, where urban development exposes communities to salt-water intrusion of fresh-water aquifers [4], and cities in deforested areas of Sumatra and Kalimantan, suffering life-threatening risk from forest fire haze [5].

Taking an evidence-based approach to these problems is hindered by a lack of civic participation in planning processes. There is recognition among civil society advocacy groups that academic evidence should be mainstreamed into long-term planning and counter short-term policy and finance priorities. Yet urbanisation trends in Indonesia remain rooted in short-term political and financial interests.

This report therefore focuses on Mercy Corps' role leading the [ACCCRN](#) network in Indonesia, and how it is attempting to influence urbanisation trends in Indonesia. Through ACCCRN, Mercy Corps and partners have built extensive local capacity through the establishment of a City Team in pilot cities consisting of government, academic and civil society partners. Each has been guided in development of a Vulnerability Assessment (VA), City Resilience Strategy (CRS), and support for proposal development and execution of CCA intervention projects. Although capacity building requires time and intensive guidance, results have been evidenced since 2011 by government increasing funds allocated to urban climate change resilience building, and 11 further cities wanting to adopt ACCCRN-Indonesia practices.

URBAN HAZARD PROFILE

Since decentralisation in 1999 [6], cities and regencies in Indonesia are responsible in managing their own administration functions and as identifying income sources, programs, and natural resource use. Although the intention of decentralisation policy was to increase independence and democracy for cities and regencies, it also creates problems of disconnection between them. Flooding, for example, is a common risk to Indonesian cities, with flash floods an annual event expected in every rainy season. Causes identified are largely mismanagement of built areas, a high rate sedimentation because of a lack of river/watershed management. Hazards are increased if there are other settlements expanding upstream¹.

Efforts have been made to tackle a lack of trans-boundary coordination, however commitment is low, especially for government administration upstream from where disaster hits. ACCCRN-commissioned interviews and learning events have identified causes as being rooted in a lack of resources to develop and apply solutions.

Political obstacles are also a challenge for governments trying to follow plans implementing better practice when political and personal agendas intervene, especially those involving higher-level decision makers. There are many cases where conservation sites, for example, are rezoned as industrial or residential areas due to a "political agenda" from decision makers attempting show development progress, or increase a city's economic return. Such cases sacrifice long-term resilience to a short-term vision involving political re-election or receiving good grades from national government, based on monitoring and evaluation tools focused on income generation and expenditure.

¹ Mercy Corps / ACCCRN scoping studies for Jakarta and neighbouring Bogor, and Semarang Regency

SEMARANG CASE STUDY

Urban Climate Change Resilience (UCCR) building in Asia, like many development programmes, tries to influence policy and planning [7, 8]. “Policy” here has varying meanings; policy impact may arise from deriving new policy, spurring regulation to refocus existing policy, or encouraging effective implementation of policy that has become moribund. Challenges arise because the long-term needs required in preparing and implementing climate adaptation measures are not always aligned with the short-term expediencies driving the reality of governance in urbanizing Asia; it is rarely clear what UCCR is mainstreaming into [3].

Semarang became a part of ACCCRN in 2009. A city with a population of over 1,550,000 covering 373 km², it is characterized by a coastal and hilly geography and vulnerable to flood, storm surge landslide and drought. Climate models predict increased variability in seasonal rainfall patterns, so that without effective management and development planning, impacts will worsen over coming decades as occurrences of flood and drought increase.

During the ACCCRN city selection process, Semarang was selected based on its high level of commitment to implementing the program, support from effective city leadership, stakeholder recognition of, and a desire to own programming related to climate change. Local government “champions” with the authority to drive programming forward were essential. A major driver was the internal realization by local officials that climate change issues were already affecting city development, with worsening disaster-risk anticipated.

The head of the city government planning board, BAPPEDA, championed taking the process forward. Strong individuals in positions of influence are essential in legitimizing acceptance of climate change considerations in planning and bringing on board wider stakeholders within the city. Only a locally respected champion with a significant combination of power and influence is able to foster trust among ‘internal circles’ of influence at the beginning of the process.

A challenge faced here, as elsewhere in Indonesia, is that political attention is focused on short-term election cycles: A five-year time span instead of the decades of planning required in adapting to climate change. A compounding factor is that frequent rotation of government staff threatens establishment of institutional memory and learning. This is further complicated by the operational reality of development partners, who too often must work within project cycles of 3 years or less.

The government planning and budgeting processes were identified as providing an opportunity to integrate key climate change priorities into city governance and investment. Mercy Corps could facilitate this process through city partners. A critical success factor was a detailed understanding of how the planning process functioned in both theory and practice.

Intensive engagement, networking and reflective learning were crucial to successfully integrating climate-prioritized issues into development planning. It was important to select local government program partners who could influence the planning process, particularly during the public consultation processes. To accomplish this, in addition to BAPPEDA engagement, we also engaged institutions and representatives outside the government that could contribute additional capacities and credibility to the process of integrating climate change, and resilience more broadly, into planning. These included academic staffers from local universities and local NGOs. All had effective relationships with city government actors and experience of successfully providing advice and technical inputs that could influence planning. Collaboration among these different types of institutions proved effective for mainstreaming climate change adaptation into the government agenda. The government still acted as the ultimate decision maker, and took a lead in coordinating these institutions. NGOs and academics had recognized responsibility for climate-related and vulnerability analyses, providing data and information for incorporating climate adaptation measures into governance processes.

The city Mayor was engaged to establish a legal agreement between the city and the ACCCRN program. In a Memorandum of Understanding the Mayor agreed to delegate several of his staff to support ACCCRN resilience planning activities. This included the city manager and staff from BAPPEDA, the environmental agency, and the public works departments. This was an important step, as government staff cannot work on a non-governmental program without a formal letter of endorsement from the Mayor.

City resilience strategy

Representatives from diverse institutions formed a city team, responsible for implementing all ACCCRN activities conducted in the city, including the development of a Climate Resilience Strategy (CRS), which was finalized prior to release of government spatial planning documents. The integration between CRS and planning processes was made possible by government engagement established at the program outset. The CRS itself consisted of thematic areas that reflected current government priorities. Development of UCCR awareness raising and incorporation into government planning cycles was best accomplished through institutional processes and mechanisms that were already established, not through attempting to set up new ones.

The CRS established a fundamental framework owned by the Semarang government, to be revisited on a yearly basis to anticipate and address new, or newly interpreted climate change impacts. It forms the basis for developing climate resilience planning and consists of broad guidance, prepared by local stakeholders and government; context, evidence and analysis justifying adaptation interventions; priorities for resilience actions; and guidance for the private sector and civil society groups to design and implement their own adaptation actions. The document is consistent with existing planning documents and processes that can be used by local government agencies, and it links with complementary activities for donor and other funding.

These are captured in three critical content components: (1) Climate impact and vulnerability: Explaining city vulnerability with a focus on vulnerable communities and their geographic areas and projected climate-related hazards; (2) Proposed resilience actions, including benefits to vulnerable groups and roles of government and other stakeholders; and (3) Prioritized resilience actions in the context of recognized hazards and existing city plans.

Identifying the timing for CRS completion and incorporation into city planning and budgeting cycles was crucial for success. Once the CRS was prepared, government could utilize information as input for subsequent mid-term development and spatial plans.

Although the CRS is an important tool for city partners to analyse and utilize climate vulnerabilities, enhance planning scopes and propose actions to address climate change, the document is of value only if incorporated into governance mechanisms and cycles. Monitoring will be needed over a period of several years to ensure implementation is effective.

Since designing the CRS and working to integrate it into municipal planning documents, the members of the Semarang city team, including government and civil society, have a better understanding of effective longer term planning in the context of climate-based threats. Members perceive the importance of understanding their current and future vulnerability and they have much higher technical capacity. They have added to their agenda the establishment of an expert climate change team that will be responsible for providing inputs to the city's future development and spatial planning.

Semarang's efforts have been recognised further by national government and donors, they have since been part of many urban resilience initiatives including Zurich flood resilience program and become part of the Rockefeller Foundation pioneered [100 Resilient Cities](#) programme.

A practical indication of success emerged when a developer received approval for a new residential and industrial development in a mangrove conservation supported by ACCCRN (the very type of opaque planning decision that ACCCRN advocates positive change around). In response, local government partners and community members successfully mobilized against the decision, eventually postponing the approval. Authorities and partners are now seeking to tighten zoning regulations to protect long-term eco-system restoration initiatives. This is unlikely to have been possible without the long-term engagement and systems put in place during ACCCRN implementation. Evidence was gathered and used to alter a bad planning decision. This small example is one we hope to see replicated consistently across urbanizing Asia.

INFORMATION DEMAND

Considering the case study, and based on Mercy Corps' further experience in implementing the ACCCRN program in Indonesia for 7 years, we recognize that for government to make sound and thoughtful decisions it is important to provide information in practical, quantifiable language that is aligned with decision-making vision and political agenda. Mayor's, given the impact of decentralization, are highly influential in this regard.

Researcher involvement in government programmes, or in other modes of providing information to decision makers is common in Indonesia. Yet their involvement is usually highly technical, such as providing a detailed engineering design for an infrastructure project, and not political. There is therefore no assurance that the research will be used for decision making without political will. Influence may be possible when providing advice to high-level planning including the Indonesia National Action Plan on Climate Change Adaptation (RAN API) or climate change adaptation regulation by Ministry of Environment and Forestry 2016. However, influencing decisions "on the ground" is usually not possible unless researchers have inroads based on political or financial access.

Now, local government information sources are generally derived from annual reports provided by different agencies within the city. Although some cities have started data centres, such initiatives are very recent and unreliable, and only found in a small number of cities in Indonesia.

Researchers from local university do become involved in mid / long-term development planning through series of workshops, however this can happen only when there are already strong connections to government officials responsible for the planning development, who have invited the researcher's participation. Personal relationships are a

critical asset in influencing city decision-making, and not surprisingly, also for national government.

Public hearings are a useful mechanism sometimes used by city government in gathering information and opinion, however the power for these to influence agendas and results is highly dependent on individual follow-ups and relationship management from the public, including academicians, to city government.

Working groups are a common form of multi-stakeholder team approaches that establish think-tanks for certain issues, which can be used to influence approaches through information supply to government program design and implementation. Usually working groups are tied to specific certain government programmes. When funding finishes, or projects are completed, these working groups can be dismissed or otherwise become dormant.

One of the most effective ways to influence policies and ensure research is used for policy-making is by joining alliances. When research is conducted collaboratively by several different institutions, the collective voice can become powerful. An example with an urban and ecosystem focus in the Indonesia Climate Alliance, comprised of many different NGOs and research think-tanks, working together and providing policy papers for climate change adaptation agenda for Indonesia.

RECOMMENDATION

As building city resilience requires a comprehensive understanding of numerous sectors, to support city governments and surrounding administrations, researchers should seek to play roles in addition to technical information providers, acting as facilitators for different city government agencies and administration to work together, building capacity and knowledge over areas of common interest.

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government needs to access donor investment for government program implementation

- Cities in Indonesia are now competing to become the most innovative and SMART (usually relating to use of technology in government administration and management). Demand for innovative solutions to urban and climate change problems are very high, and this can be an opportunity to improve researcher influence through applicable technology, prototypes, and practical solutions for decision makers.

Priority areas for research can also be based on commitments made by the Indonesian government to international frameworks such as SDG and Paris Agreements, which include:

- Integration between DRR and CCA
- Loss and damage to climate change impact
- Vulnerability and risk assessment for all cities and regencies in Indonesia

The government also prioritises better understanding the relationships between existing policies on ecosystem services, spatial planning and zoning, and environmental management to implementation and enforcement. This is because there are many regulations in place a lack of enforcement and practice by local authorities.

REFERENCES

1. BAPPENAS, *Indonesia Climate Change Sectoral Roadmap (ICCSR)*. 2010, BAPPENAS, Government of Indonesia: Jakarta, Indonesia.
2. United Nations, *World urbanization prospects*. 2014, United Nations.
3. Friend, R., et al., *Mainstreaming urban climate resilience into policy and planning; reflections from Asia*. Urban Climate, 2014. **7**: p. 6-19.
4. Delinom, R.M., *Groundwater management issues in the Greater Jakarta area, Indonesia*. TERC Bull, University of Tsukuba, 2008. **8**(2): p. 40-54.
5. Balch, O., *Indonesia's forest fires: everything you need to know*, in *Guardian*. 2015, Guardian: London, UK.
6. Ahmad, E., B. Hofman, and A. Mansoor, *Indonesia: Decentralization–Opportunities and Risks*. IMF and World Bank Resident Mission, 2000.
7. Klein, R.J., E.L.F. Schipper, and S. Dessai, *Integrating mitigation and adaptation into climate and development policy: three research questions*. Environmental science & policy, 2005. **8**(6): p. 579-588.
8. Huq, S., et al., *Mainstreaming adaptation to climate change in least developed countries (LDCs)*. Climate Policy, 2004. **4**(1): p. 25-43.
1. BAPPENAS, *Indonesia Climate Change Sectoral Roadmap (ICCSR)*. 2010, BAPPENAS, Government of Indonesia: Jakarta, Indonesia.
2. United Nations, *World urbanization prospects*. 2014, United Nations.
3. Friend, R., et al., *Mainstreaming urban climate resilience into policy and planning; reflections from Asia*. Urban Climate, 2014. **7**: p. 6-19.
4. Delinom, R.M., *Groundwater management issues in the Greater Jakarta area, Indonesia*. TERC Bull, University of Tsukuba, 2008. **8**(2): p. 40-54.
5. Balch, O., *Indonesia's forest fires: everything you need to know*, in *Guardian*. 2015, Guardian: London, UK.
6. Ahmad, E., B. Hofman, and A. Mansoor, *Indonesia: Decentralization–Opportunities and Risks*. IMF and World Bank Resident Mission, 2000.
7. Klein, R.J., E.L.F. Schipper, and S. Dessai, *Integrating mitigation and adaptation into climate and development policy: three research questions*. Environmental science & policy, 2005. **8**(6): p. 579-588.
8. Huq, S., et al., *Mainstreaming adaptation to climate change in least developed countries (LDCs)*. Climate Policy, 2004. **4**(1): p. 25-43.
9. Blöndal, J.R., I. Hawkesworth, and H.-D. Choi, *Budgeting in Indonesia*. OECD Journal on Budgeting, 2009. **9**(2): p. 49.
10. Hadiz, V.R., *Decentralization and Democracy in Indonesia: A Critique of Neo-Institutionalist Perspectives*. Development and Change, 2004. **35**(4): p. 697-718.

11. Downs, F. and L. Tacconi. *Corruption, deforestation and environmental injustice: the case of Indonesia*. in *Paper presented at the 11th Global Conference on Environmental Justice and Global Citizenship*. 2012.