



# Critical Aspects of Urban Resilience: Cases from Indonesia

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# A. Background

- The composition of Indonesia's population living in cities in 2020 is projected to reach 56.7% and in 2035 it will reach 66.6% (BPS, 2010).
- The majority of big cities are located in coastal areas.



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## Background

- Air pollution that has exceeded emission limits and health standards.
- Industrial sewage and waste are discharged into sewers with minimal or even untreated water treatment.
- Access to clean and safe drinks has progressed along with economic growth, while other things have tended to deteriorate.

# Challenges

From the spatial planning aspect, urban problems are:

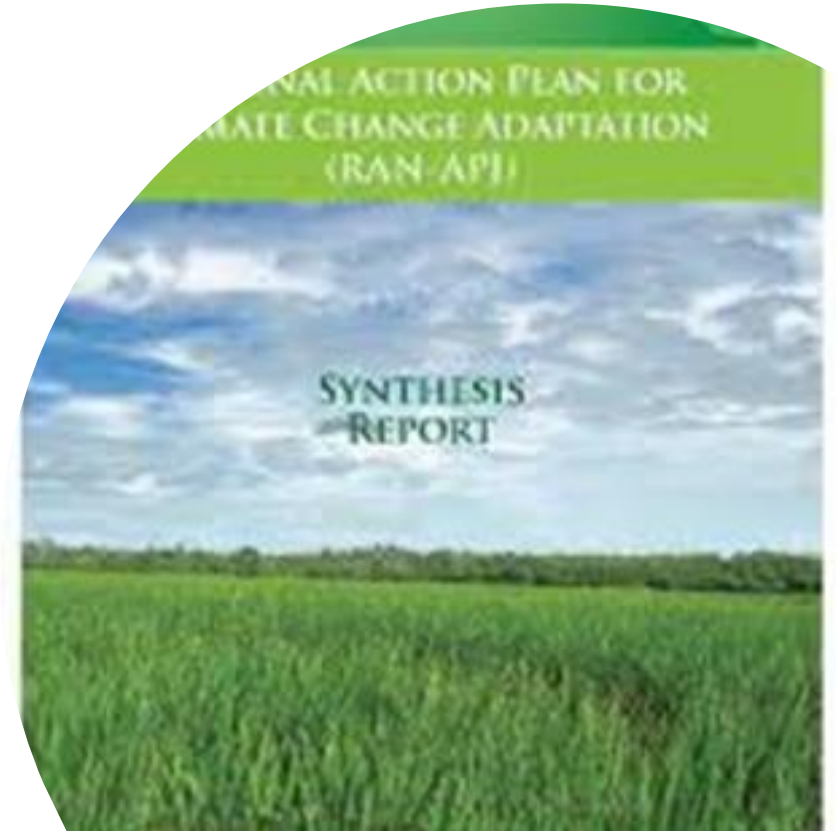
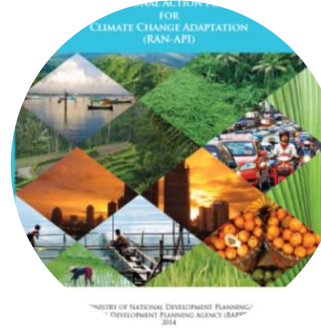
- There are still many cities that do not meet minimum service standards.
- High urban poverty.
- Low urban competitiveness and low social, economic and environmental resilience of the city in a sustainable manner.
- Low capacity for natural disaster mitigation and adaptation to climate change.





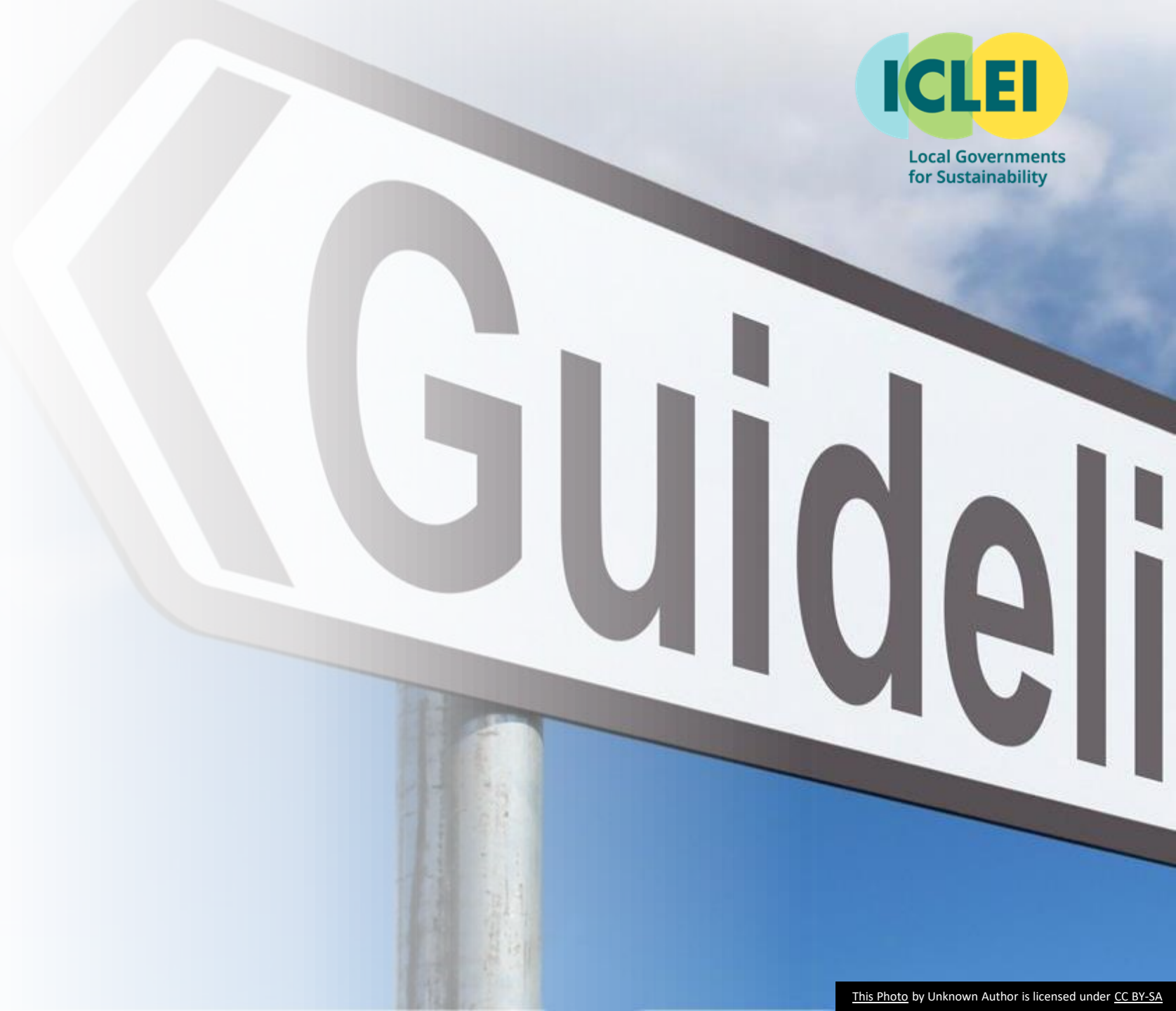
DENGAN RAHMAT TUHAN YANG MAHA ESA  
MENTERI KESEHATAN REPUBLIK INDONESIA,

- Menimbang :
- a. bahwa perubahan iklim global menjadi salah satu ancaman serius yang dapat menurunkan kualitas lingkungan hidup dan berdampak terhadap kesehatan masyarakat, sehingga perlu dilakukan upaya dan strategi adaptasi baik untuk jangka pendek, menengah, maupun jangka panjang;
  - b. bahwa telah disusun Rencana Aksi Nasional Adaptasi Perubahan Iklim (RAN-API) dan Strategi Adaptasi Sektor Kesehatan terhadap Dampak Perubahan Iklim;
  - c. bahwa untuk melakukan upaya dan strategi adaptasi kesehatan terhadap dampak perubahan iklim perlu dilakukan integrasi bersama lintas program;



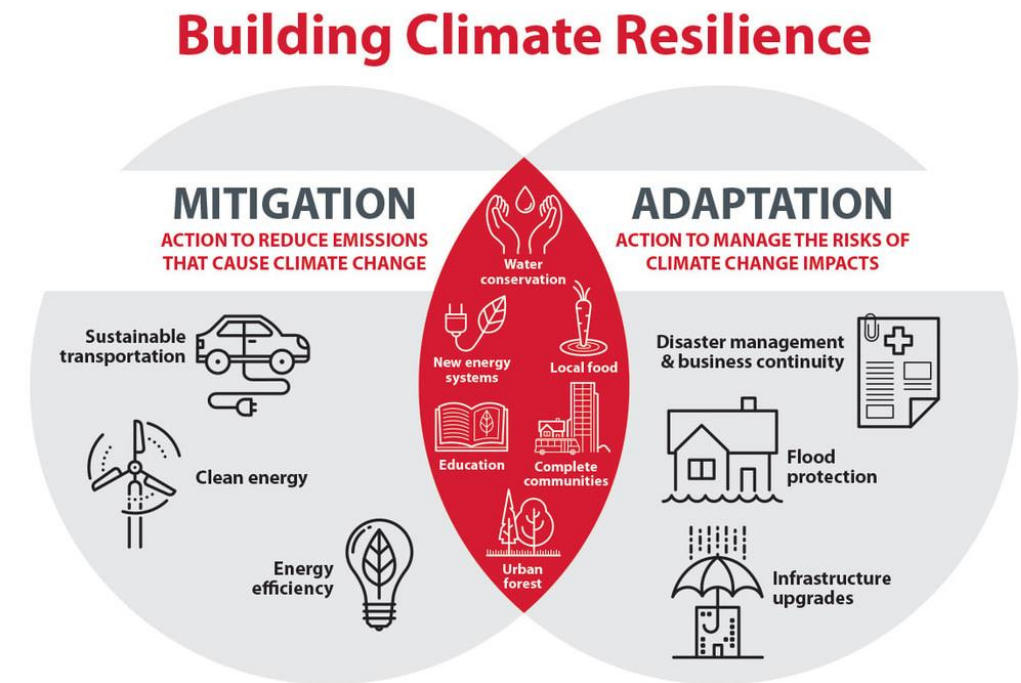
# Climate Change Policy and Regulation

- Procedures for Implementing Strategic Environmental Studies.
- Guidelines for Preparing Climate Change Adaptation Actions.
- Guidelines for the Assessment of Vulnerability, Risk and Impact of Climate Change.
- Disaster risk reduction based spatial planning.
- Guidelines for Disaster Risk Assessment.
- Guidelines for Measurement, Reporting and Verification (MRV) of Climate Change Mitigation Actions.
- Guidelines for Calculating and Reporting GHG Inventory.
- National Registry System.
- Technical guidelines for the preparation of the SDGs action plan



# Pointing the integrating planning between CCA & CCM

- Currently the implementation of the two activities is separate, which is based on the idea that:
  - The separation is intended for prioritization.
  - Ensuring the commitment of the parties to carry out the mandate to reduce greenhouse gas emissions.
  - Facilitating planning and budgeting (including funding schemes), implementation, monitoring and evaluation.
- However, from an urban perspective, an approach outside the sector's mainstream is needed so far. Cities cannot be seen by sector. The socio-cultural, economic and environmental impacts of urban areas cannot be confined to administrative boundaries
- Understanding the intent and purpose of both. Make it easy to convey these two actions to synergize with policies or development agendas - community welfare-.
  - SDG's.
  - DRR - Disaster Risk Management.
  - Global Agenda related to the environment.





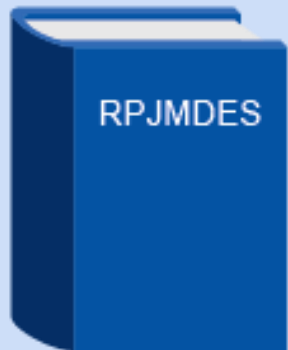
# Climate Resilience Governance



- Mechanisms to respond to climate change through adaptation will be good if built through processes that consider the principles of good governance, human resource capacity, funding and institutions, and natural resource management (Piya Abeygunawardena and others ADB, 2003).
- The factors that influence vulnerability are climatic factors and other substantial non-climatic factors, such as health, education, socio-economic and environmental levels, shaped by political and economic processes (Kelly and Adger 2000; O'Brien et al. 2004).
- 3 (three) main reasons climate change adaptation strategies are carried out at the local or regional level, namely; 1) felt locally affecting the source of life and livelihood activities, economy, health, and others. 2) Vulnerability and adaptive capacity are determined by local conditions. 3) Regional or national vulnerability is influenced by various local vulnerability factors (OECD, 2009).



# DEVELOPMENT OF A Climate Change ADAPTATION PLAN (Minister of Environment and Forestry Regulation No. P-33/2016)



Identification of specific regional and/or sector coverage targets.

Formulation of the problem of the impact of Climate Change.

Implementation of climate risk and vulnerability assessment.

Preparation of PI adaptation options.

Prioritizing PI adaptation options.

# What should be improved (I)?

- **The integration of CCA and DRR requires work across sectors and multilevel governance → , the fact that they operate separately in the plans, programs, and activities of each organization/Ministry/Agency.**
  - The urgency of these two issues is a momentum for every key sector to work based on an integrated plan.
  - The funds used are utilized in terms of financing interests, and product development has rules and considerations to support regional resilience through a program approach that can realize effective and efficient programs.
- **Integrating CCA and DRR requires cross-regional work (landscape and seascape approach)**
  - Each region or region has a different typology, both geographical and demographic aspects. Therefore, the management of regions/regions cannot be approached in a sectoral way but must be based on a regional basis tied to one area or watershed.



# What should be improved (2)

The integration of CCA and DRR must touch on economic issues and social capital.

- Touches the issue of resilience to the economy and social community.
- CCA and DRR integration requires strong **social capital**.
- The strength of adaptive capacity is strongly influenced by social and economic conditions, the environment, and governance.

# Social Capital – Climate Resilience



- Social capital becomes a helping factor when technology, infrastructure and funding are unable to prevent disasters.
- The solution to this change is always faced with technological problems, but he argues that it is only a traditional view that always identifies adaptation technology with expensive and sophisticated instruments, such as the construction of dams or embankments, early detection tools, irrigation schemes, and others.
- The solution to the problem of financing barriers, the use of technology and the dissemination of information and understanding of climate among farmers, for example, is strongly influenced by social capital (Marther et al. 2012)





# What should be Improved (3)

API and DRR integration requires availability and ease of obtaining data.

- Data availability and accessibility, starting from base maps, thematic maps for base and analysis, and synthesis thematic maps must be created along with other physical data points.
- Regional capacity to carry out data collection activities for internal and external data sources.
- The need for data does not only talk about the quality of the data regarding the ease of all parties to understand it and the content or validity of the data, but also the ease of obtaining it.

The integration of API and DRR requires interdisciplinary knowledge and knowledge.

- Starting with the climate phenomenon itself, the consequences of climate change and the impact on natural physical and biological systems to the conflicts it causes to the social and economic community.
- Disaster risk reduction and adaptation interventions must positively and effectively affect others, not just one particular field or sector. This means that the intervention should not create injustice for others.

# Current Opportunity

- The role is to facilitate local initiatives to strengthen further sustainable development and climate change agendas in their local policies.
- Through a regional or regional approach, closer opportunities to find out the microclimate are easier to implement.
- By looking at the issue of climate change from the positive side, this is a momentum for the city to place it as an opportunity to transform community activities and development.

## 13 CLIMATE ACTION





# CONCLUSION

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- A. **Why Do We Need Integration between Climate Change Adaptation and Mitigation?** Both are involved in suppressing sources and anticipating impacts; both must complement each other (co-benefit); Realizing cost-effectiveness of climate change action; Assist in prioritizing climate change action.
- B. **What is needed?** Ensuring policies based on knowledge and evidence - to address needs that match local characteristics -; Knowledge and evidence is wrapped in the datum (data collection and in order to be accountable, the data is published from the data guardian); easy-to-access data on time, low cost, understandable for all users (government, business actors and society). Why is it easy to understand? As a tool to help all stakeholders involved in decision making. Even data must be open from additions/data entries/revisions; Democratizing data.
- C. **Modalities:** enabling environment for adaptation and mitigation. Challenges: recognition/ acceptance among stakeholders; especially between ministry. Business and society will naturally follow suit. Knowledge Management - Data and Information Center.

# Recommendation

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*The issue of bureaucratic coordination / communication must be broken through the use of technology, for example the existence of a climate change dashboard, which can be monitored and utilized by all stakeholders.*

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*Accelerating the space in urban communities builds climate resilience. Enabling conditions that usually occur are very reactive (policies, laws / regulations, technical instruments) so that they will always be late in following the threats and impacts of climate change.*

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*Until now in Indonesia, it is relatively not optimal to develop a comprehensive and comprehensive climate change adaptation strategy. Generally they work based on a limited target time and budget. **Therefore, the existence of a climate change activity dashboard are crucial and urgent***

