United Cities and Local Governments Asia-Pacific

POLICY BRIEF

Insights and Analysis on Local Governance in Asia-Pacific

NO.002/August 2024

Developing and Implementing Effective Climate Resilience Strategies for Southeast Asian Cities

- *Cities across Southeast Asia are increasingly experiencing extreme weather events like typhoons, floods, and heatwaves have increased by 30% in the past decade [1] [2].*
- *By 2050, up to 48 million people could be displaced due to rising sea levels, particularly affecting coastal cities in Asia Pacific[3].*
- *Urbanization and industrialisation are causing significant environmental degradation, with a 1.2% annual decrease in forest cover contributing to carbon emissions and biodiversity loss [4].*
- *Climate change disproportionately affects the 70% of Southeast Asia's poor, worsening socio-economic inequalities [5].*
- *Around 50% of municipalities lack the financial resources and technical expertise to develop effective climate resilience initiatives [5].*

Key Messages

- Local governments develop and enforce policies that create and execute climate resilience strategies specific to their environmental, social, and economic contexts.
- Collaboration between local governments, the private sector, non-governmental organisations, and community groups is essential for effective climate action.
- Encouraging the adoption of smart technologies and innovative solutions can significantly improve climate monitoring, early warning systems, and environmental management
- To sustain these initiatives, securing funding from national governments, international donors, and private sector investment policies is crucial.
- Providing training and technical assistance to local government officials is vital for building the necessary skills to implement and monitor climate resilience and sustainable development strategies.
- Establishing comprehensive data collection and monitoring systems will help track progress and outcomes

Overview

Local governments and municipalities in Southeast Asia are confronted with the urgent and complex issue of climate change, which poses significant threats to urban and rural communities. The region faces climate-related challenges, including more frequent and severe weather events, rising sea levels, and increased environmental degradation. These impacts jeopardise infrastructure and public health and exacerbate socio-economic inequalities, making it imperative for local governments to take proactive measures to mitigate and adapt to these changes. [6].

What's the Issue?

The core issue addressed by this policy brief is the urgent need for local governments in Southeast Asia to develop and implement effective climate resilience strategies and low-carbon initiatives. Despite their critical role in achieving the Sustainable Development Goals (SDGs), local governments often need more financial resources, insufficient technical capacity, and fragmented policy frameworks. [7]. This brief provides strategic guidance and actionable recommendations to empower local governments to enhance their climate resilience and promote sustainable urban development.

Why is this Important?

Addressing climate change is essential for the long-term sustainability and resilience of Southeast Asian communities. The impacts of climate change are already being felt across the region, threatening livelihoods, ecosystems, and economic stability [5]. Local governments can better navigate these challenges by focusing on localised solutions, fostering collaboration among various stakeholders, and ensuring their communities are prepared for the future [8]. Effective climate resilience strategies and low-carbon initiatives protect vulnerable populations and contribute to global efforts to combat climate change, aligning local actions with national and international goals [9]. This policy brief emphasises the importance of empowering local governments to take decisive action, leveraging their unique position to drive meaningful change at the community level.

Acknowledgements

This policy brief was developed by the Urban-Act of the United Cities and Local Governments Asia Pacific (UCLG ASPAC). We extend our heartfelt gratitude to the local government officials, Asia Pacific Local Government Coordinating Body (APLG) representatives and partners who participated in the Local Government Assembly Meeting. Special thanks to the Bangkok Metropolitan Administration (BMA) for hosting the assembly and to the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) as the organizer of the Asia-Pacific Forum on Sustainable Development (APFSD). We also acknowledge the contributions of experts in climate science, urban planning, and public policy who reviewed the draft policy brief and provided critical feedback. This collective effort underscores the importance of collaboration and shared commitment to achieving the Sustainable Development Goals (SDGs) and building a resilient and sustainable future for Southeast Asian communities.

Research Method

The development of this policy brief involved a comprehensive approach that included a thorough literature review of climate resilience and sustainable development, analysis of case studies from Asia-Pacific municipalities, and extensive stakeholder consultations. Engaging with local government officials, APLG members, and partners provided diverse perspectives and insights were captured during the participation in regional platform or events such as the Asia-Pacific Forum on Sustainable Development (APFSD), facilitated knowledge exchange and highlighted best practices. Qualitative data were collected and analysed to identify trends and establish baseline indicators. Finally, the draft policy brief was reviewed by experts to ensure accuracy and feasibility, resulting in a well-founded and actionable set of recommendations tailored to the unique challenges and opportunities faced by local governments in Southeast Asia.

Policy Options

The following section outlines several policy options for local governments in Southeast Asia to enhance climate resilience and promote sustainable development. These options address regional municipalities' unique challenges, leveraging local strengths and fostering collaboration among various stakeholders. Each policy option is evaluated based on its description, main advantages, potential disadvantages, implementation costs, feasibility, and responsible stakeholders. Local governments can select and adapt the most suitable strategies to their specific contexts by considering these factors.

Policy Option	Implement Localised Climate Resilience Strategies	Foster Multi-Stakeholder Partnerships for Climate Action	Leverage Technology and Innovation
Description	Develop and enforce policies that require local governments to create and execute climate resilience strategies tailored to their specific environmental, social, and economic contexts.	Create policies that promote and facilitate partnerships between local governments, the private sector, non-governmental organisations (NGOs), and community groups.	Formulate policies that encourage the adoption of smart technologies and innovative solutions to enhance climate monitoring, early warning systems, and overall environmental management at the local level.
Main Advantage	• Increased climate resilience at the local level. • Enhanced capacity of local governments to respond to climate-related challenges. • Better alignment of local actions with national and global climate goals.	• Enhanced collaboration and resource sharing among stakeholders. • Holistic and inclusive solutions to climate-related issues. • Increased investment and innovation in local climate projects.	• Improved ability of local governments to predict and respond to climate events. • Enhanced efficiency in managing environmental resources and reducing carbon emissions. • Adoption of sustainable practices and technologies at the local level.
Potential Disadvantage	• Requires substantial initial investment. • Varying local capacities may affect the uniformity of implementation.	• Coordination challenges among diverse stakeholders. • Varying priorities and interests may lead to conflicts.	• Technology adoption barriers, including lack of expertise and resistance to change. • Initial setup costs may be high.
Costs and/or Feasibility of Implementation	• Moderate to high costs, depending on the existing infrastructure and capacity. • Feasible with proper support from national governments and international organisations.	• Low to moderate costs, primarily related to coordination and communication efforts. • Highly feasible with commitment from all stakeholders.	• Moderate costs, primarily for the acquisition and implementation of new technologies. • Feasible with appropriate investment and support from technology providers and international donors.
Responsible Stakeholders	• Local governments. • National government agencies. • International organisations	• Local governments. • Private sector. • NGOs. • Community groups	• Local governments. • Technology companies. • International donors

Implementing these policy options will undoubtedly encounter several obstacles, each unique to the specific strategies and the local contexts in which they are applied. Addressing these challenges effectively requires clearly understanding the potential hurdles and developing robust strategies to overcome them. The following section provides a detailed examination of the obstacles to implementation and proposes strategic measures to ensure the successful adoption and execution of the policy options.

Policy Option	Implement Localized Climate Resilience Strategies	Foster Multi-Stakeholder Partnerships for Climate Action	Leverage Technology and Innovation
Obstacle to Implementation	Limited financial resources and varying local capacities	Coordination challenges and potential conflicts among stakeholders	Technology adoption barriers and high initial costs
Strategies for Implementation	• Secure funding from international donors and national governments. • Provide capacity-building programs to enhance local capabilities.	• Establish clear communication channels and governance structures. • Create shared goals and responsibilities to align interests.	• Provide training and support for technology adoption. • Seek funding for initial investments from international donors and technology providers.

Further important considerations

Several important considerations must be considered to successfully implement the proposed policies and ensure that local governments in Southeast Asia can effectively address climate resilience and promote sustainable development. These considerations

relate directly to the findings and recommendations of the policy brief and are aligned with the actual conditions and challenges faced by municipalities in the region.

Monitoring Policy Implementation
Establishing clear indicators and targets is crucial to track the progress and effectiveness of the implemented policies. These should be specific, measurable, achievable, relevant, and time-bound (SMART) to provide a structured framework for assessment. **For instance,** municipalities should aim to develop and implement localised climate resilience plans to achieve this in 100% of Southeast Asian municipalities by 2026. Additionally, fostering multi-stakeholder partnerships should have a target of establishing at least five active partnerships per municipality by 2025. The adoption of smart technologies for climate monitoring should also be prioritised, to implement these technologies in at least 50% of municipalities by 2025.

Capacity Building
Local governments need access to training and resources to build the necessary skills for policy implementation. This includes workshops, technical assistance, and continuous education programs tailored to the specific needs of each municipality. Municipalities can better design, implement, and monitor climate resilience strategies and sustainable development initiatives by enhancing local government officials' technical and administrative capacities.

Funding and Resources
Local governments should seek financial support from national governments, international donors, and private sector investments. Transparent financial planning and resource allocation are crucial to ensure funds are used efficiently and effectively. Innovative financing mechanisms, such as climate bonds or public-private partnerships, can also be explored to supplement traditional funding sources.

Stakeholder Engagement
Inclusive engagement of all relevant stakeholders is vital to ensure that the policies are equitable and address the needs of all community members. This includes regular consultations and participatory planning processes involving marginalised groups, such as women, indigenous peoples, and low-income communities. Local governments can develop more comprehensive and effective climate resilience and sustainable development strategies by incorporating diverse perspectives.

Data and Monitoring Systems
Local governments should establish comprehensive databases and leverage digital tools to collect, analyse, and share data on climate resilience and sustainability efforts. Data transparency and accessibility will enhance accountability and facilitate the continuous improvement of policies and initiatives. Developing robust data collection and monitoring systems is essential to track progress and outcomes.

Key Next Steps

To move forward, local governments should undertake detailed baseline assessments to understand the status of climate resilience and sustainability efforts. This will help tailor the policies to specific local contexts and identify priority areas for action. Implementing pilot programs in select municipalities can test the proposed policies and gather insights, providing valuable lessons and best practices that can be scaled up and replicated across the regionRegular reviews of the policy implementation process should be scheduled to ensure continuous improvement, with bi-annual assessments to evaluate progress against the set indicators and targets. Engaging with regional and global forums, such as the ASEAN Mayors Forum (AMF) and the Asia-Pacific Forum on Sustainable Development (APFSD), will allow municipalities to share progress, learn from other regions, and align local actions with international frameworks. The process of drafting the AMF declaration will involve providing input and injection from this policy brief until its adoption, including considerations for the next APFSD meeting (APLG assembly).

Correspondence:

Agung Zulhatta, Research and Learning Officer, UCLG ASPAC
Email: agung.zulhatta@uclg-aspac.org

UCLG ASPAC Contact details.

The United Cities and Local Government Asia Pacific (UCLG ASPAC) Secretariat
Jakarta Capital City Government Office (City Hall of Jakarta)
Building H, 21st Floor Jl. Medan Merdeka Selatan No. 8-9
Central Jakarta 10110, Indonesia

Phone : +62 21 389 01 801
Member Services WhatsApp : +62 811 8047 002
Fax : +62 21 389 01 802

Urban-Act
Integrated Urban Climate Action for Low-Carbon & Resilient Cities

Supported by:
Federal Ministry for Economic Affairs and Climate Action
on the basis of a decision by the German Bundestag
IKI INTERNATIONAL CLIMATE INITIATIVE
-Act n Climate Action & Resilient Cities
Project partners
giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
ESCAP Economic and Social Commission for Asia and the Pacific
UCLG ASPAC United Cities and Local Governments Asia-Pacific
tu dortmund university
University of Stuttgart Germany

References

[1] J. Torti, “Floods in Southeast Asia: A health priority,” *J. Glob. Health*, vol. 2, no. 2, Dec. 2012, doi: 10.7189/jogh.02.020304.

[2] P. Wattanachareekul, N. Choowong, S. Pailoplee, and M. Choowong, “Resilience to unusual flooding after 2021 tropical storms in part of mainland Southeast Asia,” *Front. Ecol. Evol.*, vol. 10, no. January, pp. 1–7, 2023, doi: 10.3389/fevo.2022.1072993.

[3] R. Fuchs, M. Conran, and E. Louis, “Climate Change and Asia’s Coastal Urban Cities,” *Environ. Urban. ASIA*, vol. 2, no. 1, pp. 13–28, Mar. 2011, doi: 10.1177/097542531000200103.

[4] H.-H. Lee *et al.*, “Impacts of air pollutants from fire and non-fire emissions on the regional air quality in Southeast Asia,” *Atmos. Chem. Phys.*, vol. 18, no. 9, pp. 6141–6156, May 2018, doi: 10.5194/acp-18-6141-2018.

[5] J. Beirne, N. Renzhi, and U. Volz, “Bracing for the Typhoon: Climate change and sovereign risk in Southeast Asia,” *Sustain. Dev.*, vol. 29, no. 3, pp. 537–551, May 2021, doi: 10.1002/sd.2199.

[6] L. Daudey and T. Matsumoto, “Integrating urban resilience and resource efficiency into local green growth strategies: the case of fast-growing cities in Southeast Asia,” *Int. J. Urban Sustain. Dev.*, vol. 9, no. 2, pp. 226–241, May 2017, doi: 10.1080/19463138.2017.1339278.

[7] F. Lord, “Transformation to Sustainable and Resilient Urban Futures in Southeast Asia,” *ISPRS Ann. Photogramm. Remote Sens. Spat. Inf. Sci.*, vol. VI-3/W1-20, pp. 43–50, Nov. 2020, doi: 10.5194/isprs-annals-VI-3-W1-2020-43-2020.

[8] S. Ramazanu *et al.*, “Current landscape of climate change adaptation and health preparedness among indigenous populations in Southeast Asia,” *Public Heal. Challenges*, vol. 2, no. 4, pp. 2–5, Dec. 2023, doi: 10.1002/puh2.129.

[9] A. Gouldson *et al.*, “Cities and climate change mitigation: Economic opportunities and governance challenges in Asia,” *Cities*, vol. 54, pp. 11–19, May 2016, doi: 10.1016/j.cities.2015.10.010.