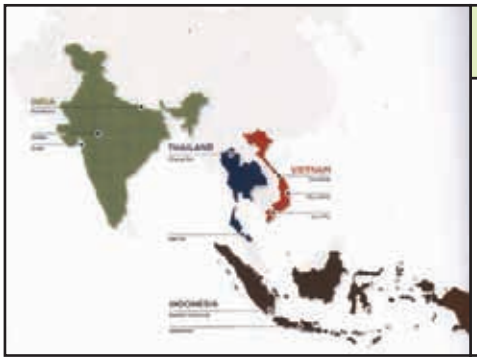
PHOTOSTORY

KEY MESSAGES FROM 7 YEARS OF ACCCRN

In order to achieve just, inclusive and sustainable development in the Greater Mekong Sub-region (GMS), we must build cities that are resilient to climate change and the related challenges that come with urbanization.



Introduction to ACCCRN

ACCCRN is a regional network that connects people and institutions building inclusive Urban Climate Change Resilience (UCCR) to create knowledge, share resources, and influence urbanization agendas. ACCCRN aims to improve the lives of vulnerable people by building the resilience and capacity of cities to current and future climate risks, which in turn safeguards the landscapes cities both rely on and affect.

Regionalization and urbanization

The Greater Mekong Sub-region is urbanizing rapidly, with this comes increasing inequity and governance challenges.

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In the Greater Mekong Sub-region, regional economic integration is one of the main factors driving urban development and growth. Since the creation of the Association of Southeast Asian Nations (ASEAN), the flow of economic activities between countries has increased.

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Border towns are becoming urban hub of economic activity. Infrastructure development increases connectivity, international economic activity, and urbanization in a rapidly spiraling cycle. As small towns expand follow this pattern, they inherit the pollution, traffic and resource management challenges of larger cities.

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Regional economic integration also influences the labor market. The explosion of new infrastructure needs workers, large populations of migrant workers also create new demands for housing, clean water, and waste disposal. Regionalization and urbanization have impacts not only on the physical landscape of GMS countries, but also on social landscapes and demographics.

Urbanization leads to changes in land use, particularly the conversion of agricultural or forestland to industrial plants, highways or high-density urban housing. These changes to the ecological landscape are often unplanned and unregulated, with little consideration of long-term impacts on local communities or ecosystems.

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Throughout the region, there is a lack of public participation in decision-making processes. Additionally, the issues that result from urbanization are complex and interconnected. Government offices often lack efficient inter-office communication in determining which branch will take responsibility in a given situation. This leads to gaps in addressing the needs of multiple stakeholders on both large and small scales.

Climate change

Climate impacts are uneven and will exacerbate already existing problems in the GMS region.

Climate change exacerbates existing weather-related problems. The most common effects of climate change are extreme and unpredictable weather patterns.

- Rainfall is erratic; municipal irrigation departments in charge of collecting and storing water in the wet season for use in the dry season no longer know when to open or close their dams.
- Severe cold spells kill livestock, and record temperatures during the hot season kill crops.
- Areas that already experience flooding and drought will face more severe floods and harsher droughts.


http://web.mst.edu/~rogersda/teton_dam/


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Climate change is particularly worrying for the GMS region because much of the urbanization is happening in areas already at risk from climate related hazards such as along coasts, rivers, marshland and floodplains.


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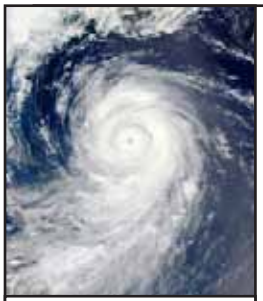
Current plans of resource management are based upon old understandings of climate patterns. With the new and inconsistent weather patterns brought about by climate change, those plans become obsolete.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Climate change brings with it new patterns of risks and impacts. Any urban planning and new infrastructure to be flexible enough to adjust.

Current infrastructure, such as dams, is outdated and is unable to accommodate the increasing demands of a growing urban population and the increasingly severe weather events.


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Understanding climate vulnerability in urbanizing areas

There are multiple sources of climate vulnerabilities, but current patterns and processes of urbanization contribute to increasing risks.

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The significant changes in land use and densely built-up areas that accompany urbanization interact with the effect of climate change to create a set of complex challenges for local governments and communities.

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Dense urban construction leads to *"urban heat islands,"* which raise the temperature of urban areas several degrees higher than surrounding rural areas, and have negative impacts on air quality and therefore on human health.

Converting agricultural land and wetlands that traditionally absorb runoff from heavy rains into urban areas increases the risk of flash flooding because it becomes harder for the water to be absorbed back into the ground. Poorly planned infrastructure can also increase the danger of flooding by blocking drainage systems.

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Rapid, large-scale construction projects often have inadequate waste disposal systems, leading to contamination of water sources and soil. This puts urban residents at a greater risk of exposure to pollution.

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Urban areas, which are increasingly important to the economies of GMS countries, are consistently built in areas at high risk of climate disasters. This increases the vulnerability of countries' entire economies to climate change.

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The impacts of climate shocks are felt unevenly throughout urban areas. Migrant workers and the urban poor often face the harshest impacts of climate shocks.

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They often informal settlements in high-risk areas, such as areas prone to flooding, and their dwellings are often poorly ventilated and/or insulated, leaving them vulnerable to extreme temperatures.

Migrant workers who rely on the informal economy of day labor lack resources and access to social services to recover from crises. This combination of factors puts them at particular risk to climate shocks and disasters.

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The effects of urbanization and climate change are not contained within cities or national borders. When migrant workers in urban areas experience the fallout of climate disasters, communities in rural areas that rely on their financial support are also impacted. These relationships are often international, such as Burmese laborers working in Phuket, Thailand, meaning that the impacts are international in scale.

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Infrastructure projects in one county, such as hydropower dams in Laos, can affect the entire region, e.g. changing the water flow of the entire Mekong river and its tributaries. Any attempts to conceptualize urban vulnerabilities to climate change must also consider these broader pictures and not just the areas physically bounded within any one city.

Building resilience

Building resilience requires drawing on the knowledge and productive engagement of multiple stakeholders.

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To build urban resilience to climate change, we must learn from previous shocks and crises. However, given climate change's unpredictable nature, we must also aviod relying solely on old predictions. We must utilize knowledge from both scientific research and local data gathered from climate change's impact on people's everyday lives.

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Urban climate resilience must address the critical governance challenges and gaps that plague the GMS. Climate change must be acknowledged and accounted for in future planning and urbanization cannot continue in its current unchecked patterns.

A just urban future must include more opportunities for well-informed public participation in decision making, and governments that actively enforce laws protect a livable future for all their citizens. Building urban climate resilience requires us to ask fundamental questions about what kind of future we are building, and for whom.

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Building resilient, socially equitable and just urban spaces requires the engagement of multiple stakeholders from large corporations and national governments to NGOs, academics and local communities. Participation in planning and decision making processes must be expanded to include a greater diversity of voices, including voices at the community and local levels, those that will be most impacted by both urbanization and climate shocks.

Conclusion & Next Steps

Building urban climate resilience in the GMS is a crucial part of developing a future of just, inclusive, and sustainable development. In order to create cities that serve the needs of all their residents, even the most vulnerable, we need to develop urban spaces that are resilient and adaptable not only to changes in climate and weather patterns, but also to the social and governing challenges that come with economic growth and urbanization.

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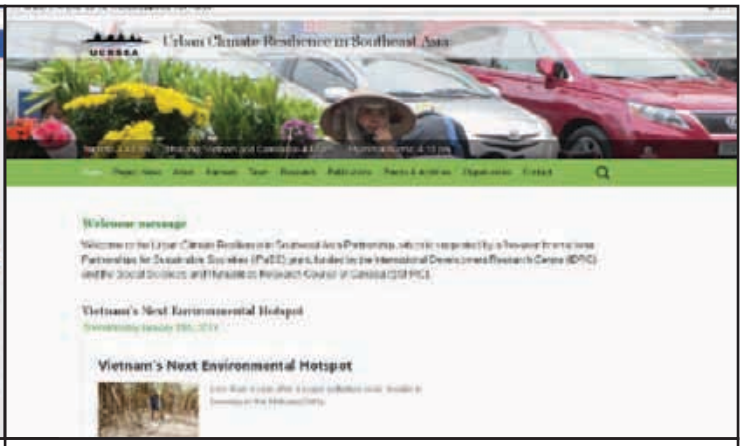

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You can also find us on our Facebook page: Asian Cities Climate Change Resilience Network

For related research, check out the Urban Climate Resilience in Southeast Asia Partnership (UCRSEA) on Facebook and also at their website: http://urbanclimateresiliencesea.apps01.yorku.ca/

Sources used in this write up:

- *Friend and Thinphanga. "Urbanization, climate change, and regional integration in the Mekong." Handbook of Cities and the Environment. Elgar Publishing, 2016.*
- *www.acccrn.net*

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