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BUILDING URBAN CLIMATE RESILIENCE

Experiences from the Asian Cities Climate Change Resilience Network (ACCCRN) program in Viet Nam

AUTHORS

ISET-VIETNAM

Phong Tran, Technical Lead

ABSTRACT

The Urban Climate Reslience Framework, developed by the Institute for Social and Environmental Transition (ISET), represents a practical way of systematically translating the growing body of natural and social scientific knowledge regarding resilience into applied planning practice. By focusing on critical urban systems (such as electricity supply, water supply, ecosystems), urban agents (the diverse organizations that make up the urban social environment), urban institutions (the rights, laws, regulations, and other social structures that mediate relationships among agents and between agents and systems), the UCRPF helps to identify specifically who might do what to build climate resilience. In Vietnam, ISET applies this framework in implementing the ACCCRN program, with focus on the engagement of local stakeholders for the introduction of climate issues and development of climate resilience strategies and intervention projects for Da Nang, Quy Nhon and Can Tho. Our experiece and lessons learned are also described in this report.

Key words

Urban disaster risk

Climate Resilience Framework

ACCCRN

Climate Change

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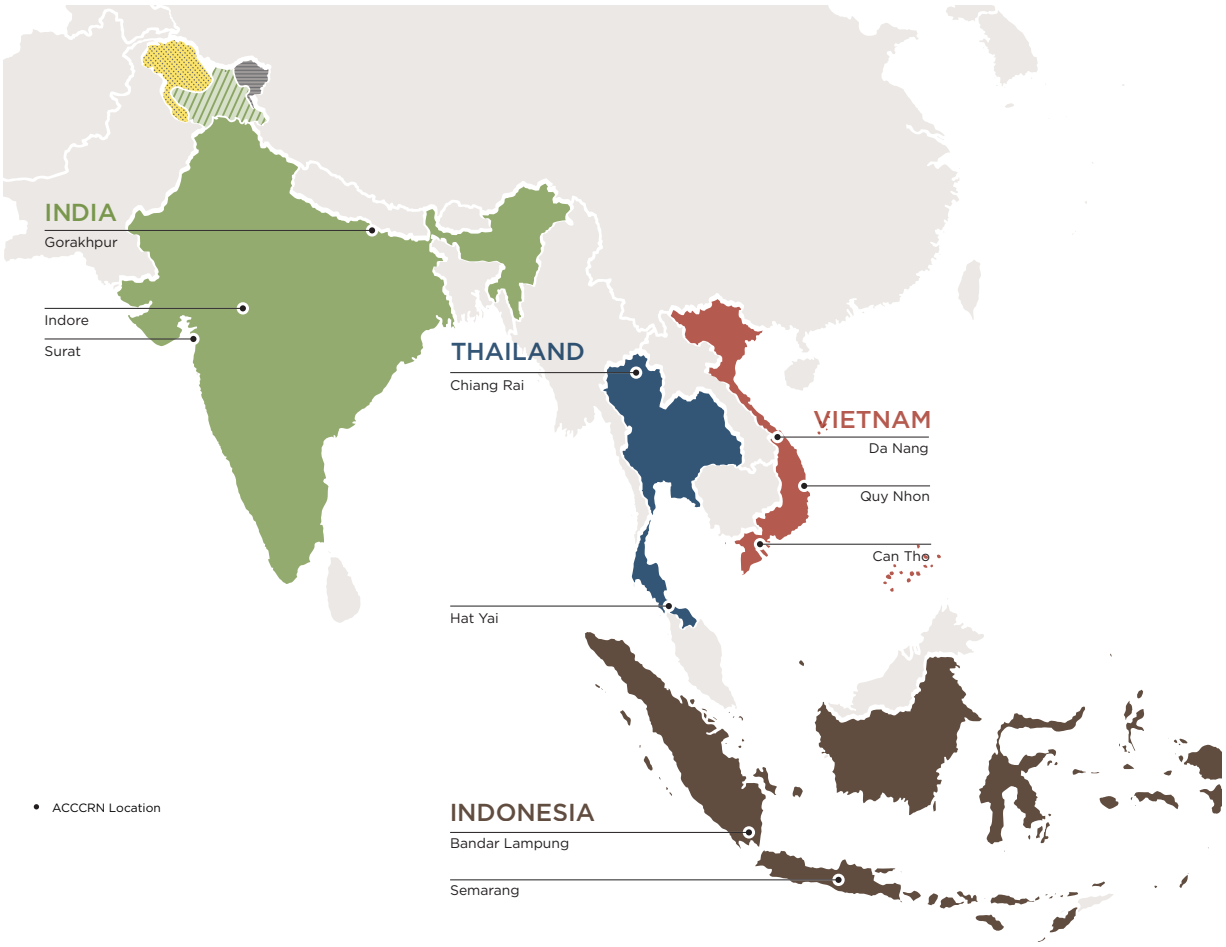
FIGURE 1. ACCCRN CITIES



INTRODUCTION

Changes in climatic conditions represent one of the greatest challenges facing humanity over coming decades. Climate change poses special concerns for the rapidly growing cities of Asia, where large populations, rapid urbanization, extensive poverty and social marginalization, and an already high level of exposure to climatic extremes create risks for large numbers of people. The impacts of climate change are likely to be particularly severe for poor and marginalized populations.

The ACCCRN program represents a unique initiative to understand and support urban areas in building climate resilience. The program's work in cities in India (Surat, Indore, and Gorakhpur), Indonesia (Bandar Lampung and Semarang), Vietnam (Da Nang, Can Tho, and Quy Nhon), and Thailand (Hat Yai and Chiang Rai) provides practical insights into the processes and outcomes that contribute to urban climate resilience. The ACCCRN program was a new and innovative approach for program partners. City representatives worked with diverse local stakeholders in novel ways to ensure that outcomes were directly relevant.

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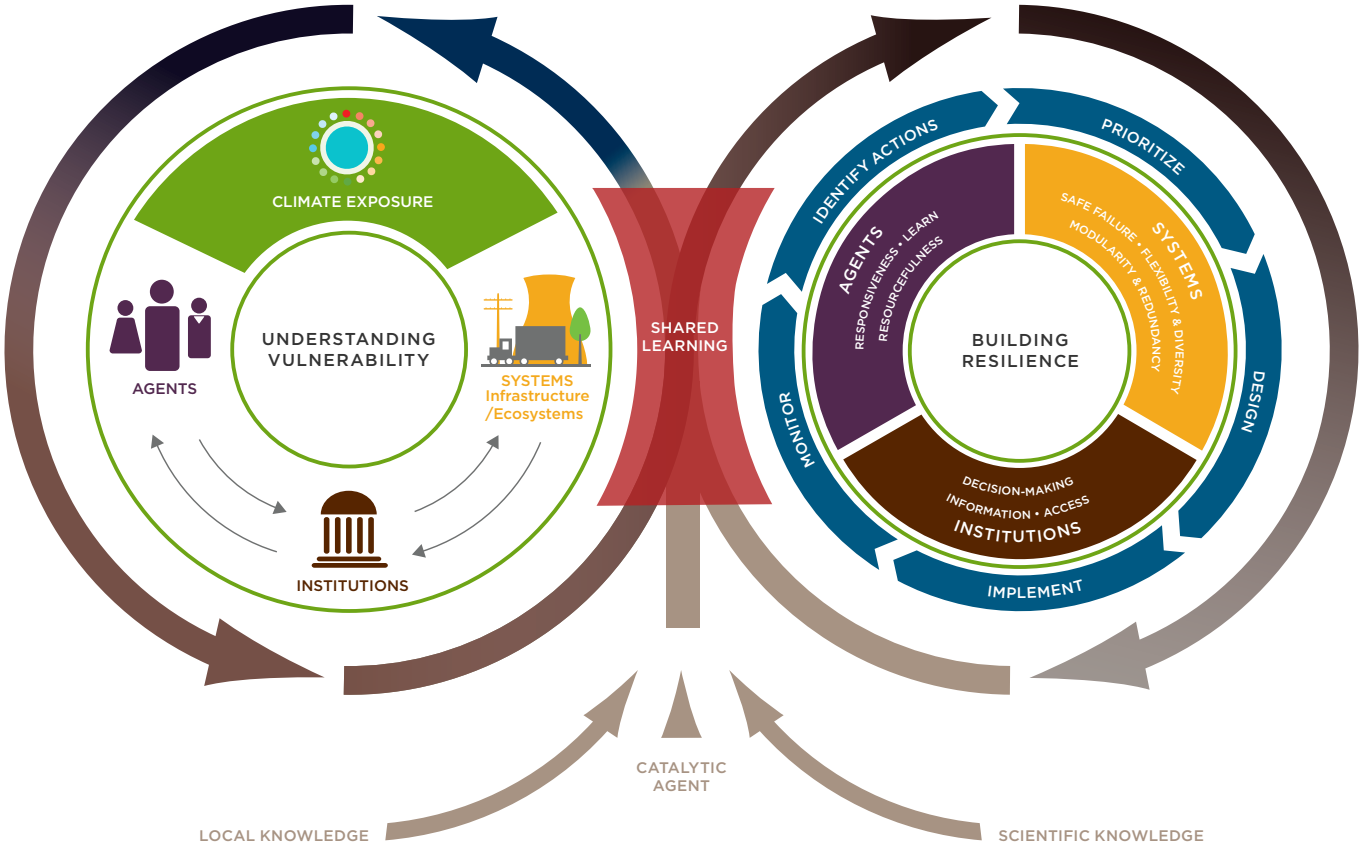
FIGURE 2. URBAN CLIMATE RESILIENCE PLANNING FRAMEWORK



URBAN CLIMATE RESILIENCE FRAMEWORK: LINKING CONCEPTS AND PRACTICE

The Urban Climate Resilience Planning Framework (UCRPF) see Fig.2, developed by ISET as part of the ACCCRN program, represents a practical way of systematically translating the growing body of natural and social scientific knowledge regarding resilience into applied planning practice. By focusing on urban systems (the foundations on which urban areas survive), urban agents (the diverse organizations that make up the urban social environment), urban institutions (the rights, laws, regulations, and other social structures that mediate relationships among agents and between agents and systems), and exposure to climate change, the UCRPF helps to identify specifically who might do what to build climate resilience. It also helps to identify specific points of entry for addressing the differential impact of climate change on the urban poor and other socially marginalized communities. As a result, while the framework is firmly grounded in emerging scientific knowledge, it is also a practical base for planning and action, and for building the knowledge and capacity necessary to respond effectively as climatic conditions evolve.

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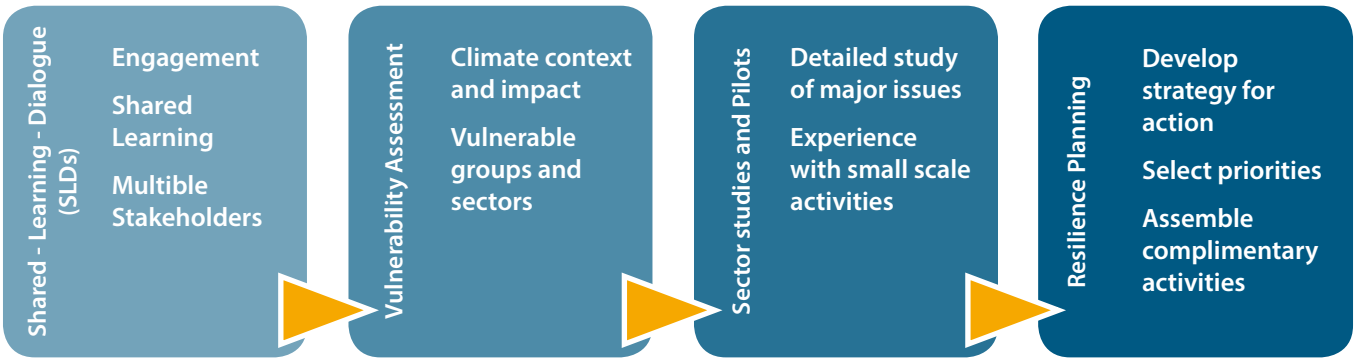
FIGURE 3. RESILIENCE PLANNING AT THE CITY LEVEL



The UCRPF has three broad components. First, it is founded on recognition that building resilience requires shared learning. Climate change is a global process, but local conditions strongly shape its impacts, so practitioners must integrate local and global knowledge in order to identify effective responses. Furthermore, because many of the impacts depend on interactions between sectors, across scales, and among communities of actors, communication and the development of common understanding among diverse groups is essential. As a result, shared learning is a fundamental part of the resilience planning process: shared learning dialogues help cross barriers and initiate collaboration across sectors and scales, introduce scientific knowledge into local contexts, and drive action over an extended period of time—all critical aspects of resilience planning.

Second, understanding resilience requires analytical approaches that are capable of addressing the diverse components that make up urban areas. The UCRPF distinguishes between urban systems, urban agents, institutions, and climate change and identifies analytical approaches for understanding the interactions among these fundamental components of urban areas. The analysis then integrates these factors in order to understand vulnerability and identify potential points of entry for building resilience.

Third, the UCRPF focuses on process. It incorporates a specific yet flexible set of process considerations and supporting activities that can assist urban areas in planning, capacity building, implementing, and supporting the continuous process of learning that is central to the growth and maintenance of urban resilience.

RESILIENCE PLANNING PROCESS IN VIETNAM

The main players engaged in development of the City Resilience Plans in Vietnam were the local governments, ISET, the National Institute of Science and Technology Policy and Strategy Studies (NISTPASS – an agency within the Ministry of Science and Technology), and Challenge to Change, an independent international NGO based in the UK. At the city level, the Resilience Planning work was headed by a Steering Committee composed of senior

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Quy Nhon City.
Thanh Ngo, ISET. 2015

members of various city/provincial departments, including Department of Natural Resources and Environment (DoNRE), Department of Agriculture and Rural Development (DARD), Department of Planning and Investment (DPI), Department of Construction (DoC), and others. The Steering Committee was in all cases chaired by a Vice-Chairman of the PPC but effectively managed by a Standing Deputy Chair, who was the functional local project leader, from one of the relevant technical departments. As the process evolved from preliminary information to vulnerability assessments and to locally-led resilience planning, each city also set up a Climate Working Group composed of operating level technical officials from several key departments. This was the group that actually met to undertake the development of the resilience plan, under the leadership of the Deputy Chair of the Steering Committee (local project leader).

At the city level the key players in the resilience planning process generally included: Department of Natural Re- sources and Environment (DoNRE), Department of Foreign Affairs, Department of Planning and Investment, Department of Construction, Committee for Flood and Storm Control, and the People's Committee. Additional players involved via the Working Group, attendance at SLDs, and providing information for the pilot projects, etc., included: provincial technical departments,

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city agencies, mass organizations (Women's Union), non-government organizations (Red Cross), local community, community leaders (particularly for the pilot projects), local research organizations, local universities (e.g. Quy Nhon University, Da Nang Technical University, DRAGON Institute).

The setup in Quy Nhon was a bit different because this city does not have the same direct administrative relation- ship with the central government as do the larger cities of Da Nang and Can Tho. Both of those latter cities have the equivalent of provincial administrative status, while Quy Nhon is under the authority of Binh Dinh province. So in Quy Nhon, the leadership and coordination came from the provincial departments, but the Steering Committee and Working Group both included senior officials from the City of Quy Nhon (an administrative district within Binh Dinh province).

Vulnerable groups in the cities were involved mainly through interview and consultation during the Hazard, Capacity and Vulnerability Assessment, the participation of representatives at SLDs and as targeted sectors during the pilot programs, sector studies and city intervention projects. Consultation with these groups was a new approach for Vietnamese planning departments, and most of the key working group members found the information obtained from these interactions useful.

ISET's role in the resilience planning process in Vietnam was to provide the methodology and approach for adaptation planning, including training and transfer of tools and methods. Climate change and resilience planning is a new, uncertain, and consequently confusing topic for Vietnam. The idea of Working Groups and strong inter-departmental cooperation is also unusual. Technical assistance via workshops, training in methods and tools, active engagement with the city throughout the process (e.g. via attendance at SLDs and Working Group meetings) and feedback on city progress provided by ISET were crucial to building the cities' knowledge, capacity and understanding of climate change, resilience, and the resilience planning process.

LESSONS FROM ACCCRN IN VIET NAM

The activities in ACCCRN program focused on engagement with local partners to introduce climate change issues and to develop locally specific climate resilience strategies and city intervention projects. Lessons from these activities include:

LINKING CONCEPTS WITH PRACTICE

Unless there is a solid conceptually grounded analytical foundation, practice cannot move forward except on an ad hoc basis. One of the greatest challenges for organizations working on urban resilience is that individual interventions often appear exactly this way—ad hoc. In order to contribute in a significant way, local actions must be linked together as part of a conceptually well-founded strategy.

BALANCED APPROACHES

Responding to climate change requires strategies that address both the physical dynamics of systems and the social and institutional context of the city level. As a result, analytical and other strategies need to combine technical as well as social science-based approaches. Specialized technical studies as well as more "people-centered" forms of engagement are essential. Strategies that overemphasize one dimension to the exclusion of the other are likely to be ineffective.

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Da Nang city
Thanh Ngo, ISET. 2015

CLIMATE DATA

Quality climate information is difficult to access, particularly at a scale useful to adaptation planners. Local-scale historical climate information and future projections are not always easy to find and often do not exist at all for ACCCRN cities; even appropriate historical data can never tell us exactly what to expect in the future. Resilience planning, however, cannot wait for the ideal information.

COMMUNICATING CLIMATE INFORMATION

High-quality translations of climate information—both of scientific terms and concepts into lay language—are crucial. Sufficient time and resources must be allocated to allow for interacting and discussing the nuances of various specialized climate change and resilience building terms — many of which are still being clarified. In order to develop effective response strategies, local stakeholders must understand the uncertainties inherent in climate projections and what they might realistically indicate for the future, rather than interpreting them as fixed scenarios. Doing so requires skilled facilitators and translators who can bridge between the language of science and the local languages. It also requires the ability to work with diverse communities, from scientists to women living in vulnerable floodplains.

RESPONSIVENESS

While climate change is likely to affect many of the systems on which urban areas depend, few people are aware of climate change issues where they live. Engaging policymakers and local populations requires finding the issues that they view as tangible and immediate. Practical responses — such as

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sector studies, pilot projects and other ACCCRN planning responses—to immediate concerns such as storm risks, flooding, water supply, and disease are important entry points that respond to immediate needs and lay the foundation for understanding wider sources of risk.

ACTION

People will not be able to build understanding, ownership, and engagement unless they take tangible steps to respond to the problems urban areas face. As a result, while the development of overall understanding and proper planning will require a sustained effort, initial activities—whether at a pilot scale or larger—that address immediate problems as well as larger climate concerns are essential. In addition to building ownership and engagement, such activities provide the practical experience necessary to inform strategies. Furthermore, pilot projects lend credibility to climate resilience programs and instill faith in stakeholders that the programs will produce tangible outcomes.

CHAMPIONS

Effective engagement within cities depends on active commitment to resilience planning on the part of a small number of individuals who are well connected with diverse local groups. Because for many urban areas, climate change is a "new" and poorly understood issue, and because effective responses must involve interaction among diverse groups of actors, identifying a few charismatic and articulate individuals who can serve as champions can greatly facilitate the growth of awareness and action.

TAILORING STRATEGIES TO LOCAL CONTEXTS

While basic principles and broad process elements do apply across cities, results from ACCCRN demonstrate that variations in local contexts can be a significant challenge for resilience planning, so strategies must be tailored to localities. Because cultures, bureaucratic structures, physical characteristics of regions and urban areas, and a myriad of other factors affect how climate change impacts urban areas and what practically can be done, strategies must be locally grounded. "Cut-and-paste" solutions are inappropriate, and actors must have an open mind and be willing to consider diverse approaches.

NOVEL PLANNING PROCESSES

Planning for urban climate resilience involves integrating many new concepts and tools into already complex local planning processes, and under conditions in which local government resources are already strained. Time constraints are a fact of life, but short time horizons are the enemy of quality engagement and learning. Even using iterative processes, it may be difficult to anticipate how much time is needed for introduction of basic concepts, collection of relevant climate and planning information, sharing and digestion of new information, and building consensus on action. Resilience is unlikely to be achieved without carefully acquired, shared understanding about the interdependencies of systems and people. Attempts to shortcut this process even with skilled external support run the risk of yielding ineffective or even maladaptive results. Working with local partners also involves being flexible: scheduling conflicts, shifting priorities, staff changes, political and bureaucratic procedures are inherent to this work.

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PARTNERSHIP

Building resilience at the urban scale requires recognizing the importance of partnership. No single organization alone will create resilience; it requires a small, core team of local stakeholders from diverse organizations who are able to coordinate the work, act as the repository of new knowledge, and promote climate issues within their own organizations. Furthermore, since implementing effective activities will require the ownership and direct engagement of a diverse array of stakeholders, the most important personal and professional characteristic in this work is not technical expertise, but rather the ability to coordinate across organizations in an open manner and work with diverse groups of people, recognizing the validity of their insights, their knowledge, and their perspectives on effective strategies.

PROCESS

Just as the climate and our projections about it are changing, adaptation and resilience building must be understood as a continually evolving process. The process will be most successful if the strategy is continually revised, such that planners continue to gain new knowledge about city vulnerabilities and potential interventions from both local and global sources; engage and build awareness among the public, sector leaders, and decision makers; and evaluate and reevaluate priority areas for action. The resilience strategy is a useful tool only to the extent that it is revisited over time and generates further action. It is the process of developing the resilience strategy—bridging sectoral gaps, raising awareness, creating new knowledge, introducing coordination mechanisms, and especially building the capacity of key stakeholders—that is far more important than the document itself.

Much of ACCCRN's importance lies in its contribution to an emerging body of practice. While there is increasing interest in urban climate resilience globally, very little has actually been done. Because ACCCRN actively engages diverse groups of urban stakeholders in planning processes and implementation activities across a diverse array of contexts, it represents a unique initial contribution to practice. The analysis presented by ISET in this report represents only one facet of that experience. More can be gained from the reports and other materials produced by partners or through direct contact with these partners to understand their perspectives and the knowledge they have developed.

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