

INSIGHTS FROM THE ASIAN CITIES CLIMATE CHANGE RESILIENCE NETWORK

# Ten Cities, Four Countries, Five Years: Lessons on the Process of Building Urban Climate Change Resilience



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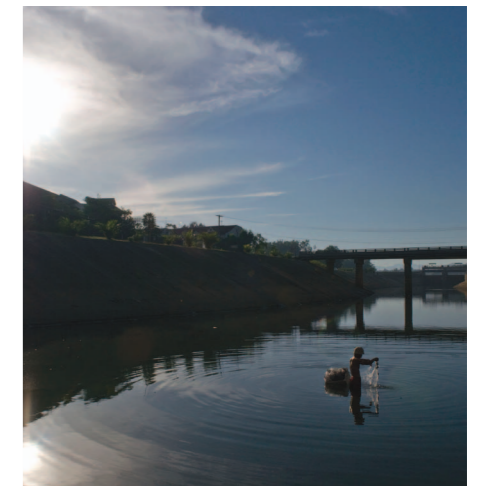


The Rockefeller Foundation initiated a nine-year Asian Cities Climate Change Resilience Network (ACCCRN) in ten initial cities and four countries<sup>1</sup> in 2008. ACCCRN seeks to strengthen the capabilities of cities to plan, finance and implement urban climate change resilience (UCCR) strategies for coping with the inevitable impacts of climate change taking place now, and in the decades to come.

The approach also involves capturing details from the various experiences that will be useful to other cities as they realize the critical importance of building resilience to climate change. Although the initiative is ongoing and has expanded to include two more countries and more than 20 additional cities, this brief highlights the key insights we took from analysis of progress in the first ten cities over the first five years and the changes observable thus far.

### Key messages

- Advancing climate change resilience action in cities requires a structured methodology and process, and a core set of planning principles.
- However, the process must build in flexibility to allow modalities to evolve and adapt to each city's unique context, based on the skills and motivations of the facilitating individuals or organizations.
- The initial city process needs to prioritize multiple stakeholder engagement from the outset and employ an iterative shared learning dialogue process that sparks critical debate and encourages a broad range of perspectives over time.
- It is important to engage facilitating partners who are capable of tailoring processes and guidance and thus develop a grounded climate change resilience agenda at the city level; we have identified six distinctive approaches that have been tried to date.
- The capacity, autonomy and support from higher levels of government are critical factors that impact upon a city's ability to conceptualize and take forward resilience planning.
- Linking current problems in a city to longer-term climate change resilience challenges through dialogue, planning exercises and projects can arrive at short-term approaches that contribute to longer-term solutions.
- In most of the initial ten cities, if not all, ACCCRN will leave behind a group of stakeholders with both the motivation and ability to work together to promote practical approaches to better protecting their city from the impacts of climate change.



### HOW THE INSIGHTS ARE PRESENTED

The first part of this paper introduces the common elements of the initial engagement process across all ten ACCCRN cities and what we learned by that approach. It is followed by an analysis of the two broad factors—city context and differing engagement approaches by country partners—that account for much of the variation in both the resulting resilience strategies and the early results in each city. The third part highlights the results observable through the monitoring and feedback exercises. The paper then closes with an analysis of how progress is most likely to be sustained in the future. The key insights are highlighted in burgundy throughout each part.

<sup>1</sup> The ten core cities in the ACCCRN program are Indore, Gorakhpur and Surat in India, Bandar Lampung and Semarang in Indonesia, Chiang Rai and Hat Yai in Thailand and Can Tho, Da Nang and Quy Nhon in Vietnam. The program has expanded to new cities in India, Indonesia, Thailand, and Vietnam, as well as new cities in Bangladesh and the Philippines, as of 2014.





## Introducing the importance of urban climate change resilience — The ACCCRN engagement process

### STRUCTURED METHODOLOGY AND FLEXIBILITY ARE IMPORTANT TO SUSTAIN ENGAGEMENT AND OWNERSHIP

A central lesson from ACCCRN has been how essential it is to first engage with cities through a structured approach with common elements that emphasize inclusiveness, dialogue and inquiry. This approach is important for growing a shared understanding of climate change resilience and the potential future impacts upon a city and for articulating a broad strategy to address the threats.

The initial approach through which the ACCCRN effort engaged with urban stakeholders in the first ten cities covered the following basic steps:

- Partners initially scoped the city to determine the demand from government stakeholders and to gauge their interest in a longer process of developing climate change resilience.
- A multi-stakeholder Shared Learning Dialogue (SLD) was generated within each city. This mechanism cultivated trust among individuals and groups who may not have engaged with each other much, or who may have opposed each other on specific issues in the past.
- Within and outside the SLD there was extensive discussion on the term ‘resilience’, which led to a more aligned understanding of what it means and how it might mitigate the impacts of future events.
- Much time was expended to collectively analyze and understand urbanization and climate science, with a particular focus on what future threats might be and the levels of uncertainty surrounding those potential threats.
- Each group of city stakeholders developed a vulnerability assessment to better understand who might be exposed to various types of future threats and in what ways. Sector studies were conducted to deepen the understanding of what priority sectors would experience in terms of climate change and urbanization.
- Each city then developed a City Resilience Strategy (CRS), based upon the collective analysis and holistic thinking regarding how a city might approach future threats. Within the strategy, each city prioritized short- and longer-term activities to build resilience. This prioritizing ultimately led to a short list of projects that the Rockefeller Foundation then funded.
- Those projects were then conceptualized in more detail, including a plan for implementing them.
- Each project’s activities are monitored and their progress documented, including reflections by city stakeholders that point to the links between concrete action and the broader objective of building resilience. The project documentation should promote more sophisticated dialogue within each city in the future.



## ii Developing resilience strategies: The importance of context and approach

Each city's ACCCRN stakeholders developed a City Resilience Strategy (CRS) based on their urban context, as revealed through the dialogues, sector studies and vulnerability assessments. Context includes, among many variables, the city's evident problems, the anticipated problems, the available human and financial resources and their capacities and even stakeholders' grasp of what climate change resilience entails. Each CRS encompassed the projects that the Rockefeller Foundation funded, many of which are ongoing.



**THE TWO FACTORS THAT HAVE HAD THE STRONGEST INFLUENCE ON RESULTS THUS FAR ARE CITY CONTEXT AND THE PARTNERS' APPROACHES TOWARDS FULFILLING THE ACCCRN OBJECTIVES.**

### A. WHY CONTEXT MATTERS WHEN ENGAGING CITIES

One of the most powerful findings from the ACCCRN experience to date is the notion that context matters in a profound way, in terms of how the urban resilience process is defined and taken forward.

### CITIES ARE COMPLEX URBAN SYSTEMS AND DIFFER POLITICALLY AND ORGANIZATIONALLY

The core process used by the ACCCRN approach at its outset emphasized developing formal partnerships with city governments as the foundation for future work in each city. This thinking proved to be inadequate in terms of dealing with the variety of political and institutional archetypes represented within each urban center—as well as the political cycles within a given city. Thus, an early challenge required finding flexible engagement approaches that could be applied across the range of political and institutional models within the ten cities and that would weather the ebbs and flows of political interest and commitment.



Cities have strong social systems, political arrangements and societal divisions. Trying to define who to work with, how to work with them and understanding how city stakeholders will work with each other cannot be predefined through a standardized process of engagement. What is needed are coalitions to 'change the conversation' regarding urban resilience.

Additionally, engagement on urban climate change resilience is far from a solely technocratic process. At its root, there are strong elements of societal transformation. Tackling urban resilience means finding champions and creating the conditions in which coalitions can form and then enabling them to work constructively together towards common objectives.

### NEW COALITIONS OF ACTORS NEED TO EMERGE TO ADDRESS NEW RESILIENCE CHALLENGES

Early in the implementation of ACCCRN it became evident through the monitoring and informal feedback that approaches were needed that did not define an 'appropriate' or 'optimal' set of city partners to manage the UCCR agenda. Rather, it was important to design an approach that accepted that cities are polycentric entities and that there is not a 'right set' of partners or champions in all cities. The constellation of empowered champions who might take forward the UCCR agenda has ranged considerably from city to city and even changed over time.



Across the cities, there was significant difference in the extent to which the State was the primary actor driving the process. At one extreme, relatively 'strong' city governments (People's Committees) and relatively weak non-state actors in the three Vietnamese cities prompted the State to take the de facto lead in driving dialogue and developing plans and projects. At the other extreme, Gorakhpur in northern India has a relatively weak city government (Municipal Corporation) but a strong non-state sector<sup>2</sup>. In this case, ACCCRN partners worked more intensively with non-state actors who relied on models of good practice and structured dialogue to engage with the city government. A mixed model emerged in the cities of Indonesia and Thailand in which city government took a leading role—but not the only role. In both countries, NGOs and academic groups had strong analytical and community organizing roles, typically in collaboration with the city government. In Surat and Hat Yai cities, for example, the private sector shared evidence with the city government and others on urban resilience issues.

### CITIES HAVE VARYING DEGREES OF AUTONOMY AND/OR BUY-IN FROM HIGHER LEVELS OF GOVERNMENT

Both national prioritization of climate change and the autonomy, or 'policy space', of city governments to plan and implement climate resilience measures are important in determining a city's ability to actively engage with climate change resilience. Autonomy matters because it defines the extent to which city stakeholders can respond to future challenges. Although all cities are somewhat dependent upon provincial or state and/or national governments for political, administrative and fiscal support, there is a wide divergence in their level of autonomy and in the support or encouragement that they receive from higher levels of government. National prioritization matters because it empowers city champions to pursue a climate resilience agenda more aggressively and promises future funding for those efforts.

In India, although there is a national climate change plan and national bodies focused on the topic, for example, there is not yet a coherent approach to promoting urban climate change resilience across the country. Cities have some autonomy, but much of the administrative and fiscal authority rests with state governments, and individual cities are thus dependent upon them, yet they vary in their capacity and commitment to address climate change issues. It is too soon to say if the results of the 2014 election will fundamentally change this equation.

Indonesian cities have a range of administrative freedoms, including large block grant budgetary allocations that give them some spending flexibility. Although there are national bodies and commissions focused upon climate change and a national plan, they have yet to be translated into a coherent, funded approach towards localities that would

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<sup>2</sup> While the 74th Amendment to the Indian Constitution provides greater authority to Urban Local Bodies, many state governments have interpreted this in a narrow fashion, thus retaining as much power and authority as possible, and leaving municipal governments with limited space to effect policy or strategy change. In addition, there is a range of capacity and incentive challenges at the municipal level that impact upon local governments' ability (even where greater autonomy exists) to plan and execute a resilience agenda.

Left top: Nic Dunlop | The Rockefeller Foundation  
Left bottom: Lisa Murray | Robin Wyatt Vision and The Rockefeller Foundation  
Top: Gitika Saksena | Robin Wyatt Vision and The Rockefeller Foundation



Introducing new concepts about climate change and urban resilience and their adoption requires patience, persistence and a combination of approaches.

both incentivize and authorize cities to address climate issues proactively. At this point, it is fair to say that cities have the scope to operate autonomously but with limited central guidance or support. It is possible that this could change after the 2014 national elections.

Even though Thailand has a national action plan on climate change and the country has experienced heavy flooding in recent years, the Government has not strongly prioritized the issue, possibly due in part to its ongoing political instability. Thailand's governance arrangements are the most centralized among the four core ACCCRN countries, offering cities relatively less autonomy to pursue an agenda that may not be prioritized at the central level. This does not mean that Thai cities have done nothing—both ACCCRN cities have several interesting projects—but they may not be working to their full potential yet.

Vietnam, on the other hand, initiated a National Target Program to Respond to Climate Change in 2008, which was reinforced by a decree from the Prime Minister. More recently, in December 2013, the Prime Minister issued another decree that calls for localities to undertake climate change adaptation efforts. This, combined with relatively high levels of autonomy, has created the space for a range of productive activities to promote urban climate change resilience across dozens of cities in the country, with insights from the early work done in the three ACCCRN cities available for wider application.

**EVEN WHEN INPUTS OR APPROACHES ARE SIMILAR, THE RESULTS WILL VARY IN CITIES BECAUSE OF CONTEXT**

Variation can occur even within the same country, with cities employing the same basic approach—this variation likely indicates that the most contextually appropriate approach is being applied within a specific setting and with a given set of local actors. In Vietnam, the shifting of the National Target Program to Respond to Climate Change from the Ministry of Environment to the Prime Minister's Office and the establishment of a national steering committee were signals that these issues are prioritized at the highest political level. Provincial steering committees were also created, and this spurred further momentum around the issue. Prior to this, Climate Change Coordination Offices (CCCOs) were established in all three ACCCRN cities (some with formal and others with semiformal coordinating roles), which created the foundation for rapid action once the central government prioritized climate change. Ultimately, the CCCOs ended up nested in different parts of each city government and operate in different manners, which is appropriate considering the different contextual settings:

- In Can Tho, the CCCO sits close to the Department of Environment (but not quite within it) and appears to have a strong remit around technical research and expertise.
- In Quy Nhon, the CCCO sits within the Department of Environment but reports directly to the People's Committee.
- In Da Nang, the CCCO originally emerged under the Department of Foreign Affairs, but has been formally moved directly under the People's Committee and thus has a broader remit as a staff function.

There also has been variation over time in city core team functioning, often due to internal city dynamics and/or project cycles—when there are tangible efforts to spark collaboration. For example, as of late 2013, all three Vietnamese city core teams and both Thai city core teams were seen as performing well. In Indonesia and India, there was more variability in performance. Core team functions are not static, and this snapshot in time does not speak to the performance over the life of the ACCCRN program.



**NATIONAL ENGAGEMENT AND LOCAL AUTONOMY IN THE FOUR ACCCRN COUNTRIES**



**B. WHY THE ENGAGEMENT APPROACH MATTERS FOR BUILDING A SHARED COMMITMENT**

Introducing new concepts about climate change and urban resilience and their adoption requires patience, persistence and a combination of approaches. It also takes time and concerted effort to build awareness beyond a core group of committed champions in most places. There is a strong element of process innovation to the ACCCRN approach in its focus on identifying and flexibly supporting local stakeholders to assess their challenges and to develop both responses and cross sector coalitions to address the challenges.

**A GOOD PROCESS SUPPORTS AWARENESS BUILDING AND DOES NOT ASSUME THAT ACTORS WILL RAPIDLY INTERNALIZE RESILIENCE CONCEPTS OR MESSAGES**

Repeatedly and consistently, ACCCRN team members and partners overestimated the level of awareness and buy-in from city partners. For example, one partner articulated that “just because you understand it and you explain it and I don't disagree with you—does not mean I understand it and buy into it”. Another partner was surprised to discover that a core member of the city's climate change working group had difficulty explaining even basic climate change resilience concepts. This experience or variations of it played out many times during the ACCCRN process.



Partners learned to build discussion around climate change resilience by talking about their immediate concerns, such as water supply and flooding.

The variation in grasp of the concept has resulted in differing levels of awareness among city stakeholders. As of late 2013, all three Vietnamese cities were on track in terms of deepening their awareness of climate change resilience, while in Thailand, Indonesia and India there was more variation in the extent to which awareness of urban resilience had spread within the ACCCRN cities.

**AWARENESS CAN BE REINFORCED BY USING MULTIPLE LEARNING LOOPS AND A FRAMEWORK THAT CODIFIES CORE CHARACTERISTICS OF RESILIENCE**

Over time, strategies emerged that confronted the challenge in conveying the concepts, based on the principle of double- or triple-loop learning. Essentially, a process of discussion takes place, followed by a testing of stakeholders' understanding and their buy-in; the issues and concepts are revisited multiple times until participants demonstrate a high degree of both understanding and buy-in. To address the 'too much focus on UCCR', which was a common observation made during feedback exercises, the ACCCRN partners learned to initiate dialogue based around 'where a city is' in its development and relationship with climate change and the most immediate concerns of its citizens. There are numerous examples in all four ACCCRN countries in which partners learned to build discussion around climate change resilience by talking about their immediate concerns, such as water supply, flooding, garbage in the streets or emerging health issues brought on by heat stress.

A reflection of this learning is the way in which the Institute for Social and Environmental Transformation (ISET) engaged with the USAID-funded M-BRACE cities,<sup>3</sup> a process that was improved by previous learning in ACCCRN cities. In Phuket, Thailand (an M-BRACE city), for example, ISET and the Thailand Environment Institute (the partners leading the project) did not introduce UCCR at the outset of their engagement with the local stakeholders. Instead, they listened carefully to a range of people and opened a discussion around water scarcity (and who owns the rights to different sources of water). Progressively, they moved toward 'resilience' as a conceptual framing that would include current and future water scarcity. Through this process, two good things happened—city stakeholders felt that their concerns (not the more abstract concerns of outsiders) were being addressed and a discussion began regarding how a concrete problem (water scarcity) fit within a more abstract concept (urban resilience).

Additionally, the way in which TARU Leading Edge, the lead ACCCRN partner in India, undertook 'future visioning' exercises in Indore and Surat encouraged a dialogue around different potential scenarios for the city. This kind of exercise enables people

to more clearly imagine how various development trajectories will impact the future resilience of their city.

A successful process also combines structured and unstructured approaches (toolkits, learning by doing and informal Q&A sessions). In none of the initial ten ACCCRN cities did stakeholders regularly 'hear it, understand it and then do it'. Rather, in all settings, learning was iterative. The process included a discussion of climate projections, city vulnerability assessments, the development of the City Resilience Strategies, sector studies (in some cases) and discussion and debate regarding what projects to propose. None of these steps in isolation was sufficient to fully grasp the meaning of urban resilience; in their totality, there was measureable progress over time in understanding, motivation, the fostering of coalitions and taking steps towards building urban resilience.

**LONGER-TERM UCCR OBJECTIVES ARE EASIER TO FOCUS UPON WHEN LINKED WITH CURRENT PROBLEMS**

The ACCCRN partners found that one productive approach to linking short- and long-term challenges was to initiate dialogue based upon a process of listening and selecting activities related to resilience that people were already undertaking. One partner referred to this as the "many 1 percent solutions approach", in which multiple, interconnected actions make a significant difference in the aggregate.

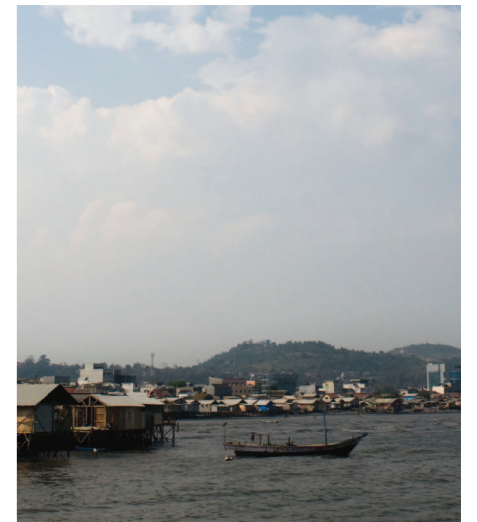
The ACCCRN projects in Gorakhpur, India, such as improved solid waste management, provide a strong example of this approach. The Women's Union in Da Nang, Vietnam, which pioneered the use of microfinance to enable some members to build storm-resilient housing, is an example of a 'one-percent solution' that could be scaled up over time, both within and beyond the city. In both cases, the drivers of change were not city leaders but other actors (the Gorakhpur Environmental Action Group in Gorakhpur and the Women's Union in Da Nang) who took control of discrete pieces of a larger problem in a way that cultivated resilience while building capacity and community at the same time. In both cases, the city government was informed of what was being done to ensure alignment with broader short-term objectives.

Results have appeared in unexpected ways. In Indonesia, Semarang authorities now encourage the use of rainwater harvesting when issuing new building permits, and the Bandar Lampung city government intends to have biosphere infiltration holes in every house to help improve groundwater recharge—an important issue because of the city's experiences with water stress.

**GOOD ENGAGEMENT APPROACHES SHOULD PROMOTE COORDINATION AND KNOWLEDGE CO-PRODUCTION AMONG STAKEHOLDERS**

Challenges can be framed to promote collaboration, either among government departments or between government and other actors, by creating a dynamic in which various stakeholders view coordination and cooperation as achieving common objectives that no single stakeholder could achieve alone. This is vital because in many interdependent processes, there are often powerful incentives not to cooperate (zero-sum budgets, the desire for recognition or organizational objectives can de-incentivize cooperation). The ACCCRN approach has helped to foster high-quality exchanges, enabling stakeholders to learn from one another and ultimately empowering them to reflect upon their own practices.

The best example of this was the joint production of the City Resilience Strategies. These were new in all ten ACCCRN cities but were produced to a good or very good quality, with inputs from a range of actors. Co-production (be it studies, planning efforts and projects) often involved stakeholders who did not traditionally work together. There was recognition among stakeholders that the results of their common efforts were superior to what would have come about if they had worked in isolation.



<sup>3</sup> Mekong-Building Climate Resilience in Asian Cities (M-BRACE) is a four-year program that USAID funds and that aims to strengthen capacity of stakeholders in medium-sized cities in Thailand and Vietnam to deal with the challenges of urbanization and climate change. The program is implemented by ISET-International, in partnership with the Thailand Environment Institute and NISTPASS.

Top: Gitika Saksena | Robin Wyatt Vision and The Rockefeller Foundation

Top: Nic Dunlop | The Rockefeller Foundation  
Bottom: George Henton | The Rockefeller Foundation



## SIX EMERGING ACCCRN ENGAGEMENT APPROACHES

THE ACCCRN MONITORING AND EVALUATION TEAM, VERULAM ASSOCIATES, IDENTIFIED SIX UNIQUE APPROACHES TO DATE THAT DEMONSTRATE THE DIVERSITY OF WAYS THAT PARTNERS ARE ENGAGING:

- 1. Community empowerment** by Gorakhpur Environmental Action Group in Gorakhpur, India, which emphasizes building trust with and working intensively with local neighborhood groups.
- 2. Technocratic project approach** by TARU Leading Edge in both Indore and Surat, India, which emphasizes the development of a quality portfolio of practical UCCR projects in collaboration with city government and other partners.
- 3. Multi-stakeholder engagement** by MercyCorps in Indonesia, which emphasizes developing and sustaining broad-based city teams that drive the process and liaise with a range of stakeholders.
- 4. Light touch facilitation** by the International Council for Local Environmental Initiatives, which is a shorter engagement process with city governments and with ongoing support from networks of city governments.
- 5. City climate cell** by ISET in Vietnam, which established climate change coordinating functions within city governments.
- 6. Choice of entry point** by the Thailand Environment Institute, which uses two approaches to initiate dialogue: a climate-specific entry point in which UCCR is the start of the discussion with a range of stakeholders and a problem-specific approach in which the starting point is city problems more generally.

### TO FACILITATE ENGAGEMENT AT SCALE, RAISE AWARENESS AND BUILD CAPACITY, LOCALLY SITUATED ACTORS NEED TO LINK WITH INTERMEDIARY ORGANIZATIONS

In all four core ACCCRN countries and with minor variation, locally situated actors (who knew the local language and players) linked with intermediary organizations (often based in national capitals) that have UCCR expertise and could facilitate the learning process for city stakeholders. There are multiple advantages to this approach, but certainly the use of intermediary organizations is important because the UCCR field is new, and relatively few organizations are able to engage on or explain this topic well.

The ACCCRN approach actively seeks ways to go to scale. The use of intermediaries who can replicate the approach while adapting to the local context is seen as the most practical means of achieving that objective. And partnering with local actors, whether originating from the city or from elsewhere in a country (but based in the city for the duration of the ACCCRN engagement) became a key factor in providing a rapid means of informal communication between the intermediaries and city stakeholders.





### iii Early results that indicate UCCR objectives are being achieved

Progress in the targeted cities has been cumulative. Many of the more visible results, such as new budget lines or formalized bodies to address UCCR, were not the product of ‘big bang’ reforms but of numerous efforts that incrementally combined learning, research and confidence building with practical planning and project implementation.



#### AWARENESS AND UNDERSTANDING OF UCCR HAS IMPROVED IN ALL TEN CITIES

Although not similarly in all ten cities, the appreciation of UCCR’s importance among city climate change committee members and among people who participated in the studies, planning exercises and/or the final projects has increased significantly, according to the monitoring reports prepared by ACCCRN’s third-party M&E partner, Verulam, and interviews conducted by RF team members with ACCCRN grantees. Because awareness is a requisite to fostering more concrete actions, this is an important finding. In practical terms, awareness has manifested itself in a range of ways, from articulating links between climate change and urbanization to demonstrating an increased understanding of how issues like flooding, solid waste management or health threats are linked to climate change.



#### ACCCRN HAS REINFORCED A CULTURE OF INTER-SECTORAL COORDINATION WITHIN GOVERNMENT AND AMONG LOCAL STAKEHOLDERS

ACCCRN has opened avenues for collective action by coalitions of urban stakeholders to engage on climate change resilience issues in ways that they would not have been done before. In Semarang, Indonesia, the coalition of actors who had been working together in the ACCCRN process banded together to stop a large developer from building on land marked for conservation. In India’s Gorakhpur, ward citizens organized to engage in a structured dialogue with the city government regarding provision of roads and water drainage. In Quy Nhon, Vietnam, a combination of research and unusually aggressive press coverage elevated concerns about the plans for the city’s future growth to the attention of the Prime Minister, which resulted in a mandate to overhaul the master plan.

Surat, India is an example of a city that created a technically sound ACCCRN project (in this case, an early warning system for flood prevention and protection) and inspired a new discourse among city leaders and residents regarding who is to be impacted by flooding and how to better prepare for this in the future.

ACCCRN has enabled stakeholders to apply theoretical concepts to studies, planning or project exercises in new ways. One particularly interesting outcome from this process has been the creation of officially supported ‘climate rooms’ in both Thailand’s Hat Yai and Chiang Rai cities. These are places in which people are welcome to discuss climate change resilience and related issues; it is a physical space that reinforces the notion that this issue crosses boundaries. Similarly, the Climate Change Coordination Offices in Da Nang, Quy Nhon and Can Tho, Vietnam have become go-to places for UCCR-related issues—their staff continually reinforce the notion of intersectoral coordination by reaching out and working with a variety of city departments and non-government stakeholders. Donors seeking to explore investment opportunities in these cities have independently directed their requests for information and analysis to the CCCOs. More

recently, Ho Chi Minh City (the country’s largest urban area) copied the CCCO model and is developing a dedicated unit to coordinate UCCR. And the development of a public access website in Hat Yai, Thailand by the local government, linked to an early warning system (and not directly funded by ACCCRN), is a tangible manifestation of the city building upon its ACCCRN experience to create a common space for UCCR engagement.

#### PROJECTS ARE IMPLEMENTED IN NEW WAYS THAT HOLD THE PROMISE OF BETTER LONG-TERM RESULTS IN BUILDING RESILIENCE TO CLIMATE CHANGE IMPACTS IN URBAN AREAS

According to many city stakeholders, ACCCRN-supported projects have been implemented with broader participation than achieved previously. This may be a consequence of both the process leading up to project planning, which emphasized the cross-sector nature of UCCR challenges, as well as the nature of many specific projects, which were developed with a resilience point of view but to address a variety of problems (for example, education, solid waste, health and flooding) that in the past would have been the province of a single department or ministry. Because the projects were framed by a broader group of stakeholders, they were taken forward by a much broader coalition. For example, in Semarang, Indonesia, the development of a mangrove project was a means of continuing to build a broader coalition of government departments; in Chiang Rai, Thailand, a flood control project attracted the most eclectic mix of developers than ever before.

#### CLIMATE CHANGE RESILIENCE CHALLENGES LINK TO BROADER POLICY DEBATES AND BUDGET PRIORITIES WITHIN CITIES

Selected rules or policies have changed in cities as a result of the ACCCRN process. For example, nine of the ten ACCCRN initial cities (with the exception of Gorakhpur, India) created UCCR-related budget lines and/or allocated funds directly in support of UCCR projects or staffing over the past couple of years. Similarly, some cities altered sector and/or master plans as a result of the analysis and project work undertaken during the ACCCRN process. One of the most striking examples of this is the mandate in Quy Nhon, Vietnam to shift the city master plan (as referenced earlier) to a direction that renders it more resilient to future environment threats.

#### CITIES HAVE LOBBIED MORE SUCCESSFULLY FOR EXTERNAL RESOURCES AND/OR RECOGNITION

Cities have demonstrated the ability to lobby more persuasively for projects or budgets from national governments and international partners. Surat, Semarang and Da Nang are examples of how the ACCCRN experience has enabled cities to organize themselves to bid and win a place within the new Rockefeller Foundation-supported 100 Resilient Cities Challenge. In addition, Surat has established the Surat Climate Change Trust, a special purpose vehicle governed by a combination of municipal government, academic, civil society and state government representatives, for channeling other support in the future.

#### UNEXPECTED OUTCOMES HAVE RESULTED IN A DEEPER, MORE MATURE CLIMATE CHANGE RESILIENCE DIALOGUE

After the Vietnamese government developed its National Target Program to Respond to Climate Change, teams were sent to Quy Nhon to better understand what it had done during the ACCCRN process. Similarly, Thailand’s government expressed interest in understanding the ACCCRN experiences of Hat Yai and Chiang Rai. The ACCCRN experience has fostered new and stronger coalitions of citizens and organizations who are now more active in advocating for specific projects as well as changes to master plans or stopping harmful commercial development on fragile land. These results indicate more fundamental changes in the nature and type of dialogues within the ACCCRN cities and are indications that the ‘UCCR conversation’ has matured.

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## iv How will ACCCRN stakeholders take urban climate change resilience forward?

The most important outcome of ACCCRN is the sustained capacity of individuals and organizations touched by this work to understand, conceptualize approaches to and act upon climate change resilience imperatives in the future. Ultimately, external agents can assist in catalyzing thinking around resilience building and new approaches, but the sustainability depends upon the motivation and skills of city and national actors.

### A SMALL BUT ACTIVE GROUP OF CHAMPIONS AND MORE AWARENESS OF WHAT CITIES CAN DO ARE MAKING A DIFFERENCE

An important outcome has been to build and support a core of motivated champions within the four ACCCRN countries. Contrary to early expectations, these champions are not exclusively from city government agencies. Rather, across the ten cities, champions have also emerged within the legislature, academia, the private sector and civil society organizations. The thesis that a set of formal counterparts would emerge into local champions for UCCR has proven true in only some cases; but it seems clear that, given time and space, champions will emerge within cities. In this sense, the ACCCRN emphasis on an inclusive approach has facilitated the emergence of such champions.

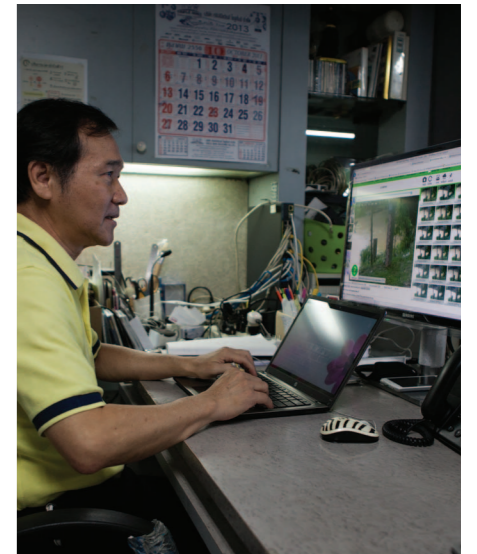
The greatly enhanced awareness of climate change and urban resilience in all ten ACCCRN cities does not imply complete understanding or motivation to act immediately. But it does indicate that there is a large number of stakeholders in each city who are familiar with the concepts and can view new information through a 'UCCR lens' that might not have been possible in the past. This awareness creates the potential for greater buy-in and for future collective action to build urban resilience.

### THERE IS A DEMONSTRATED ABILITY AND DESIRE TO CONTINUE LEARNING ABOUT AND EXPERIMENTING WITH NEW APPROACHES FOR BUILDING URBAN RESILIENCE

Many city stakeholders have demonstrated an ability to continue learning about UCCR, even in the absence of ACCCRN facilitators or projects. Interesting examples of this include the ongoing work that India's Surat Municipal Corporation has undertaken to build upon their early warning efforts around mitigating the effects of flooding and thus think more holistically about master planning in the city. Hat Yai and Chiang Rai in Thailand and Can Tho in Vietnam have built upon their early ACCCRN-supported work and constructed city-managed websites to inform the public of flood threats and river salinity. These second-generation efforts demonstrate the ability of actors within the city to build on experiences and knowledge and then independently take urban resilience work to the next level.

### A SET OF FORMALIZED COORDINATING BODIES AND/OR SHARED SPACES ARE NOW FOCUSED ON URBAN RESILIENCE

The ACCCRN work leaves behind a range of formal and informal organizations, spaces and networks that promote urban resilience. At the organization level, the Climate Change Coordinating Offices in Vietnam's Can Tho, Quy Nhon and Da Nang have been incorporated as formal city structures that have a coordination and advisory role regarding urban resilience. The 'climate rooms' in Thailand's Hat Yai and Chiang Rai are physical meeting spaces created by the city government for people concerned with climate



Top: George Henton | The Rockefeller Foundation  
Opposite page: Gitika Saksena | Robin Wyatt Vision  
and The Rockefeller Foundation



change issues. At a more nascent level, the ACCCRN network is a visible manifestation of the desire of people to develop a more formalized community that incorporates, but is not limited to, people who were involved in ACCCRN's efforts in recent years.

**KNOWLEDGE AND EXPERIENCE GAINED THROUGH THE PROJECT HAVE POSITIONED ACCCRN CITIES AND PARTNERS TO SEEK CONTINUED SUPPORT FOR URBAN RESILIENCE EFFORTS**

The foundation of awareness, motivation and accomplishment achieved through ACCCRN thus far has created much improved conditions for future funding support and/or cooperation for building resilience in cities. All cities are aware of the \$150 million Urban Cities Climate Change Resilience Partnership that is being executed by the Asian Development Bank. Of perhaps greater long-term importance, officials and/or non-state actors in all ten ACCCRN cities speak of being more confident in designing proposals that can be funded by their national government, which indicates the first step towards reaching out to potential external funders.

We have learned that clear, but flexible, engagement approaches are necessary to foster awareness, skills, strategies, and actions on the ground to enhance resilience over the past five years. Most important is the collective learning from the ACCCRN experience that good process is a necessary, but not sufficient, condition for building resilience within cities. Process is most effective when combined with the development of rigorous resilience plans and strategies, and the application of these strategies by undertaking projects on the ground to test ideas, learn, and demonstrate concrete improvements in resilience within a city. While there will be no single best approach to building resilience in all cities, this short paper has summarized key process elements that should be incorporated into future resilience building efforts.

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This paper is part of a series of briefs aimed at synthesizing key insights and lessons from the Asian Cities Climate Change Resilience Network. While they draw heavily on the reports and work of many individuals and partner organizations, they represent the cumulative perspective of the Rockefeller Foundation ACCCRN team.

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