

Call for submission on human settlements and adaptation

According to the Vancouver Declaration on Human Settlements, human settlements can be defined as the totality of the human community – whether city, town or village – with all the social, material, organizational, spiritual and cultural elements that sustain it.¹ During SBSTA 44, Parties highlighted that those making submissions should “bear in mind the unique challenges and scale differences in urban, rural and remote settlements, in particular in small island developing States and least developed countries.”² During SBSTA 46, Parties further underscored their interest in collecting information related to rural and coastal settlements, particularly remote settlements.³

We thank you in advance for filling out this template with concise, evidence-based information and for referencing all relevant sources. There are 5 sections in the template: please fill the sections that are relevant to the work of your government or organization. As you will see on the last page of the document, more detailed information on case studies, tools/methods and other knowledge resources for dissemination through the Adaptation Knowledge Portal is welcome, but optional.

Name of the organization or entity:

ICLEI – Local Governments for Sustainability

Type of organization:

Please choose as appropriate:

- | | |
|--|--|
| <input type="checkbox"/> Local government/ municipal authority | <input checked="" type="checkbox"/> Regional center/network/initiative |
| <input type="checkbox"/> Intergovernmental organization (IGO) | <input type="checkbox"/> Research institution |
| <input type="checkbox"/> National/public entity | <input type="checkbox"/> UN and affiliated organization |
| <input type="checkbox"/> Non-governmental organization (NGO) | <input type="checkbox"/> University/education/training organization |
| <input type="checkbox"/> Private sector | |

Location

(ICLEI World Secretariat)

City: Bonn

Country: Germany

Scale of operation:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Global | <input checked="" type="checkbox"/> Regional |
| <input checked="" type="checkbox"/> Local | <input type="checkbox"/> Subregional |
| <input type="checkbox"/> National | <input type="checkbox"/> Transboundary |

City(ies)/Country(ies) of operation (if appropriate):

¹ See: <https://unhabitat.org/the-vancouver-declaration-on-human-settlements-from-the-report-of-habitat-United-Nations-conference-on-human-settlements-vancouver-canada-31-may-to-11-june-1976/>

² FCCC/SBSTA/2016/2, paragraph 15(b)(ii).

³ FCCC/SBSTA/2017/L.7, paragraph 13.

ICLEI is the leading global network of more than 1,500 cities, towns and regions committed to building a sustainable future. By helping the ICLEI Network to become sustainable, low-carbon, eco-mobile, resilient, biodiverse, resource-efficient, healthy and happy, with a green economy and smart infrastructure, we impact over 25% of the global urban population.

ICLEI works through a World Secretariat based in Bonn, Germany, eight Regional Secretariats and five Country Offices, with additional satellite offices and capacity centers. ICLEI's 17 offices cover all continents and are configured to ensure region-specific work with Members and excellence in the implementation of complex, international, multi-partner projects.

Description of relevant activities/processes or research: *Across Submission Categories*****

Please describe the activities or processes that your entity has implemented to assess sensitivity and/or vulnerability to climate change in human settlements. In case your organization carried out research on such activities/processes, please describe them.

A "Resilient City" is prepared to absorb and recover from any shock or stress while maintaining its essential functions, structures, and identity as well as adapting and thriving in the face of continual change. Building resilience requires identifying and assessing hazard risks, reducing vulnerability and exposure, and lastly, increasing resistance, adaptive capacity, and emergency preparedness.

Through the Resilient City Agenda, ICLEI mobilizes, guides and supports its Members to assess risks, define resilience measures, and embed appropriate strategies in local development plans and processes. Covering issues such as climate mitigation and adaptation, disaster risk reduction, food security, policy making and financing, ICLEI's resilience activities produce a range of conferences, seminars, networks, tools and guidebooks to help local leaders build resilience at all government levels.

To help our Members reach this vision of resilience, ICLEI has undertaken the following:

- **Awareness and mobilization:** ICLEI's key strategy towards resilient cities is to raise awareness and knowledge on risks and vulnerabilities, promote effective policies and practices, and guide practical and concrete actions.
- **Drive change:** ICLEI acts as a global thought leader and driver of international concepts, approaches and strategies on building urban resilience that pushes the research agenda.
- **Local and global:** ICLEI's core approach is to combine direct support for local resilience building with targeted advocacy in order to develop effective global enabling conditions.
- **Regional focus:** ICLEI Regional Offices run supportive programs and campaigns for Members by providing methods, tools and guidelines, as well as capacity building resources and knowledge sharing initiatives to accelerate action that is adapted to local contexts.
- **Provide a global platform:** The annual [Resilient Cities global forum](#) in Bonn will continue to be the international platform for knowledge exchange and robust debate as well as innovative thinking and strategy development on urban resilience and climate change adaptation.
- **Financing:** ICLEI challenges the global community, including public and private actors, to commit adequate financial and human resources towards resilience building. ICLEI advocates for cities to be able to directly access such resources and supports, through strong collaborative partnerships, the implementation and financing of Resilient Cities programs at the regional and national level.
- **Member resources:** The outcomes of intensive work with selected model cities are disseminated to Members through both publically available and Members-only online resources, as well as through the targeted provision of custom fee-based services. Resilience building needs localized plans and policies. ICLEI's urban research has urban resilience knowledge products. [Read here.](#)

1. Assessing sensitivity and vulnerability to climate change

Description of relevant activities/processes or research:

Please describe the activities or processes that your entity has implemented to assess sensitivity and/or vulnerability to climate change in human settlements. In case your organization carried out research on such activities/processes, please describe them.

Through the Resilient City Agenda, ICLEI mobilizes, guides and supports its Members to assess risks and vulnerabilities to climate change. See general description above.

Description of relevant tools/methods:

Please describe the tools and/or methods that have been developed and/or used to assess sensitivity and/or vulnerability to climate change.

[The ICLEI ACCCRN Process toolkit](#) enables local governments to assess their climate risks in the context of urbanization, poverty and vulnerability and formulate corresponding resilience strategies. It draws on the experiences from the original ten core [ACCCRN](#) (Asian Cities Climate Change Resilience Network) cities and existing ICLEI approaches and has been applied in a range of cities in Indonesia, Bangladesh, the Philippines and India.

ICLEI Oceania is actively supporting a number of cities, towns and provinces of Small Island Developing States (SIDS) to assess their vulnerability to climate change and effectively respond to risks through its [Pacific Islands Resilience Toolkit](#), which incorporates climate resilience, low emissions development, and disaster risk reduction (DRR). For example, in the wake of devastating cyclone Pam (March 2015), ICLEI Oceania teamed up with the United Nations Disaster Agency (UNISDR) based in Fiji to support two DRR Self-Assessment and Action Planning workshops in Port Vila, Vanuatu (2015) and one in Honiara, Solomon Islands (2016) using a modified version of the post-Sendai LGSAT tool. After the workshops, both cities signed up to the UNISDR [Make My City Resilient Campaign](#). Discussions are currently underway to identify funding to conduct similar self-assessments in Suva and Lami municipalities, Fiji. Recently, ICLEI has established a [Community](#), or voluntary grouping, of interested towns and provinces of Small Island States for information exchange and collaboration.

ICLEI Canada's [Building Adaptive & Resilient Communities \(BARC\)](#) program (2010 – ongoing, ICLEI Africa) offers a suite of solutions, resources and consulting services that support Canadian municipalities in preparing for climate change in a timely and cost-effective way. These components include the [online BARC tool](#) to assist local governments with adaptation and resilience planning, networking platforms, and a comprehensive [adaptation library](#).

[The Resilient Africa Interactive Adaptation Participatory Process Tool](#) (2009 – ongoing) is an online decision-support tool that assists African local governments to create an adaptation strategy and improve local adaptive capacity through a customizable, participatory process. The various components help decision-makers determine the amount of resources and capacity available as well as the level of response required.

ICLEI Europe supports cities in designing and implementing climate adaptation strategies through several projects. In focus are:

- [RAMSES](#) (2012 – 2017) a research project that seeks to quantify the impacts of climate change including the costs and benefits of a wide range of adaptation measures as they relate to cities. ICLEI, with consortium partners, engages with stakeholders to ensure findings are policy relevant and capable of enabling the design and implementation of adaptation strategies in the EU and beyond.

ICLEI USA's [Climate Extremes Communications Guidebook](#) provides local government planners with concise explanations of climate extremes; the relationships of these climate extremes to climate change; tips on national, state, regional and local data related to climate extremes and their impacts; and extensive guidance on how to communicate about climate extremes.

The **carbonn® Climate Registry (cCR)** is a free global reporting platform for climate action by local and subnational governments – cities, towns, states, provinces and regions. It has been designed to support and facilitate structured reporting on climate change mitigation and adaptation including hazards, risk scenarios, and planning processes. As of 2017 it also includes the standardized Climate Risk Adaptation Framework and Taxonomy (CRAFT) questionnaire. It serves as a reporting platform for the Global Compact of Mayors (merged with the Global Covenant of Mayors for Climate and Energy) through which committed Compact of Mayors Cities may report on their current and future climate hazards <http://carbonn.org/>

Key outcomes of the activities undertaken:

Please provide information regarding the outcomes of the activities/processes described above, and do not hesitate to add qualitative assessment and/or quantitative data to substantiate the information.

The **ICLEI ACCCRN Process toolkit** was tested in three Indian cities – Shimla, Bhubaneswar, and Mysore – and was subsequently been applied in 40 cities in South and Southeast Asia. With a strong city focus, this toolkit provides a streamlined process that is simple and yet rigorous, which can be implemented by the cities themselves, with only minimal need for external support. Recently, the tool has been used by the Kumaon University, Nainital to develop the resilience strategy in the Ramgad watershed area near Nainital, India, which showed the flexibility of the toolkit also as to its range of use.

The **Pacific Islands Resilience Toolkit** is supplemented by technical tools, programs and case studies available through the ICLEI international network. The process begins by considering the existing problems and priorities being faced by the island community. This may include major development priorities, provision of basic services, declining natural resources, recent disasters – it is a “Development First” approach. An analysis of climate change impacts and disaster risks, present and projected, is then applied to these priorities and problems. The analysis focuses initially on how to adapt to, or build greater resilience to, climate change and disasters, which may cover sectors such as water, food, transport, and housing. Particular attention may be given to sustainable energy supplies. The various components are then combined into a Resilience Strategy and integrated into the island development planning. Finally, assistance is provided to prioritize and assess options for action, to scope projects and identify financing options. This process may be followed step-by-step by a local authority which has done little previous planning, but may also be used to bring together the outcomes of earlier projects into a consolidated resilience plan. In this case, the early steps would be fast-tracked.

ICLEI Canada's [Building Adaptive & Resilient Communities \(BARC\)](#) program has helped 18 Canadian local and regional governments conduct vulnerability and risk assessments.

Over 900 entities (local, regional, subnational governments) are registered to the **The carbonn® Climate Registry (cCR)**. Since 2011, the platform has captured 491 Adaptation Actions reported by 195 entities and 97 Adaptation Action Plans reported by 55 entities. Over 20 entities have already reported using the Climate Risk Adaptation Framework and Taxonomy questionnaire (final 2017 numbers forthcoming). Local government profiles and select data are publically available at carbonn.org/entities .

Description of lessons learned and good practices identified:

Please consider the following points when describing lessons learned and good practices: (a) effectiveness/impacts of the activities/processes (including measurability of the impacts), (b) efficiency in the use of resources, (c) replicability (e.g. in different locations, at different scales), (d) sustainability

(i.e. meeting the current economic, social and environmental needs without compromising the ability to address future needs).

Through ICLEI's work in supporting cities, towns and regions in assessing their sensitivity and vulnerability to climate change the urgent need for **adjusting the international resilience "language" and tools** (including the Sendai Framework toolkit), became apparent. There is need to localize those tools so that they fit the diverse and complex urban context and become support mechanisms for local leaders.

Building capacity of local governments to be able to apply global tools and be able to reduce their disaster risk vulnerabilities is another important lesson learned. The **availability and even access of data does not necessarily translate into the creation, absorption, and/or effective management of knowledge**. For this reason, it is often necessary to have a mediator (i.e. a local government network or civil society organization) that can deliver this knowledge in a way that is valuable to the cities.

In addition, **connecting urban centers that face similar risks and imminent changes through a network** has proved to be of great value to the local leaders to share information and best practices in identifying vulnerabilities and tackling climate change impacts. Through networks, local and subnational governments have the opportunity to exchange on appropriate solutions, best practices, strategies and tools.

Co-designing climate risk management strategies with civil society, the private sector, and the research community to achieve substantial outcomes is crucial. For example, involving the insurance industry in risk and vulnerability assessment could equip cities with state-of-the-art tools, risk analytics and catastrophe models to avoid flawed assessments and even save cities money down the road (by e.g. avoiding high losses or insurance rates for vulnerable coastal assets).

An assessment of adaptation actions reported by local government to the carbonn Climate Registry found that the most frequently cited climate risks were **drought, flood, extreme heat, and heavy rain**. – ICLEI (2017) [*Tracking local progress on the post-2015 frameworks: Making cities inclusive, sustainable, and resilient*](#). Bonn: Germany

Description of key challenges identified:

Please describe the key challenges associated with those activities/processes or the use of those tools/methods, that policy-makers, practitioners and other relevant stakeholders interested in assessing sensitivity and vulnerability to climate change should know about.

Often the first step in identifying and assessing risks in urban environments is having access to **reliable localized data and sufficient information**. This is not the case for many cities in the Global South. In addition, starting to identify risks and vulnerabilities has to be seen as a choice between many concurrent priorities faced by the cities (e.g. efforts reduce poverty, increase economic growth, and tackle systemic violence, slums and informal settlements). In this context, climate resilience is yet "another" hot topic that needs to be solved soon. Therefore, comprehensive resilience also requires an understanding of complex relationships and priorities faced by urban areas that could lead to compound or cascading risks. Focus needs to be placed on **increasing the capacity of local governments** in identifying their risks and climate change vulnerabilities at the short-, medium-, and long-term. This is the main precondition to starting building resilience to shocks and stresses in urban environments. Capacity-building is not always a straightforward and self-evident process. It takes time and dedication to understand what the cities are lacking in order to understand their risks.

Including a variety of key stakeholders at an early stage is also important to ensure local governments have the most complete, accurate risk and vulnerability data. Community consultations allow local governments to capture information about risks and vulnerabilities that are not reflected in official sources, though **these processes require time**. Private sector partners can provide access to key datasets. Such datasets present an opportunity for more informed planning, but proprietary access also poses **challenges for transparency and inclusiveness**.

Planned next steps (as appropriate):

Based on this experience or research, have next steps been planned to address/study some of the identified challenges, scale up or scale out such activities/processes?

To help local governments navigate the growing number of resilience tools and resources available, international organizations like those in the Medellín Collaboration on Urban Resilience have teamed up to streamline their work and outreach. ICLEI is member of this initiative which has recently launched a new comprehensive platform with the [Cities Alliance Joint Work Programme on Resilient Cities](#) (of which ICLEI is a Chair) to help cities find information and resources on enhancing their resilience. The tools and resources on www.resiliencetools.org have been compiled and produced by over 20 organizations to simplify the process for local and regional governments to find, compare and utilize the array of available tools and diagnostics.

In the beginning of 2017, ICLEI joined forces with UN Environment's Principles for Sustainable Insurance (PSI), the largest collaborative initiative between the UN and the insurance industry, to **create the largest collaboration between the insurance industry and cities**. The purpose of the partnership is to bring two key stakeholders together and bridge the existing finance and capacity gap to achieve urban sustainability and resilience. On May 5th 2017, ICLEI and UNEP PSI hosted the first ever [Insurance Industry & Cities Summit](#) at *Resilient Cities 2017*. The main outcome of the PSI-ICLEI summit was the "[Bonn Ambition](#)", which aims to achieve three goals by June 2018, when ICLEI will host its [World Congress in Montréal, Canada](#): a) Create "*Insurance Development Goals for Cities*" by converting the SDG11 stated targets to fit the insurance industry context; b) Develop city-level sustainable insurance roadmaps to drive strategic collaborative action between insurers and local governments; and c) Organize the first-ever roundtable of insurance industry CEOs and city mayors at the 2018 ICLEI World Congress to accelerate global and local action. Through this collaboration, ICLEI and PSI anticipates to also jointly contribute to consultations on the UNFCCC Clearinghouse for Risk Transfer, which could be useful for local governments.

Through the Resilient City Agenda, ICLEI connects local leaders to each other and to relevant actors that provide cities of different size and scale with the appropriate resources for **capacity building**. ICLEI, in collaboration with international partners has supported local authorities in assessing their risks and vulnerabilities, including from climate change impacts, through its various [tailored programs and projects](#), its tools and methodologies. Best practices are shared during the Global and Regional platforms for urban resilience (see [Resilient Cities 2016](#), [Resilient Cities 2017](#) and [Resilient Cities Asia-Pacific 2016](#)).

In 2017, ICLEI updated the adaptation and resilience reporting sections of the carbonn® Climate Registry (cCR) including with the CRAFT questionnaire which is standardized across the cCR and CDP reporting platforms. The updated reporting form allows ICLEI to capture more detailed, precise, and comparable information on the climate risks and vulnerabilities facing local governments and to **identify gaps, needs, and success factors** moving forward.

ICLEI is also supporting the UNISDR Making Cities Resilient Campaign. Outcomes of the Resilient Cities 2017, the UNFCCC Thematic Expert Meeting on Adaptation (May 2017), and ICLEI's assessment of adaptation actions reported to the carbonn Climate Registry (cCR) have been [shared](#) during the [Local Government Summit at the Global Platform for Disaster Risk Reduction](#) (Cancun, May 2017). In addition, ICLEI is supporting local implementation of the Sendai Framework including local risk assessments. ICLEI has recently launched its [Pacific Islands Partnership Program](#) to support the scale of activities that assist some of the most vulnerable places on Earth to become more resilient to climate change, disasters and other stressors. ICLEI also hopes to scale up activities begun in the Asia-Pacific to other regions.

Relevant hyperlinks:

Please provide hyperlinks to sources of information

Included in the text above:

<http://www.iclei.org/activities/agendas/resilient-city.html>

<http://www.iclei.org/activities/resources/publications.html><https://www.acccrn.net/resources/iclei-acccrn-process>

<https://www.acccrn.net/about-acccrn>

<https://pacific.oceania.iclei.org/>

<http://www.unisdr.org/campaign/resilientcities/>

<http://www.iclei.org/activities/agendas/resilient-city/community-for-towns-cities-and-provinces-of-small-islands-developing-states.html>

<http://www.icleicanada.org/programs/adaptation/barc>

<http://www.icleicanada.org/resources/item/2-adaptation-tool>

<http://www.adaptationlibrary.com/#/options/>

<http://www.resilientafrica.org/page.php?ID=100>

<http://www.ramses-cities.eu/home/>

<http://icleiusa.org/wp-content/uploads/2015/06/ExtremeWeatherGuidebook-0109.pdf>

<http://carbonn.org/>

http://www.iclei.org/fileadmin/PUBLICATIONS/Agendas/ResilientCity/BaselineReport_First_Assessment_May2017.pdf

<http://www.citiesalliance.org/JWP-ResilientCities>

www.resiliencetools.org

<http://resilientcities2017.iclei.org/program/insurance-industry-and-cities-summit/>

<http://www.iclei.org/details/article/united-nations-backed-insurance-industry-initiative-and-network-of-local-governments-to-create-in-1.html>

<http://www.iclei.org/activities/events/worldcongress2018.html>

<http://resilient-cities.iclei.org/>

<http://resilientcities2016.iclei.org/>

<http://resilientcities2017.iclei.org/>

<http://resilientcitiesasiapacific.iclei.org/>

http://www.iclei.org/fileadmin/PUBLICATIONS/Agendas/ResilientCity/Coherence_toward_2030_LGS_G_PDRR_ICLEI_UCLG_2017.pdf

<http://www.unisdr.org/conferences/2017/globalplatform/en/programme/preparatory-days/view/835>

2. Integrating both short-term and long-term climate considerations (including both extreme and slow onset events) into planning

According to UNFCCC decision 1.CP/16, slow onset events include sea level rise, increasing temperatures, ocean acidification, glacial retreat and related impacts, salinization, land and forest degradation, loss of biodiversity and desertification.⁴

Description of relevant activities/processes or research:

Please describe the activities or processes that your entity has implemented to integrate both short-term and long-term climate considerations (including both extreme and slow onset events) into planning. In case your organization carried out research on such activities/processes, please describe them.

ICLEI's adaptation resources include guidance on identifying and planning for both shocks (short term hazards) and stresses (long term hazards).

⁴ FCCC/CP/2010/7/Add.1, para 25, footnote 3.

Description of relevant tools/methods:

Please describe the tools and/or methods that have been developed and/or used to integrate both short-term and long-term climate considerations (including both extreme and slow onset events) into planning.

At the global level:

The **carbonn® Climate Registry (cCR)** is a free global reporting platform for climate action by local and subnational governments – cities, towns, states, provinces and regions. It has been designed to support and facilitate structured reporting on climate change mitigation and adaptation including hazards, risk scenarios, and planning processes. As of 2017 it also includes the standardized Climate Risk Adaptation Framework and Taxonomy (CRAFT) questionnaire. It also serves as a reporting platform for the Global Compact of Mayors (merged with the Global Covenant of Mayors for Climate and Energy). Reporting entities (local, regional, subnational governments) may report on their current and future climate hazards (short, medium, long term), expected impacts, as well as the adaptation measures and plans the reporting entity has or is developing to respond to these risks <http://carbonn.org/>

All of ICLEI's 17 offices covering all global regions have active programs on resilience. Below is a selection of ICLEI tools/methods offered from our regional offices:

[The ICLEI ACCCRN Process toolkit](#) enables local governments to assess their short and long term climate risks and develop an integrated, participatory resilience strategy in the context of urbanization, poverty and vulnerability and formulate corresponding resilience strategies. It draws on the experiences from the original ten core [ACCCRN](#) (Asian Cities Climate Change Resilience Network) cities and existing ICLEI approaches and has been applied in a range of cities in Indonesia, Bangladesh, the Philippines and India.

[The Resilient Africa Interactive Adaptation Participatory Process Tool](#) (2009 – ongoing, ICLEI Africa) is an online decision-support tool that assists African local governments to create an adaptation strategy and improve local adaptive capacity through a customizable, participatory process. The various components help decision-makers determine the amount of resources and capacity available as well as the level of response required.

ICLEI Africa is a partner organization to [Future Resilience for African Cities and Lands \(FRACTAL\)](#) (2015-2019), a 7-country project aimed at advancing knowledge on regional climate responses to global change and integrating this information into decision-making at the city-region scale. FRACTAL responsibly contributes to evidence-based decisions for resilient development pathways through conducting *City Learning Labs* (implemented already in Lusaka, Zambia, Maputo, Mozambique and Windhoek, Namibia). Innovative research will soon begin in Blantyre, Malawi, Gaborone, Botswana and Harare, Zimbabwe to enhance understanding of the influence of people's perceptions and values during their interpretation of climate risk narratives. As part of the FRACTAL, a number of learning outputs have already been published, and include: think pieces, working papers, briefing papers, and blogs. This can be found [here](#). FRACTAL is part of the Future Climate For Africa (FCFA) multi-consortia programme. It has the broad objective to make new African infrastructure as well as urban and rural plans and investments more climate-resilient. FCFA is funded through the Department For International Development (DFID) and the Natural Environment Research Council (NERC).

Through [SURE Water for Africa](#), ICLEI Africa and project partners aim to contribute to sustainable climate change resilient urban water planning mechanisms and action based on international benchmarking within local authorities while ensuring multiplier effects within the region.

ICLEI Canada's [Building Adaptive & Resilient Communities \(BARC\)](#) program (2010 – ongoing) offers a suite of solutions, resources and consulting services that support Canadian municipalities in preparing for climate change in a timely and cost-effective way. These components include the [online BARC tool](#) to assist local governments with adaptation and resilience planning, networking platforms, and a comprehensive [adaptation library](#).

ICLEI Europe supports cities in designing and implementing climate adaptation strategies through several projects. In focus are:

- [RAMSES](#) (2012 – 2017) a research project that seeks to quantify the impacts of climate change including the costs and benefits of a wide range of adaptation measures as they relate to cities. ICLEI, with consortium partners, engages with stakeholders to ensure findings are policy relevant and capable of enabling the design and implementation of adaptation strategies in the EU and beyond.
- [RESIN](#) (2015 – 2018) an interdisciplinary European-funded research project investigating climate resilience in European cities. The project works with cities and research institutions to develop tools to support cities in designing and implementing climate adaptation strategies for their local contexts. Ultimately, the project aims to compare and evaluate the methods that can be used to plan for climate adaptation in order to move towards formal standardization of adaptation strategies in urban areas of Europe.
- [Smart Mature Resilience \(SMR\)](#) (2015 -2018) a multi-disciplinary research project working to enhance cities' resilience. The project develops Resilience Management Guidelines to help cities resist, absorb and recover from shocks and stresses caused by climate change, social dynamics and critical infrastructure vulnerability, with the goal of strengthening Europe's nexus of resilient cities.

ICLEI South Asia undertook a [climate change sensitization program](#) for Kolkata Municipal Corporation Councilors and Members of the Mayor-in-council in 2014-2015. The program focused on promoting low-carbon and climate-resilient development in the City of Kolkata, which is projected to be among the top ten cities most vulnerable to climate change impacts by 2070. A series of 16 training and workshops were organized under the program with the aim to build the capacity of councilors to the effects of short-term and long-term effects of climate change.

Within the [PACMUN \(Plan de Acción Climática Municipal\) framework](#), ICLEI Mexico, Central America, and the Caribbean has built the capacities of city officials and decision makers to develop policies through a better understanding of the causes and effects of climate change at the community level.

ICLEI Oceania's [Local Government Climate Change Adaptation Toolkit](#), which should be used alongside the Climate Change Impacts & Risk Management guide from the Australian Government Department of Climate Change, outlines an adaptive management process and provides a set of tools and exercises meant to assist councils as they work through the process.

Key outcomes of the activities undertaken:

Please provide information regarding the outcomes of the activities/processes described above, and do not hesitate to add qualitative assessment and/or quantitative data to substantiate the information.

As an indication, through our 'on-the ground' Resilient City Agenda activities, ICLEI has...

- coined the term “Resilient City”, which has generated immense momentum and support within the climate adaptation field. ICLEI's Resilient Communities and Cities Initiative was launched at the Local Government Session of the World Summit on Sustainable Development (WSSD) in 2002.
- helped 21 Canadian cities construct adaptation plans with the guidance of the BARC Program since its creation in 2008.
- strengthened the capacity of over 50 rapidly urbanizing cities, with partners of the Asian Cities Climate Change Resilience Network (ACCCRN), in Bangladesh, India, Indonesia, the Philippines, Thailand and Vietnam to survive, adapt and transform in the face of climate-related stress and shocks.

- ICLEI has enrolled over 250 Mexican municipalities in the PACMUN program to develop municipal Climate Action Plans through PACMUN. This means that over 10% of Mexican municipalities are developing climate change mitigation & adaptation plans.
- gathered together over 3,400 participants including over 800 local government representatives since 2010 to the annual Resilient Cities Congress in Bonn, Germany. The multiplier effect of this participation has been immense.
- mobilized action for adaptation with the Resilient Cities for American Campaign, which resulted in 221 American mayors and county leaders signing the [Resilient Communities for America Agreement](#).
- developed locally relevant climate adaptation solutions in 11 African cities through projects affiliated with the Resilient Africa online decision report tool.
- led the charge for climate resilience in Oceania with the introduction of the Local Government Climate Change Adaptation Toolkit in 2008, and continues to be a driver by implementing and advocating for resilience initiatives.
- provided rapid disaster risk reduction planning and support to vulnerable cities and towns in the Pacific Islands.

Description of lessons learned and good practices identified:

Please consider the following points when describing lessons learned and good practices: (a) effectiveness/impacts of the activities/processes (including measurability of the impacts), (b) efficiency in the use of resources, (c) replicability (e.g. in different locations, at different scales), (d) sustainability (i.e. meeting the current economic, social and environmental needs without compromising the ability to address future needs).

At COP22, ICLEI facilitated the [Resilience Workstream of the Global Climate Action \(GCA\) Day](#) on Cities and Human Settlements (10 November 2016) where national and local governments, INGOs, NGOs, researchers and the private sector convened to discuss three critical themes: multi-level, multi-scale partnerships and initiatives; synergy among key global policy frameworks; and financing urban resilience. These three topics encapsulate the main challenges and opportunities for cities and regions to deliver on Global Frameworks and accelerate change at the global level. [A summary of Global Urban Resilience Initiatives](#) (abbreviated, non-exhaustive overview) was prepared in advance of COP22.

One of the resilience-relevant outcomes of the Cities and Human Settlements Day was the importance **to ensure synergy** through long-term, structured and regular dialogue and engagement of the urban resilience and adaptation community in key processes inside and outside the UNFCCC. That is why **in 2017** ICLEI participated in relevant global discussions in an effort to bring the different aspects of urban sustainability together (i.e. disaster risk reduction, climate change adaptation, sustainable development goals, New Urban Agenda, etc.) For example, ICLEI actively participated in the UN General Assembly High Level Dialogue on the follow-up and review of the New Urban Agenda at the UN-Habitat Governing Council in April 2017 and the [Summit of Local and Regional Governments](#) during the UNISDR 2017 Global Platform for Disaster Risk Reduction held in May 2017 in Cancun, Mexico. Elements on urban resilience in these processes were enriched with inputs from the [Resilient Cities 2017](#) congress – the annual global forum on urban resilience and adaptation to climate change (4 – 6 May 2017, Bonn, Germany).

ICLEI prepares an annual [Resilient Cities Report](#) based on the discussions held at the Resilient Cities congress in Bonn, Germany, which captures **key developments and good practices in the field of urban resilience and adaptation**. The report includes case studies, lessons learned, tools and resources for local governments, information on vertical integration, and key messages to and from policy makers and practitioners.

Description of key challenges identified:

Please describe the key challenges associated with those activities/processes or the use of those tools/methods, that policy-makers, practitioners and other relevant stakeholders interested in integrating both short-term and long-term climate considerations into planning should know about.

Cities, towns and regions struggle to mobilize **funding for adaptation**. Funding is currently available for just one sixth of the USD 150 billion projected annual costs of global adaptation in 2025. In addition, local governments struggle with limited **technical capacity** to effectively address short-term and long-term climate considerations and integrate these into planning. More skilled staff is needed to translate and decipher climate fund requirements into actionable plans for decision makers. Another challenge is designing bankable local adaptation projects funders are likely to finance. Local and subnational governments need support to craft such projects. In order to minimize losses and damages as a result of disasters, there is need for increased flow of global climate finance and other investments to support urban integrated disaster risk reduction, climate change adaptation and sustainability initiatives. A **Global Action Framework for Localizing Climate Finance** is crucial.

Planned next steps (as appropriate):

Based on this experience or research, have next steps been planned to address/study some of the identified challenges, scale up or scale out such activities/processes?

ICLEI has launched the [Transformative Actions Program \(TAP\)](#), an innovative initiative that aims to catalyze and improve capital flows to cities, towns and regions and strengthen the capacity of local and subnational governments to access climate finance and attract investment for adaptation and mitigation projects. By participating in the TAP, cities, towns and regions take proactive steps and access a network of partners that offer support services that increase their visibility, better position them to access climate finance and encourage innovative and replicable local financing mechanisms. Through the Resilient Transformative Actions Program (R-TAP), (pre) launched in September 2016, ICLEI has supported select cities to attend finance sessions at [Resilient Cities 2017](#), increased outreach to TAP partners, and will pursue increased capacity building support for existing TAP cities.

Relevant hyperlinks:

Please provide hyperlinks to sources of information.

<http://carbonn.org/>

<https://www.acccrn.net/resources/iclei-acccrn-process>

<https://www.acccrn.net/about-acccrn>

<http://www.resilientafrica.org/page.php?ID=100>

<http://www.fractal.org.za/>

<http://www.awasla.org/surewater-home>

<http://www.icleicanada.org/programs/adaptation/barc>

<http://www.icleicanada.org/resources/item/2-adaptation-tool>

<http://www.adaptationlibrary.com/#/options/>

<http://www.ramses-cities.eu/home/>

<http://www.resin-cities.eu/home/>

<http://smr-project.eu/home/>

[http://southasia.iclei.org/our-activities/our-agendas/resilient-city/sensitisation-programme-for-](http://southasia.iclei.org/our-activities/our-agendas/resilient-city/sensitisation-programme-for-kolkata-municipal-corporation-councilors-and-members-of-mayor-in-council-on-climate-change.html)

[kolkata-municipal-corporation-councilors-and-members-of-mayor-in-council-on-climate-change.html](http://southasia.iclei.org/our-activities/our-agendas/resilient-city/sensitisation-programme-for-kolkata-municipal-corporation-councilors-and-members-of-mayor-in-council-on-climate-change.html)

<http://iclei.org.mx/web/index.php/seccion/PACMUN>

<http://archive.iclei.org/index.php?id=adaptation-toolkit0>

<http://icleiusa.org/programs/leadership-campaigns/rc4a/>

<http://www.iclei.org/activities/cop22/marrakech-partnership.html>

http://www.iclei.org/fileadmin/PUBLICATIONS/Agendas/ResilientCity/2016_ICLEI_BriefingSheet_Urban_ResilienceInitiatives.pdf
<http://www.unisdr.org/conferences/2017/globalplatform/en/programme/preparatory-days/view/835>
<http://resilient-cities.iclei.org/resilient-cities-hub-site/congress-publications/>
<http://tap-potential.org/>
<http://resilientcities2017.iclei.org/>
https://www.uclg.org/sites/default/files/cop_22_marrakeck_roadmap_for_action.pdf

3. The role of national governments in supporting adaptation at the local level

Description of relevant activities/processes or research:

Please describe activities or processes that your entity took part in, or studied, and that illustrate the role of national government(s) in supporting adaptation at the local level.

ICLEI has organized and contributed to various events with local and national representatives that discuss the role of national governments in supporting adaptation at the local level with practical examples and recommendations. These events include the Resilient Cities congresses, the UNFCCC COPs and Bonn Climate Conference, the UNISDR Global Platform (2017), Habitat III, and the UN General Assembly. ICLEI has shared the inputs and outcomes of these discussions with our network and through various communications channels to inform good practice on vertical integration for adaptation plans and policies.

ICLEI South Asia and ICLEI Southeast Asia, recently conducted [analysis of national and subnational disaster Loss and Damage databases in 3 countries \(Sri Lanka, Cambodia, and Indonesia\)](#) with the aim to correlate these trends with city-level losses and damages in the context of observed climate impacts in the region. The initiative (2015 – 2016) was led by UNDP in partnership with ICLEI, UN ESCAP, UN-Habitat and ADB. The next step is developing a methodology for the “DRR-Climate Change” link and identifying potential interventions to reduce vulnerability in the urban areas of the region.

ICLEI Southeast Asia participated in updating **the Philippines** National Urban Development and Housing Framework 2016-2022 and the formulation of the National Climate Change Mitigation Framework Strategy, as well as the guidelines in formulating Local Climate Change Action Plans. The regional office has also applied the ACCCRN process to assess vulnerabilities of local governments.

Description of relevant national-level policies, programmes or projects:

Please describe relevant policies, programmes, projects (or other relevant initiatives) implemented by national government(s) to support adaptation action at the local level. Information on the implementing partners and financial mechanisms established would be particularly helpful.

[Social Implementation Program on Climate Change Adaptation Technology \(SI-CAT\)](#) (2015-2017) is a large scale national research program in **Japan** aimed at developing tools and methodologies to support local governments in designing and implementing their climate change adaptation action plans. SI-CAT is funded by the Ministry of the Education, Culture, Sports, Science and Technology of Japan. ICLEI’s Japan Office (JO) contributes to SI-CAT by reaching out to select model Japanese municipalities and introducing them to urban resilience and adaptation programs/projects from Europe (2015) and North America (2016) in order to promote knowledge exchange and accelerate climate resilience action at the local scale.

Funded by the Japan Fund for Global Environment, “[The Community Actions and City-to-city Cooperation on Climate Change in the Philippines](#)” project (2013 – 2015) engaged representatives actively participating in climate change issues at the local level in **Japan** and in **the Philippines** and supported local

and autonomous actions at a community in Tubigon, Philippines by providing training on the causes of climate change and the possible measures for mitigation and adaptation.

In the **United States**, the [Resilience Dialogues](#) (2016 – ongoing) is a public-private collaboration of Federal agencies, regional networks, and the private sector which aims to connect local communities to scientific federal resources such as the Partnership for Resilience & Preparedness, the [Climate Data Initiative](#), the [Climate Resilience Toolkit](#), and the [National Climate Assessment](#). Through a series of facilitated online dialogues, subject matter experts and communities around the country work together to take steps toward resilience.

In **Mexico**, the Climate Action Plan for Municipalities Program ([PACMUN - Plan de Acción Climática Municipal](#)) helped build effective synergies between local and national stakeholders to encourage a public policy framework on climate change mitigation and adaptation actions. PACMUN was launched by ICLEI with the technical support of the National Institute of Ecology and Climate Change (INECC) and financed by the British Embassy in Mexico for the period 2011-2015. During this time, a "*Guide for the Elaboration of a Plan for Municipal Climate Action*" was developed in the participating municipalities. In the first phase of the project (2012) more than 30 pilot municipalities were assisted, in the second phase 2013-2015 it was 250 municipalities, covering a bit more than 10% of all municipalities of the country. ICLEI Mexico helped build the capacities of city officials and decision makers to develop policies through a better understanding of the causes and effects of climate change at the community level.

In Australia, a special [Local Government Climate Change Adaptation Toolkit](#) was developed with funding from the Australian Government Department of Climate Change and has been piloted with five local Councils from around Australia (since 2008).

Recognizing the need in responding to negative impacts of climate change, the **Government of Indonesia** has developed the National Action Plan for Climate Change Adaptation (RAN-API), identifying actions for adaptation of priority sectors in the short-term (2013-2014) whilst also mainstreaming adaptation in the Mid-term Strategic Plan 2015-2019. The RAN-API targets: i) developing economic resilience, especially for the vulnerable; ii) developing climate resilient livelihoods, iii) maintaining sustainability of ecosystem services and; iv) strengthening infrastructure. A mechanism for monitoring, evaluation, reporting and reviewing is also being established, strengthening the implementation of the RAN-API.

The Mid-term Strategic Plan 2015-2019 also mentioned that one of the national policies directions and strategies to achieve targets in addressing climate change is **to encourage local governments** to develop adaptation action plans based on the documents and vulnerability assessment of the region. There are 15 priority areas identified by the national government for pilot projects to improve resilience towards the impact of climate change. Those areas are: 1) Bali province; 2) Semarang city; 3) Pekalongan city; 4) West Java Province; 5) Blitar city; 6) Bandar Lampung city; 7) East Java province; 8) Malang Regency; 9) Batu city; 10) Malang city; 11) West Nusa Tenggara; 12) Lomvok Island; 13) Tarakan city; 14) South Sumatera Province; 15) North Sumatera Province.

Additionally, there is the **PROKLIM** program (<http://proklim.menlh.go.id>) which is an action program to strengthen adaptation and mitigation of climate change at the local level (village area) to improve the understanding of climate change and to increase community resilience to the impact of climate change. In addition, this program was also designed to encourage active participation of all stakeholders, and to increase community resilience to the impacts of climate change and its contribution to reduction of GHG emissions.

In the area of land and forest fire prevention, some activities have been carried out, such as the establishment of Land and Forest Fire Care Community (MPA) which expectedly to be able to prevent, suppress and control the areas of land and forest fire. The other activities are development of Early Detection Management System Application of forest fire through a web-based system named **SIPONGI** (<http://sipongi.menlhk.go.id>) and the establishment of Post-Post Alert/Emergency Haze/Smoke in several provinces in Indonesia.

In the Philippines a series of relevant national-level policies, programs and projects have taken place:

- **The Philippine Climate Change Act of 2009 and National Framework Strategy on Climate Change 2010-2022**

In 2009, the Philippine Climate Change Act was enacted by the Philippine Congress. It created a Climate Change Commission tasked with formulating, implementing and monitoring plans to better prepare for and respond to climate change impacts. Subsequently, the National Framework Strategy on Climate Change 2010-2022 (NFSCC) was approved—paving the way for the formulation of the National Climate Change Adaptation Plan (NCCAP) and Local Climate Change Adaptation Plans (LCCAPs).

- **The National Climate Change Adaptation Plan (NCCAP)**

The NCCAP prioritizes food security, water sufficiency, ecological and environmental stability, human security, climate-smart industries and services, sustainable energy, and knowledge and capacity development as the strategic direction for 2011 to 2028. Under the human security agenda, the three immediate targets are:

1. Climate change adaptation and disaster risk reduction implemented in all sectors at the national and local levels;
2. Health and social protection delivery systems are responsive to climate change risks;
3. CC-adaptive human settlements and services developed, promoted and adopted.

- **Comprehensive Development Plan (CDP) and Comprehensive Land Use Plan (CLUP)**

In line with the NCCAP and the NFSCC, the National Government, through the Department of Interior and Local Government (DILG) and the Housing and Land Use Regulatory Board (HLURB), works with local governments in formulating and implementing the Comprehensive Development Plan (CDP) and Comprehensive Land Use Plan (CLUP). These plans are the main tools local government units (LGU) employ to shape their cities'/municipalities' urban development. Amid the country's growing population, emerging new demands on land, rapidly expanding cities, and increasing threats from climate change, never have the tasks of preparing and implementing the CDPs and CLUPs been more pivotal to sustainable urban development [Habitat III: The Philippine National Report, 2016]. Below is the timeline of how the urban planning system in the Philippines has evolved to guide the sustainable development of the country in the face of climate change:

In 2013, HLURB revised the CLUP guidelines further to mainstream climate change adaptation and disaster risk reduction and the growing demand for the integration of planning for critical resources, such as upland, coastal, biodiversity areas, heritage, ancestral domains, and urban greening.

In 2014, HLURB approved and issued the "*The Supplemental Guidelines on Mainstreaming Climate Change and Disaster Risk in the Comprehensive Land Use Plans.*" These guidelines were hailed by the Philippine Climate Change Commission as the first planning document of its kind in Southeast Asia that paved the way for integrating appropriate Climate Change Adaptation interventions into the CLUPs through the Climate Disaster Risk Assessment tool.

A Joint Memorandum Circular by the DILG and HLURB (JMC-001 S. 2009) was issued to harmonize the preparation of the CDP and the CLUP by local governments. This highlighted the points of convergence of strategies for spatial and multi-sectoral planning. The policy also delineated the institutional mandate and roles of DILG and HLURB in the provision of technical assistance to the LGUs, and in the issuance of guidelines in the preparation of their local development and land use plans [Habitat III: The Philippine National Report, 2016].

- **Local Climate Change Action Plan (LCCAP)**

Local governments also need to develop their LCCAPs as frontline agencies in the formulation, planning and implementation of climate change action plans in their respective areas [Climate Change Act of 2009]. The LCCAP of LGUs is science and risk-based, as its formulation will consider

the assessment of climate change impacts on the most vulnerable communities, areas, the ecosystems and other resources within their territories. The process must be participatory and consultative to ensure ownership and cooperation of the constituents in its implementation [LGU Guidebook in LCCAP formulation, 2014]. The results of the LCCAP can be mainstreamed into the other mandated plans of LGUs like the CDP and CLUP therefore adding climate change considerations into their local planning and development.

Description of relevant tools/methods:

Please describe specific tools and/or methods that have been developed and/or used by national government(s) to support adaptation at the local level.

In Indonesia, there are 3 instruments that are in use to support the national agenda (with implications for the local level) on climate change:

- **SIDIK**
Most areas in Indonesia are vulnerable to climate change; therefore there is a need to have easily accessible information on vulnerability levels in a certain areas or development sectors. The Vulnerability Index Data and Information System (SIDIK) was developed to fulfil this need and it can be used to monitor the effectiveness of development policy to changes in the level of vulnerability, as well as understanding the relative position of one region vis-à-vis other areas (<http://adaptasi.menlh.go.id>)
- **SIGN Mart**
Indonesia acknowledges the importance of regularly updated national GHG inventory as a basis of climate change policy development and as fulfilment of its commitment to the UNFCCC. In order to implement a transparent, accurate, complete, comparable and consistent GHG inventory, Indonesia developed SIGN SMART, a web-based application to conduct GHG inventory in a simple, easy, accurate, brief and transparent way;
- **Climate Data Supply**
Under the responsibility of the Indonesian Agency for Meteorology, Climatology and Geophysics (BMKG), this is a mechanism of periodic provision and updating of climate data for the formulation of hazard levels of climate change impacts and their projections.

In the Philippines the **Climate Disaster Risk Assessment (CDRA)** is the main tool developed to support adaptation at the local level. The CDRA is a decision-making tool critical for risk prevention and reduction. It helps local governments formulate climate and disaster risk-sensitive CLUPs and zoning ordinances that would guide the allocation and regulation of land use so that exposure and vulnerability of population, infrastructure, economic activities and the environment to natural hazards and climate change can be minimized or even prevented. Understanding the potential risks and vulnerabilities of their localities have allowed LGU decision-makers and other stakeholders to make more informed, meaningful decisions about their local goals, strategies, and land use policy formulation and development.

The resulting improvements in land use planning and zoning processes will strengthen the ability of local governments to achieve their sustainable development objectives given the challenges posed by climate change and natural hazards.

Key outcomes of the action undertaken:

Please provide information regarding the outcomes of the actions described above, and do not hesitate to add qualitative assessment and/or quantitative data to substantiate the information.

Key outcomes from **Indonesia**:

- Local governments are capacitated and encouraged to conduct analysis of their vulnerability toward the impact of climate change and formulate an action plan to improve their resilience;
- Local governments could mainstream the issue of climate change and integrate their necessary adaptation actions plan into their developmental planning and budgeting;
- Local governments could enhance engagement with all stakeholders, including the community in climate change adaptation efforts, by raising their awareness to the devastated impact of climate change.

Similarly to Indonesia, in **the Philippines** the various national plans and policies and their accompanying tools and guidelines have empowered local governments to take charge of incorporating climate change measures into their local planning and development.

Description of lessons learned and good practices identified:

Please consider the following points when describing lessons learned and good practices: (a) effectiveness/impacts of the activities/processes, national-level policies, programmes or projects (including measurability of the impacts), (b) efficiency in the use of resources, (c) replicability (e.g. in different locations, at different scales), (d) sustainability (i.e. meeting the current economic, social and environmental needs without compromising the ability to address future needs).

Key developments in the “post-2015” field of urban resilience: Researchers are responding to calls for more accessible, digestible climate research with new knowledge-sharing platforms, networks, and funded exchange opportunities that offer centralized, but diverse information for various contexts; Good practice for resilient urban food and water management systems continues to emphasize coordinated city-region partnerships and a mix of “hard” and “soft” interventions; Participatory and gender-sensitive governance approaches are progressively bringing disadvantaged voices into the climate-resilient development debate.

However, further work is needed to shift mindsets and enable **truly inclusive resilience planning**. Finally, efforts to create an enabling environment for **investment** and more direct access to financing at the local level must be urgently expanded in order to close the adaptation finance gap. Addressing the local governance and capacity gaps identified in the areas above will be needed to achieve the ambitions of the post-2015 global frameworks, including the Paris Agreement and the SDGs. In parallel, multi-level cooperation is needed to enact the broader political and financial reforms necessary for more equitable and climate resilient urban development.

Specific recommendations for national governments regarding finance have already been captured in the [Marrakech Roadmap for Action](#), an outcome of the COP22 Climate Summit for Local and Regional Leaders.

For example, key lessons reported from **Indonesia** were:

- To mainstream climate change adaptation at the local level, a holistic approach is needed and this can’t be separated from national policies and instruments;
- In order to strengthen synergy and coordination of climate change adaptation programs there needs to be continuously built vertical integration between central and local government, as well as horizontal integration by involving all relevant sectors / parties at the local level. This vertical and horizontal integration also supports efficiency in the use of resources, including the budget;
- Efforts to reduce the risks of climate change are shared responsibilities requiring the support and active participation of all parties, including governments, scientists, academics, non-governmental organizations, the business community and the general public;

- Social capital is important! Social capital will be able to anticipate the uncertainty of the magnitude of the impact and consequences of the planned adaptation options.

Utilizing reliable climate change tools and guidelines that are in-line with the national plans and policies is imperative! This was the key lesson from **the Philippines**. Tools like the CDRA which provides a step-by-step process makes understanding climate change impacts easier as well as formulating and prioritizing appropriate adaptation measures. The tool can also be modified and altered to better suit the different levels of capacity of local governments and can be scaled down to the community level. Once the local government has understood the process, they can easily replicate this and continue updating their knowledge base for future reiterations.

Description of key challenges identified:

Please describe the key challenges associated with those actions, that policy-makers, practitioners and other relevant stakeholders working either at the national or at the local level should know about.

It is important to include key resilience partners, such as the private sector, the insurance industry, realtors and the tourism industry in discussing ways to achieve urban resilience. The “business as usual” approach is not enough anymore, as evidenced by the annual increase of economic losses from natural disasters (USD 175 billion in 2016 according to Swiss RE’s sigma records). It is therefore paramount to bring relevant urban resilience partners and aspects, such as resilient transportation, health, and land degradation and others to form a comprehensive resilience discourse and help cities, towns and regions achieve resilience.

Lack of knowledge and capacity of local government staff on issues of climate change, as well as the use of scientific data enhances the vulnerability of urban systems. In addition, climate change is not always a priority agenda in local governments due to lack of understanding on this issue and lack of budget to address it. Finally, it is important to acknowledge that not all countries have an official or a funded mandate for local governments to develop climate change adaptation action plans. Those cities, towns, and regions that started steps to develop adaptation strategies, are doing it to promote and accelerate climate leadership.

National and local institutions responsible for adaptation policies often exist and operate in parallel, undermining the effectiveness of both. There is a need to better link and coordinate plans, policies, and actions related to adaptation (e.g. river basin flood risk management) at all levels of government.

Planned next steps (as appropriate):

Based on this experience or research, have next steps been planned to address/study some of the identified challenges, scale up or scale out such actions.

As part of the Resilient City Agenda, ICLEI recently conducted a **preliminary baseline review of adaptation actions** reported to the [carbonn Climate Registry](#) (cCR) in relation to Sustainable Development Goal 11b, the Sendai Framework for Disaster Risk Reduction, and the Paris Agreement. The [ICLEI Discussion Paper](#) was made available at the *Resilient Cities 2017* congress and informed ICLEI’s discussions on adaptation at various international forums throughout the year. As a next step, ICLEI’s Resilient City Agenda will complete a more thorough analysis of this adaptation information, including data captured through the new [Climate Risk and Adaptation Framework and Taxonomy questionnaire](#) (CRAFT). This questionnaire was developed by C40 in cooperation with ICLEI for the Compact of Mayors initiative (now the Global Covenant of Mayors on Climate and Energy). It was integrated into the cCR and CDP platforms in 2016, with the first round of annual data coming available for analysis in 2017. Such an analysis would provide valuable information to local governments to guide best practice, and would inform discussions at the UNFCCC.

Outcomes from programs and discussions in 2017 at the local and global level related to vertical integration will be presented at UNFCCC COP23.

At the national level, national governments across the globe are working together with civil society organizations and local governments to bridge the gap and capacitate local governments to take climate action on their own. National governments in the Philippines for example, are striving to harmonize and complement efforts with local governments in order to effectively respond to the increasing threat of climate change. This is achieved through various technical assistance activities and multi-stakeholder meetings hosted by the national government in recent years.

Relevant hyperlinks:

Please provide hyperlinks to sources of information.

<http://ditjenppi.menlhk.go.id>

<http://proklim.menlhk.go.id>

<http://sipongi.menlhk.go.id>

<http://adaptasi.menlhk.go.id>

https://www.uclg.org/sites/default/files/cop_22_marrakeck_roadmap_for_action.pdf

[https://lga.gov.ph/media/uploads/2/Publications%20PDF/Book/BOOK%201-LGU%20Guidebook%20in%20LCCAP%20Formulation%20%20\(Process\).pdf](https://lga.gov.ph/media/uploads/2/Publications%20PDF/Book/BOOK%201-LGU%20Guidebook%20in%20LCCAP%20Formulation%20%20(Process).pdf)

http://www.lawphil.net/statutes/repacts/ra2009/ra_9729_2009.html

<http://www.hudcc.gov.ph/sites/default/files/styles/large/public/document/Habitat%20III%20-%20Philippine%20National%20Report.pdf>

http://www.neda.gov.ph/wp-content/uploads/2013/10/nfsc_sgd.pdf

<http://projectclimatetwinphoenix.com/wp-content/uploads/2015/06/Supplemental-Guidelines.pdf>

<http://climate.emb.gov.ph/wp-content/uploads/2016/06/NCCAP-1.pdf>

4. Cross-cutting issues and linkages to the process to formulate and implement national adaptation plans (NAPs)⁵

Description of relevant activities/processes or research:

Please describe activities or processes that your entity took part in, or studied, and that illustrate cross-cutting issues and/or linkages to the process to formulate and implement NAPs.

Description of relevant national-level policies, programmes or projects:

Please describe relevant policies, programmes, projects (or other relevant initiatives) implemented by national government(s) that integrate local-level adaptation action into the process to formulate and implement NAPs. Information on the implementing partners and financial mechanisms established would be particularly helpful.

An example: Thamrin School is a multi-stakeholder initiative that encourages critical thinking and progressive governance of natural resources, environment, and climate change that is fair, sustainable, and in favor of the public interest. Its main focus areas are political economy, economic transformation, business and climate change, and strategic communications. Also considered as a think tank group, Thamrin School is working with ICLEI Indonesia in terms of facilitating workshops on urban climate change issues as well as in advocating the INDC process.

Description of relevant national-level policies, programmes or projects:

⁵ For additional information on NAPs, see: <http://www4.unfccc.int/nap/Pages/Home.aspx>

Please describe specific tools and/or methods that have been developed and/or used by national government(s) to address cross-cutting issues and/or foster linkages with the process to formulate and implement NAPs.

Key outcomes of the action undertaken:

Please provide information regarding the outcomes of the actions described above, and do not hesitate to add qualitative assessment and/or quantitative data to substantiate the information.

Description of lessons learned and good practices identified:

Please consider the following points when describing lessons learned and good practices: (a) effectiveness/impacts of the activities/processes, national-level policies, programmes or projects (including measurability of the impacts), (b) efficiency in the use of resources, (c) replicability (e.g. in different locations, at different scales), (d) sustainability (i.e. meeting the current economic, social and environmental needs without compromising the ability to address future needs).

When assessing adaptation actions and plans reported to the carbonn Climate Registry (cCR), many are in line with national and global goals. A review conducted earlier this year of a sample of adaptation data reported to the cCR found that 74% of the 242 adaptation actions assessed and 100% of the 25 adaptation plans assessed were broadly in line with article 7 of the Paris Agreement. In addition, 76% of the actions and all but one of the plans were designed to contribute to national level goals (including but not limited to NDCs and NAPs). – ICLEI (2017) [Tracking local progress on the post-2015 frameworks: Making cities inclusive, sustainable, and resilient](#). Bonn: Germany

Description of key challenges identified:

Please describe the key challenges associated with those actions, that policy-makers, practitioners and other relevant stakeholders working either at the national or at the local level should know about

Planned next steps (as appropriate):

Based on this experience or research, have next steps been planned to address/study some of the identified challenges, scale up or scale out such actions?

Relevant hyperlinks:

Please provide hyperlinks to sources of information.

5. City-to-city partnerships on climate change adaptation

Description of relevant activities/processes or research:

Please describe activities or processes that your entity took part in, or studied, and that contributed to fostering city-to-city partnerships on climate change adaptation.

ICLEI helps cities to enhance their resilience against urban risk, climate change impacts and other unforeseen events and economic shocks by connecting leaders from across the world through our urban resilience networks at the regional, national and international levels. ICLEI promotes city-to-city exchange on urban resilience and adaptation to climate change through our Global and Regional Platforms (annual Resilient Cities congress in Bonn, annual Resilient Cities Asia-Pacific Forum, annual Open European Day at Resilient Cities, biennial Local Climate Solutions for Africa Congress series), our tailored programs and tools (offered by regional offices), as well as our networks, such as:

- [Asian Cities Climate Change Resilience Network \(ACCCRN\)](#)

- [Making Cities Resilient: “My City is getting ready!”](#)
- [Asia Pacific Adaptation Network](#)
- [Cities Alliance Joint Work Program on Resilient Cities](#)
- [Medellin Collaboration on Urban Resilience](#)
- [Cities Climate Finance Leadership Alliance](#)
- [Resilient Communities for America campaign \(RC4A\)](#)

Most of ICLEI’s adaptation programs include a city-to-city exchange component during the life of the program and/or as part of the program outcomes. More information is available at <http://www.iclei.org/activities/agendas/resilient-city.html>

In addition, ICLEI has been a partner to the [Durban Adaptation Charter \(DAC\)](#) which was first launched at the UNFCCC COP17 held in Durban in December 2011. The DAC outlines ten principles of adaptation best practice. The principles highlight the need for comprehensive and contextually appropriate adaptation in the world’s cities, particularly those of the global South, and provide a clear mandate for local level adaptation action. It has since been signed by leaders from over 100 cities and developed into a platform to facilitate adaptation action at a local level.

Description of relevant tools/methods:

Please describe specific tools and/or methods that have been developed and/or used to foster city-to-city partnerships on climate change adaptation.

- National, regional and international conferences with local government leaders and practitioners (see examples above)
- City partnerships / twinning programs including regular exchanges and site visits
- Thematic subnetworks of cities exchanging knowledge on particular issues (e.g. CITYFOOD Network) in person and online
- On the ground facilitated workshops and trainings
- “Hub and Spoke” models where more advanced cities (model or pilot cities) share lessons learned with satellite cities in an earlier phase of planning (e.g. Durban Adaptation Charter, ICLEI-ACCCRN activities)
- Webinars, websites, and online information sharing platforms (e.g. ICLEI Canada BARC program, solutionsgateway.org)
- Reporting platforms (e.g. carbonn Climate Registry)
- Advocacy campaigns and commitments (Durban Adaptation Charter, Resilient Cities for America, Mayors Adaptation Forum)

Key outcomes of the action undertaken:

Please provide information regarding the outcomes of the actions described above, and do not hesitate to add qualitative assessment and/or quantitative data to substantiate the information.

As an indication, through our network and activities ICLEI has:

- helped 21 Canadian cities construct adaptation plans with the guidance of the BARC Program since its creation in 2008.
- strengthened the capacity of over 50 rapidly urbanizing cities, with partners of the Asian Cities Climate Change Resilience Network (ACCCRN), in Bangladesh, India, Indonesia, the Philippines, Thailand and Vietnam to survive, adapt and transform in the face of climate-related stress and shocks.

- enrolled over 250 Mexican municipalities in the PACMUN program to develop municipal Climate Action Plans through PACMUN. This means that over 10% of Mexican municipalities are developing climate change mitigation & adaptation plans.
- gathered together over 3,400 participants including over 800 representatives from 200 different local governments since 2010 to the annual Resilient Cities Congress in Bonn, Germany. The multiplier effect of this participation has been immense.
- mobilized action for adaptation with the Resilient Cities for American Campaign, which resulted in 221 American mayors and county leaders signing the [Resilient Communities for America Agreement](#).
- developed locally relevant climate adaptation solutions in 11 African cities through projects affiliated with the Resilient Africa online decision report tool.
- provided rapid disaster risk reduction planning and support to vulnerable cities and towns in the Pacific Islands.

Description of lessons learned and good practices identified:

Please consider the following points when describing lessons learned and good practices: (a) effectiveness/impacts of the activities/processes (including measurability of the impacts), (b) efficiency in the use of resources, (c) replicability (e.g. in different locations, at different scales), (d) sustainability (i.e. meeting the current economic, social and environmental needs without compromising the ability to address future needs).

City to city partnerships are a highly valuable, practical way for cities to improve their knowledge and understanding of climate risks and adaptation methods. Learning from each other – including successes and failures - allows cities to accelerate the pace of innovation and implementation in their adaptation plans. City partnerships can also provide a motivating factor for cities to initiate and continue adaptation efforts. Direct, regular, in-person exchanges are most effective for keeping city partnerships going. Support from partners or city networks to fund and/or facilitate these exchanges in-person and through digital platforms is also effective.

Description of key challenges identified:

Please describe the key challenges associated with those actions, that policy-makers, practitioners and other relevant stakeholders should know about.

Resources and support for ongoing exchanges. Local “champions” are often needed to carry these partnerships forward across projects and administrations.

Planned next steps (as appropriate):

Based on this experience or research, have next steps been planned to address/study some of the identified challenges, scale up or scale out such actions?

As a local government network, ICLEI will continue to embed city to city partnerships in all of our activities and services.

Relevant hyperlinks:

Please provide hyperlinks to sources of information.

<http://www.iclei.org/activities/agendas/resilient-city.html>

<https://www.acccrn.net/>

<http://www.unisdr.org/campaign/resilientcities/>

<http://www.apan-gan.net/>

<http://www.citiesalliance.org/JWP-ResilientCities>

<http://www.iclei.org/details/article/medellin-collaboration-for-urban-resilience-commits-to-supporting-4000-cities-and-2-billion-annual.html>

<http://www.citiesclimatefinance.org/>

<http://icleiusa.org/programs/leadership-campaigns/rc4a/>

<http://www.durbanadaptationcharter.org/>

<http://icleiusa.org/programs/leadership-campaigns/rc4a/>

Further information:

Please do not hesitate to submit more detailed information on case study(ies), tool(s)/method(s) and/or other relevant knowledge resource(s) that are relevant to adaptation in human settlements. The latter will be shared through the [Adaptation Knowledge Portal](#):

- [Case study\(ies\)](#)
- [Tool\(s\)/method\(s\)](#)
- [Other knowledge resource\(s\)](#) (online portals, policy briefs, training material, multimedia material, technical reports and scientific publications)

Important tools and resources:

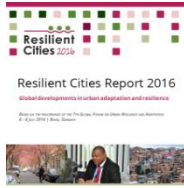


The **carbonn**® Climate Registry (cCR) is a free global reporting platform for climate action by local and subnational governments – cities, towns, states, provinces and regions. It has been designed to support and facilitate structured reporting on climate change mitigation and adaptation. <http://carbonn.org/>



The **ResilienceTools website** is a platform maintained by the partners of the Medellin Collaboration on Urban Resilience (MCUR) and presents a wide range of tools, case studies, and resources from global organizations working in over 2,000 local governments. <http://resiliencetools.org/>

Knowledge resources



Tracking local progress on the post-2015 frameworks: Making cities inclusive, sustainable, and resilient

Preliminary baseline review of adaptation actions reported to the carbonn Climate Registry (cCR) in relation to Sustainable Development Goal 11b, the Sendai Framework for Disaster Risk Reduction, and the Paris Agreement. [Read here.](#)

Annual Resilient Cities Reports

Published annually by ICLEI, this report captures key developments and innovations in urban resilience worldwide. As such, it is a key resource about the state of affairs in the field of resilience and climate change adaptation. [Read here.](#)

Financing the Resilient City

An ICLEI white paper on the benefits of a bottom-up and comprehensive resilience investment approach to development, disaster risk reduction and climate adaptation.