

100 RESILIENT CITIES

PIONEERED BY THE ROCKEFELLER FOUNDATION



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ABOUT 100RC – OVERVIEW



Shocks and stresses are growing in frequency, impact and scale, with the ability to ripple across systems and geographies. But cities are largely unprepared to respond, withstand, and rebound when disaster strikes. The greatest burden of these increasing shocks, such as the impacts of climate change or public health threats, often falls on poor and vulnerable people who have limited resources to cope with disaster and who take longer to recover from it, disrupting livelihoods and increasing inequality.

To help cities better prepare for and respond to these 21st century challenges, The Rockefeller Foundation has made a \$100 million commitment to building urban resilience in cities around the world. Through the 100 Resilient Cities Centennial Challenge, in the coming years 100 cities will be selected across the globe to receive technical support and resources for developing and implementing plans for urban resilience, and receive assistance in leveraging billions of additional dollars in financing and services.

These cities will come together through the coordination of a newly created organization, [100 Resilient Cities – Pioneered by The Rockefeller Foundation](#) – which will also provide a platform of innovative services to cities.

Each city will receive:

1. [Membership in a new network](#). The 100 Resilient Cities Network will provide support to member cities, share new knowledge and resilience best practices and foster new connections and partnerships.
2. [Support to hire or fund a Chief Resilience Officer \(CRO\)](#). The creation of this innovative new role will help ensure resilience building and coordination is the specific responsibility of one person in a city government. The CROs will also oversee the development of a resilience plan for the city and be part of a learning network of other CROs as representatives to the 100 Resilient Cities Network.
3. [Support to create a resilience](#) plan that reflects each city's distinct needs.
4. [An innovative platform to provide tools and resources for implementation](#) of the plan focused on four areas: innovative finance, innovative technology, infrastructure and land use, and community and social resilience from partners such as Swiss Re, Palantir, the American Institute of Architects, Architecture for Humanity, and the World Bank.

ABOUT 100RC – FREQUENTLY ASKED QUESTIONS



What is resilience?

Resilience is the ability of a system, entity, community or person to withstand shocks while still maintaining its essential functions. Resilience also refers to the ability to recover quickly and effectively from catastrophe and the capability to endure greater stress.

Therefore, building resilience is about making people, communities, and systems better prepared to withstand catastrophic events – both natural and manmade – and more able to bounce back quickly and stronger. Humans are not born with resilience – we learn it, adapt it, and improve upon it. The same is true for organizations, systems, and societies.

What is the 100 Resilient Cities Centennial Challenge?

In May 2013, on its Centennial, The Rockefeller Foundation announced a \$100 million commitment to build urban resilience in cities around the world. Through 100 Resilient Cities, in the coming years 100 cities will join the new 100 Resilient Cities Network, including the first group of 33 that includes our city. Each city will receive financial and technical support to develop and implement city-wide plans for building resilience. This year, nearly 400 cities across six continents applied for the challenge, and were selected based on the recommendations of a panel of eight esteemed judges that included former U.S. President Bill Clinton, and former Nigerian President Obasanjo.

What were the judges looking for?

First and foremost, cities needed to demonstrate an understanding of and commitment to building urban resilience. They also needed to demonstrate how multiple stakeholder groups – city leadership, civil society, the private sector to name a few – will be actively engaged in building urban resilience. Lastly, applicants needed to explain how their efforts to build resilience will positively impact the lives of poor or vulnerable residents.

What is a Chief Resilience Officer? Why do we need to hire one? How will we pay for it?

Why a Chief Resilience Officer?

While some cities may have Chief Sustainability Officers, or city managers, or officials tasked with responsibilities that build resilience, currently virtually no city has a Chief Resilience Officer, making this a unique and innovative feature of the 100 Resilient Cities.

The Rockefeller Foundation and 100 Resilient Cities wants cities to dedicate focused attention on resilience building. By creating the position of Chief Resilience Officer, who will serve at a very high level in the city government, the seriousness of this work is elevated to top city leadership, giving a voice to resilience at the highest levels within local government. Yet an important role for the Chief Resilience Officer will be to engage all critical actors in a city, and to incorporate their views and needs into their resilience planning, particularly poor and vulnerable citizens. Chief Resilience Officers will also become representatives to the 100 Resilient Cities network, and be able to rely on each other as expert resources as they move the resilience agenda forward in their respective cities.

Our city will be receiving grant money to hire a new Chief Resilience Officer.

ABOUT 100RC – FREQUENTLY ASKED QUESTIONS



How much money is The Rockefeller Foundation giving our city? \$1,000,000?

Through 100 Resilient Cities, we are receiving membership in the new 100 Resilient Cities Network, support to hire a Chief Resilience Officer, and support to create a resilience plan along with the tools and resources for implementation, helping us leverage additional billions through innovative finance. There is not a set amount of money that each city will receive since the cost of the benefits – like the CRO – will vary from city to city. Therefore, it is important to note that we are not receiving a check for \$1 million. But obviously, the benefit of being one of the 100 city members of a \$100 million effort will be substantial.

The resources available through the 100 Resilient Cities Network will make it easier for us to secure significant additional financing for our bold vision for a better future.

If your city belongs to C40: We are a C40 city. How is this different? Why do we need another network?

The C40 focuses on finding better ways to measure climate risks that cities face, so that cities can make decisions on building resilience in light of those risks and be better positioned to finance the investments that need to be made. This is complementary to 100 Resilient Cities because it helps cities identify vulnerabilities in their systems and start a process of long-term improvements. Addressing climate risks is one part – but only one part - of a holistic approach to building urban resilience, and through access to the 100 Resilient Cities network we will have the chance to learn from cities with which we have not yet engaged, who are grappling with similar issues.

It's great that we've been selected for the 100 Resilient Cities Network. What happens next?

As part of our selection to the Network we have been appointed a 100 Resilient Cities Relationship Manager, and together we will work closely in the coming days and weeks to plan for a Resilience Planning Workshop, which all cities will hold as an initial step in our multiyear relationship. The Relationship Manager will also work with us to make funds available for us to hire a Chief Resilience Officer.



What Is Urban Resilience?

100 Resilient Cities – Pioneered by The Rockefeller Foundation (100RC), is the product of a century of the Foundation's leadership and innovation. Indeed The Rockefeller Foundation's mission, since 1913, has been to promote the well-being of humanity throughout the world. It was the great brilliance of founder John D. Rockefeller to give his foundation a mission broad enough in scope to enable future generations of leaders to define for themselves what the greatest threats to well-being may be – and the approaches best taken to address them.

Now that we are more than a decade into the 21st century, it is clear that we are facing unprecedented shocks and disruptions to our systems and ways of life – some of which we cannot yet predict, but which we know will continue to come at us with increasing force and frequency. To prepare for, withstand, and emerge stronger from acute shocks and stresses of our rapidly-changing, complex, and dynamic world requires resilience. And it is with this imperative that 100 Resilient Cities was started.

A Resilience Framework

When we talk about shocks and stresses, we are referring to many and varied events. Some are caused by climate change (heat waves, droughts, flooding), some by seismic activity (earthquakes, tsunamis), while others are human-made catastrophes (terrorist attacks, economic meltdowns) and disease epidemics or pandemics. But while the shocks are different in scope, there are shared strategies that will help communities cope with their impacts, all of which fall under a resilience framework.

A Universal Understanding

Resilience, as a concept, has roots in many fields including psychology, ecology, and engineering. The concept has also been put to use in other fields such as political science, sociology, disaster planning, and international development. Across the academic disciplines, and indeed in common parlance, there is a universal meaning of resilience that speaks to abilities and adaptive capacities.

100 Resilient Cities views resilience as “the ability of a system, entity, community, or person to withstand shocks while still maintaining its essential functions and to recover quickly and effectively.” Simply put, resilience is what enables people to survive, adapt, and thrive in the face of acute shocks and chronic stresses.

Resilience is a trait that can be learned – and a muscle that must be exercised. Individuals, communities, and institutions can learn the skill of resilience and increase their flexibility, strength, and resourcefulness, within and across a variety of domains, including economic, ecological, social and institutional, and built infrastructure systems.

Characteristics of Resilience

Both in good times and in times of stress, resilient systems share and demonstrate certain core characteristics:

1. Spare capacity, which ensures that there is a back-up or alternative available when a vital component of a system fails.
2. Flexibility - the ability to change, evolve, and adapt to alternative strategies in the face of disaster.



3. Limited or “safe” failure, which prevents failures from rippling across systems.
4. Rapid rebound - the capacity to re-establish function, re-organize, and avoid long-term disruptions.
5. Constant learning - the ability to internalize past experiences linked with robust feedback loops that sense, provide foresight, and allow new solutions as conditions change.

Resilience Goes Beyond Risk Management

Risk management is an element of building resilience, an analytical-to-application process that can be integrated and leveraged to help achieve resilience. But resilience goes further than risk management – it is more than coping or short-term survival. Rather, resilience is aimed at sustaining and enhancing the capacities to adapt to uncertainty and surprise. Resilience-thinking challenges the widely held notions about stability and resistance to change implicit in risk and hazard management. Over time, more and more companies and governments have been embracing this difference.

Resilience Is About More Than Climate Change

Cities need to build their resilience to withstand the new pressures wrought by climate change, including but not limited to rising waters and more frequent and violent storms. But resilience is about being prepared for a host of unforeseen shocks and stresses, far beyond those attributable to climate change.

Resilience Enhances Sustainability

Resilience and sustainability both require that we see the world as a complex system and demand a fundamental change in the way people think about how we depend on it. Managing for resilience – building the adaptive capacities to withstand and recover quickly from shocks and stresses - enhances the likelihood of sustainable development in changing environments where the future is unpredictable.

Resilience Enables Disaster Response

Most often resilience makes its way into our daily discourse following a catastrophe – the resilience of the citizens of Boston after the marathon bombings, the resilience of Budapest after floods. Because of this trend, resilience-building is seen as a post-disaster activity – to build back better, for example, after the Haiti earthquake. While resilience enables a community or a business’s ability to bounce back, we must not be lured into thinking of resilience only after disaster strikes. It’s quite frankly too late. Rather, we must view resilience as what we pursue in those stretches between disaster and catastrophe to ensure that while disaster response is ready to go, we are not only solving for the last problem. While the shocks may not decrease over time, the time it takes for us to recover in between them should.

Resilient Cities

Based on the above framework, a resilient city is not one that never experiences a shock or a trauma. In a 21st century world, with once-in-a-lifetime storms seemingly occurring every other year and our connective tissue more intertwined than ever before, that just isn’t an option. One way to measure a city’s resilience is by applying the characteristics above. Does your city have smart electric grids that prevent failure in one part of the system from knocking out power city-wide? Does your city have the capacity to collect,



analyze, and make necessary changes based on big data? Does your city have strong social networks and cohesion that allow for aid to reach the poorest and the most vulnerable in times of crisis?

These are just some of the ways to measure the resilience of your city. But in general, a resilient city is marked by its capacity to prepare for, withstand, and emerge strong from whatever shock comes its way.

Why Urban Resilience?

A strong argument can be made that it's not only cities that must become more resilient – we would agree. In fact, the Rockefeller Foundation has been working in rural Africa to help communities, particularly smallholder farmers, build up their resilience to climate change.

But we are putting a particular focus on building urban resilience for two reasons. For one, our future is increasingly urban. By 2050, more than 75 percent of the world will live in urban areas, and so our efforts to promote the well-being of humanity must take this concentration of population into account, particularly as urban population growth will stretch urban resources, such as infrastructure and food chains, to capacity. Because of urbanization coupled with globalization, what happens in cities impacts everywhere else. We saw this after the Bangkok floods in 2011 took down entire value chains – disrupting manufacturing in rural areas of the Midwestern United States.

A Shared Responsibility

Building resilience is not the task of a single actor or a single sector, no matter how innovative or passionate. Rather, building resilience requires partners from every sector: governments who must create the right policies, plans and infrastructure investment; businesses who ensure the functioning of our economic systems; communities and civic institutions who must organize to be more flexible, responsive and robust; and organizations and individuals who have the core skills required to adapt and cope.

A Way of Operating

Ultimately, urban resilience will enable poor and vulnerable people to become better protected against these catastrophic events, for which they are often less prepared than people with greater access to safety nets. For example, insurance products that shift the burden of risk from the homeowner are one way resilience strategies can make meaningful improvements in peoples' lives, both after tragedy and in daily life. Another example might be a bus-rapid transit system (BRT) that ensures low-income workers are able to make it to work, even if the subway system in a city faces failure. Not only does BRT provide a back-up or alternative – one of the key characteristics of a resilient system – but it also makes it easier for people to get to work all year long.

As such, resilient strategies, particularly in urban areas, are best considered as an integrated part of a city's transformation. Resilience is not just for times of stress, it's for a better, more vibrant, thriving city, in good times and in bad.