

UNDERSTANDING FRAGILE CITIES - THE NEXUS BETWEEN MIGRATION, CLIMATE CHANGE AND URBAN FRAGILITY

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Global pressures, urbanization and city fragility

Global pressures, such as rising inequality, population growth, climate change, migration and environmental degradation often **converge in cities**. While just over half of the world's population lives in cities, they are disproportionately impacted by climate change: more than 80% of annual global climate change adaptation costs arise in cities (World Bank 2010). Climate change impacts such as flooding, sea level rise, storm surges and water scarcity are moreover expected to further increase in urban areas in the coming decades (IPCC 2014: 15).

This convergence of pressures is linked to fast urbanization and unregulated urban growth. More than 50 percent of the world's population already lives in cities. Every week another 1.5 million people move to cities; roughly 200,000 a day or 140 every minute. This means that over the next 15 years an estimated US\$100 trillion will need to be spend on roads, airports, sanitation systems and housing alone to cope with this growth (Landry and Burke 2014: 6-7).

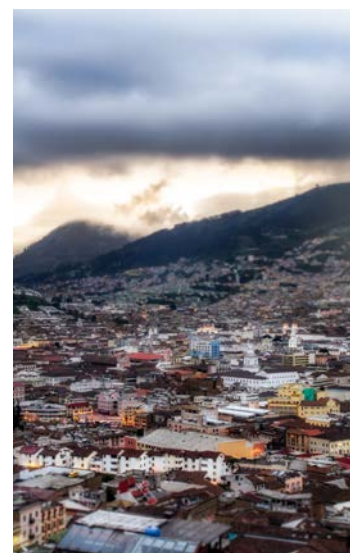
Fast urbanization and unregulated urban growth often go hand in hand with weak governance, poverty, inequality and marginalization, which decrease the ability of cities to manage increasing pressures. We tend to highlight the "triumph of cities" by focusing on those that are thriving economically. However, while poverty rates have dropped worldwide, income inequalities have increased in 75% of the world's cities in the last two decades (UN-Habitat 2016: 69). The scale and pace of urbanization threatens to exceed the capacity of even the best managed cities. Moreover, many cities suffer from rates of population growth beyond their capacity to generate jobs and livelihoods (Landry and Burke 2014).

Muggah (2016) examines this confluence of increasing pressure and decreasing resilience and concludes that **city fragility is much more widely distributed than anticipated**. City fragility is not a steady state but occurs due to an aggregation of risks and stresses that can result in extreme vulnerability and instability. Several factors can have a destabilizing effect on cities, including the level of inequality, unemploy-

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ment, crime, pollution, rapid urban population growth, conflict events, and natural hazards (ibid.). While high levels of city fragility occur primarily in low-income and conflict-affected settings (especially in Asia and Africa), where the pace of urbanization is fastest, urban fragility is also observable in medium and high-income countries. For instance, 52 percent of cities in Europe that were classified have a medium level of fragility (ibid.). London is among them due to its crime rates, air pollution levels, income inequality, and threat of terrorism (Misra 2016).

The scale and speed of urbanization has also resulted in a shift of power between nation states and cities, both politically and economically. Cities account for about 80% of global gross domestic product (GDP) (UN-Habitat 2016) and 42 of the world's 100 largest economies are cities (Toly and Tabory 2016). Moreover, local and subnational governments increasingly participate in global city networks to rewire international affairs by leveraging their "collective political power" (Tavares 2016). Some cities even sign international agreements with nation states and thus adopt their own foreign policy (ibid.). Around the globe the relationship between nation states and their major cities is thus being reconfigured, with the effect that cities become increasingly important for national security and stability. At the same time the concentration of population, infrastructure, economic activity, services etc. means that the impact of climate change and environmental degradation often exacerbated in those cities. Where vulnerability, economic and political relevance and global pressures converge, **fragile cities can pose a threat to the stability of entire countries.**

Understanding the nexus between migration, climate change and city fragility

The concept of fragile cities is very new. Little research exists on how pressures interact in cities and under what conditions they contribute to instability and conflict. However, there has been a growing body of research on climate change, fragility and migration and the links between them. In particular our understanding regarding the links between climate change and fragility has improved tremendously over the past decade. Research has shown that when climate change converges with other global pressures such as population growth, uneven economic development and environmental degradation, they can overwhelm states and push them towards fragility. Climate change often acts as a 'threat multiplier' in these dynamics by compounding existing risks. These compound climate-fragility risks are particularly high in fragile and conflict-affected contexts. But even seemingly stable states can be pushed towards fragility if the pressure is high enough or the shock is too great for systems to manage peacefully (Rüttinger et al. 2015).

The risks of climate change impacts are particularly pronounced in cities. However, some cities - and some population groups within cities - are particularly likely to be exposed to such risks or have less capacity to adapt to them. For example, vulnerability to climate change impacts is particularly high in the urban centers of fragile and conflict-affected countries. As governance structures in these countries are often weak, a lack of knowledge and funding for adaptation measures further exposes urban populations to climate related risks. Urban populations in some conflict affected and disaster-prone countries such as Afghanistan and Somalia will moreover experience a fourfold increase in the next 30 years (de Boer 2015).

Within cities, another group that is often particularly exposed to climate change impacts are those living in informal settlements. While the percentage of the urban population in developing countries that lives in slums has steadily decreased (from 46.2% in 1990 to 29.7% in 2014), urbanization and population growth means that the absolute number of slum dwellers in the developing world has increased over the same time period - from 689 million in 1990 to 880 million in 2014 (UN-Habitat 2016: 14). Without adequate policy responses, "the number of people living in slums might [even] triple by 2050" (UN DESA 2013: 1). Addressing the particular vulnerability of slum/shack dwellers is thus of paramount importance.

Another important trend that converges in cities is migration. While many developed countries are already highly urbanized, in developing countries urbanization will continue due rural-urban migration.¹ Moreover, increased vulnerability to disasters and violence has contributed to a record number of currently 51 million refugees and internally displaced persons (IDPs) (de Boer 2015). Half of them live in urban areas, posing added burdens on already overwhelmed cities. Migration moreover overlaps with other pressures – such as inequality and climate change – in complex ways. For instance, a disproportionate share of slum/shack dwellers are migrants (IOM 2015: 4), and are exposed to greater climate change impacts (UN DESA 2013: 14). Climate change may also induce more migration, although a more nuanced understanding of the circumstances affecting the direction of migration is needed. Thus, climate change may induce rural-urban migration in middle income countries - where populations migrate to urban areas as agricultural productivity decreases (Cattaneo and Peri 2015). Conversely, in poor countries rural populations may be trapped in deeper local poverty as their resources to migrate shrink (ibid.).

Taking these findings into account, it is surprising that little research exists on how these trends overlap, multiply and are spatially embedded in cities. Moreover, while recent years have seen the emergence of numerous initiatives that promote or invest in resilience at the city-level (e.g. Rockefeller Foundation, C40 Cities Climate Leadership Group (C40), Ford Foundation etc.), surprisingly few focus on the aspect of fragility or seek to understand how to create urban resilience in fragile and conflict-affected countries (de Boer 2015).



Making cities resilient
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¹On average, the population in developed countries is nearly 80% urban, while the average share of the population living in urban areas in Africa and Asia is below 50%, in some cases even below 20% (UN DESA 2013: 57).

Possible ways forward

Looking at existing policies and approaches, there are a number of entry points to strengthen the resilience of cities and address the compound risks that emerge.

Firstly, existing activities in the fields of climate change adaptation, disaster risk reduction, humanitarian aid, peacebuilding and conflict prevention should be extended to cities and take into account the specific urban context. Existing mechanisms for aid, relief, and security are often concentrated at the national level and traditionally focus on rural contexts (de Boer 2015). Activities need to be adapted to account for the specific characteristics of densely populated urban environments, such as the diversity of population and the presence of a variety of existing state and non-state actors that need to be engaged with. Moreover, humanitarian and development agencies need to critically review their existing approaches to check whether they are also suitable in contexts of urban fragility. For instance, several of the ten essentials developed by the United Nations Office for Disaster Risk Reduction to make cities resilient are not applicable in fragile cities, where the share of the population in informal settlements often exceeds 50 percent (de Boer 2015: 4).

Secondly, this reorientation must also ensure that the responses to climate-fragility risks in cities reflect the multidimensionality of the risks. To truly build urban resilience, issues of climate change adaptation, development and humanitarian aid, as well as peacebuilding and conflict prevention have to be considered and tackled together (Rüttinger et al. 2015). Some cities have already started to implement these kinds of integrated approaches that cross sectors. For instance, the city of Medellín - once one of the most fragile and dangerous cities of the world - has successfully increased urban resilience by combining measures of expanding public transport to connect formerly neglected areas with the rest of the city, and reinstalling social services in these areas (Schreiber and Carius 2015). However, in order to roll-out integrated approaches at the local level, international frameworks and financing mechanisms have to incentivize such approaches. So far, many financing streams are often still structured along sectors and issues, preventing development actors from acting holistically (Rüttinger et al. 2015).

Thirdly, these activities should harness the growing power and agency of city networks and partnerships. In recent years, the number of international city associations has grown rapidly. Today, there are more than 125 such associations, including ICLEI-Local Governments for Sustainability, United Cities and Local Governments (UCLG), and C40 Cities Climate Leadership Group (C40) (Tavares 2016). Most cities with over 1 million inhabitants are members in these international networks, which allow cities to exchange experiences and learn from each other. While the work of city networks in the areas of climate and sustainability was for a long time the most visible, topics such as peacebuilding are gaining traction – a recent study found that 10.6% of networks engage with this topic (Acuto and Rayner 2016: 1153). Expanding the focus of city networks to address issues related to security, resilience and fragility more broadly could be beneficial, as city networks can provide “innovative modes of cooperation” where international cooperation is caught in a gridlock (ibid.: 1164). The Municipal Alliance for Peace in the Middle East, which fosters cooperation between Israeli and Palestinian municipalities, is a shining example of such an effort. More research will be needed to explore whether cities engaging in such peacebuilding cooperation can also help stabilize their fragile and conflict-ridden countries.

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