Learning flexibility
Pathways to urban transformation

Insights for practitioners and stakeholders
Credits

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Cities across the globe face a series of complex, interconnected challenges and vulnerabilities. Contending with spatial and population growth, resource scarcity, economic inequality, political fragmentation, violence and insecurity, and the impacts posed by climate change and global health emergencies, crisis is gradually becoming a condition of urban life. Affecting how cities are planned, governed and lived in, crisis demands that we consider the developmental trajectories that have brought us to this point. And it necessitates embracing the potential of new sites and sources of knowledge production and forms of urban practice, and what we may learn from these.

This report synthesizes selected lessons from the research project *Learning Flexibility: Novel Responses to Urban Challenge and Crisis*. Explicitly embracing interdisciplinarity, the project examined how cities beset by fragility, crisis and vulnerability can be sites of innovation for policy, practice and physical interventions. The challenges faced by cities we examined were political, infrastructural, social, economic, ecological and frequently a combination. And the practices that emerge from such contexts represent models of flexible urban practice that are important to understand, given the increasing vulnerability that cities will face in the future.

Our reflections are anchored in three inter-related concepts – flexibility, innovation and learning – and how these can shape thriving communities and sustainable cities. We regard such communities and cities as those where current and future, material and non-material needs of individuals, communities, cities and ecosystems are considered and balanced. It is where equity and justice are centred, and wellbeing and connection – to community, to territory, to nature – are valued.

We consider the concept of flexibility as an overarching approach to prepare for and contend with rapid and unpredictable change. Our understanding of flexibility is
similar to the concept of resilience – broadly referring to the capacity of (urban) systems to stretch and learn, survive and manage acute and chronic shocks and stresses. And yet while both flexibility and resilience encompass the need to adapt to current and future uncertainty, we see flexibility as something that entails a deeper realignment of how formal and informal processes, stakeholders and systems can operate to ensure adaptive, just outcomes. Flexibility here encompasses a greater openness, reflexivity and inclusiveness to different urban stakeholders and new ideas. Finally, it implies a more fundamental reconsideration of how we will live in cities in the future and how this may be achieved.

Flexibility incorporates innovative approaches and structures to contend with urban vulnerability. Our conception of innovation is not only about new or disruptive technologies, governance and management processes or policy approaches – although it may be. Rather we consider innovation as those emerging configurations of stakeholders and practices within cities that build consensus and iterative processes of change. This is akin to shifts in trajectories of thought and action that may lead to institutions, systems, communities, relationships and agency being (re)configured.

Finally, learning is a central element to fostering flexibility and innovation. Learning is alive and changing, emerging in the everyday experience of a city that is conceived as a living organism, created and recreated by the multiple relationships that sustain it. Proactive learning cities and urban actors are constantly tapping into the flows of knowledge from within their own territories and from the outside. In recent decades there has been a significantly faster pace to transnational exchanges of urban solutions and policies, embedding ‘city-to-city learning’ in complex webs of relationships.

The reflections presented in the booklet emerge from case studies undertaken in cities across the globe over the past four years. We purposefully examined a range of challenges, and attempts to address these, at different scales and by diverse actors using an interdisciplinary approach. Based on case findings we explored and synthesised the building blocks of flexible practices in contexts of urban vulnerability. We analysed the different pathways of change to unearth general lessons, or enablers, that could give insights to urban practitioners – professionals, public servants, civic actors,
activists and most importantly, city dwellers – on how they may pursue urban transformation that supports sustainable urban futures, independently of who or where they are.

The following section, *Enablers of Flexible Urban Practice*, presents a synthesis of our analysis, the entry points that can create conditions for positive change; Section 3, *Novel Responses to Urban Challenges and Crises*, explores key learnings from the case studies: Medellín (Colombia), São Paulo (Brazil), Detroit (USA), Beirut (Lebanon), The Maldives and Udaipur (India); and Section 4 provides brief concluding remarks. Ultimately, the aim of this publication is to inspire people to be sparks of change, or “souls of fire” (*ildsjel* in Norwegian), and present concrete and accessible ways a variety of stakeholders may promote thriving communities and sustainable cities.
The richness and diversity of the case studies undertaken in this research project demonstrates the multitude of pathways to promoting flexibility, innovation and learning in a city. They are inspiring stories that reveal that, independent of the complexity of a crisis, there are numerous entry points for different actors to promote positive urban change.

Our approach resonates with Solá-Morales’ idea of urban acupuncture and we use this bodily allegory as a tool for interdisciplinary discussion and consideration of urban practices and interventions. Urban acupuncture borrows from traditional Chinese medicine and perceives the existing urban fabric as a living body with flows and blockages. It refers to localised actions that bring immediate improvements to the urban environment, supporting the idea that interventions do not need to be vast and expensive to have a transformative impact. At the same time, urban acupuncture contends that targeted initiatives can trigger a chain reaction where the result is greater than the sum of its parts and may even lead to more systemic or structural change. It is important, however, to add an “agency and power lens” to the concept of urban acupuncture. Change only happens when people have the power to act, to influence decisions and shape the urban environment and their communities. Thus, any urban intervention should reflect on the power dynamics of the place and how actions can lead to – or hinder – more inclusive cities.

Considering the city as a living organism and energetic system, we reflected on the case studies and what the allegory was telling us in terms of the main ‘meridians’ and points that urban change makers were using, leading to ripple effects in their cities. We have adapted the framework ‘enablers of innovative practice’, developed by the innovation foundation Nesta, to consolidate the lessons learned across and within case studies. Following the idea of urban acupuncture, enablers should be seen as energy points that can create the conditions for more sustainable and equitable urban transformation. The enablers, presented on the following page, are divided into four categories: mindset; actors; behaviours and relationships; and structures and resources.

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3 Nesta & Collaborate (2020) *From the Margins to the Mainstream: How to create the conditions for new operating models to thrive*. Nesta: London.
The **MINDSET** is the subtle and implicit set of beliefs and attitudes that influence how individuals and organisations make sense of the world and underpin how they act. Mindset changes are fundamental to creating progressive and eventually profound transformations, influencing the way people identify crisis, momentum, and the possibilities within a changing, complex and dynamic reality.

→ **Reframing crisis as an opportunity:** Crisis can be seen as periods of stress on urban systems that generate critical junctures, turning points, or vital times of change that create momentum to re-evaluate, rethink and innovate. Innovation and flexibility require imagination – the capacity to envision new possibilities and horizons of change. A shared sense of crisis and emergency can create space for new understandings of a public issue and expand the boundaries of what is perceived as collectively legitimate, desirable and feasible.

→ **Seeing through complexity and interconnectedness:** Cities are characterised by multidimensional, interlinked challenges and opportunities. Actors need to recognise that one organisation alone likely cannot create

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sustainable or progressive outcomes, as they are part of a wider urban system. At the same time, small interventions can have positive ripple effects, due to the interdependent reality of people and place.

→ A sense of purpose around thriving communities and places: Purpose is the driving force behind people and organisations. A commitment to key principles – such as social justice, functionality and beauty of urban space, the right of people to live happy and fulfilling lives, and other aspects that make thriving communities and places – is essential for those leading urban change. Moreover, a shared sense of purpose orients and directs collective action, creating the necessary bonds for the relationships and structures described on the following pages.

→ The potential of physical environments to shape the urban experience: Material aspects of the city – its streets, buildings, public spaces – are building blocks that contribute to the urban experience. Urban interventions – their forms and functions, and how they nurture beauty and identity – can create a sense of belonging, foster community and promote sustainable cities.
ACTORS are the people, organisations and movements that drive change. They embody mindsets and behaviours; they engage in and cultivate relationships and bring to life and mobilise structures and resources. The agency of actors is subject to multiple influences and power dynamics.

→ **Principled and inspiring leadership:** Leadership is the spark that starts change processes. Leaders can be policy champions, entrepreneurs, politicians, civil servants, civic organisation leaders or community leaders. They provide a clear vision for change, build relationships, mobilise stakeholders, and bridge differences. They inspire others to get on board, engage and contribute rather than impose through power and authority. The more they embody the mindsets described previously, the greater are the chances that outcomes will be oriented towards the common good.

→ **Effective units of responsibility:** Effectively organised groups of people are central to leading processes and implementing change. These may be a business, a government body, a multi-stakeholder partnership, a community-based organisation, a department within an organisation, or a network. They can be highly localised, part of the municipal government structure or even international. They need to reinforce mutually beneficial behaviours and provide a space for dialogue, learning and visioning. They are also potentially a ‘tissue of remembering’, a structure which ensures institutional memory beyond the lifetime of a government or project.

→ **Dynamic learning networks:** Professional and urban focused networks are invaluable tools for the creation, dissemination and sharing of knowledge in useful formats. They provide a safe learning ground, peer-to-peer support and a space for new ideas and practices to emerge. Local champions can grow place-based interventions and link them to broader structures within cities, or with initiatives in other cities, to gain legitimacy, support, funding, or develop technical capacity.

→ **Strong coalitions for change:** Inherent to sustainable and transformative action at a larger scale is the need to form a powerful coalition for change. These coalitions are rooted in ‘clouds of trust’, galvanising support for a cause with a strong vision, reaffirming urgency, and building on momentum for change. Community organisations,
civic engagement, political commitment and social entrepreneurism can coalesce into progressive coalitions to support new forms of urban action. To achieve change at a larger scale, coalitions build bridges across sectors, classes, cultures and ideologies. They are able to operate in both formal and informal spheres, and along a ‘power continuum’.

**BEHAVIOURS AND RELATIONSHIPS** are the ways people and organisations relate to one another and the behaviours they exhibit. Relationships are the key components of every space where citizens, actors and organisations meet, from collectives and neighbourhood associations, to boards and inter-municipal governments, to international corporate networks or global grassroots movements. Behaviours and relationships are rooted in mindsets and shape actors, structures and resources.

→ **Inclusive collaborative cultures:** Paying deliberate attention to building inclusive collaborative relationships is the core of flexible, creative and socially just responses to urban challenges. Participatory spaces build shared understandings of problems and solutions. They co-create inclusive approaches that strengthen the implementation of ideas and projects. Collaborative cultures can contribute to overcoming thematic silos and organisational divisions. Multi-stakeholder processes are essential to appreciate the views, resources, needs and responsibilities of every actor, paving the way for trusting relationships and partnerships.

→ **Clouds of trust and shared responsibility:** Transformative change is empowered through interconnected networks of confidence among informal and formal leadership networks, including public, private, and civic actors who learn and process ideas together. These ‘clouds’ create an atmosphere or a field of trust and shared values among people who learn, care for and shape their cities. Elected leaders come and go, but business and civic leaders who are incorporated into ongoing ‘thinking and doing’ about the city provide a platform for learning and sustain the continuity in a place over time⁴.

→ **Placed-based action:** Fostering flexibility entails engaging communities in participatory processes and practices of place-making. Localised action fosters bottom-up tactics

and strategies reducing isolation and nurturing a sense of agency, belonging and dignity. Thriving communities require placed-based action that creates a liveable physical environment that is rooted in local culture. In that way, urban interventions can foster ownership and place-keeping.

→ **Sustained political commitment**: the intent and sustained actions over time by government officials and leaders is key to the scaling-up and sustainability of urban interventions. Political commitment can galvanise all stakeholders and levels of society around efforts to improve citizens well-being. Supportive leaders in government can create an enabling environment that strengthens the right to the city, especially for those historically excluded or marginalised.

**STRUCTURE AND RESOURCES** are the ‘building blocks’ that give concrete form and content to mindsets, behaviours and relationships. They include formal institutions, i.e., rules and norms that organise social, political and economic relations (such as governance structure, laws and policies); capabilities, both in terms of financial resources and the knowledge and skills needed to drive change; and the physical and material manifestation of designing for change (such as buildings, services, public squares and mobility infrastructure).

→ **Decentralised and participatory governance structures**: These are spaces to foster a shared vision, as a reference point to guide decision making and implementation, and a collective voice for the local system or place. They are ideally made up of a diverse range of stakeholders that share the responsibility for enacting change to or within an urban system. Decentralisation of governance and decision-making also places empowered stakeholders closer to where change is being enacted. These structures are often more flexible and create conditions for greater responsiveness and adjustment.

→ **Adequate financial, creative and technical resources**: These are the investments, capitals, resources and know-how needed to enable new ways of working to be brought about in practice. Technical and creative capacities may relate to particular fields, such as waste management and mobility, but also include the skills to operate in complex urban environments and engage in multidisciplinary collaborations. While impactful practices do not always...
need to be resource demanding, scaling-up often needs substantial funding or resources.

→ **Appropriate design of urban environments:** This relates to how the city is experienced in its tangible materiality, its constructions, streets and public spaces. Urban interventions create material qualities that have a social, historic and cultural role that can be leveraged to create social cohesion, strengthen community, facilitate collaboration and learning and improve the quality of life of its citizens. They also have symbolic meaning that shape people’s perception and sense of belonging and dignity.

→ **Enabling policies, services and legislation:** A government that nurtures flexibility, innovation and learning will set policies, create services and define regulations that support a collaborative ecosystem for urban development. When bottom-up initiatives are supported by government policies and services there is increased potential for scaling-up and sustainability.

This framework can be viewed as a fluid and open-ended approach to understanding the drivers of urban transformation. It is our initial attempt to synthesise key lessons from six case studies as a flexible tool for practitioners and stakeholders to reflect on their urban environments and the changes they want to promote. We reiterate that not all 16 enablers are required to have a positive impact in our cities, communities and neighbourhoods. However, contemplating and reflecting upon them can support urban practitioners, stakeholders and researchers be cognizant of the selected mindsets, actors, behaviours and relationships and structures and resources that can support sustainable urban transformations.

The following section outlines key findings from six case studies. We present the framework of enablers for each case as a heat map, showing the degree to which we perceived each enabling factor was present in each case. This is intended to facilitate comparison across cases and connect particular urban interventions and responses with specific constellations of enablers.
Once the most violent city in the world, from the 1990s, Medellín embarked on a series of ambitious reforms to address inequality and violence. These coincided with the city’s radical reduction in violence and are argued to have created meaningful changes in urban liveability and inclusion. Emerging out of democratic reform processes in the late 1980s, the city fostered change through participatory planning, new social policies, public infrastructure and urbanism. Evolving across several decades, the approach came to be labelled as Social Urbanism. It is regarded as a model for how coalitions of social, economic, professional, political and community actors can drive innovative and flexible approaches to urban development; and offers lessons on how to achieve substantial, lasting change at different scales over time.
Mobility as a means of social inclusion

Perhaps the most visible signs of Medellín’s transformation are the construction and expansion of public transport systems, including underground, tramways, escalators and gondolas (metrocables). The expansion was designed for the unique hillside geography of Medellín and to connect the poorer areas and informal settlements to the city centre. Commuting to the workplace was made easier and more affordable – a two-hour series of bus rides became a single 15-minute ride on the integrated system. These infrastructure projects were seen not simply as a way to move people around the city, but rather as a means to tie mobility, equality and dignity.

Networks of physical interventions at different scales

Medellín’s Integral Urban Projects combined participatory urban neighbourhood upgrading with investments in public space, education and social infrastructure in marginalised urban districts. It sought physical and social change through multiple, strategic urban projects across a great variety of scales and uses. ‘Projects of spectacle’, such as Parque Biblioteca España, branded the change and forwarded the narrative of a new future. However, the transformation of the city relied on the multitude of multidisciplinary projects aimed at tacking social injustice and facilitating social inclusion. These projects of place and spectacles reinforced each other and created a network of physical interventions that shaped the city and the ways citizens inhabited it.

Progressive multi-stakeholder coalitions

Violence and institutional breakdown created a critical juncture in Medellín, opening space for a more radical and non-traditional politics and urbanism. The ability to make changes at such extraordinary scale and speed are explained by the shared sense of crisis and emergency, and by local democratic conditions opening up for new political actors. A participatory multi-stakeholder and city-wide process allowed a progressive policy vision to achieve socio-political goals, led by a network of political, civic and entrepreneurial agents. This approach enabled political continuity and consensus, in which successive governments were able to maintain progressive policies and a more inclusive urban development.
Universities and colleges have been active contributors to Medellín’s change by championing new approaches to urban development. During the crisis, schools of architecture and urbanism formed professional refuges from conditions of violence and criminal economies in the city, while building competences and connections with professional and academic environments in Europe and the US. Academic urban labs created the space for architects and urbanists to be explorative and productive in combining research, education and urban practice. Colombian regulations were helpful by extending commissions to urban labs directly, without needing to compete with private companies.

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**Box 1  City workshops as a policy tool**

City workshops were inaugurated as additional fora to the local council and government, bringing multiple stakeholders together. These diverse and at times radical coalitions galvanised a cross-class, cross-disciplinary set of actors, which was formative in developing a shared and overarching understanding of the city’s challenges. The city workshops contributed to build a stakeholder community imbued with a sense of responsibility and collective vision of re-imagining the city in contrast to its violent history.
São Paulo, Brazil. Immigrant integration

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São Paulo is the “gateway city” to many immigrants in Brazil. In 2013, the city introduced the Municipal Policy for Immigrant Population (PMPI), a multi-sector policy focused on addressing the specific needs of vulnerable migrants. The success of the policy, both its development and implementation, was due to successful alliances among civil society and the government. PMPI aimed at overcoming the perception of migration and asylum seeking as an extraordinary event, or an exceptional issue, and managed the phenomena through the lens of the rights-based approach. It was anchored in offering services and implementing actions focused on the promotion of social development and autonomy. PMPI was an expression of addressing an urban problem with a creative, inclusionary, participatory and people-centred solution.
PMPI opened the door to civic and democratic participation of immigrants, creating new ways of exercising citizenship and developing urban policies. The PMPI went beyond traditional integration approaches, which focused almost exclusively on livelihood opportunities and perceived immigrants simply as part of the labour force. Ensuring participation in consultative bodies and forums – such as the Municipal Council of Immigrants – created new forms of social and political integration. As a result, social policies in São Paulo tended to be more attentive to the specific and diverse needs of migrant and refugee populations, as they were able to add their own proposals in decision-making processes.

Sustaining support through transversal policymaking

The law established general principles, policy components and defined it as a transversal agenda. Secretariats (Education, Health, Culture, Housing, Social Assistance, Employment, International Affairs and Sports and Leisure) had specific responsibilities, and sector representatives helped to raise awareness within and across secretariats to sustain the agenda, even after a change of government. Although the existence of the law did not guarantee implementation of actions, the PMPI produced many results with low budget allocations. This increased the political cost for future governments who may wish to discontinue or revoke the policy.

Consistent engagement and windows of opportunity

Since the 2000s, different actors – religious organisations, immigrant and community associations, NGOs, academics and political leaders – joined forces to advocate for migrants and refugees in São Paulo. Stakeholders with different perspectives cooperated for a broader cause, exchanging with and learning from each other. They built bridges with political representatives and influenced key actors. When particular windows of opportunity arose, policy entrepreneurs used the know-how and consensus from debates held within civil society and information from academics and State-actors and brought concrete proposals to the table.
Provision of targeted public services

Migrants, refugees and stateless people have full access to public services in Brazil, independent of their nationality or lack of documentation. In São Paulo, visible aspects of the policy included: the regularisation of immigrant street fairs; the support of cultural events; cooperation agreement with public banks to facilitate immigrants access to financial services; training for public service providers; Portuguese courses for immigrants attending public schools; immigrants hired as community health agents; shelters specifically for newly arrived immigrants; and the creation of the Reference and Assistance Centre for Immigrants.

Box 2 The Reference and Assistance Centre for Immigrants

The Reference Centre provides legal assistance, accommodation, psychosocial support and information to migrants and refugees. It gives access to public and legal services, providing orientation in nine languages. It offers regular Portuguese classes and professional training (including to public service providers) and organises events with municipal secretariats. These training activities contributed to the increase of migrants and refugees’ usage of public services.
From wealthy global automotive centre, through manufacturing and population decline, racial divisions, municipal bankruptcy and widespread physical abandonment, Detroit has traversed a tumultuous path through the past century. Nonetheless, the past two decades have seen a renewal of engagement in the city, with redevelopment and investment, new governance models, and energetic community organisation and action, shaping fundamentally new ways of seeing the future of the post-industrial city. Under conditions of degrowth, land and space in the city have become both an asset and liability, demanding and incentivising new practices to counter urban precarity.
The Detroit reality led to a revision of spatial and economic growth as development drivers and a need to embrace degrowth in order to shape and create meaningful ways of urban living. On the one hand, it saw the emergence of new forms of thought and practice related to land use and planning, green infrastructures, and service delivery. On the other hand, repurposing had to be rooted in the safeguarding of community, and the histories of its people and places. Rightsizing, while at times contentious, entailed focusing populations in mixed-use, mixed income clusters to reduce sprawl and increase service delivery effectiveness and efficiencies. But equally, it had to preserve the character of places, build authentic cohesive communities and promote environmental and equity goals.

Multi-stakeholder partnerships and decentralised governance structures

The city’s spatial and economic challenges required multi-stakeholder coalitions of government, civic, private and philanthropic actors engaged in decentralised governance structures to shape and manage the city collectively. This necessitated collaborative models where civic organisations and philanthropic foundations supported the municipal government in managing the functions of the city. While not without contestation, this approach has created new arenas for top-down and bottom-up perspectives to shape urban development trajectories. This is seen in areas including planning regulation, green infrastructure and housing and development.

Place-making and place-keeping

Many of Detroit’s citizen-led initiatives were born out of the need for self-provisioning and collective organising to contend with the decline of city services. While many of these remain highly localised at the neighbourhood or block level, civil society organisations and resident groups are beginning to be integrated more meaningfully into planning and development processes through participatory spaces. Community organisations and alliances, citizens and social entrepreneurs have coalesced into decentralised, flexible, and progressive coalitions for new forms of urban action. Many seek to harness
the energy of newcomers to the city while simultaneously acknowledging and preserving the cultural heritages and memory of places and neighbourhoods. More than just being heard, they often were able to exert influence over decision making in planning and policy discussions.

**Box 3  Eastern Market**

Management of the Eastern Market – a historic retail and wholesale food and processing area – was transferred from the city to the non-profit Eastern Market Corporation, with a Board comprised of vendors, community stakeholders, developers and municipal government representatives. In addition the community non-profit Eastern Market Development Corporation pursues commercial and mixed-use development projects with private and philanthropic partners. This collaborative model is revitalising the area by generating new public spaces, creating livelihood opportunities across formal and informal sectors, and preserving the history and character of the market.

**Landscapes as infrastructure**

In response to decades of degrowth and widespread spatial and physical abandonment, government and multi-stakeholder partnerships have pursued a planning approach that has earmarked extensive areas within the city as ‘green’. These areas include elements such as greenways, parks, forests, footpaths and productive areas; unassigned green areas for future use; and civic-led interventions such as urban farms and gardens – including community collectives, small-scale social enterprises and mid-scale commercial farming operations. This has had a range of positive impacts including: countering blight and abandonment; addressing food insecurity among low-income urban communities; encouraging community building and local placemaking efforts; and supporting approaches to spatial degrowth. Demonstrating how to plan and contend with an abundance of urban land as both an asset and liability, Detroit is (re)creating new urban environments and civic opportunities through green infrastructure and creative land use in the context of uncertain future spatial and economic growth.
Beirut has historically – and now more recently – undergone serious crises that are revealing a lasting political gridlock. Prolonged conflict and war in the region have caused damage to Lebanese social structures and physical infrastructure and has led to a massive influx of refugees from 1948 and onwards. The country has undergone a severe financial crisis and is in a state of political disarray where trust in governmental institutions is very low. In Beirut, there is high pressure on public infrastructure and scarcity of public space. In 2015, the city went through a waste crisis that lasted eight months but is still lingering. Bottom-up interventions used the waste crisis as an opportunity to start social enterprises, create job opportunities and raise awareness on environmental issues.

**Beirut, Lebanon.**

**Socially oriented entrepreneurship**

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Synergies between crises as a strategy to find solutions

Problems or crises often intersect across different sectors – but there is potential to shape solutions that also cut across and address multiple challenges. This requires that practitioners think outside their field of practice and reach out of organisational silos. Recycle Beirut is a social business that saw the waste and refugee crises as an opportunity. It created employment opportunities in a sector where refugees do not compete with local Lebanese populations in a crowded labour market, while at the same time providing a common good service.

Creating opportunities and making profit out of waste

Cedar Environmental is an enterprise guided by a circular economy perspective. They collect waste and send it to recycling plants where it can be sorted and processed to be used as raw materials for value-added production activities. Here, recycling was a practical solution to a growing waste problem. Additionally, it represented a mental shift where the impulse of disposing of the garbage was replaced with a drive to find ways of making valuable products out of it. The company developed a technology for cleaning and shredding discarded plastic, which could be moulded and transformed into Ecoboards (building materials).

The activist professional

Cedar Environmental and Recycle Beirut were set-up by individuals as socially oriented businesses with an ambition to solve problems that were neglected by governmental actors. This involved a merging of activist and professional roles and identities. The architecture office theOtherDada, working with urban afforestation, is another example of a social and environmental enterprise. Facilitating hands-on collaboration of professionals from different sectors to plant micro-forests, theOtherDada helped to build community and raise awareness and support for urban afforestation. In combination, these three initiatives demonstrate the importance of the activist professional role in engaging in dialogue with government officials, carrying out awareness and training activities, and providing technical capacity and solutions. In working with flexibility and organisational openness, they have enabled groups with different interests to participate in grassroots urban initiatives.
Linking-up with international networks

Small, bottom-up projects are also an opportunity for engaging different actors in a collective attempt to put environmental concerns on the agenda. By connecting with an international network, the Beirut RiverLESS project accessed resources in the form of technical assistance and built broader legitimacy that was an asset in gaining the approval of local authorities.

**Box 4** The Beirut RiverLESS Project

The Beirut RiverLESS project by the architecture company theOtherDada planted urban micro-forests to recreate ecosystem services and revitalise the riverbank as a social and recreational space. Tree-planting workshops were used as arenas for education and awareness building about urban nature and ecosystems. A network of micro-forests of biodiverse vegetation provided paths for insects and other animals. Moreover, small patches of forest across the city created awareness of the initiative and provided opportunities for people in different neighbourhoods to connect across the city through the medium of the urban natural ecology.
The Maldives is a nation of 1192 islands stretching 871 kilometres in the Indian Ocean. The economy revolves around coastal and marine resources; tourism and fisheries, and several islands have been developed to serve the high-end tourist market. Waste management is a key challenge due to the islands’ geography and limited local resources and capacity. While The Maldives has a national waste management policy, a regional strategy which considers groups of islands and action plans and collection models for individual islands, significant challenges remain.
Meeru Island Resort & Spa created different waste management strategies to improve its environmental impact using a circular economy approach where unwanted outputs from one sector could be used as resources for another. Several actions were taken to reduce plastic waste, resulting in over 70% reduction in the use of plastic water bottles between 2017 and 2019. Kitchen and electricity generator oils were re-used to operate waste incinerators, reducing both waste and consumption of diesel fuels. All organic waste was composted and used in the gardens and plantations on the island. Glass waste was crushed into very fine powder and used in concrete for building purposes and spread on beaches as a practiced method of preservation.

Using diverse incentives to support waste management

Ukulhas is a small, inhabited island in the North Ari Atoll. It is known within the Maldives as a role model for cleanliness and sustainable waste management. A clear waste management plan has been developed and implemented at the island level. All business and household waste is collected by the island Council following a category based (households, businesses, hotels and restaurants, guesthouses) fee paying system. Further, households are responsible for sorting their own waste. Both these strategies created incentives for reducing waste and ensured different types were correctly directed to be recycled or composted. The fact that households pay a fee creates a stronger sense of responsibility by the Island Council to provide the service and meet expectations. Waste management is the second most income generating activity for the Ukulhas Council and operates at a 30% profit.

Box 5  Education, awareness-raising and partnerships

Education and awareness-raising were key to ensuring buy-in and compliance. Ukulhas carried out courses to educate citizens about waste management and health issues, partnered with households and businesses to educate citizens and reduce waste, and got teachers involved to motivate students and engage the younger population.
The initiative of one man or a small group of people in the Ukulhas Island Council became a national success story that is recognised internationally. It started as a demonstration project for a cost-effective, scalable and replicable model, which has shown to be sustained through education, engagement of citizen stakeholders and careful management. The positive feedback the island has continued to receive from the outside has given the island residents a sense of pride. Since the initiative started, the island council has given courses on waste management to 70 other island councils and now more than 50 islands in the Maldives practice this model.

In both Ukulhas and Meeru, there are challenges overseeing all aspects of waste management across the islands. Recycling plastic can be expensive and requires specialised processes, which are not available in either location. Yet a partnership with Parley for the Oceans, an international NGO dedicated for preserving marine life, has played a key role in managing waste in the Maldives. Parley collects plastic waste from over 80 islands, which is then transported to China, where it is recycled to make yarn for textiles, shoes and clothing. This includes a partnership with Adidas, who produces football jerseys and shoes made from recycled plastics from the oceans.
Established over 500 years ago, the city of Udaipur is surrounded by the Aravalli Mountain Range. It is the former capital of the Mewar region, known for its history of resistance, cultural diversity and creativity. With a population of 700,000 and growing, Udaipur faces multiple urban problems typical of cities of the Global South. Since the 2000s a grassroots movement has been radically transforming the idea of education to ‘learning as living and living as learning’. Udaipur as a Learning City (ULC) started in the 2000s, driven by a desire to address the problems inherent to modern urban living and to explore and highlight different visions, practices and experiments which are more sustainable, local and community driven. A core belief is that there is a need to deeply rethink urban lifestyles and create alternatives to the way urbanisation and complex change is taking place in India.

<table>
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<tr>
<th>MINDSET</th>
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<td>Principled and inspiring leadership</td>
<td>Inclusive collaborative practices</td>
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<td>Seeing through complexity and interconnectedness</td>
<td>Effective units of responsibility</td>
<td>Clouds of trust and shared responsibility</td>
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<tr>
<td>Sense of purpose around thriving communities and sustainable places</td>
<td>Dynamic learning networks</td>
<td>Placed-based action</td>
<td>Appropriate design of urban environments</td>
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<tr>
<td>Potential of physical reality to shape the urban experience</td>
<td>Strong coalitions for change</td>
<td>Sustained political commitment</td>
<td>Enabling policies, services and legislation</td>
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Regenerating the local learning ecology

The central approach of ULC is building a Generative Learning Ecology. This means valuing primarily the local, indigenous knowledge and the multiple ways in which the city is inhabited. It is driven by self-organised actions of citizens in places like markets, streets, parks, cafes or houses, which grow as learning spaces while weaving threads of connection between them. ULC is an intergenerational, multi-partisan platform which encourages citizens to re-imagine the concepts of public commons, abundance and scarcity, consumption, media, sustainable lifestyles, and happiness. There is a special focus on unlearning. The ULC process has nurtured many innovative prototypes and incubated changemakers and sustainable initiatives throughout the city.

Alternatives to development and education through Swaraj

The initiative started under the auspices of Shikshantar, The Peoples’ Institute for Rethinking Education and Development. Shikshantar promotes Lifelong Societal Learning and creates generative environments for the emergence of local visions of Swaraj, a Sanskrit term that can be translated as ‘rule over the self’. Theorised by Gandhi and Tagore, among others, swaraj puts ‘being’ in the centre rather than ‘knowing’. It invites people to lead and create their own models of development and perceive the possibilities of a multiplicity of ways of knowing and being that are usually belittled in the city, in India and the world. Shikshantar works through the integration of three main areas: innovative learning, recognising the infinite potential of each human being; cultural articulation, nurturing imagination and creating new meanings and practices; and radical spirituality, discovering what it means to be fully human, entangled with the natural world.

Rooting actions in traditional processes and concepts

ULC processes are rooted in samvaad, or processes of deep dialogue that involve sharing and trust-building. Through samvaad there is the emergence of a drishti, a collective vision in which people cultivate the capacity to imagine and go off the beaten path. The co-construction of the vision entails reflecting on the history of the city, possibilities for its future and understanding each citizen’s role in realising such
vision by creating space for what was previously deemed as impossible. Much of this work is done in the spirit of *jugaad*, a layered Hindi-Urdu word employed in the sense of a playful, improvisational solution to a challenging situation.

**Box 6  Supporting learning activists and livelihoods**

ULC supported local artists, organic farmers, artisans, businesses and healers to engage in experiments related to regenerating urban life. It also encouraged youth who were not interested in formal education to create their own meaningful livelihoods (or ‘alivelihoods’) by trying out apprenticeship opportunities. Learning activists were encouraged to reclaim their own learning processes by building their learning webs, a diverse network of co-learners and spaces in the city. They also identified different resources – beyond money – to support their work, breaking the culture of scarcity and the premise that monetary wealth is necessary for doing meaningful work.

**De-institutionalisation, emergence and resonance**

ULC is an emergent learning web that does not possess a centre, hierarchy or set plans. Instead, the relations between people and places throughout the city open up and multiply opportunities. It is a vibrant learning ecology that has created tiny food forests, appropriate ecological techniques and products, regenerated local languages, hosted cultural events, expanded non-monetary transactions, and created a Jail University, among many other activities and outcomes. Most importantly, it created flexibility and resilience through a tissue of trust, memory and conviviality that inspires people in the city and finds resonance in many other local, national and international networks.
Urban crises are experienced at different intensities, breadths, scales and temporalities. Irrespective of the particulars of to whom, how or when urban challenges and crises occur, they are becoming conditional to how we will live in cities. They are also central to shaping how we should respond. As we have outlined here, seeing the city through the lens of crisis, flexibility and learning reveals entry points for how to begin to shape thriving, just urban communities. It underscores how mindsets, actors, behaviours and relationships, and structures and resources can be linked to foster transformative change.

It also highlights how urban acupuncture as a granular type of practice and investment in the city can acknowledge the different realities and sensitivities of local urban and social fabrics. This tactic may facilitate a more sustainable approach to addressing urban challenges and contribute to positive change where the results are greater than the sum of their parts.

Ultimately, learning flexibility seeks to catalyse and connect action and engagement within and across cities – both immediately and incrementally, at smaller and larger scales, and with limited or extensive resources. And importantly, it creates space, time and agency to work in new ways, with permission to test and learn, and with an acceptance that change takes time and is not a linear process.