Towards Child-Friendly Mega-Delta Cities in Asia
A Critical Literature Review

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Abstract
The ‘reinstatement’ of children within the planning discourse reflects a scholarly and professional recognition of the interdependencies between urban space and critical health issues of specific social groups (Gleeson & Sipe, 2006). This research paper interrogates the international policy concept of child-friendly cities, defined as “any system of local governance committed to fulfilling child rights as articulated in the Convention on the Rights of the Child. It is a city or community where the voices, needs, priorities and rights of children are an integral part of public policies, programmes and decisions” (UNICEF, 2018: 10). It considers the conceptual limitation of the policy concept when children’s ability to survive, grow and thrive are increasingly threatened by extreme weather events and environmental degradation. The research paper looks specifically at the urban challenges faced by mega-delta cities in Asia (e.g. Bangkok, Dhaka, Hanoi, Ho Chi Minh City, Kolkata, Shenzhen, Yangon) where children make up a sizeable demographic group. Utilizing the uneven spatial development of Dhaka, Bangladesh (Ganges-Brahmaputra Delta) as case study, the paper explores how the conceptual limitation of CFCs shapes its implementation gaps. Lastly, this research paper considers the long-term impact of the COVID-19 pandemic on children living in the mega-deltas of Asia.

Keywords
Child-friendly cities, mega-deltas, megacities, urban form, spatial inequality, Dhaka

1. Introduction
Mega-delta cities in Asia are densely populated economic centres. Decades of government policies and institutional reforms have transformed local economies from an agricultural-based to a primarily manufacturing-based one, creating highly uneven spatial development within and beyond the urban fringes. And in turn, this drives migration to areas where capital and investments are concentrated (Seta, 2011). The massive influx of population puts severe pressure on the limited healthcare capacities, scarce social resources, and lagging public infrastructure.

Mega-delta cities in Asia are also confronted with specific environmental issues such as reduced delta aggradation, subsidence though groundwater extraction, increase flood hazard as well as rivers running dry due to damming and water diversion (Chan, et al., 2012). Consequently, the rapid socio-environmental transformation witnessed in these densely populated economic centres endanger public health. From communicable (e.g. malaria, typhoid, tuberculosis, cholera and dengue) and non-communicable diseases (e.g. cancers, diabetes, cardiovascular and chronic respiratory illnesses) to environmental injuries (Leon, 2008), health issues of populations living in mega-deltas of Asia are exacerbated by climate change (for an international overview, see Haines, et al., 2006).
In both practice and research, the field of urban planning has actively seek to address the aforementioned public health challenges through a plethora of city-wide initiatives like slow cities, age-friendly cities, resilient cities, compact cities (Brown, et al., 2019). This research paper focuses on the international policy concept of child-friendly cities or CFCs for two main reasons. Firstly, mega-delta cities are geographically concentrated in Southern Asia and South-Eastern Asia where 27.9 percent and 25.4 percent of population are under the age of 15 respectively (UN, 2019). Secondly, children have been systematically overlooked by normative planning processes and outcomes despite being more susceptible to environmental risks and exposures than adults (Creel, 2002). Furthermore, as the generation least responsible for climate change, children bear the greatest impacts of its effect (UNICEF, 2015b). Interrogating the conceptual limitation of CFCs is critical in going beyond the binary of society and nature, and develop a more holistic perspective on how to plan for healthy and inclusive cities.

2. Literature Review

2.1. What is a City-Friendly City?

The policy concept of CFCs was launched by UNICEF and UN Habitat during the second United Nations Conference on Human Settlements (1996), where the well-being of children came to be regarded as the ultimate indicator of a healthy habitat, good governance, and sustainable development. It also embodied the ideas set forth in the United Nations Convention on the Rights of the Child (1989).

![Figure 1 CFCs Framework for action. Source: UNICEF Innocenti Research Centre.](image-url)
CFCs are currently defined as “any system of local governance committed to fulfilling child rights as articulated in the Convention on the Rights of the Child. It is a city or community where the voices, needs, priorities and rights of children are an integral part of public policies, programmes and decisions” (UNICEF, 2018: 10). The policy concept consist of a governance framework (Figure 1) as well as nine legal and administrative building blocks (Figure 2). The framework and building blocks are “inter-connected and inter-dependent”, designed with the intention of guiding policymakers to develop a child-friendly vision (UNICEF Innocenti Research Centre, 2004: 8). Since 1996, CFCs have grown into a global initiative with over 1,300 participating cities in more than 30 countries (Nan & Nam, 2018), drawing diverse groups of stakeholders to place children and youths at the centre of the urban agenda.

2.2. Sketching the ‘Strands’ of CFCs Research

The development of CFCs-related studies can be, first and foremost, classified chronologically. Early literature focused mainly on its conceptual disputes, philosophical basis, and policy design (Chatterjee,
2005; Chawla, 1997; Riggio, 2002; Woolcock & Steele, 2008) whereas later literature focused more on individual case studies. This ranged from analysing single-city endeavours to national policy, which occasionally included communities living in rural settings.

Another way to understand the development of CFCs-related studies is to approach it geographically. In high-income countries, the research concerns were on the issues of child participation rights, managing public-private partnerships, and investigating children’s perception of their neighbourhoods (Bridgman, 2004; Derr & Tarantini, 2016; Derr, et al., 2013; Malone, 2013; Woolcock, et al., 2010). In low-income countries, the research concerns were about child protection, education delivery, and healthcare (Nikku & Pokhrel, 2013; Nour, 2013; Rismanchian & Rism anchian, 2007).

Amongst these diverse ‘strands’ of CFCs research, the issue of child participation as an active form of social sustainability has arguably received the most scholarly attention even though research findings suggest that it is not the determining child-friendliess factor for children and youths themselves (see Haikkola, et al., 2007; Nordström, 2010). Bartlett (2005: 38) argues that “the rhetoric of participation is far more common than the genuine inclusion of the views of children in city development processes; assumptions about what children are capable of often constrain even the most committed efforts to involve them”.

Moreover, it is crucial to note that the research focus on child participation (i.e. symptom) often comes at the expense of the built environment (i.e. cause) being side-lined when it comes to addressing children- and youth-specific health issues in planning and urban design (Karsten & van Vliet, 2006; Krishnamurthy, 2019). McAllister (2008: 47, emphasis in original) thus proposed that planners and policymakers can overcome this impasse by considering children in two distinct but overlapping ways: “planning for children and planning with children”.

2.3. Conceptual Limitation of CFCs

The conceptual roots of CFCs aimed at integrating the broad policy frameworks of sustainable development with children’s rights (Malone, 2006). As it has a strong legal and administrative bias, the idea of spatializing how a child-friendly city might be planned and designed remains as an elusive goal (cf. Blinkert, 2004). This research paper contends that it might be due to majority of CFCs research tracing the origins of the policy concept up until second United Nations Conference on Human Settlements in 1996, overlooking that the idea of understanding a child’s place in the city was in fact a much older one.

The international study Growing Up in Cities (1977), coordinated by Kevin Lynch investigated children’s positive and negative experiences in urban space. Colin Ward’s The Child in the City (1978) then examined working-class children’s opportunities and restrictions within urban neighbourhoods whereas Roger Hart’s Children’s Experience of Place (1979) explored children’s perception of place. In retrospect, it was the very discussion of the planning and designing of urban space that gave rise to the present-day policy concept of CFCs. Hence, the re-assertion of planning and urban design into child-friendly initiatives, especially one that recognizes climate change has got disproportionate impacts on mega-delta cities, is vital for CFCs to remain as an operationally relevant global initiative in the 21st century.

2.4. To Design, or Not Design

That being said, there remains much unresolved methodological tensions as to whether child-friendly goals can be planned and subsequently realized through urban design. Chatterjee (2005) rejected the design-based approach to CFCs, arguing that the physicality and sociality of environmental child-friendliness
cannot be clearly defined (see also Cushing, 2016). Instead, it is the functional and phenomenological possibilities of places that children consider to be their ‘friends’ ought to be investigated.

The design debate within the implementation of CFCs initiatives is further made visible by the notable shifts in parental concerns over the real and imagined dangers of living in urban spaces (MacDougall, et al., 2009). Broadly speaking, children today spend more of their out-of-school time in structured and privatized forms of recreation, shifting a geographies of a ‘good’ childhood from the outdoors to the indoors (Karsten, 2005). The planning and designing of child-friendly urban spaces hence operate within a paradoxical framework of limiting environmental risks, avoiding issues of liability whilst encouraging children and other under-represented members of the community to actively contribute towards place-making and inclusion efforts (Loebach & Gilliland, 2019). This paradoxical framework is also reflected in the paucity of CFCs-related studies concerning children’s perception of and interaction with their urban spaces in non-Western cities where direct threats of environmental degradation and extreme weather events are often part of the everyday reality (see Adams, et al., 2019; Cilliers & Cornelius, 2019; Ramezani & Said, 2013).

3. Case Study—Dhaka

Bangladesh, home to 160 million people, is one of the world’s most densely populated country (UN, 2019). It has an urban population of 53 million, out of which 40 percent are children under the age of 15. With an internal village to city migration rate of approximately 3.5% (of the total population) annually, Bangladesh’s urban population is expected to double to 112 million in 30 years’ time (UNICEF Bangladesh, 2020). And in the past 20 years, the low-lying, coasting nation is the seventh country most affected by climate change (Eckstein, et al., 2020).

Dhaka, the capital and largest city of Bangladesh, is a rapidly developing megacity. Out of its 8.9 million residents, around 4 million live in slums and face the constant threat of eviction as many of them do not have tenure security (Drishti, 2018). Many individuals and households living in these slums had previously migrated from rural villages in search of better livelihood opportunities. However, everyday life in the slums are often more difficult for children than their counterparts in the villages.
According to the *Multiple Indicator Cluster Survey 2012-2013* (2015) and the *Child Well-Being Survey* (2016) published by Bangladesh Bureau of Statistics in collaboration with UNICEF Bangladesh, not only do 75 percent of households in slums live in a single room, incidences of malnourishments, dropout rates as well as physical violence are widespread. Without water and sanitation services and other basic infrastructural provision in place, the unregulated growth and overcrowding experienced in slums expose children and youth to serious health risks. Moreover, the sense of precarity is heightened with most slums located in low-lying areas or ‘char’ of the city, a stone’s throw away from the historic Old Dhaka (Figure 3, slums are coloured in red). These low-lying areas are particularly susceptible to natural disasters like earthquakes, cyclones and annual floods.

CFCs initiatives in Dhaka are multi-scalar and multi-dimensional in nature. They include:

1) The **Basic Education for the Hard to Reach Urban Working Children (BEHTRUWC) Program** is a collaborative project between Government of Bangladesh and the development partners — particularly the Swedish International Development Cooperation Agency (Sida), the Canadian International Development Agency (CIDA), and UNICEF. Its aim was to provide working slum children with two years of basic education and livelihood skills training (PINZ, 2014).

2) UNICEF entered a memorandum of understanding with the Bangladesh Supreme Court to speed up the implementation of the **Children Act 2013**. And as part of the Act, UNICEF advocated for the implementation of child-friendly procedures in courts and also for police procedures to give primary consideration to a child’s right to protection (UNICEF, 2013).

3) The **CARE - Children’s Amusing Ride Environment** project by the Bernard van Leer Foundation and Deshoj focuses on providing dedicated buses across Dhaka for children, parents and pregnant women. The project also included the creation of special zones for children and women to travel safely without facing harassments from other passengers (Bernard van Leer Foundation, 2020). The Bangladesh Road Transport Corporation provided technical support piloting the project.

4) Akij Foundation, launched by Bangladesh’s largest industrial conglomerate Akij group in 2010, operates **mobile schools** for underprivileged children across Bangladesh. The converted buses are equipped with white boards and educational charts for up to 50 students. Alumnus of the mobile school program have opportunities to gain technical skills at the Akij Foundation School and College (Tahsin, 2019).

5) The garment and textile industry accounts for nearly 80 percent of Bangladesh’s total export earnings (Suhrawardi, 2020). UNICEF launched the **Children’s Rights and the Garment Industry in Bangladesh** initiative in conjunction with industry leaders. The initiative is not only concerned with issue of child labour, but also the wider social implications of limited maternity protection and childcare options in garment and textile factories (UNICEF, 2015a).

6) UNICEF has published several reports on to support the Government of Bangladesh with developing a sustainable and holistic approach towards **child-sensitive climate change adaptation**. In *Learning to Live in a Changing Climate* (2016: 34), the climate change triggered exodus from villages to Dhaka’s countless overcrowded slums highlighted the urgent need for “[a] twin-track approach”. It involves adaptation efforts that will enable more people to viably stay in rural locations while drawing up integrated development plans that reflect the migration trends within and around Dhaka. In a newer report, *A Gathering Storm* (2019: 35), it was remarked that 10 years since the Government of Bangladesh’s first Climate Change Strategy and Action Plan, resilience building continues to be an ongoing process and “greater attention and resources...[in] ensuring that child health, education and other services are shielded from the effects of climate change” are imperative.
3.1. Discussions and research gaps

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<th>NINE BUILDING BLOCKS FOR DEVELOPING CHILD-FRIENDLY CITIES</th>
<th>CFCs INITIATIVES</th>
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<td>Basic Education for the Hard to Reach Urban Working Children (BEHTRUC)</td>
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<td>Children Act 2013</td>
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Table 1 Comparing CFCs initiatives in Dhaka with nine building blocks. Source: Authors.

Table 1 above compares how various CFCs initiatives in Dhaka fulfill the nine legal and administrative building blocks designed by UNICEF. While it is commendable that the initiatives do address the building blocks with varying degrees of success, there are no indicators that the performance and sustainability of these initiatives will be monitored and evaluated. Also, the most critical cross-cutting element in the framework for CFCs — health — has been inexplicably neglected. Previous research by Chan, et al. (2016) concluded with similar observations; CFCs initiatives often cherry-pick elements within UNICEF’s building blocks and framework. This research paper further contends that the sidelining of health and well-being of Dhaka’s residents (i.e. human capital) has dire impacts on its development and urbanization.

As one of the mega-delta cities in Asia most affected by climate change, Dhaka is already reeling from the multitudinal impacts of large scale rural-to-urban migration. With individuals and households moving into overcrowded slums located in its low-lying areas, the highly precarious physical and social environment triggers additional stress for children, making their lived experiences to be of an even greater challenge. Moreover, the clear geographic and spatial distribution of slums in Kamrangirchar, Dhaka (Figure 3) is not reflected in any of the CFCs initiatives analyzed. Instead, the ‘established’ approach for these initiatives was to either work on a city-wide scale or select a particular neighbourhood to pilot their ideas. Without a proper understanding of the socio-environmental disparities amongst different districts in Dhaka, the
material resources and policy strengths of CFCs initiatives are not adjusted efficiently to meet the needs of children and youths, leading to some districts to receive assistance while others are persistently under-represented within the policy and planning radar. This implementation gap is symptomatic of the conceptual limitation of CFCs as a policy concept, that is, insufficient recognition of climate change’s impacts are geographically and economically disproportionate.

In addition, the CFCs initiatives analyzed contain vague indications of how children living in Dhaka’s slums actually relate contextually to the urban space. This relationship, as international literature suggests, is crucial in understanding sensitive social issues. When children are empowered to speak for themselves without an interlocutor, their psycho-social health needs are met (see also Hart, 1992). Highly context specific issues like the high rates of school dropout and child labour in urban slums can then gain wider social recognition, and in the long-term, the multi-dimensional implications of environmental precarity that shapes childhood can be holistically addressed.

4. Conclusion

“[C]hildren are a kind of indicator species, if we can build a successful city for children, we will have a successful city for everyone.” — Enrique Peñalosa, former Mayor of Bogota

Despite the best intentions, CFCs-related initiatives and research usually work on the somewhat generic ideas of participation and education, which can be easily implemented top-down without much policy and planning response to the context. In an era of increasing climate awareness, issues of children’s health and well-being are no longer social in nature. They are instead socio-environmental, and intrinsically tied to planning, design, and management of urban space. Policymakers ought to re-assert planning, whose disciplinary roots lies in public health, in the core of CFCs initiatives and rigorously interrogate how child-friendly urban spaces in mega-delta cities of Asia might be designed.

Economic impacts of the COVID-19 pandemic has obliterated many hard-own development gains. The pandemic has also highlighted how overcrowding in households, workplaces and schools is a key feature of income inequality. With torrential rains, flooding, cyclones and deadline landslides occuring across mega-delta cities of Asia this year, it has been estimated that over 4 million children are in urgent need of life-saving support (UNICEF, 2020). It is therefore high time for CFCs-related initiatives and research to confront its conceptual limitation and implementation gaps, prioritizing the health and well-being of children, especially those living in mega-delta cities of Asia, as the first step towards in mitigating the uneven global-local effects of climate change.
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5. References


Loebach, J. & Gilliland, J., 2019. Examining the social and built environment factors influencing children’s independent use of their neighborhoods and the experience of local settings as child-friendly. *Journal for Planning Education and Research*.


