BIPSS Commentary



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Reimagining Urban Life: Exploring the Concept of the 15-Minute City and Its Potential Impact on Society

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Bogged down by the fatigues of daily life, wouldn't having all necessary services and amenities just a walk or bicycle ride be ideal? Worries about commuting and being caught in gridlocks would dissipate, easy grocery shopping and quick access to medical services would become the norm, and the agenda of sustainable development would gain a new lease on life. That is the 'utopia' a 15-Minute City is seeking to construct.

After Covid-19 emptied cities and confined people to the walls of their houses, the concept of 15-Minute Cities (FMCs) wooed many urban designers, leaders, and populations globally. Departing from the tenets of conventional urban planning approaches, the FMC decentralizes urban functions and services to create self-sustaining neighborhoods. Although considered a boon in the eyes of many, it is not without its detractors who question its feasibility and effectiveness.

This paper will delve deeper into the 15-Minute City and highlight its benefits and potential pitfalls in an attempt to provide a comprehensive analysis of the emerging concept.

Conceptualizing 15-Minute Cities

Coined by professor and scientist Carlos Moreno against the backdrop of the 2015 Paris Climate Change Conference, the FMC model builds on the philosophy of 'chrono-urbanism' that identifies a new convergence between time and space in urban design to transform urban areas and infrastructure. Through decentralization and localization, Moreno visualized an urban arrangement in which people have all of their needs within easy reach; this would ensure a higher quality of life for dwellers as they would be able to successfully achieve the six critical urban social functions,

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which are living, working, commerce, healthcare, education, and entertainment.² He stated that an FMC is "not an instantaneous transformation, it is an ambition, a roadmap, a path. It is a journey to embody the places, to find humanity at the end of the street, to give a heart to the heart of the city".³

FMC draws inspiration from the New Urbanism movement, ideas of 'neighborhood unit', and 30 and 20-minute cities or neighborhoods, all of which imagine livable cities with walkable and mixed-use neighborhoods that are environmentally friendly. The FMC model started gaining currency during COVID-19, which laid bare the fragilities of cities in their present forms and demanded innovative measures to meet the evolving economic, health, social, and cultural needs of urban residents who had to grow accustomed to a 'new normal'. Long gone was the fascination with mega infrastructural projects, rather soft mobility and community-based urban services were being embraced. This paved way for a radical rethinking of urban planning, prompting leaders around the globe to increasingly valorize neighborhood-centered approaches and proximity-based services. The concept turned the heads of several international organizations, including C40, WHO, UN-Habitat, and the OECD, which view it as a means to enhance the well-being of citizens in the context of COVID and post-COVID, as well as a feasible response to several Sustainable Development Goals (SDGs).

Paris was one of the first champions of the 15-Minute City, with its mayor, Anne Hidalgo ardently advocating for bike lanes in every street, removal of 72% of on-street parking, flexible use of structures, and proximity of essential services.⁴ Other features of FMCs were observed in China, Netherlands, Germany, and the United States, where bicycle use skyrocketed during COVID as did the use of public parks. Temporary infrastructure such as micro-markets and maze-like parks were also being implemented to provide residents quick access to their essential and recreational needs while ensuring compliance with pandemic protocols.

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² Moreno, Carlos, Zaheer Allam, Didier Chabaud, Catherine Gall, and Florent Pratlong. "Introducing the "15-Minute City": Sustainability, resilience and place identity in future post-pandemic cities." Smart Cities 4, no. 1 (2021): 100.

³ "Urban proximity and the love for places Chrono-urbanism, Chronotopia, Topophilia," Carlos Moreno, accessed May 22, 2023, https://www.moreno-web.net/urban-proximity-and-the-love-for-places-chrono-urbanism-chronotopia-topophilia-by-carlos-moreno/.

⁴ "Paris: The 15-minute city makes timely progress", Smart Transport, accessed May 20, 2023, https://www.smarttransport.org.uk/case-studies/europe/paris-the-15-minute-city-makes-timely-progress.



Figure 1: The 15-Minute City Visualized (World Economic Forum, 2022).

To construct such a city and fulfill the six social functions, current urban spaces would need to be drastically redesigned based on the building blocks of Density, Proximity, Diversity, Digitalization, Flexibility, Connectivity, and Human Scale Urban Design as illustrated in Figure 2. Density in an FMC would account for the optimal number of people that a specific area can safely accommodate in terms of urban service delivery and resource consumption. Proximity would mean giving city residents access to all essential services and amenities within a 15-minute walk or bike ride, or via public transportation. Diversity in the context of the FMC concept incorporates both diversity in terms of culture and people, and multifunctional neighborhoods that include residential, commercial, and recreational uses. The pillar of digitalization harnesses the strength of digital solutions to ensure cities are sustainable and resilient; this pillar borrows from the concept of Smart Cities, which capitalizes on ICT to devise technologically modern urban areas. Flexibility supports the idea of multifunctional areas or hybrid spaces; to illustrate, since schools remain closed on weekends, they can be used for other recreational purposes such as being refurbished into parks. Connectivity in an FMC would entail forging connections between neighborhoods through public transportation as well as active mobility modes (walking and cycling).



Figure 2: The 15-Minute City Framework (Allam et al. 2022, adopted from Moreno et al. 2021).

Utopia?

The FMC model brings various social, economic, and environmental benefits by ensuring the livability, sustainability, and resilience of cities through the promotion of accessibility, community empowerment, and a more equitable distribution of resources and opportunities.

An FMC strives to attain social equity by providing equal access to affordable housing, career opportunities, and social services for people from all segments of society, and allows individuals from low-income and marginalized groups to participate in the planning processes.⁵ The proximity-based design can also provide health benefits and lower crime rates. To illustrate, living in walkable neighborhoods has been linked to lower rates of obesity in the state of Utah in America.⁶ Relatedly, with localized employment opportunities, people are likely to spend less time commuting, enabling them to dedicate more time to social functions of living, healthcare, education, and entertainment.⁷ Additionally, active mobility modes combined with increased use of public transportation would not only foster environmental advantages, but stimulate social bonding by connecting people and allowing them to regularly interact with each other.

⁵ Moreno et al. "Introducing the "15-Minute City".

⁶ Kowaleski-Jones, Lori, Cathleen Zick, Ken R. Smith, Barbara Brown, Heidi Hanson, and Jessie Fan. "Walkable neighborhoods and obesity: Evaluating effects with a propensity score approach." SSM-population health 6 (2018): 9-15.

⁷ Khavarian-Garmsir, Amir Reza, Ayyoob Sharifi, and Ali Sadeghi. "The 15-minute city: Urban planning and design efforts toward creating sustainable neighborhoods." *Cities* 132 (2023): 104101.

The FMC promotes economic sustainability in several major ways. With the localization of workplaces and a walkable neighborhood arrangement of businesses, 15-Minute Cities can sustain economic viability while consuming lesser energy and emitting fewer emissions from transportation. Localization of workplaces would mean easy job accessibility that can contribute to higher employment rates and combat poverty, and provide opportunities for individuals to access jobs that fit their skills, therefore propelling economic productivity and tackling underemployment. In addition to increasing job prospects, Moreno and others claim that FMCs benefit those who are poor by offering affordable housing and encouraging residents to support local businesses. With its effort to reduce dependence on private cars and construct compact neighborhoods, 15-Minute Cities could potentially help dwellers save on transportation-related costs (such as gas, car maintenance, parking fees, and others), as well as savings on expenses for maintaining and building infrastructure. The positive effects of cycling, for example, are estimated to exceed \$96 billion in the EU alone.

As the threat of climate change continues to loom large, eco-friendly urban spaces have never been more important. Currently, cities account for 60% of global greenhouse gas emissions, vehicle transportation accounts for more than 78% of emissions in urban areas, and damages of between \$2 and \$4 billion per year are expected to be incurred by 2030 as a consequence of an increase in respiratory diseases, cancer, and heart disease. The FMC model is a viable answer to these challenges, as it can decrease needless journeys across cities, increase walking and biking routes, redesign public spaces in order to discourage individual car dependency, promote usage of public transportation, and create green spaces. An example from Australia shows that compact neighborhoods, such as those envisioned by the FMC model, can greatly reduce pollution by encouraging walking and cycling, potentially cutting down transportation-related pollutants by as much as 40% and CO₂ emissions by 10%. The model, therefore, aligns well with the objectives and principles of the SDGs, particularly Goal 13 to limit and adapt to climate change.

⁸ Khavarian-Garmsir, The 15-minute city, p.3.

⁹ "15-minute cities: What are they and how do they work?," Deutsche Welle, accessed May 22, 2023, https://www.hindustantimes.com/lifestyle/travel/15minute-cities-what-are-they-and-how-do-they-work-101678886898011.html.

¹⁰ Allam, Zaheer, Mark Nieuwenhuijsen, Didier Chabaud, and Carlos Moreno. "The 15-minute city offers a new framework for sustainability, liveability, and health." *The Lancet Planetary Health* 6, no. 3 (2022): e181.

¹¹ Shannon, R., Mant, J., Dessewffy, M., & Harrison, L. 20-Minute neighbourhoods: Creating a more liveable Melbourne. *5th international conference on transportation and health* (2019): 11.

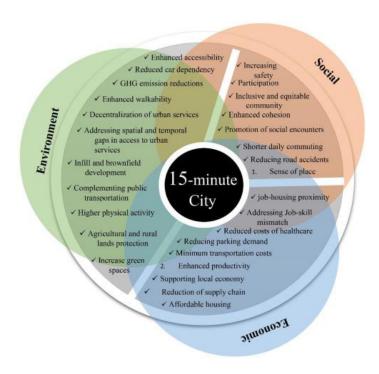


Figure 3: Advantages of 15-Minute Cities (Allam et al. 2022).

Or Dystopia?

The world through a 15-Minute City paradigm appears dreamlike, but it hasn't gone without triggering the ire of some policymakers and city dwellers. Naysayers point to its impracticality, one-size-fits-all approach, and disregard for city complexities, while others have gone so far as to suggest the FMC is a 'dystopian plan' that will put a leash on people's freedom.¹²

Cities are not easily transformable owing to geographical, urban, cultural, political, social, and other specificities and complexities, hence making the implementation of FMCs in various parts of the world impractical. Cities also battle different issues, which may not be universal in nature and necessitate customized responses; indeed, a 'one-size-fits-all' approach would fail to achieve the intended objectives of an FMC. Using the case of Bangladesh, FMCs would be challenging to develop in the country due to low walkability levels (caused by an absence of pedestrian-friendly streets and other factors), heavy automobile use and traffic congestion, poor public transportation,

 $https://www.planmelbourne.vic.gov.au/__data/assets/pdf_file/0018/515241/Creating-a-more-liveable-Melbourne.pdf.$

¹² "These deeply illiberal, un-British 15-minute cities are beyond the pale," Mark Dolan, accessed May 17, 2023, https://www.gbnews.com/opinion/these-deeply-illiberal-unbritish-15-minute-cities-are-beyond-the-pale-mark-dolan/440998.

clusters of high-rise buildings, dearth of 'Third Spaces', in addition to other structural and governance weaknesses. To revitalize every neighborhood in the capital city alone would be a herculean task, necessitating systemic transformation in resource allocation and governance arrangements.

In addition to implementation challenges, critics have raised concerns regarding the dimension of diversity and the feasibility of ensuring equitable outcomes for all; in theory, FMCs would promote inclusivity by providing equal job and housing opportunities for every dweller regardless of background, but how this would translate into reality is yet to be clearly defined. Conspiracy theorists suspect that the FMC model will be used to socially control individuals by 'imprisoning' them to specified zones and limiting their mobility, but this is an extreme interpretation of the concept that cannot be academically substantiated.

Conclusion and Recommendations

15-Minute Cities cannot be a universal remedy as cities around the world are built on unique foundations. Whether the 15-minute city will be a utopia or a dystopia remains to be seen since the concept itself is still young, waiting to fully fledge its wings and take flight. As countries and citizens familiarize themselves with the concept, the following suggestions are worth bearing in mind:

Employ a People-Centered Approach: The world shouldn't tune itself to the motion of automobiles, but rather follow the pulse of the human. The creation of FMCs must prioritize the people to rethink streets and public areas in neighborhoods across cities in a manner that serves residents of all backgrounds, ages, and capacities. It would entail designing pedestrian-friendly neighborhoods with multi-purpose spaces and adequate greenery so that residents effectively switch to active mobility modes and can have all their needs met within a reduced timeframe. Closely tied to this are the values of equity and inclusivity.

Equity and Inclusivity should be at the Heart of Planning: Jane Jacobs, a notable urbanist, once stated that "cities have the capability of providing something for everybody, only because, and only when, they are created by everybody". ¹³ FMCs can only deliver equal opportunities for all,

¹³ "Jane Jacobs > Quotes > Quotable Quote," GoodReads, accessed May 24, 2023, https://www.goodreads.com/quotes/198401-cities-have-the-capability-of-providing-something-for-everybody-only.

whether that be in the context of employment or housing, if planning and decision-making are participatory. This would mean engaging the relevant stakeholders, such as a diverse mix of dwellers, in planning processes and offering a platform for constructive discussion. This would enable equitable access to necessary services and amenities, and potentially bridge social gaps and inequalities.

Governments Should Have the Will to Drive Transformation: Without government efforts, no vision can come to fruition. Leaders and politicians must have the will to support the planning of FMCs and provide resources as well as ensure participatory mechanisms for citizen engagement.

Research Collaboration should Pave the Way for Evidence-Based Policies: The FMC is a fairly new urban planning model, necessitating more research to expand the knowledge base and inform broader planning processes. Relatedly, most examples of FMCs come from high-income and Western regions, indicating a gap in implementation and literature that needs to be filled. This would require research collaboration on a global level and possible diffusion of resources.