

The sustainability of the environment depends on mobility policy



Car-centric sprawl is the leading cause of greenfield development. Understanding the link between mobility policy and degradation of the natural environment is key to preventing further loss of the natural landscape. This piece explores factors which lead to natural environments being lost from an urban mobility perspective. The solution lies in Compact Cities and Transit Oriented Development. As cities expand, urban development becomes inevitable. Economic pressures and urbanization have transformed lakes, floodplains, and agricultural land into highways, buildings, and infrastructure.

Traditionally, Phnom Penh's expansion has followed the Greenfield pattern, which involves converting natural areas like floodplains and rural landscapes into new suburbs. Notable sites such as the National Olympic Stadium, Wat Koh, and Dragon Bridge Park have all [experienced flooding in the past](#). Additionally, the names of certain locations—such as Boeung Keng Kang, Teuk Thla, Boeung Kak, Srah Chak, and Boeung Trabek—hint at their origins as lakes and rivers.

The current rate of urbanization has led to a crisis. Urban sprawl increases the frequency and severity of issues like evictions, loss of livelihoods, dependence on private automobiles, and environmental degradation. These negative impacts affect not only the residents of the developed areas but also the entire population of Phnom Penh.

Current explanations and suggestions for addressing this issue primarily focus on the symptoms rather than the root causes. While the pursuit of profit is often cited as a major factor, the underlying reasons for the city's lack of effective governance remain unclear. To develop practical and sustainable solutions, it is essential to analyze and address the fundamental drivers of the city's continuous growth, such as its reliance on car-centric urban planning.

Surpassing economic stress



Urbanization is driving a rapid increase in demand for housing, businesses, and services in Cambodia. This demand is being met by the private sector, which is actively transforming agricultural landscapes into new urban districts with residences, commercial establishments, and various amenities.

Over the past decade, [property prices have soared](#) in Phnom Penh, driven in part by unregulated speculation. Consequently, developers are increasingly opting to situate their projects farther from the heart of Phnom Penh. Prominent housing complexes such as Kampol, Dangkor, and Por Senchey are now located in the suburbs, situated 17 to 21 kilometers from the city center. This geographical shift necessitates daily commutes for many residents to access employment, educational institutions, healthcare facilities, public transportation, and recreational areas.

Furthermore, urban sprawl has exacerbated the [loss of the natural environment](#). For instance, in 2022, the government planned to allocate protected forest land in Phnom Tamao, 42 kilometers south of Phnom Penh, as part of its urban sprawl. More than half of the Phnom Tamao Forest had been parceled out to politically connected tycoons. Cambodia's Prime Minister was pressured by civil society to intervene and halt the destruction of the forest. Unfortunately, [developers had already cleared hundreds of hectares](#). Today, the Phnom Tamao Forest has met the same fate as most of Phnom Penh's lakes, leading civil society members to express growing concern about the future of natural and protected areas around the city.

What aspects of urban planning policies encourage rapid development?

Cities prioritize automobiles.

Policies governing urban mobility play a crucial role in shaping the trajectory of urbanization. Depending on these laws, a developing metropolis can either preserve the natural environment and reduce social consequences, or it can lead to the destruction of natural habitats and the displacement of people. In Phnom Penh, we have chosen to prioritize private cars as the primary mode of transportation. While this allows individuals with access to luxury vehicles to make frequent long trips, it also [encourages the city to expand beyond the boundaries](#) of the natural environment.

A city focused exclusively on private automobiles discourages the use of other forms of transportation. Car-dependent cities typically [have a low population density](#) (less than 15,000 people per square kilometer), mixed-use architecture, poor public transportation, and challenging pedestrian access. This type of low-density urbanization makes commuting to places like parks, schools, grocery stores, workplaces, and restaurants difficult due to their distance from one another.

Additionally, the [intricate and haphazard road network separates each](#) area, complicating travel. Even short-distance walking is hindered by traffic congestion, pedestrian abuse, and other obstacles. The reliance on private vehicles has become excessive due to the inefficiency of public transit options.

A study [conducted in Changchun](#), China, found that people's decisions to primarily rely on personal vehicles for mobility are influenced by the characteristics of the city they live in. Factors such as city density, mixed-use areas, and distance to the city center all impact their choice of transportation mode. In car-dependent cities, residents are compelled to commute daily in private automobiles.

This reliance on private vehicles, in the case of Phnom Penh, forces the city to encroach further into lakes, farmland, and former floodplains, damaging the surrounding ecosystems. If Phnom Penh's urban mobility policy continues to rely heavily on private vehicles, it will lead to environmental degradation and harm the overall health of the city's inhabitants.

Compact City.

There is a direct correlation between a nation's economic progress and urbanization. While urbanization is necessary for development, it can also negatively impact the environment and people's livelihoods. Although the solutions proposed to strengthen the protection of natural areas are beneficial, they only address the symptoms and not the root cause of the problem. Therefore, urbanization strategies must tackle this issue to preserve natural areas near cities and reduce the negative social impacts, such as eviction and loss of livelihoods, caused by unfettered growth.



A cohesive metropolitan environment is a preferable choice. Unlike the current paradigm, the unification strategy aims to create a city with a smaller footprint rather than spreading out. A case study comparing Atlanta, Georgia, with Barcelona, Spain, highlights the differences between sprawling cities and those prioritizing efficient development. Atlanta, with 5.3 million residents and a land area of 7,692 square kilometers, is heavily car dependent. In contrast, Barcelona, just 1/12 the size of Atlanta, has a comparable population.

In contrast to Atlanta, which has a lot of freeways and parking lots, Barcelona features residential buildings, sidewalks, parks, and corner stores all on one city block. While Barcelona is preparing its residents to live near an effective public transportation system and establish a pedestrian area, Atlanta is dealing with issues including traffic congestion, inadequate urban mobility, and excessive carbon emissions.

Due to its vast asphalt and concrete surfaces, Atlanta experiences nearly unbearable heat, whereas Barcelona enjoys cooler weather thanks to its parks, gardens, and tree-lined streets. Barcelona is not a maze of towering structures; most buildings are moderately sized and house residences, stores, essential services, and activities, making walking within each block easy.

Barcelona's approach demonstrates that successful compact development does not necessitate cramped spaces or skyscraper architecture. Moderate density is beneficial as it enhances public transit efficiency and brings housing, employment opportunities, education, and services closer together. Most importantly, compact cities help preserve the local ecology. Phnom Penh could benefit from adopting some of Barcelona's development strategies.

Natural environments are preserved in compact cities.

You might wonder if this would lead to the construction of high-rise buildings. Barcelona has shown that defining a compact city does not necessarily result in high-rise structures.



Compactness entails a greater utilization of space in cities. All structures, whether they are homes, eateries, retail establishments, etc., should have many uses. Developers that adhere to the compact model will refrain from constructing single-use facilities like garages and golf courses. Rather the highest focus should go to public areas such as plazas and parks that support social, cultural, recreational, and commercial purposes in all their forms.

Similarly, transportation should be unified.

Avoid building endless parking lots, garages, and highways. Focus on affordable, bus-based transportation, and sustainably maintain bike lanes and walkways. Building city blocks with pedestrian accessibility enhances the convenience and appeal of public and active transportation for residents.

Conclusion

Compact urbanization techniques, which focus on maximizing existing space, allow the need to construct enormous or towering buildings to be reduced. As a result, the city becomes more integrated and livable, with fewer detrimental effects on the environment. Additionally, the mobility policy shifts from reliance on individual automobiles to a more integrated and sustainable urban transportation system.

This short research article presents the viewpoints of young researchers on the aspect of development under the theme: “The sustainability of the environment depends on mobility policy”

*Please note that this is not an in-depth researched article and does not reflect the point of view of the Samhakum Teang Tnaut Organization (STT).

