TRIPLELINE



The Eixample district in Barcelona where "superblocks" have created green and pedestrianised space in an area once choked by cars

Why we need to focus on cities?

Cities are the primary source of global emissions. Over 70% of greenhouse gas (GHG) emissions emanate from cities. Reducing urban emissions is an urgent priority in the effort to contain the rise in global temperatures.

Photo by Iry

a Kalam

Today more than half of the world's population (55%) reside in cities, and this figure is expected to grow to 68% by 2050. If we are to avoid the catastrophic impacts of climate change which disproportionately affect city dwellers, especially those residing in informal settlements and slums, we must find new ways of creating low carbon urban environments that don't squander the resources needed for future generations.

The built environment is a huge consumer of materials and resources, created using materials that generally have high GHG footprints. By applying and developing the practice and principles of circularity, cities can adapt to be able to thrive in the longer-term by designing and producing within emissions and other planetary boundaries while bringing prosperity to citizens.

Cities consist of many complex systems and are laden with opportunities for closing loops and creating circular ways of preserving materials and reducing emissions. Urban planning, neighbourhoods, and industrial areas together with urban infrastructure all combine to create the systems that shape our cities. They need to be examined more closely.

Practitioners need to determine the levels at which to implement their interventions. Interventions can be made at the household or factory levels, the neighbourhood or industrial area levels as well as at the city and national levels.

Every city related function requires energy. Energy needs to be generated and distributed to enable economic activity and to domestic consumers.

This series of city related policy and information briefs draws on lessons learned from cities and infrastructure work carried out by Triple Line over the past five years. It is intended to contribute to more sustainable, inclusive and climate-resilient cities that generate equitable economic growth opportunities for all by identifying marketdriven solutions to urbanisation challenges and strengthening democracy and decentralisation processes through capacity building of government agencies at national, regional and city levels. Other city related functions include:

- Planning, buildings, and urban design
- Services and service infrastructure
- Transport systems
- Economy
- Industry
- Food production and distribution systems

It is increasingly understood that the climate crisis needs to be solved in cities. Cities need to be rethought. During the 20th century, the growth of cities was bound up with the ready availability of fossil fuels, mainly oil. Cheap oil enabled cities to expand horizontally in the form of urban sprawl. It enabled easy access to work, schools, medical care, and other services. Sprawling cities use energy wastefully and is no longer sustainable. Our cities need to become more integrated and work at a smaller scale. Densities will need to increase, but it is the quality of density that matters. We need to be able to access our all the things we need without making long journeys. New modes (or rather quite ancient ones) of transport will dictate the structure. This has given rise to notions of the 15-minute city, where all our requirements can be accessed by walking or cycling within 15 minutes. Greater walking and cycling will bring with it better health.

Metropoles will need to be divided up spatially in ways that make economic and social sense, and which enable urban living but on a much smaller scale. These areas will need to be connected by efficient public transport. This will require investment in public transport and planning in ever shorter time frames. The longer we have to plan our transition to a zero-carbon society, the greater the likelihood of a well-managed process and the lower the risk of unexpected outcomes.



The 15-minute City concept pioneered by Paris Mayor Anne Hidalgo and French academic Carlos Moreno

Portland plans its energy transition

The US city of Portland's 100% renewable energy resolution sets goals of achieving 100% renewable electricity by 2035 and 100% renewable energy in all sectors (electricity, transportation, and heating) by 2050. The resolution specifically excluded "energy derived from fossil fuels, nuclear, biomass feedstocks sourced from state and federal lands, hydrogen produced from fossil fuels, and incineration of municipal and medical waste" from the category of "renewable energy". The resolution also recognized the importance of energy efficiency, calling it the "first preference for meeting energy needs".

To ensure that the new renewable energy policy guides city policy, the resolution calls for city impact statements to accompany resolutions and ordinances to discuss how they contribute to the 100% renewable energy goal.

The final resolution is a result of significant influence from environmental justice advocates. Many provisions address the importance of protecting and empowering frontline and environmental justice communities. The resolution declares that "access to the financial and environmental benefits of renewable energy must be shared equitably across all economic classes. To ensure adequate stakeholder involvement in implementation of the policy, the resolution called for the creation of an inclusive subcommittee that includes communities of colour and low-income residents.

What should cities do?

- set new increased population density regulations
- redefine neighbourhoods to create 15-minute access to transport and all services including work, school and food
- develop existing internal and external built environment skill sets to ensure long-term sustainability
- disincentivise car usage and increase investment in mass public transport
- facilitate and demonstrate circular economy principles in all urban infrastructure investments
- vigorously enforce environmental standards including air quality through a well-paid inspectorate





PLEASE CONTACT:

Richard Slater: richard.slater@tripleline.com