Sustainable infrastructure for healthy, thriving cities

Improved sustainable infrastructure in cities may be one of the best ways to address today’s greatest challenges.

Today, over half of the world’s population lives in cities\(^1\), and almost three-fourths of Europe’s population lives in cities.\(^2\)

Cities are threatened by the effects of a warming planet, population changes and increasing health risks like COVID-19.

Poor planning and lack of financial resources can trap cities in inadequate service provision, unmoderated urban and suburban sprawl, increasing emissions and pollution, dangerous health risks and systems that exacerbate poverty and disproportionately affect vulnerable communities.

But plans that alter the patterns of urban life can build resilience to climate change and pandemics, mitigating their negative impacts and ultimately saving livelihoods and lives.

Improvements to infrastructure that make services more efficient, resilient and sustainable can significantly impact the world’s total emissions, consumption and land use. They can also help keep citizens safe, healthy and fulfilled.

Women and men, girls and boys have different needs, experience and interests. Designing urban solutions should involve diverse groups in decision-making, implementation and maintenance.

Investments in sustainable municipal infrastructure must increase, but in order for them to be effective, the right types of interventions must be made.

Cities need integrated planning and development in order to make changes that really improve citizens’ lives.\(^3\)

Key principles:
- A set of interlocking solutions for the city as a whole rather than a series of separate projects
- Inclusive and people-centred
- Based on bottom-up community-developed strategic plans
- Financing from sources that require strategic, holistic and inclusive practices that respect human rights

Housing
Ensuring access to safe, affordable, energy-efficient housing for all communities

District heating
Affordability, expanding district heating and decarbonising its sources, dispersed renewables (solar on roofs, heat pumps)

Energy and energy efficiency
Public and private building renovations that enhance energy savings

Solid waste
Circular economy, waste sorting and collection, recycling, composting

Urban roads
Prioritisation of pedestrians and bicycles, energy efficient road infrastructure

Water and wastewater
Accessibility and affordability of services, efficiency solutions, high quality wastewater treatment

Smart cities
Technological solutions that meet community needs

Public transport
Zero-carbon transport modes, improved accessibility and mobility, social distancing considerations, anti-harassment measures and safety for women, affordability

Urban spaces
Nature-based solutions; increased green space; planning for natural disaster, crises, and public health

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\(^1\) United Nations Department of Economic and Social Affairs, 68% of the world population projected to live in urban areas by 2050, says UN, 16 May 2018.


To answer these questions together, authorities, investors and citizens need, first of all, accessible, clear and objective information. A two thousand page technical document that is locked up in a municipal expert's desk will surely not do. A tweet by the mayor when he cuts the ribbon will not do either.

Once people clearly understand the various potential impacts, they should have a say in the city's and the banks' decisions. Their opinions and concerns should be taken into consideration when the plans are finalised, the money is disbursed and the projects implemented.

Sustainable cities for people, by people: transparency and participation

When city authorities are designing a project or international investors are structuring an investment for a new metro line or the modernisation of district heating, their decisions will impact the lives of thousands or millions of people. Therefore, these people must understand the impacts. They must also be included in the planning. Residents have the unique ability to identify solutions that will work, and the right to shape the city they live in. Inclusion starts with transparency and participatory planning.

Access to information and participation in decision making are basic human rights.

The COVID-19 crisis has put additional strain on cities and municipal services. Cities need to rethink the way mobility, water, sanitation and other services are organised. In view of physical distancing needs, cycling infrastructure can help relieve overcrowding, in addition to increasing the availability and frequency of public transport. How will the economics of water projects be changed by making more free water fountains in public places available? Are access to water and sanitation rights or paid services?

The COVID-19 crisis presents an opportunity to #BuildBackBetter. But in order to do so, cities need to listen to what citizens need and what they want their communities to look like. The billions and trillions of recovery investments can do miracles if channeled to address the needs of communities and the needs of cities to modernise towards safer, healthier, more sustainable and resource efficient models of living, working, caring, studying, moving, consuming and interacting.

Cities must provide citizens with accessible and easy-to-understand information about proposed projects and give them a platform to participate in decisions about how to spend recovery funds.

Will girls and women be safer in overcrowded rush hours or on late-night trips home?

Will metro trains be more regular and cleaner?

Will the heating bills rise and will they be affordable for vulnerable households?

How will shop owners be compensated for the loss of business during construction?

Will construction works block small businesses, and if yes, for how long?

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Gender-inclusive cities

Urban infrastructure and services are not gender-neutral.

Women and men, girl and boys have different needs, experience and interests. Their access to and use of urban infrastructure and municipal services can differ significantly.

To protect equality and women’s rights, women should have a voice.

Women need to take part in setting priorities for the design and the operation of infrastructure if it is to have the desired development impact. Good urban solutions are consequently best found by involving diverse groups in decision-making, implementation and maintenance.

Women are affected disproportionately by gaps in access to sustainable infrastructure.

For example, they may spend more time on household chores or caring tasks, which can be difficult if there are barriers to accessing or disruptions in electricity or water supply. The availability of safe transport may have greater influence on women when they search for and choose a job. As primary carers in many societies, women have been impacted in different and disproportionate ways by the COVID-19 crisis, so their needs and suggestions also need to be recognised in designing solutions.