

Are we building competitive and liveable cities?



Guidelines for developing
eco-efficient and socially inclusive infrastructure



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Are we building competitive and liveable cities?

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Environment and Development Division
United Nations Economic and Social Commission for Asia and the Pacific
United Nations Building
Rajadamnern Nok Avenue
Bangkok 10200 Thailand
www.unescap.org/esd



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Are we building competitive and liveable cities?

Guidelines for developing eco-efficient and socially inclusive infrastructure

Increase your city's competitiveness and quality of life through environmental improvements:

Responding to the challenges posed by rapid urbanization, globalization and climate change requires an urgent shift in the way urban infrastructure is planned, designed and managed: it must be eco-efficient and socially inclusive.



Eco-efficient and socially inclusive infrastructure can:

- be a driver of economic growth and competitiveness
- increase employment opportunities
- contribute to poverty alleviation
- improve quality of life
- enhance energy security
- improve the environment
- avoid future costs and risks.



Do more with less

Eco-efficiency is a management philosophy that encourages municipalities, businesses and communities to seek environmental improvements that generate parallel economic and social benefits. Doing this in an inclusive way guarantees equal opportunities for all people.



Deliver services to all

Applied to infrastructure, the concepts of eco-efficiency and inclusiveness are concerned with expanding the access to and quality of services, such as housing, transport, energy, water and waste treatment, while reducing costs and environmental problems, such as pollution, inefficient energy use and traffic congestion.



Achieve win-win situations

Infrastructure systems need to be rethought and redeveloped according to eco-efficiency and inclusive principles and criteria. Essential strategies for cities to achieve win-win situations and develop into attractive, competitive and liveable places are leadership, long-term vision, integration across sectors and institutions, public participation and building the business case for eco-efficient solutions.



Dr. Noeleen Heyzer
Under-Secretary-General of the United Nations
and Executive Secretary of
United Nations Economic and Social Commission for Asia and the Pacific
(UN-ESCAP)

The Asia-Pacific region is experiencing rapid urbanization. By 2030 2.6 billion people, or 50% of the population in the region, will be living in cities and towns – twice as many as in the year 2000. Just to put this number into perspective, we need to provide jobs, housing, energy, water, transport, education and health infrastructure for an additional 120,000 people – every day – for the next 20 years. This is a daunting challenge, considering that many governments are finding it difficult to meet even the needs of existing urban populations. At the same time, urban governance landscapes and institutional requirements are evolving. Local authorities are now required to cover a broad range of specialties, including housing, infrastructure, social and community services, local economic development, environmental protection and even climate change.

These Guidelines aim to provide practical tools to city planners and decision makers for addressing these challenges. By reforming urban planning and infrastructure design according to the principles of eco-efficiency and social inclusiveness we can lay the foundations for competitive, vibrant and liveable cities.

Dr. Noeleen Heyzer
Under-Secretary-General of the United Nations
and Executive Secretary of ESCAP



Alicia Bárcena
Under-Secretary-General of the United Nations
and Executive Secretary of
United Nations Economic Commission for Latin America and the Caribbean
(UN-ECLAC)

The Economic Commission for Latin America and the Caribbean (ECLAC) has long devoted substantial research efforts to the crucial relationship between sustainable growth, social welfare and economic development.

The issue of eco-efficiency has continued to gain prominence in Latin America and the Caribbean. Latin America is the most urbanized region in the world, with approximately 76% of its population living in urban areas. With cities growing so rapidly, the region is at an important crossroads in terms of urban development and its future will depend heavily upon the real, long-term sustainability of urban systems. The adoption of eco-efficiency as a core urban value will require a thoroughgoing change in the way cities function and develop. This will hinge upon cohesive decision-making which takes into account urban growth as a whole and the long-term implications of both public and private decision-making.

This project aims to deliver important information, methodologies and guidelines for use by city planners and other prominent decision makers throughout Latin America and the Caribbean and Asia, applying eco-efficient criteria to reduce emissions, save energy and natural resources, and enhance social inclusion. ECLAC views this project as an important milestone in the ongoing efforts surrounding eco-efficiency and sustainable urbanization. We look forward to continuing the global dialogue on urban and regional eco-efficiency and to exchanging experiences in order to learn from each other's know-how and expertise.

Alicia Bárcena
Under-Secretary-General of the United Nations
and Executive Secretary of ECLAC



Dr. Joan Clos,
Under-Secretary-General of the United Nations
and Executive Director of
United Nations Human Settlements Programme
(UN-HABITAT)

Urbanization is characterized by the demographic and economic dominance and transformation of cities. We also witness the rapid spatial expansion of many urban settlements, leading to the emergence of more megacities and mega-urban regions. For many local governments the resulting challenges, such as extremely high demand for infrastructure investments, are amplified by persistent local issues such as rising informality, poverty and inequality within cities as well as global forces, including globalization, climate change and increasing natural and human-caused disasters and conflicts and high energy costs.

These guidelines use sustainable urban infrastructure as the entry point for building sustainable cities. Sustainable urban infrastructure can only be built if we reconsider our strategic view of urbanization – if we rethink the future of cities. A new strategy based on more effective urban planning, strengthened local institutions and governance processes as well as enhanced economic contribution of cities is needed. Only Infrastructure that is energy and eco-efficient, that serves the economic development of cities and supports the betterment of all citizens can be sustainable.

Dr. Joan Clos
Under-Secretary-General of the United Nations
and Executive Director of UN-HABITAT



Dhaka, Bangladesh

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External experts who prepared the technical background papers for the development of the guidelines: Peter H. Feindt and Andrew Flynn, School of City and Regional Planning, Cardiff University, Cardiff; David Ness, Institute for Sustainable Systems and Technologies, University of South Australia, Adelaide; Ranjith Perera and Ariva Sugandi Permana, School of Environment, Resources and Development, Asian Institute of Technology, Bangkok; Jonathan Barton, Felipe Livert, Omar Cerda, Priscila Celedón, Roberto Sanchez, Eduardo Vega-López, Vicente Pardo, Jaime Morón and Jairo de León.

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Purpose of the guidelines and target audience

The guidelines have been developed to inspire change among local governments (and other actors in the field of urban development) in the planning, designing and managing of urban infrastructure. The goal is to encourage an integrated approach, taking into account principles and criteria of eco-efficiency and social inclusiveness. Such an approach will help decision makers and planners identify and prioritize win-win solutions that lead to improved competitiveness of a city and the quality of life of its inhabitants, including the poor, through environmentally sustainable urban development. Such development boosts a city’s attractiveness to both investors and residents. The foremost messages of the guidelines have been extracted for the executive summary to inform mayors and other urban decision makers about pressing urban challenges and strategy options to address them.

The guidelines provide a framework of approaches and tools that can be applied in different degrees of depth and breath, according to the level of resources and capacities of each city. Therefore, they provide a useful reference for any city, regardless of its size or level of development.

How to read these guidelines

The guidelines address why it is important to build urban infrastructure in an eco-efficient and inclusive way (part 1), what strategies planners can use to ensure eco-efficient and inclusive outcomes (part 2) and how they can use the strategies throughout a strategic planning cycle (part 3). These chapters build on best practices examples, some of which are further described in part 4.

The guidelines are developed in the context of the project Eco-efficient and sustainable urban infrastructure development in Asia and Latin America, funded by the Development Account of the United Nations. The guidelines reflect knowledge accrued in the course of the project through analytical studies, meetings of experts, case studies and pilot projects. Since the geographical scope of the project was confined to Asia and Latin America, examples, case studies and good practices mentioned in the publication refer to these two regions.

The ideas and strategies contained here are also used in a training supplement for urban decision makers and planners, intended for use with the guidelines. The guidelines, its executive summary and the training module are available online at:

www.unescap.org/esd/environment/infra/
www.eclac.cl/coeficiencia/default.asp?idioma=IN

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Dhaka, Bangladesh

WHY do we need eco-efficient and socially inclusive urban infrastructure?

Delivering services to all people in a time of rapid urbanization and severe environmental challenges is critical.

The way we design, plan and build our cities and their infrastructure is critical for developing competitive and liveable cities. Cities are already suffering from severe environmental problems, such as pollution, congestion and excessive waste, while the basic needs of hundreds of millions of urban residents are yet to be met. The unprecedented urbanization imposes an even greater challenge for providing adequate housing, energy, water, sanitation and mobility to all.

Cities are at a crossroads. Choices made in urban infrastructure development today will determine the success of cities in delivering services to everyone while growing competitively within a protected environment for decades to come.

Decision makers need to adapt as much as infrastructure – choices made need to be based on eco-efficient and socially inclusive principles and criteria in order to realize necessary win-win situations, and to build competitive and liveable cities through environmental improvements.



to the concepts of eco-efficiency and so-
ness

cy basically means “doing more with
a management philosophy that encourages
es, communities and businesses to seek out
ital improvements that generate parallel
enefits.¹

siveness refers to treating all people in a city
their access to work and services, such as
sport and health care. “Inclusive” generally
anning and decision-making processes that
road range of people from across a city,
m experts to ordinary residents, with the
sidering their inputs and reaching mutual
²

these concepts maximize economic,
ital and social benefits.

1.1 Why focus on cities?

Cities of hope, cities of despair

Contemporary urban challenges ask for an approach
that address economic, social and environmental
problems at once.

- Cities grow very fast.
- Cities are centres of economic development.
- Cities concentrate poverty.
- Cities are responsible for creating most of the
waste and pollution.