



Division of Technology, Industry and Economics

Integrating the Environment in Urban Strategic Planning

Soraya SMAOUN
Programme Officer
UNEP Urban Environment Programme
Division of Technology, Industry and Economics

6th Annual Brussels Climate Change Conference 2011
3 March 2011



Urbanization Challenges and Opportunities

- **Population:**
50% of the world population lives in cities today.
70% expected by 2050
All of the population growth in the next four decades will be absorbed by urban areas
- **Resource pressure:**
Cities consume over **75% of the world's natural resources**, use **60% - 80% of global energy** and are responsible for **75% of the CO2 emissions**
- **Economic driver:**
Urban based economic activities account for **55% of GDP in LDCs**, **73% in middle income** countries, and **85% in the most developed countries**



Complex urban-environment relationships



- Cities impact on ecosystems around them
- Cities rely on resources from their hinterland
- Risk of over-exploitation of natural resources
- Increasing urban population and rising urban poverty
- Environmental degradation hinders city development and reduce their attractiveness
- Continued availability of environmental resources will assist long-term urban development

=> Many development issues are directly linked to the environment. Yet, urban management does not sufficiently take in consideration the environment.



Instruments for Environmental Integration (1)

Policy Instruments

= guiding principles for urban decision-makers

- **Information Instruments**
- **Voluntary Instruments**
- **Economic Instruments**
 - Negative: Charges, taxes on emissions or products
 - Positive: tax rebates, financial support, tax credits
- **Regulatory Instruments**
 - Regulations; 'Polluter pays principle'



Instruments for Environmental Integration (2)

Process Instruments

= urban planning process can be used to build consensus, to develop horizontal cooperation and creates new partnerships. They can also be used to prioritize issues and to create a vision or roadmap for the future.

- **Visioning**
 - Task Forces, Round Tables, Expert Panels, Workshops
- **Participatory Methods**
 - Methods and tools of Community-based Planning



Instruments for Environmental Integration (3)

Planning Instruments

= variety of methods by which urban development plans can be developed and implemented

- **Environmental Profiles**
- **SWOT-Analysis**
- **Strategic Environmental Assessment**
 - To ensure that environmental impact of policies and programmes are identified, assessed, mitigated, communicated to decision-makers and the public
- **City Development Strategies**



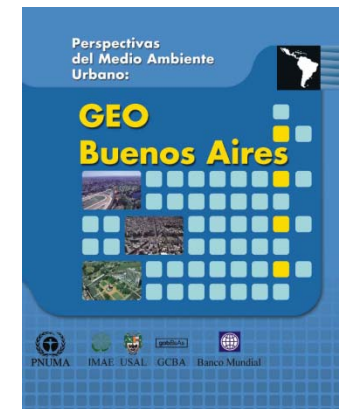
Example: Environmental Assessment



- To assess urbanization effects on the environment
- Interaction between social, economic and environmental dimensions
- Information on impacts on urban environment
- To obtain data for decision-making and action
- Basis for monitoring state of environment over time

UNEP GEO Cities Assessments

- Analysis of social, economic, policy, territorial characteristics of urban development
- Methodology for cities to conduct Integrated Environmental Assessments



Instruments for Environmental Integration (4)

Management instruments

= to direct and administer urban planning decisions

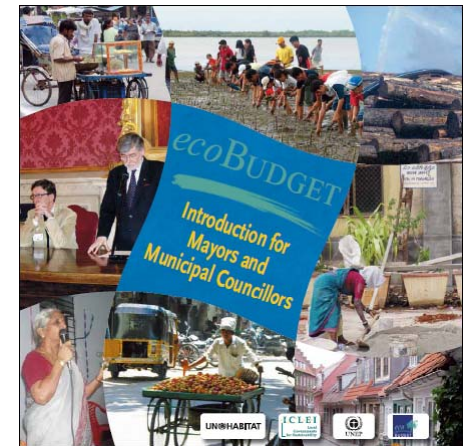
- **Environmental Budgets and Audits**
 - Environmental indicators measured in physical quantities running parallel to financial budgeting
 - EcoBudget
- **Environmental Quality Management**
 - Air Quality Management



Example: EcoBudget



- Environmental Management System
- To plan, manage, report and evaluate consumption of natural resources of a city
- Complements the traditional budget by environmental budget
- Measures natural resources instead of money
- Accounts and indicators developed for each natural resource
- Mirrors the phases of a municipal financial budgeting cycle



The UNEP Urban Environment Programme

The Urban Programme aims to:

- Integrate the urban dimension in key global environment issues
- Promote the link between local and global agendas and action
- Promote resource efficient and sustainable cities
- Make the case of integrating environment in strategic planning at city level and to provide technical assistance to cities



Integrated environmental planning in cities

- Joint work programme with Cities Alliance
- Environment is an asset, a natural resource capital, which needs to grow rather than deplete
- Develop a methodology and toolkit with case studies to support cities in better integrating the environmental dimension in their long-term strategic planning
- Ensure that the vision and strategy developed in city will use environmental resources sustainably





Global Reporting GHG Framework for Cities



- Consistent with IPCC guidelines and WRI/WBCSD GHG Protocol
- Standard calculates emissions on a per capita basis
- Cities can compare performance and analyze differences
- Open source standard
- More concerted city action to reduce urban climate footprint
- Responding to the need of providing cities with an open, global and harmonized Protocol

Country vs. City Emissions

GHG Emissions (tCO₂e/capita), 2005 and 2007

Argentina	7.6	Buenos Aires	3.8	
Bangladesh	0.4	Dhaka	0.6	
Canada	22.6	Calgary	17.7; Toronto	9.5
China	3.4	Beijing	10.1; Chongqing	3.7
Finland	14.8	Helsinki	7.0	
France	8.7	Paris	5.2	
India	1.3	Delhi	1.5; Kolkata	1.1
Republic of Korea	11.5	Seoul	4.1	
Spain	9.8	Barcelona	4.2; Madrid	6.9
South Africa	9.9	Cape Town	11.6	
Sweden	7.2	Stockholm	3.6	
USA	23.6	Denver	21.5; New York	10.5



UNEP Green Economy Initiative

- **Launched in 2008 by UNEP, macroeconomic analysis of policy reforms and investments** in green sectors and in greening brown sectors
- To offer a **viable alternative to the unsustainable status quo**

Three sets of activities

- **Green Economy Report** and related research materials
- **Providing advisory services** in specific countries
- **Engage in implementing the Green Economy Initiative** with a wide range of partners



Economic Benefits of Green Cities



Agglomeration Effects

Doubling the employment density of an urban area in developed countries typically raises its labor productivity by around 6%.

Lower Infrastructure costs

Streets, railways, water and sewage systems come at lower cost per unit the higher the urban density.

Reduce Congestion

Congestion costs 1%-1.3% of GDP in developed region and 3% of GDP in developing region.

Create Green Jobs



Social and environmental Benefits of Green Cities

Enhance Community Cohesion

Community cohesion is an important component of social life in cities and affects individuals, families and social groups

Promote Social Equity

Construction of green cities can improve poor people's living conditions

Improve Public Health

Increase Road Safety

For many low- and moderate-income countries, the cost of road crashes represents between 1%-3% of GDP.

Guarantee Food Security





Conclusions

Cities and Green Economy



- Cities as **platform** for delivering environmental sustainability, economic growth and well-being (inclusive growth)
- Cities are **central instrument** for de-linking higher living standards and increasing resource consumption
- Projecting the various forms in which cities might be expected to grow over the next few decades
- Providing public policy recommendations for transforming existing cities, and delivering new ones, taking into account regional differences in climatic conditions, culture and societal values



UNEP Urban Environment Programme
Division of Technology, Industry and Economics
15, rue de Milan, 75441 Paris Cedex 09, France

Tel: +33 (0) 1 4437 1980

E-mail: urban.environment@unep.org

Web: www.unep.org/urban_environment

