



Mapping Exercise



Context

This report presents the findings of a strategic mapping exercise that compares and contrasts the current initiatives carried out by different stakeholders' organizations on resource-efficient cities. The aims of the mapping exercise are twofold:

- To understand the global landscape of actions in order to highlight gaps that should be filled and priority areas for the GI-REC to intervene.
- To capitalize on UNEP's convening ability by identifying opportunities for the GI-REC to collaborate with existing stakeholder organizations to mobilize action across sectors and constituencies that overcomes barriers to taking action and accelerates success at scale.

While there is no universally agreed definition of the term resource efficiency, this report uses the interpretation of the term adopted by the United Nations Environment Programme (UNEP)¹.



Key findings

It is concluded from feedback received through case interviews, desktop research and discussions, that there is a need for an overarching initiative like GI-REC, and that there are a number of strategic interventions UNEP can undertake to overcome barriers and accelerate successful approaches to promoting stronger resource efficiency in cities.

The main barriers identified, and fully described in the report were:

- A weak business case for investment.
- Lack of proof that technological solutions work in practice.
- Traditional forms of finance fail to recognize the investor opportunity.
- Confusion about the roles and responsibilities between cities, nations and the rest of the world.
- Proliferation of different signals of success.
- Absence of a universal standard on resource-efficient cities.
- Poor quality data on material flows across key sectors at city scale.

A number of recommendations are suggested and at the core, as summarized in the figure below, is a platform of collaboration which harnesses UNEP's strengths and which will act as a springboard for other recommendations.

1. See Glossary in the report



There is an emerging body of evidence of a ‘network effect’ (e.g. C40, IGES, Infrangils, Urban Age), whereby a city’s participation in a community of practice can demonstrably lead to monetized benefits and improvements in sustainability performance. It is important to understand the value of ‘soft’ infrastructure (e.g. retained knowledge, effective decision-making, peer-to-peer and cross-sector learning etc) as much as ‘hard’ infrastructure (e.g. buildings, telecommunications, etc) when it comes to stronger resource efficiency by cities.

One key finding is that a systems approach to resource efficiency in cities is a minority among the initiatives documented, with food, water and the extraction of minerals and metals being less common areas of focus compared to the interest in energy and climate change. Given this finding, there is a clear need for greater assistance to build the capacity for undertaking integrated systems approaches within cities. A better understanding of shared value creation and cross-sector benefits will ensure resource efficiency remains a top priority no matter what the concern of the city (transport, water, energy, etc).

This issue is inherent in dealing with the complexity of urban development challenges in general, and while many of the global initiatives in the case studies included in this study promote, develop and support integrated strategic planning frameworks, there is still a need for support to translate into practice (and thereby to accelerate progress on resource efficiency).

A second finding relates to the measurement and evaluation of resource efficiency progress. The advent of city indexes on sustainable development have helped to profile the need for action, stimulating debate, competition and innovation, but the proliferation of such indexes around the world can also confuse city leaders as to what accurate measures of success should be. Similarly, there has been an emergence of standards to guide good practice or report or verify performance in sustainable urbanization, and in low carbon goods and services development.

The evidence base on the return on investment for enhancing resource efficiency in cities was also found to be an area that is in need of further development. UNEP’s comparative strength is its scientific expertise and its credibility in the business community on promoting the transition to a green economy. This would enhance awareness in the investor community about the commercial opportunity presented by resource efficiency in cities.

Finally, while there does not appear to be a clear consensus on the definition of resource efficiency, there are several concepts such as decoupling, low carbon or resource productivity, that are considered necessary for inclusion in the discourse. In short, cities require the support and engagement of all actors, from all sectors, to build these understandings and capacities that will enable the transition to greater resource efficiency.