

Results from a Global City Survey on Resource Efficiency in Cities



SURVEY SUMMARY

A photograph of a modern building at night, illuminated with warm lights. The building has a distinctive, angular, metallic facade. In the foreground, there are several trees, including a large, feathery tree on the left and a palm tree in the center. A fountain with several jets of water is visible in the lower part of the image. The sky is dark blue.

Q

What are cities' main resource priorities and needs for improving resource efficiency?

Q

How do cities understand resource efficiency within their responsibilities and scope of action?

Background

In June 2012 at Rio+20 global summit on sustainable development, the United Nations Environment Programme (UNEP) launched the Global Initiative for Resource Efficient Cities (GI-REC) to capitalize on the potential for cities to lead action towards greater resource efficiency. These efforts are aimed at enhancing the quality of life in urban areas, in particular in rapidly growing cities in emerging and developing countries, by minimizing resource extraction, energy consumption, and waste generation through safeguarding ecosystem services and decoupling city development from resource use and environmental impacts. The primary objective of the GI-REC is to integrate resource efficiency along with sustainable production and consumption into policies, tools and decision-making at the city level.

To inform the strategic direction of the GI-REC, UNEP undertook a comprehensive review and analysis of resource efficiency in cities. The review was based on existing research, the experience and knowledge of city managers and practitioners, and the expertise of key urban stakeholders. The review results in three products:

1. An assessment of needs for promoting resource efficiency at the city level – **A global survey of city leaders.**
2. An assessment of current activities carried out by different stakeholders and organizations on resource efficiency at the city level – **A global mapping exercise.**
3. An assessment of the best tools for cities and other organizations to use to improve resource efficiency – **A toolkit to guide city-level resource efficiency improvements.**

A global city survey: methodology

The survey was designed and conducted between December 2012 and July 2013 and led by the United Nations Environment Programme, in collaboration with ICLEI-Local Governments for Sustainability. It was **distributed to more than 300 cities**, and extensive follow up ensured the collection of **98 responses** that were adequately completed, **from cities across 38 countries and 7 regions.**

The results presented should be considered in the light that the cities contacted have an over-average level of interest and commitment to sustainability issues¹. Similarly, the results may have been influenced by the profile of the majority of the responding individuals being from environment, planning or sustainability departments within municipalities.

Why resource efficiency in cities?

UNEP defines a resource-efficient city a geographical and socio-economic system that is significantly decoupled from resource exploitation and ecological impacts. In order to be socio-economically and ecologically sustainable in the long term, it must approach the environment – including natural resources, ecosystem services and the quality of life in cities – not as an externality, but with the understanding that it forms the very base of economic development.

1. The participants were selected from a pool of cities already participating in UNEP and ICLEI activities.



1 What does resource efficiency mean to cities?

Cities understand resource efficiency in a holistic way, not only as a response to environmental challenges and unsustainable resource exploitation, but as a contribution to all dimensions of sustainable development.

However, familiarity with the term resource efficiency differs between respondents according to their profile, as decision makers (i.e. elected officials and executive directors of administrations) were significantly more likely to be familiar with the term than technical staff within specific departments. This signals that theme of resource efficiency is gaining prominence but needs to be operationalized across city-level sectoral departments and mainstreamed widely into municipal practices.

90% of respondents understand resource efficiency as “enhances the **quality of life** in urban areas by minimizing resource extraction, energy consumption and waste generation while simultaneously safeguarding ecosystem services”.

72% of respondents relate resource efficiency to **financial and economic concerns**.

Key findings

- Cities need **practical guidance for defining and operationalizing the concept of resource efficiency** for different sectors at the city level – including the identification of opportunities for resource optimization from integrated policy and cross-sectoral management.
- Improving **quality of life is a key political argument**. Resource efficiency has the potential to enhance the quality of life for all while minimizing consumption.
- It is crucial to better promote the **business case** for investment to strengthen the political motivation for action, as well as existing innovative financing schemes.

2 The state of city resources

Cities are generally aware of their most urgent resource risks, but implementation has not kept pace with knowledge. Biodiversity and ecosystems services as well as climate stability are understood to be the resources at greatest risk, but in implementation, sector-specific approaches to improve urban ecosystem management lag behind in urgency.

Resources ranked as the highest risk

75% biodiversity and ecosystem services, as well as climate stability

60% energy and air

59% Land and soil, and Water

Key findings

- **Resource challenges are context specific** – Region and location are critical factors when assessing resources at risk
- The three elements that shape cities' perceptions: **Effective risk** (actual exposure), prior **experience**, and level of **awareness**
- Implementation has not kept pace with knowledge. There is a need to better assess how cities' risk perception and actions match the actual resource realities.

3 Governance and resource management approaches

Results indicate that cities understand that a large number of plans directly impact the management of resources. Nonetheless, nearly half of the cities either do not have a sustainability plan, or do not actively consider the implications of such a plan for resource management. There are also gaps in including resource management concerns within sector-specific strategies and action plans. This signals a need for more integrated, harmonized and cyclical management approaches, where resource management is mainstreamed into infrastructure policies, regulations, institutions, services and programmes in a continuous process, rather than as a singular project in one or more sectors.

Main drivers to actively manage resources

1. Climate change and related issues
2. Population growth
3. Rising prices of resources

Main Instruments used by cities that directly impact Resource Management

69% legally binding urban development plan

67% sectoral strategy and action plan

52% one or several program or projects

4 Success factors from implementation

Being part of a long-term and integrated urban development approach is the main success factor for the implementation of resource efficiency-related programmes or projects reported by the cities. Integration is one of the greatest challenges to a long-term sustainable development approach, and is essentially an issue of governance. Showing the importance of governance, the second most reported success factor for a project's implementation, is encouraging stakeholder participation. Also the stimulation of innovation is an important factor for successful implementation.

Collective thinking is what makes cities more resource-efficient, and the encouragement of participatory governance is also a key success factor, allowing local authorities to harness the potential and ideas of various stakeholders.

Main factors for implementing resource optimizing strategies

1. Improvement in city competitiveness
2. Better management of the environment
3. Improvement in social conditions

Main success factors for implementation of a resource efficiency programme

72% part of an integrated urban development approach

63% encouraged participatory governance

60% stimulated innovation

Conclusions: what support do cities need?

If we are to deal with globally shared issues related to resource depletion, environmental degradation and climate change in an increasingly urban future, it will be indispensable to have cities and their local authorities on board. Therefore, it is crucial that they receive the support, information and encouragement needed to overcome their challenges.

In the survey, cities called for assistance and access to support programmes for capacity building, obtaining financing, and access to an extensive network of technical expertise. Likewise, they had signalled that innovation is a key success factor: there is no doubt that **new technological solutions will need to play a key role for more efficient use of resources**, e.g. exploiting the potential

of smart technologies and pricing systems to reconfigure the use of existing infrastructures. As with questions of governance and institutions, however, there cannot be "one size fits all" technological solutions, and regional approaches must help cities negotiate the technological and infrastructure choices that are necessary to improve sustainability and livability of their particular urban areas.

Most useful support for local government to use resources more efficiently

1. Access to support programmes to build capacity
2. Communication campaigns
3. Access to extensive network of the technical expertise