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Urban areas account for more than half of global primary energy use and energy-related CO_2 emissions. Taking account of direct and indirect emissions urban areas account for 67–76% of global energy use (central estimate) and 71–76% of global energy-related CO_2 emissions.

As of 2011, more than 52% of the world's population—roughly 3.6 billion—lives in urban areas. By 2050, the urban population is expected to increase to 5.6–7.1 billion, or 64–69% of the world population.

Due to this increase urban land cover is projected to expand by 56–310% between 2000 and 2030. This means the **majority of infrastructure and urban areas have yet to be built, which constitutes challenges and opportunities for GHG mitigation.**

The largest opportunities for future urban GHG emissions reduction might be in rapidly urbanizing countries where urban form and infrastructure patterns of land use, transport choice, housing, and behavior are not locked-in and where key mitigation strategies include co-locating high residential with high employment densities, achieving high diversity and integration of land uses, increasing accessibility and investing in public transit and other supportive demand management measures.

Urban GHG emissions are influenced by a variety of factors. Cities have little control over some of the most important drivers of GHG emissions such as economic geography or income. Cities however have large control over drivers such as urban renewables, energy system integration, transport and urban infrastructure. Further, as decentralization has progressed worldwide, regional and local governments increasingly manage significant resources.

GHG abatement is generally pursued as part of the urban development efforts and many of the existing or planned urban investments can be accompanied through requirements to meet certain mitigation standards.

For designing and implementing climate policies effectively, institutional arrangements, governance mechanisms, and financial resources should be aligned with the goals of reducing urban GHG emissions. These goals will reflect the specific challenges facing individual cities and local governments. The following have been identified as key factors:

1) institutional arrangements that facilitate the integration of mitigation with other high-priority urban agendas;

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2) a multilevel governance context that empowers cities to promote urban transformations;

3) spatial planning competencies and political will to support integrated land-use and transportation planning; and

4) sufficient financial flows and incentives to adequately support mitigation strategies.

The feasibility of spatial planning instruments for climate change mitigation is highly dependent on a city's financial and governance capability. Drivers of urban GHG emissions are interrelated and can be addressed by a number of regulatory, management, and market-based instruments. In addition, each instrument varies in its potential to generate public revenues such as property tax or toll lanes, while others require government expenditures e.g. for green belts and urban green, sidewalks and bike lanes, or public transport.

But local fiscal policy itself can restrict mitigation efforts e.g. property taxes or other taxes imposed on new development, may lead to expansion into rural areas or sprawl instead of pursuing more compact city strategies. On the other hand metropolitan transportation policies and taxes such as congestion and parking charges can reduce GHG emissions in particular when proceeds are used to finance public transport.

A bundling of instruments and a high level of coordination across institutions can increase the likelihood of achieving emissions reductions and avoiding unintended outcomes.

Successful implementation of urban climate change mitigation strategies can provide co-benefits including public savings, air pollution and associated health benefits, and productivity increases in urban centres, providing additional motivation for undertaking mitigation activities.