



Abstract no.

220

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Planning Pathways and Strategies for low carbon city development

Track or session Urban Planning and Policy making in times of uncertainty, fragility and insecurity

Keywords

The rapidly increasing interest in the potential of cities to contribute to climate mitigation with provisioning of cleaner core infrastructure and promotion of cleaner and sustainable environment to enhance well-being of their citizens is taking policy center-stage globally. It is evident by announcement and formation of 'The Compact of Mayors[1]' at United Nations, 'C40 Cities Climate Leadership Group[2]', 'City Climate Finance Leadership Alliance', and 'City Creditworthiness Partnership', to name a few from many global city initiatives that aim to implement and accelerate range of climate mitigation actions.

The growing body of scientific studies on cities and their contribution to climate change[3], role of cities in economic progress, competition amongst cities to improve their attractiveness in global and local settings, and various other socio-technological transitions underway large cities seem to have caused greater recognition amongst policymakers to delineate policy responses for climate mitigation at city level. Majority of cities keep building on their ambition to be more global with attributes such as higher livability index and economic wealth generation, they still remain heavily dependent upon local conditions. This puts cities at the crossroad of these two levels-global and local, and hence assumes cities to be at the forefront of fight against climate change by adopting low carbon development pathways. Cities are important centers of low carbon actions. A city's policies for land-use, buildings, public transport, waste utilization, air quality, water recycling and other urban services vitally influence the demand for materials, vehicles and energy. India is expected to surpass the population of China by 2028, and 40 % of the population will be expected to live in urban areas. Adding to these already complex challenges is India's recent imperative of lowering its emission intensity of GDP. As per Intended Nationally Determined Contribution (INDC), India targets to lower the emission intensity of GDP by 33% to 35% by 2030 below 2005 levels, to increase the non-fossil based power generation by 40% of installed electric power capacity by 2030 and to create an additional carbon sink of 2.5 – 3 gtcO₂e by adding additional forest and tree cover. Achieving the INDC pledge seems to be huge daunting task given the government's limited budgets, especially in light of large fiscal deficits and multiple development priorities. Majority of demand related stress will be on large cities. With increased demographic and higher demand on services, large cities will result in higher emission resulting in per capita urban emission to 3 to 3.5 million TeCO₂ annually.

With existing planning norms and techniques it becomes really that cities will struggle to follow a low carbon path. This requires a new approach in all together.

Therefore objective of this study is to provide a rigorous and systematic account of planning

techniques for climate mitigation at the city scale-an issue that should be of interest to policy markets, investors, businesses, consumers, and stakeholders at all levels with interests in cities. The study will have three main components.

This part will primarily focus on understanding emission composition of cities, key factors or drivers (economic, social, transport, environmental and meta) that shape up carbon emissions of cities.

This part of the study will assess the energy/climate scenarios of the cities based on a) Activity Analysis Model b) Integrated Assessment Model d) Integrated Energy Model e) Energy Accounting Model.

The last part of the study will evaluate pathways and embedded low carbon measures generated from second part. This will lead to the scope of deployment of various low carbon measures, and their aggregation at city level which needs to be prioritized by city authorized.

[1] <http://www.un.org/climatechange/summit/wp-content/uploads/sites/2/2014/09/CITIES-Mayors-compact.pdf>

[2] <http://www.c40.org/>

[3] (http://mirror.unhabitat.org/downloads/docs/E_Hot_Cities.pdf)

Synopsis The climate change is real, its evident and we all know it. The cities of today require a well-defined strategic approaches that can answer the current and future challenges of our changing environment.

Keyword Climate Change

Keyword Environment

Keyword Planning Strategies

Pathways for development

Additional information