

# Energy, Climate Change and Multi-level Governance in Cities

Aumnad Phdungsilp

Faulty of Engineering, Dhurakij Pundit University, Bangkok, Thailand

[aumnad@dpu.ac.th](mailto:aumnad@dpu.ac.th)

Energy, climate change and city can no longer be considered as separate issues in the scientific and policy communities. A number of recent scientific and policy assessments address the pressing need to implement strategies to protect the global climate change. Cities and their residents are responsible for the majority of global carbon emissions and natural resource consumption. Cities are also vulnerable to the impacts of climate change due to their concentration of population and built environment that makes them hotspots to the impacts of extreme events. Climate problem is not just a cumulative and systemic problem at the global level but has different features, causes and impacts at different scales. Energy and climate governance takes place at international, national and local level and between these levels. Therefore, it is a multi-level governance challenge that include actors and agents at all levels. These actors are included government, scientific networks, businesses, environmental protection groups, and markets. A better understanding of the governance systems across multiple scales is necessary for cities, which is less understood as of now.

The study applies a multi-level governance framework to explore linkages between different levels and to examine the examples in the areas of energy, climate change and governance system with a particular emphasis at the city scale. Multi-level governance has emerged a conceptual approach to studying the development, implementation, effectiveness and accountability of policies. The study seeks to provide an insight for science and policy concerning an integrated examination of the multiple implications of policies and modes of governing in different sectors that address energy and climate change in the near and long-term. This study will contribute to developing practical recommendations to design and optimized an effective architecture for governance system. It will also explore new forms of governance that may better manage the energy and climate change. The study concludes by highlighting how governance system may enhance effective energy and climate governance.

*Keyword:* Climate change, Energy, Multi-level governance, City