

Input to the Rio+20 Outcome Document

Tokyo Metropolitan Government

November 1, 2011

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Tokyo Metropolitan Government Submission to Rio+20

Cities as a Key to Climate Actions

1) Today, people living in cities exceed half the world's population, and by 2050 this percentage is expected to reach 70%.¹ Due to their vibrant industrial and economic activities, urban areas are responsible for significant greenhouse gas (GHG) emissions. According to the International Energy Agency (IEA), cities are currently responsible for 67% of the energy-related GHG emissions, and this percentage will grow to 74% by 2030.² The world's 50 largest cities annually emit GHGs equivalent to 26 billion tons of CO₂ (tCO₂e), a level comparable to being the world's third-largest emitter, following China and the United States.³ Addressing GHG emissions from urban activities is therefore a major concern in relation to climate change, and an issue that will become even more important in the future.

2) By 2030, urban populations are expected to double, with the built-up area of cities expected to triple.⁴ In emerging countries, including China and India, urban areas are expanding in keeping with economic growth and urbanization, and the construction of cities is rapidly advancing. If the buildings and infrastructure are built with conventional energy performance, current GHG emission levels would be locked-in over the decades to come. Therefore, the shift to low-carbon buildings and infrastructure in developing countries, especially in emerging countries, is an urgent issue for sustainable development and it should be the highest priority in promoting a green economy.

3) As places where people live, move about, and produce and consume, cities are locations of large-scale energy consumption. While efforts to reduce carbon emissions on energy supply side is certainly important, efforts on the demand side for a reduction in total energy consumption are also essential. The key to preventing global warming will be the minimization of energy demand and shifting all facets of human society – houses, transportation infrastructure, factories, office buildings, commercial facilities and other facilities – to low-carbon ones, and it is in cities that such facilities and activities are concentrated. Cities are the key to the climate change issue.

The Tokyo Metropolitan Government's Leading Actions

4) Recognizing the special characteristics of cities and the responsibilities that cities have in relation to the climate change issue, the Tokyo Metropolitan Government for more than ten years has been implementing measures ahead of national-level climate change efforts.

5) Examples of activities include:

- Beginning with fiscal year 2002, the Tokyo Metropolitan Government (TMG) has implemented the "Tokyo Green Building Program." Under this program, developers of new large-scale buildings must submit plans regarding environmental measures that will be implemented, including for CO₂ reductions; these plans are evaluated and made public.
- Also beginning in fiscal year 2002, TMG has been implementing the "Tokyo CO₂ Reduction Program," which requires existing buildings having large emissions of GHGs (such as factories, office buildings, and commercial facilities) to establish voluntary targets for CO₂ reduction and to submit emission reduction plans. Under this program, a 12.7% reduction in emissions was achieved over the five-year period from FY 2005 through FY 2009. Following the introduction of this program in Tokyo, similar

mandatory reporting program have so far been introduced in 35 other prefectures and major cities throughout Japan.

- In April 2010, TMG also launched a cap-and-trade program that mandates reductions in emissions of 6% or 8% for those large facilities above. This is the world's first city-level cap-and-trade program that covers office buildings and commercial facilities. Saitama Prefecture, which is adjacent to Tokyo, also launched a cap-and-trade program in April 2011, following Tokyo's program.
- Tokyo's experience demonstrates that it is possible for cities to develop and implement their own low-carbon policies making use of regulations and market mechanisms. As a result of these efforts, a number of highly energy-efficient buildings have been built in Tokyo, and the city is ushering in an "era of green buildings."

World Cities Taking the Initiative

6) Numerous cities around the world are undertaking a variety of measures to address climate change.

- At the C40 Cities Climate Leadership Group Mayors Summit held in São Paulo in June 2011, 55 case studies were presented in 16 different fields, including (1) Energy Efficiency in Existing Buildings, (2) Bus Rapid Transit and Low Emission Buses, (3) Tree Planting, (4) Integrated Waste Management, (5) Sustainable New Construction, (6) Compact Cities, (7) Public Engagement, (8) Renewable Energy for Urban Environment, (9) District Heating and Cooling, (10) Bicycle Infrastructure, (11) Adaptation and Vulnerability, (12) Landfill Gas Capture, (13) Smart Cities, (14) Green Taxis, (15) Green Industry, and (16) Urban Drainage.⁵
- According to "Climate Action in Megacities,"⁶ a report presented at the C40 São Paulo Summit by the engineering and consulting firm Arup, in the cities participating in the C40 initiative – home to 297 million people – 4,734 actions have already been taken to address climate change, with an additional 1,465 new measures being developed.

The Alternative Approach – Let Cities Go First

7) While international climate change negotiations are currently making little headway, cities are moving ahead of national-level policies by proactively undertaking efforts to contribute to reducing GHG emissions. While national governments should continue their negotiations aimed at swiftly concluding a framework for addressing climate change, in the meantime GHG emissions continue to increase, and global warming is progressing. Therefore, in addition to the ongoing approach of seeking agreement among nation states, international society should take an "Alternative Approach" to make cities go first with their low-carbon actions. Through demonstrating that low-carbon actions and economic growth can go hand-in-hand, progressive initiatives by cities can foster understanding among the governments and citizens of developing countries, thereby providing support for efforts to reach an international agreement.

8) Local governments have a special role.

- Because they work most closely with citizens and businesses, local governments are able to undertake tailored measures, such as calling directly on households and business entities to make lifestyle changes and undertake energy conservation; promoting environmental education; conducting on-site energy efficiency audits and providing energy conservation advice; along with other efforts.
- By having administrative authority in areas such as urban planning, transportation, water and sanitation and waste management, local governments are able to promote the "green economy" – through advancing low-carbon projects in these various fields, and by making use of regulatory measures or market mechanisms that promote low-carbon consumption and investments.

9) During Japan's rapid economic growth era during the 1960s and 1970s, the TMG and other city governments were the first to institute measures to address the problems of pollution – problems that were most pronounced in cities; these measures were later adopted at the national level. The solution to environmental problems requires bringing together the imperatives of the environment and the principles of economics, and Japan's history of addressing pollution illustrates how cities can lead this process, by serving as concrete examples of successful implementation, which is effective in increasing understanding on the part of society as a whole.

Cities' Cooperative Actions Lead the World

10) The TMG wishes to share with the cities of the world what it has learned so far in addressing climate change. We believe that promoting international cooperation – assisting the cities of the world to take progressive actions and to learn from one another's experiences – will lead to solutions to our global climate change challenges. However, accomplishing this will require the support of the international community for cooperative efforts among cities.

11) For these reasons, the Tokyo Metropolitan Government calls upon the international community to do the following:

- Through the Rio+20 process, conduct deliberations regarding urbanization and how to shift cities to low-carbon paths, as these are key issues related to the climate change issue.
- The Rio+20 outcome document should clearly spell out the important role played by cities and local governments, and should promote the "Alternative Approach" that makes cities go first.
- International organizations and international financial institutions should develop programs to help share and disseminate the innovative efforts on the part of cities and local governments, and should financially support international city-to-city cooperative activities.
- New governance structures for sustainable development should enhance the role of local governments.

12) This past summer, Tokyo was able to overcome a severe power shortage which occurred as a result of the March 11 Great East Japan Earthquake, tsunami and nuclear accident at the Fukushima Daiichi Nuclear Power Plant. By making use of energy conservation measures involving businesses and households that had previously been put in place, Tokyo was able to achieve an 18% reduction in peak energy demand compared to the previous year, allowing the city to deal with the summer peak demand period without the occurrence of any unplanned power outages. Moreover, this crisis has fundamentally transformed the consciousness of the people of Japan concerning energy; efforts on the part of citizens and businesses to promote energy conservation and renewable energy are now gaining pace. The movement in Japan toward a low-carbon society has received a strong boost. Tokyo will continue to step up its efforts to become a low-carbon city, and we hope to become a sustainable city that can be a model for the world.

Notes:

1. The World Bank (2010), *Cities and Climate Change*, p. 15; United Nations (2007), *World Urbanization Prospects: The 2007 Revision*.
2. The World Bank (2010), *Cities and Climate Change*, p. 15; International Energy Agency (2008), *World Energy Outlook 2008*.
3. The World Bank (2010), *Cities and Climate Change*, p. 16.

4. The World Bank (2010), *Cities and Climate Change*, p. 15; The World Bank (2005), *The Dynamics of Global Urban Expansion*.
5. C40 Summit Presentations: <http://live.c40cities.org/c40-summit-presentations/>
6. Arup (2011), *Climate Action in Megacities*, p. 3-4.