

Submission by the Government of Japan

Information, views and proposals on matters related to the work of
Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP),
Workstream 2, Urban environment and Cities

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Summary

Activities toward reduction of greenhouse gas emission in cities where population, building and economic activities are concentrated are critical to promote mitigation of climate change of the entire society. These efforts address not only climate change but also various problems in the city including that of an aging population combined with low birth rate, lack of economic activity, poverty, and increase in administrative costs, and therefore contribute towards sustainable development of cities as well as adding to the cities' appeal. Japan is pleased to share its experience to promote mitigation actions in cities including deployment of renewable energies and energy saving.

1. Low carbon city development

Growth of urban population and economy is the major factor of an increase in carbon emission. In order to reduce the emission, it is necessary to promote low carbon development of cities through promotion of energy saving, renewable energy, and urban heat utilization.

Urban sprawl is also one of the factors of emission increase in cities. Urban sprawl involves long-distance movement and leads to increase in CO₂ emission in the transport sector. It is necessary to promote urban planning that leads to energy saving in transportation and distribution in cities, through concentrating urban functions and accordingly promoting the use of public transportation and rationalizing freight transport. It is also important to actively promote and create urban greening that helps mitigation of heat-island effects by increasing green coverage of the ground surface and creating wind paths.

As low carbon city planning has close relationship with wide policy areas such as traffic, economy, and welfare, it is important to incorporate it inside the whole urban planning and involve relevant actors in the process. By centralizing urban functions, and promoting energy saving and renewable energy, cities can pursue multi-benefit

such as improvement of transportation and well-being of the elderly, reduction of administrative costs for infrastructure per capita, and urban heat island mitigation, and reduction of energy costs, and increase in resilience against disasters, as well as structuring low carbon cities.

Japan's efforts

○Low Carbon City Act

Municipalities are beginning to formulate low carbon city plans based on Low Carbon City Act passed in 2012. Until now, 11 local governments have created such plans, and advancement of compact cities and increased use of public transportation are underway.

2. Enhancement of efforts by municipality

The role of municipalities in planning low carbon cities is significant. It is recommended for each country to encourage municipalities to develop plans addressing mitigation and adaptation. It is important to integrate such plans into existing development plans in such areas as urban infrastructure maintenance or agriculture promotion.

Sharing best practices and knowledge of developing low carbon cities is also useful. For instance, it is effective to support municipalities that set ambitious objectives and promote advanced low carbon measures based on their own features through selecting them as model cases. That leads to a support of development of low carbon city which needs long-term planning.

Japan's efforts

○ Development and implementation of municipal action plans

Municipalities develop and implement action plans based on the Law Concerning the Promotion of the Measures to Cope with Global Warming, and are promoting deployment of renewable energy and energy saving. Cooperation with existing development plans in such areas as urban infrastructure maintenance or agriculture promotion are required when action plans are developed. The government is supporting the development of action plans and practice of projects through making manual for development of plans and providing training courses. In addition, the government supports the introduction of facilities concerned to the projects based on municipal action plans in order to further encourage development of CO₂ reduction action plans

(area policy edition) that covers the entire municipality area and enhance measures toward mitigation. In addition, the government provides set of facilities to develop platforms for discussion among stakeholders, to establish centers that facilitate public outreach, and to appoint promoters for the actions in each region. In this way, together with the development of plans and the introduction of policies to involve various stakeholders, municipalities comprehensively implement mitigation measures.

- Future environmental cities/Environmental model cities

The central government selects advanced level sustainable cities with exceptional environmental, societal and economic qualities as “future environmental cities”. Eleven cities/regions have already been chosen, keeping in mind the fundamental concept to generate new values to address problems such as that of the environment and an aging society.

Moreover, those cities that take on ambitious goals and innovative low carbon efforts making use of local resources are selected and supported as “environmental model cities” (There are 23 including both small municipalities and mega cities as of March 2014). In this way, the ideal image of a future city that achieves both low carbon and sustainable development is disseminated within and outside Japan. In the selection process, for example, the following factors are taken into account: actions are pioneering and readily modelled and aimed at substantial reduction of GHGs, actions make use of unique characteristics of each local region, actions are feasible, long-term local revitalization can be expected. By utilizing their experience in overcoming environmental pollution in the past and by making use of the private sector, selected cities promote the introduction of renewable energy and pioneering low carbon technology, compact cities, efficiency in transportation, and environmental education. MRV of GHG reduction impacts of such activities is also given much weight.

3. Enhancement of actions to utilize private funds

One critical barrier of carrying out low carbon actions is funds. It is important to create low carbon market by not only using public funds but also arousing investments of private funds regarding public funds as a trigger, in order to promote low carbon technologies. For example, through cooperation with private companies and financial institutions, public sectors can promote investments to projects toward development of low carbon community and energy saving.

Japan's efforts

○ Utilization of private funds

Japan utilizes finance mechanisms and is advancing the “Finance initiative to build a low-carbon society” aimed at attracting private investment and creating markets. For example, Japan has established a fund to provide finance to low carbon projects initiated at the local level and has been increasing support for such projects in order to catalyze private investment. Japan has also been using public-private cooperation in advancing low carbonization of buildings through the creation of a fund to promote investment for buildings which are not only environmentally friendly but also earthquake-resistant.

4. Promotion of public actions

To promote mitigation in cities, reduction of GHG in the civil and service sectors is essential. Particularly in the civil sector, public outreach to arouse public actions together with assists to relevant actors is important for comprehensive mitigation actions. Moreover, quantifying and indicating the impacts of GHG reductions by citizens and their benefits in visible forms is useful to further encourage public actions.

Japan's efforts

○ Climate change campaign, “Fun to Share”

In March 2014, Japan launched a new climate change campaign called “Fun to Share” with a view to realizing a low-carbon society. “Fun to Share” aims to develop lifestyle innovations through cooperation between companies, organizations, local communities and individuals as well as the sharing and dissemination of information, technology and wisdom in a progressive manner that leads to the building of a low-carbon society.

○ Advisor system of house CO₂ reduction

Japan operates “Home CO₂ advisor”, the service which provides consultations for individual households on how to reduce CO₂ emission in their lifestyles via Home advisors. The government increases the number of consulted households by training advisors and supporting the services system, aiming at the reduction of CO₂ emission from the household sector.

5. Actions by developing cities, and promotion of inter-city cooperation

In developing countries where development and urbanization is taking place at great speed, it is important to improve the quality of life through economic development without repeating the energy and resource-depleting development of developed countries. In other words, it is important to aim for leapfrog development and the building of resilient cities in order to achieve a low carbon society with a sound material-cycle and harmony between people and nature. Moreover, on the process of urbanizing, it is efficient and effective to have a wide field of vision and make the whole region or city as a low carbon society, including commercial facilities, electricity, transportation and life infrastructure.

Huge investment demands for urban infrastructure are foreseen in cities of developing countries due to the rapid urbanization. If infrastructure inducing high emission is once built, the cities will be locked-in to the high-emission development pathway. Therefore, it is important to extend technical and financial assistance for cities in developing countries to build such infrastructure that leads to low-carbon development.

Cities making innovative efforts can cooperate with other cities by sharing low carbon technologies, regulations, systems and human resources as a package. It is important to make utilization of existing global urban network and promote inter-city cooperation, to facilitate development of low carbon cities while satisfying each city's needs.

Japan's efforts

- Sharing low carbon technologies, institutions/regulations and human resources as a package, making use of past experiences

Japan that has undergone serious environmental pollution in its age of rapid economic development is now making use of such experience to contribute to leapfrog development in developing countries. For instance, the Kitakyushu City and Yokohama City which are designated as “future environmental cities” and Tokyo and Osaka which are also known for its advanced efforts have been making use of their experiences in overcoming pollution as well as improving the environment to promote low carbonization of waste management, water services, transportation, buildings, and regional energy supply in developing country cities of the Asia-Pacific.

These cities are extending inter-city technical support while collaborating with the international partnerships such as CCAC and ICLEI, the support organizations such as JICA, research institutes, and private companies that have advanced low carbon

technologies and experience of urban infrastructure development and management. Moreover, successful examples of cooperation between developing countries and Japan are being disseminated at appropriate occasions which involve international networks of local governments and private businesses.

In Thailand, for example, Yokohama City, JICA and Japanese consultancy firms jointly assist the Bangkok Metropolitan Administration (BMA) in formulating and implementing the ten-year Climate Change Master Plan for years 2013-2023 which encompasses five sectors, namely, energy, urban mobility, waste and sewage management, urban greening, and climate change adaptation.

Japan has been cooperating with India in the construction of the Delhi Metro in Delhi, the capital city, suffering from traffic congestion and air pollution by exhaust gas from the rapidly growing fleet of cars, which is also one of the major sources of GHG emission. To address these problems, Japanese consultancy firms and construction companies with advanced technology and experience participated in the construction, and Japanese metro companies provided technical assistance for the operation and maintenance of Delhi Metro. Furthermore, trains of Delhi Metro are fitted with the regenerative braking system, which enables reductions of power consumption by 30%. Delhi Metro construction project (Phase 2) was registered as a CDM project in the United Nations CDM registry.

○ Promoting the Joint Crediting Mechanism (JCM)

Japan is promoting the JCM, which facilitates diffusion of low carbon technologies, products, systems, services, infrastructure as well as implementation of mitigation actions in developing countries. The JCM appropriately evaluates the contributions to GHG emission reductions in developing countries in a quantitative manner, and uses the reductions to achieve Japan's emission reduction target. Through formulation of projects and measurement, reporting and verification (MRV) of emission reductions through the JCM, Japan also cooperates in building capacity of human resources. Japan will continue to promote the JCM to disseminate leading low carbon technologies and contribute to sustainable development in developing countries/cities, while cooperating with development agencies such as JICA.