



Vertical Integration of Climate Policy in Japan

Institutional arrangements for effective vertical integration of climate mitigation policy and delivery

Japan undertakes a wide variety of efforts to improve vertical integration of climate change mitigation policy across different levels of government. The country's national law mandates that large cities develop and implement climate action plans and a nationwide programme selects and promotes advanced locally-led initiatives, such as those taken by the Tokyo Metropolitan Government. National government also provides financial support together with guidelines and tools for greenhouse gas (GHG) emissions quantification and an annual survey to assess progress.

Background

International and national levels: The *Kyoto Protocol* was adopted in 1997 in Kyoto, Japan, at the 3rd session of the Conference of the Parties (COP3) to the United Nations Framework Convention on Climate Change (UNFCCC). Developed countries committed to numerical reduction targets of their GHG emissions over the first commitment period (2008 – 2012). At this time, Japan committed to reduce its GHG emissions by 6% below its 1990 levels of 1.23 Gigatonnes of carbon dioxide equivalent (Gt CO₂e). Also in 1997, Japan convened a Global Warming Prevention Headquarters which included the national government's entire Cabinet. Having developed its domestic governance framework for implementation, Japan ratified the *Kyoto Protocol* in 2002. After the protocol came into force in 2005, the Japanese Government approved the *Kyoto Protocol Target Achievement Plan*, which stipulated the measures and policies to achieve Japan's reduction target. This plan was revised in 2008 after an extensive consultation process which included experts, local governments, the private sector, non-governmental organizations, and citizens.

Country	Japan in six cities
Sector	Low Carbon Development
Duration	since 1997 (ongoing)
Framework	Law on the Promotion of the Measures to Cope with Global Warming and Local Governments under the Omnibus Local Autonomy Law (2008)
Coordinating entity	Global Warming Prevention Headquarters comprised of the entire Cabinet
Implementing entity	47 prefectures and 467 Global Warming Countermeasure Regional Councils
Partners	Prefectural and Municipal Centers for Climate Change Actions in 45 Prefectures, 461 Global Warming Countermeasure Local Councils and 6.842 volunteers

Reductions in national GHG emissions did not progress as planned. In 2012, Japan emitted 1.34 GtCO₂e (excluding land use and land use change - LULUCF), corresponding to an increase of 8.8% compared to the base year. Japan used the Joint Crediting Mechanism (JCM) to generate credits to achieve its emission reduction target, by facilitating the diffusion of advanced low carbon technologies, products, systems, services, and infrastructures for GHG mitigation in developing countries.

On 22 September 2009, at the United Nations Summit on Climate Change, Japan announced a GHG reduction target of 25% by 2020, compared to 1990 emissions, on

On behalf of:



In collaboration with:

the premise of an effective international agreement with ambitious targets by all major economies. However, Japan has withdrawn from this voluntary pledge after the Fukushima nuclear accident in March 2011. In 2013, at COP19 in Warsaw, Japan announced its intention to pledge a reduction of 3.8% by 2020, in relation to the 2005 GHG emissions, which translates to an increase compared to 1990 emissions.

Regional and local levels: Japan has a two-tier system of local autonomy: prefectures as regional government units and municipalities as local government units. As of October 2012, Japan had 47 prefectures and 1,719 municipalities (including cities, towns, and villages), with local assemblies serving as their legislatures. Their executive branches are headed by a governor in the case of prefectures and by a mayor in municipalities. In Japan, local autonomy is guaranteed by the Constitution of 1946. The *Local Autonomy Act* (Act No.67 of 1947) is the national legislation which defines the responsibilities of Local Governments in Japan. This law was extensively amended by the *Law for the Improvement of Relevant Laws for the Promotion of Decentralization enacted in 1999 (the Omnibus Local Autonomy Law)*, which made clear the division of responsibilities between national and local government, and abolished the system of delegated functions: local governments were given actual responsibility for all affairs handled by them.

Description of Activities

Law: Recognizing the importance of active efforts from local public administrations, the *Act on Promotion of Global Warming Countermeasures* revised in 2008, requires prefectures and large municipalities to formulate and implement a *Local Government Action Plan* in accordance with the natural and social conditions of their local areas, to be integrated with related policies, including regional plans and city plans.

Planning: The *Action Plan for Achieving a Low-Carbon Society*, approved in 2008, provided an initial outline for the transformation of urban/regional structures and socio-economic systems from a mid- and long-term perspective. Key activities include: i) planning implementation of compact low-carbon urban structures; ii) promotion of district energy systems, including measures at both the block and district levels; iii) improving the thermal environment in cities through urban green space; iv) housing retrofitting; v) low-carbon transport and logistics system design, e.g. Light Rail Transit (LRT) systems for passengers and comprehensive urban and regional transportation strategies for freight; vi) use of local renewable energy resources.

Guidance for Measurement, Reporting and Verification of GHG emissions mitigation: The national government developed a manual for local governments to use in order to formulate their plans. Plans should include quantification of local GHG emissions, mitigation measures, quantified targets and a defined system for periodic inspection and evaluation. For each measure and for each facility, the results should be compared with past performance and, when necessary, lead to revision of the action plan. The scope of the *Local Government Action Plan* should include all administrative affairs under the responsibility of the local governments, as defined in the *Local Autonomy Act*, such as operation of waste management, water supply and sewerage systems, publicly-owned mass transport systems, public schools and hospitals, government buildings and other facilities. With regards to outsourcing, local governments should request contractors to take necessary measures to achieve possible GHG emission reductions. Based on the *Green Purchasing Act*, local governments should also work on green procurement by drawing up policies for promoting purchasing of eco-friendly goods and services.

As of October 2012, area-based *Local Government Action Plans* had been drafted by 37 prefectures as well as for 200 municipalities, while 91 additional municipalities planned to draft them within the 2012 (fiscal year).

Transparency and accountability: Local governments should publish their GHG emissions results annually. The national government then compiles and verifies the results publicized by local governments, and publishes an annual assessment report.

Institutional arrangements and partnerships: Prefectural and Municipal Centres for Climate Change Action have been designated in 45 prefectures, and 461 Global Warming Countermeasure Regional Councils have been established in 47 prefectures through establishment of partnerships with existing organizations. Furthermore, 6,914 volunteers have been commissioned by 46 prefectures and six cities to promote climate change mitigation activities.

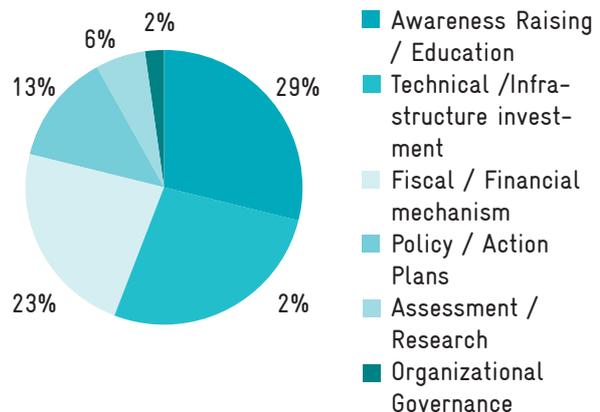
Financing: National financial and budgetary support for the implementation of action plans by local governments is provided through the *Global Warming Countermeasures Promotion Programme for Regions*, and the *Renewable Energy Promotion Project* (Green New Deal Fund) extended in 2013.

Champion cities as demonstration cases: A more bottom-up process was also established, to build on the inge-

nuity, cutting-edge technologies and particular characteristics of individual cities and regions and foster fine-tuned and well integrated locally-led measures. Under the *Action Plan for Achieving a Low-Carbon Society*, a nationwide process began to select cities that challenge themselves with pioneering efforts in creating a model low-carbon city. The Promotion Council for Low Carbon Cities, which is formed of local public administrations and other entities eager to create a low-carbon society, was established in December 2008 as a venue for nationally promoting the distinguished cases (membership of 231 organizations as of 1 April, 2013). As of December 2011, twelve cities had been selected. Support and monitoring of results will be conducted on these cases. Showcasing the development of these advanced model areas is expected to facilitate their replication across the country. In addition, partnerships for exchange of experiences will be formed with cities overseas that are aggressively addressing environmental measures.

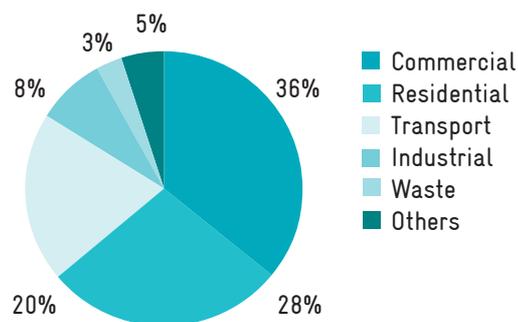
The Japan Registry: Japan's Local Government Climate Registry was launched on 9 February 2012, using the carbonn Cities Climate Registry, cCCR (since renamed carbonn Climate Registry, cCR), a global database of local climate action which promotes transparency and dissemination of good practices. The Japan Registry is operated by the ICLEI – Local Governments for Sustainability (ICLEI) Japan Office, supported by the Ministry of the Environment of Japan (MOEJ) and the British Embassy in Tokyo. In November 2012, the Japan Registry participants constituted 60% of the total local community emissions reported to the cCCR, demonstrating Japan's strong leadership in this area. As of March 2014 the Japan Registry captured information from 35 prefectures and 98 municipalities. This represents 87% of the country's population and approximately 80% of its reported GHG emissions. ICLEI members in Japan report and revise their performance every year. Of the 133 local governments reporting in cCR, 108 entities committed to reduce GHG emissions of their own operations, and 105 entities committed to reduce GHG emissions of their communities. Most of the community-scale commitments are short to medium-term (target year between 2010 and 2030) and range from 1 to 30% GHG emission reductions. Long-term commitments typically take 2050 as a target year with GHG emission reductions ranging from 30 to 80%. To achieve the community mitigation targets, 52 implemented measures have been reported in the cCR (status identified as "in progress" or "completed"). With the exception of one measure reported as being financed through sub-national funds, all other measures were financed by the local governments' own budgets.

Figure 1 – Mitigation measures reported by Japanese Local Governments in the cCR (as of March 2014)



Local climate action in focus: The Tokyo metropolitan region and capital city of Japan is home to more than 10% of the country's population while covering only 0.6% of the total land area. According to the community-scale GHG emissions inventory reported by the Tokyo Metropolitan Government (TMG) in the cCR, the region accounts for over 5% of Japan's total GHG emissions (2010). Buildings (essentially the residential and commercial sectors) represent more than 50% of the city's total energy use and GHG emissions.

Figure 2 – GHG emissions of Tokyo metropolitan region (2010) reported in cCR (tCO₂e)



The TMG considered this when introducing its local action program for GHG emissions reduction in 2000. It reported two programs and one financial mechanism in the cCR:

- *Green buildings program (GBP):* recognizing that the national energy efficiency standards for buildings were not tailored to Tokyo's local characteristics and that most of the targeted buildings in Tokyo were not provided with incentives to go beyond minimum requirements, the GBP introduced by the TMG in 2000 includes: i) a local green buildings standard, ii) requiring the constructing or expansion of large buildings which exceed a total floor area threshold (5,000 m² since 2010, 10,000 m² from

2002 to 2010) to follow the green buildings standard; and iii) a system for the evaluation of buildings and publication of the results (rating mechanism for non-residential buildings and for condominiums) which ensures that green buildings are given higher market value.

- *Cap-and-Trade Programme (C&T)*: Introduced in 2002, this was the world's first C&T to cover large urban facilities and buildings. It applies to facilities with large energy consumption (fuel, heat and electricity needs exceeding 1,500 m³ of oil equivalent per year). These represent less than 1% of all the business entities located in Tokyo, but account for about 40% of all CO₂ emissions from the industrial and commercial sectors in the region. Mandatory emission reductions apply and obligations can be fulfilled through energy efficiency measures, using renewable energy and trading of emission reduction credits. The C&T has large implementation costs and is supported by a fund established by the TMG (\$610m USD). The results have been remarkable. In 2012, total CO₂ emissions from facilities covered by the C&T had already reduced by 22%.
- *Carbon Reduction Reporting Program for Small- and Medium-Sized Facilities*: Over 34,000 small-and-medium sized facilities are reporting through this program

With these measures in place, the TMG committed between 2005 and 2006 to two community-scale reduction targets to be achieved by 2020. Firstly, to increase the use of renewable energy by 20% (relative to 2011), and secondly, to decrease GHG emissions by 25% below 2000 levels.

Lessons Learnt and Recommendations

The Japanese model is recognized as helpful but is sometimes criticized for being too top-down, and not sufficiently tailored to address local needs. The local governments

establish their local climate plan according to the guidance provided, but apply less effort to implementing it. Only a limited number of cities could make the best use of the national support for their own initiatives. However, despite this, the Japanese experience can still teach us a lot. A number of key lessons and recommendations include:

- Political leadership at local level is essential to successfully drive and implementation of innovative GHG emissions mitigation policies and programmes in prefectures and municipalities;
- A combination of legally-binding requirements and publicity around performance can have large impacts.
- For good results, mitigation measures should be adjusted to the local context and build on local partnerships;
- While some programmes, such as the GBP, are relatively easy to implement, they require in-depth knowledge of the local context (technical, socio-economic and political);
- Accurate data collection on the ground and maintaining historical records are essential to monitor and evaluate measures.

Sources and References

- United Nations (1998). Kyoto Protocol To The United Nations Framework Convention On Climate Change.
- MOEJ (2013). A low-carbon society to reduce global warming in Annual Report on the Environment, the Sound Material-Cycle Society and the Biodiversity in Japan, Chapter 8.
- Government of Japan (2010). Japan's 5th National Communication to the UNFCCC.
- UNFCCC Data Interface. Annual greenhouse gas (GHG) emissions for Japan. Accessed 30.09.14 from: http://unfccc.int/ghg_data/ghg_data_unfccc/items/4146.php.
- Council of Local Authorities for International Relations (2013). Local Government in Japan 2012.
- Japan (n.d.). Japan's Report Indicating Demonstrable Progress towards Achieving the Kyoto Protocol Commitment.
- carbonn Cities Climate Registry. November 2012 Update. Available from: <http://www.carbonn.org>
- ICLEI (2012). Tokyo, Japan, Reducing emissions through green buildings. ICLEI Case Studies n.144.
- Tokyo Metropolitan Government - Environment (2014). Presentation 'Tokyo: Cap and Trade Program - Lessons Learned'. Presented at UNFCCC TEM Urban Environment in June 2014.
- Government of Japan (2013). Japan's 6th National Communication to the UNFCCC



Published by

Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH

Registered offices
Bonn and Eschborn, Germany
T +49 228 44 60-0 (Bonn)
T +49 61 96 79-0 (Eschborn)

Dag-Hammarskjöld-Weg 1-5
65760 Eschborn, Germany
T +49 61 96 79-0
F +49 61 96 79-11 15

E info@giz.de
I www.giz.de



Contact

Maryke van Staden (ICLEI)
E maryke.van.staden@iclei.org

Authors:
Ana Marques (ICLEI)

Contributions & Review:
Lucas de Moncuit, Chang Deng-Beck, Maryke van Staden, Michie Kishigami (ICLEI),
Lara Esser, Nicholas Harrison (Ecofys)

All photos: © Shutterstock
All graphs: © ICLEI



Contact

Tokyo Metropolitan Government
Bureau of Environment,
Cap-and-Trade & International Relations
E tokyoets@kankyo.metro.tokyo.jp
I www.kankyo.metro.tokyo.jp/en/climate/cap-and-trade.html

ICLEI World Secretariat
Kaiser-Friedrich-Str. 7
53113 Bonn
Germany
T +49-228 / 97 62 99-00
E iclei@iclei.org
I www.iclei.org
I www.carbonn.org

ICLEI Japan
Cosmos Aoyama B1F
5-53-67 Jingumae
Shibuya-ku
Tokyo 150-0001, Japan
T +81-3/5464-1906
E iclei-japan@iclei.org
I www.iclei.org/japan