Political factors facilitating practice adoption through Asian intercity network programmes for the environment

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ABSTRACT

An analysis was carried out on local and national political factors that corroborated the adoption and diffusion of environmental practices at city level via Asian intercity networks as a part of a series of studies on international intercity network programmes for the environment in Asia. This paper focuses on how participating cities in developing countries would better utilise such programmes given that the environmental practices promoted under the network programmes are relevant. The paper deals with indirect promoting factors to complement the study of motivation and benefits of participating cities in developing countries, conducted in a separate paper. The political factors within the participating cities and in developing countries are divided into two: endogenous ones and exogenous ones to the cities. As for endogenous factors in cities, the importance of support at the mayoral level, coordination and networking of stakeholders by individuals and organisations within and outside of the local government, perceived autonomy of the city government, including the mayor, and administrative and financial autonomy of local governments from the central government and higher regional authorities are observed. Although the importance of mayoral support may seem obvious, such factor still needs to be confirmed since not all mayors of participating cities show interests even if the opportunity to learn and adopt a relevant practice is equally provided to all participating cities. In looking at exogenous factors, the study confirmed that the existence of policy support from the national government and higher authorities, and financial support systems, in particular is effective. Local and national actors such as mayor, local coordinators and national governments in developing Asia could enhance the chance for city governments to better utilise the intercity network, by playing their roles of leader, coordinator and facilitator in their given positions.

Introduction

Local governments' policies and practices have been diffused domestically and internationally (Dolowitz & March, 1996, 2000; Ito, 2002, 2006; Matsumoto, 2007). Environmental policies at local level have also spread across the cities over a certain period of time, which could reach even decades as demonstrated by diffusion of local ordinance for environmental impact assessment and of fundamental environment ordinance in Japan (Ito, 2002). There are some international intercity network programmes that intend to accelerate such diffusion intentionally by means of support and facilitation of cities. In Asia such programmes include CITYNET, ICLEI Southeast Asia and the Kitakyushu Initiative for a Clean Environment, all of which are concerned about urban sustainability issues.

IGES has conducted the study on international intercity network programmes for the environment in Asia since 2007 (Hosei University & IGES, 2008, Fujikura et al., 2009; 2010). As part of the study Nakamura, Mori and Elder (2010a) executed an evaluation study of some international intercity network programmes for the environment in Asia to examine the roles and potentials of intercity network programmes to facilitate good practice diffusion among cities that are engaged in network programmes. It analysed the state of mutual reference, learning, and practice diffusion among participating cities. It also dealt with the perceived benefits and motivations for participating cities in developing Asia. Another paper by Nakamura, Elder and Mori (2010b) provided an explanation on motivations for Japanese municipal governments to extend international environmental co-operation with developing countries. Currently the author is also studying on what the intercity network programmes can do to promote practice diffusion, focusing on the roles of network secretariat, design of the network, and the contents of the network activities.

As a complementary study of these studies, this discussion paper examines the local and national factors that facilitated the adoption and diffusion of good practices through network programmes, apart from the support and facilitation of networks. In other words this study tries to identify the factors that affect participating cities' ability to use the network effectively. Through this the author draws implications on how the cities can better utilise the international intercity network programmes to solve their local environmental problems.

Recent studies concerning city-to-city co-operation presented an analytical framework to assess contribution of city-to-city co-operation on urban governance strengthening and key elements for successful city-to-city co-operation, yet close examination of political factors facilitating adoption and diffusion of good practices through international intercity network were not incorporated (Bontenbal, 2009; Tjandradewi & Marcotullio, 2009). CITYNET, Kitakyushu Initiatives and ICLEI provided the reports on several cases of adoption of new practices but they did not contain systematic analysis of political factors that facilitated the adoption process either (CITYNET, 2007; Wahyuningsih, 2008; ICLEI SEA, nd). This study fills the above gap that is not tapped by the previous studies.

This paper studies favourable local and national conditions that facilitated and enabled practice adoption through international intercity network programmes for the environment. In order to achieve this, the process of adopting new policies in the municipality was closely examined in cases where local governments participated in some international network programmes, and the political and institutional factors that supplemented the adoption of policies and measures were analysed. Based on the findings of the analysis, the paper presents how the participating cities in developing Asia can best utilise the international intercity network programmes for their local initiatives of sustainable development.

Study target, methodology and limitation

Cases that were the targets of the study include those in which local governments attempted to introduce new policies and measures through their participation in international intercity environmental networks in Asia, and either completed the adoption or not. Specifically, the study looked at the cities in the Philippines, Indonesia and Thailand that participated in the Cities for Climate Protection (CCP) Programme of ICLEI Southeast Asia. The CCP programme of ICLEI Southeast Asia was selected because it is a demonstrated example in which numerous local governments are engaged across the different countries in Asia, compared to other programmes of environmental education practice under CITYNET and organic waste composting practice under the Kitakyushu Initiative for a Clean Environment, all of which are cases that have diffused to several network cities participating in respective international intercity network programmes in Asia.

ICLEI – Local Governments for Sustainability is an international intercity network programme that was founded in 1990 as the International Council for Local Environmental Initiatives, renamed as ICLEI – Local Governments for Sustainability in 2003. ICLEI's mission is "to build and serve a worldwide movement of local governments to achieve tangible improvements in global sustainability with special focus on environmental conditions through cumulative local actions¹." ICLEI has world secretariat as well as regional secretariats and centres. ICLEI Southeast Asia is one of the regional networks of ICLEI. CCP is one of the ICLEI programmes focusing on climate change

¹ http://www.iclei.org/index.php?id=744

mitigation and low-carbon development and has been adopted in more than 700 local governments in the world². It was initiated in 1999 in Southeast Asia³.

ICLEI Southeast Asia's CCP programme is referred to as the five-milestone process, and carries out the adoption and implementation of activities and indicators to address global warming. They include the following: 1) conduct a baseline emissions-inventory and forecast, 2) adopt an emissions reduction target for the forecast year, 3) develop a Local Action Plan, 4) implement policies and measures, and 5) monitor and verify results. Specific emission reduction policies for greenhouse gases include individual policies and measures enacted by cities in the areas of energy saving, renewable energy, waste and wastewater treatment, and transportation⁴.

Four cities from the Philippines participated in the ICLEI Southeast Asia's CCP programme and received support from the United States Agency for International Development (USAID) in 1999. This was further expanded to encompass participation by 14 cities in the Philippines, ten cities in Indonesia and six cities in Thailand⁵. Of these, the cities that completed the CCP process up to fifth stage regardless of their sustainability as of 2008 included eleven cities in the Philippines (Baguio, Puerto Princesa, Naga, Butuan, Bohol province, Cagayan de Oro, Cebu, Makati, Mandaue, Tagbilaran, and Iloilo), four cities in Indonesia (Yogyakarta, Denpasar, Surabaya, and Bogor,), and four cities in Thailand (Chiang Mai, Rayong, Muangklang, and Thung Song)⁶. Three cities in the Philippines (Batangas, Dagupan and San Fernando (La Union province)), six cities in Indonesia (Balikpapan, Bandung, Cilegon, Medan, Pontianak, and Semarang), and two cities in Thailand (Nonthaburi and Phuket) have not actually completed the programme.

Four cities in the Philippines (Baguio, Puerto Princesa, Naga, Butuan), three cities in Indonesia (Yogyakarta, Denpasar, Surabaya) and four cities in Thailand (Chiang Mai, Rayong, Muangklang, Thung Song) were selected as the primary cases for field study during this research to understand the factors affecting the processes in the cities that completed the CCP programme, given the diversity of practices introduced under CCP programme from energy efficiency, renewable energy, waste and wastewater, and transport. The record of participation in CCP-related ICLEI network activities by the eleven cities that have not completed the CCP programme was also analysed. Information on the ICLEI Southeast Asia programme was collected on site with local partners in the Philippines, Indonesia and Thailand. Workshops were also organised with the participation of local partners and the content of the studies were discussed.

² http://www.iclei.org/index.php?id=800

³ http://www.iclei.org/index.php?id=940

⁴ http://www.iclei.org/index.php?id=944

⁵ http://www.iclei.org/index.php?id=941

⁶ ICLEI Southeast Asia Secretariat, Receipt of materials on 20 May 2008

Regarding the analytical framework to examine the factors in the adoption of policies and measures in the policy process of local governments participating in network programmes, the factors to be studied are divided into two types: endogenous factors, such as the region's local political factors as well as socio-economic factors, and exogenous factors, such as the presence or lack thereof of support policies from the central government. Generally, legislative proceedings and support policies at the national level play an important role as exogenous factors. This comprehensive analysis is intended to capture the influences of various factors that would affect the cities' preparedness and capacity to effectively utilise network programmes.

Of the general endogenous factors found in the study, the following political factors were examined, giving due consideration to the research conducted on the diffusion of local governmental policies in Japan and in the United States and environmental governance in developing countries in Asia (Gray, 1994; Berry & Berry, 1990; Satterthwaite 1997; Ito, 2002; Tjandradewi & Marcotullio, 2009; Tjandradewi, Marcotullio & Kidokoro, 2006).

- Support from the mayor
- Pressure from residents and NGOs
- Coordination and networking of stakeholders by individuals and organisations both within and outside the local government
- Network activities by NGOs and business organisations
- Autonomy of local governments from the central government and higher regional authorities, looking at issues from the vantage point of jurisdiction, decision-making, and financial affairs

The above hypothetical factors are examined against all cases in which practice adoption through intercity network programme happened. The cases of the cities that have not actually completed the programme are discussed, too, with comparison of participation records to the programme activities, though no primary data of the above hypothetical factors is available. The factors commonly observed as promoting factors of practice adoption will be suggested to be good candidates of promoting factors that enable the participating cities to better utilise the network programme.

Since the number of Asian intercity network programmes for the environment as well as that of cases that were closely studied are limited, this study does not claim that the identified factors affecting the practice adoption and diffusion through Asian intercity network programmes in the eleven selected cases are valid enough to be applicable for all contexts and conditions. Rather the authors propose refined hypotheses on political factors that affect the process of practice adoption

and diffusion in the cities participating in intercity network programmes, which would be heuristic and useful for local governments participating intercity network programmes, secretariats for intercity network programmes, and international development agencies that support such network programmes.

Demonstrated cases of policy adoption in the cities participating in the network

Philippines: Baguio, Puerto Princesa, Naga, Butuan⁷

Of the 14 cities in the Philippines that participated in the CCP programme of ICLEI Southeast Asia, Baguio, Puerto Princesa, Naga and Butuan are those cities that established an inventory of greenhouse gas emissions, and not only examined policies, but also adopted and implemented a number of climate protection policies and measures. Of the streetlights managed by the city, Baguio, Naga and Butuan substituted sodium lights for mercury vapour lights. Puerto Princesa constructed energy saving houses as a replacement for those that were destroyed as a result of natural disasters. Baguio, Puerto Princesa and Butuan imposed limits on the use of motorised three-wheelers in the city centres, and Naga and Butuan implemented a community waste recycling pilot projects.

The processes in which new measures are adopted are common throughout the four cities. First, climate regulations are adopted and an approach implemented in line with the milestone programme recommended by the ICLEI Southeast Asia's CCP programme. Consultations and discussions are then carried out between residents, stakeholders and the city government.

ICLEI Southeast Asia organised six workshops and trainings from 1999 to 2002, with the participation of the above cities. Baguio concluded a bilateral agreement with Chiang Mai in Thailand, and Naga concluded a bilateral agreement with Thung Song in Thailand to exchange information on climate protection policies in the areas of transportation (biofuels) and waste. ICLEI Southeast Asia conducted the following activities for participating network cities in the Philippines: (1) online coaching, (2) formation and dispatch of climate teams in each city, (3) installation of staff in charge of climate issues in each city, (4) information dissemination and updates, (5) monitoring of progress, (6) commendations according to achievements in each milestone stage, and (7) support for expenses borne by each city.

Endogenous Factors

⁷ The outline of this section is based on the outcomes of on-site studies conducted with a local partner in the Philippines (ICLEI Southeast Asia Secretariat) (Aquitania, V. E. (2008)).

The support of the mayor and senior staff in prioritising the introduction of new policies is a major factor for success in the policies adopted in these four cities. It can be said that the support by the mayor for the programme is important in this respect. In Puerto Princesa, the mayor considered the environment to be an area of high priority politically, which resulted in the smooth implementation of the milestone programme. On the other hand, in Mandaue, a city in the Philippines that participated in the ICLEI Southeast Asia programme, climate protection policies were assigned low political priority, which resulted in delays in the implementation of the milestone programme, in spite of repeated appeals from ICLEI Southeast Asia.

When can support from the mayor be won and political priority rise? This is the time when new policies can contribute to the identification of important solutions to problems in the region. In the case of climate protection measures, it can include solid waste management, prevention of air pollution, easing of traffic congestion, and a stable energy supply. In addition, it is easier to obtain political support for policies that simultaneously have an effect on improving livelihoods and reducing health hazards. The limitations placed on the use of three-wheelers in Baguio alleviate congested traffic conditions and decrease air pollution levels at the same time. The limitations placed on the number of three-wheelers on city roads in Puerto Princesa have raised the incomes of those doing business with three-wheelers due to the reduced congestion on the street and has also resulted in the smoother movement of traffic. Community waste management in Naga and Butuan has improved the incomes of waste collectors as they have been appointed by the city and included in the policies. Those who collect waste formed a union in Baguio in a similar waste management policy, and improved their livelihoods through technical trainings.

In their relationship with higher levels of administrative authorities, local governments in the Philippines have traditionally been in charge of areas other than energy, such as waste and traffic, among others, and they have no legal issues in taking action on their own initiative. And, even though energy is under the jurisdiction of the national government, the streetlight energy conservation activities by ICLEI Southeast Asia can be implemented within the scope of activities of local governments and is an issue that can be addressed at the local level.

One additional important endogenous factor at work is the existence of appropriate staff in charge of a particular area. In comparatively large city governments, this type of employee may most likely be employed within the government, which is (the result of) socio-economic factors; alternatively, if the city has a staff member with sufficient will to adopt and implement policies, regardless of the scale of the city government, this can be considered a political factor. Even with support from the mayor, progress may be delayed if staff in charge does not have an interest in particular policies or activities or knowledge is insufficient. There are also examples where no progress has been made because of a lack of interest or concern on the part of the mayor or senior staff, even if staff in charge is enthusiastic. Of the four cities in this study, in the case of Baguio, the milestone programme was started by a staff member and policy development continued even with the change in mayors. In the case of Naga, the chairman of the city environmental committee became heavily involved in the project and lent support with instructions and political recommendations. These facilitated the implementation of the CCP programme.

In terms of the nature of practices adopted, since new practices require little to no additional investment, or have reduced operation and maintenance costs, new practices are considered to have enabled the implementation of policies. In Naga, the city was able to reduce expenses of 2.7 million pesos (about 17 million yen) with the change to highly effective streetlights.

Pressure from residents and NGOs, as well as network activities of NGOs and industrial groups, were not observed in the policy process.

Exogenous Factors

Of the exogenous factors, when looking at the role of the central government, there are no policies that provide direction directly to city governments regarding climate protection. However, the Law on Solid Waste Disposal, as well as the Clean Air Act, each set out the role of city governments in solid waste disposal and prevention of air pollution. The ICLEI Southeast Asia's climate protection milestone programme can be considered as a value-add, which has strengthened the role of city governments.

Indonesia: Yogyakarta, Denpasar, Surabaya⁸

The three cities that first participated in ICLEI Southeast Asia's CCP programme were Jogjakarta, Denpasar and Surabaya. All received support from the United States Agency for International Development (USAID) from 2001 to 2004. At that time, the Center for Transportation and Logistics of Gadjah Mada University, which is a local partner in Indonesia for this particular study, acted as a technical support organisation by providing assistance with studies on current conditions and development of greenhouse gas inventories. The following were taken up as climate protection

⁸ This section is based on the research outcomes of the study conducted with a local partner in Indonesia (Center for Transportation and Logistics, Gadjah Mada University) (PUSTRAL (2008)).

policies in the milestone programme: repair/replacement of streetlights in Jogjakarta, use of local wastewater for biogas in Denpasar, and fuel conversion of vehicles used for official city business in Surabaya.

The policy implementation process in city governments in Indonesia generally follows a pattern where a regional mid-term development plan is concluded from the ideas of the city government and the demand from the region. The final draft is presented through discussions at the Committee for Regional Mid-term Development Planning and the mayor promulgates the regional mid-term development plan. After, the contents of the regional work plan, including the regional budget, are decided and policies implemented with approval of the city council.

The streetlight energy savings project of Jogjakarta secured a budget for the regional plan in 2001 and reduced expenses in the city from five to nine million rupees (approximately five to nine million yen) by 2008. The evaluation obtained by participating in the ICLEI CCP programme resulted in the achievement of a 35% reduction of greenhouse gas emissions. With the success of these policies, the project has been expanded, and by 2011, all the streetlights within the city will be switched to energy saving models.

The project on the use of biogas from treated wastewater in Denpasar was developed in response to complaints of nearby residents about the wastewater from small- and medium-sized soybean processing companies. The project started in 2003 with companies receiving technical co-operation support from a German and local NGO. In this case, small-scale biogas processing facilities were set-up by the residents' participation in the project to treat wastewater from businesses, as well as domestic animal wastewater from households. Support was provided to the formation of community hygienic groups in 2004 in order to treat domestic wastewater based on an agreement by the Denpasar City Environment Bureau to also participate in the municipal hygienic environmental programme. Six to eight tons of wastewater is treated per day at one biogas processing facility and the gas produced is used for cooking and lighting. According to a report by ICLEI, it is estimated that 149 tons of greenhouse gas emissions have been reduced per year at two processing facilities. In addition, it is provisionally calculated that the biochemical oxygen demand (BOD) could be reduced by 90% by purifying wastewater, in addition to a savings of 23 million rupiah per year (about 230,000 yen) through the use of kerosene and liquefied petroleum gas (LPG). By 2007, 16 biogas processing facilities were constructed. Polluting enterprises bore five percent of the installation costs of the biogas processing facilities, and the German NGO covered the remaining costs. However, securing funds for further expansion is a barrier to the expansion of the project.

For the fuel conversation project in Surabaya, the city received technical co-operation support from the German government in 1998 and created a document for a sustainable urban transport programme. The city implemented a demonstration project on fuel conversion from 2002, which was one of the policies under the programme. Out of 400 automobiles utilised for general use and 125 waste transport vehicles, fuel for 100 general use vehicles was converted from gasoline to compressed natural gas (CNG) by 2003. As a result, it was estimated that 684 tons of greenhouse gas emissions were reduced. All newly installed equipment was purchased with the municipal government's budget. As of 2004, 125 waste transport vehicles were to be converted by 2005 and 300 general use vehicles were planned to be converted to CNG by 2008, however, at the present time, the use of CNG has been halted. This is due to the fact that the number of CNG users has decreased and private companies do not supply CNG except for their own use. This problem has arisen for various reasons: private taxi companies managed CNG supply stations and equipment installation locations were limited, refuelling by ownership companies was prioritised, maintenance was limited to a few repair shops, and it was difficult to obtain spare parts.

Endogenous Factors

When looking at general endogenous factors, we can see that municipal ordinances to reduce greenhouse gas emissions were signed through the ICLEI CCP programme to allow the three cities of Jogjakarta, Denpasar and Surabaya and their mayors to promote climate protection policies from the initial stage. In general, it is thought that a large number of mayors may be hesitant to initiate new policies because there may be no immediate effects, there is pressure from stakeholders to demonstrate results, or there are few staff members with sufficient capacity or experience within the city government. There are also mayors who do not understand the necessity of implementing innovative policies. Government in Indonesia has traditionally been managed centrally and it may not be possible to equip municipal governments with sufficient financial and human resources, even though the country is presently undergoing rapid decentralisation. This can be interpreted as the difficulty of city governments to sustainably implement policies because of its low degree of autonomy.

As in the case of Denpasar, there are examples where local NGOs have played a role in promoting policies, and sufficient discussion between the city government and stakeholders has resulted in the implementation of policies, as indicated in the cases of Jogjakarta and Denpasar. These two cases indicate that residents' actions to explicitly solve environmental problems and economical and social benefits brought about by policies clearly promote the understanding of stakeholders.

The role played by the activities of networks of NGOs and industrial organisations in the adoption of policies was not observed.

Exogenous Factors

When looking at general exogenous factors, the technological and financial support from the German NGO played an important role in the case of Denpasar, and air pollution prevention policies in Germany gave Surabaya a direct opportunity to examine the policies in its own city. In addition, a global warming and greenhouse gas emission inventory was introduced through the city's participation in the ICLEI CCP programme, and management of the city's progress was carried out through the milestone programme. The central government did not provide specific support during the implementation period of the ICLEI CCP programme.

Thailand: Chiang Mai, Rayon, Muangklang, Thung Song⁹

There are two local governmental systems in Thailand. One is a system from which administrative officials are dispatched from the central government and administrative services are offered. This system is hierarchical: state, district, sub-district, and village. The second system is known as a local government, and is divided into cities, towns, and townships, depending on the population scale and density¹⁰. The head of the local government is chosen by election and is called a mayor. The targets of this study are policies implemented by local governments that are headed by mayors. Of the four cities studied, Chiang Mai and Rayon are cities, and Muangklang and Thung Song are towns.

Through their participation in the ICLEI Southeast Asia climate change programme, Chiang Mai adopted and implemented policies on the use of biofuel for public vehicles. Rayon adopted and implemented policies to generate electricity and fertiliser from organic waste found in household garbage. Muangklang adopted and implemented energy saving policies for streetlights. Thung Song adopted and implemented policies to generate fertiliser and detergent from organic waste in the public market.

In general, policy decision-making in local governments in Thailand is dependent on discussions with and decisions by the city and town councils. In addition, discussions with multi-stakeholder groups and advice from advisory committees are part of the process.

⁹ This section is from the report of this study's local partner in Thailand (Siam CIE International Co. Ltd. (2008)).
¹⁰ Cities are defined as having a population of more than 50,000 people and a population density of 3,000 people per square kilometer. Towns are defined as having a population of more than 10,000 people and a population density of 3,000 people per square kilometer.

With the exception of Muangklang, the factors involved in the participation of city and town governments in ICLEI Southeast Asia's CCP programme have been evaluated as contributing to future solutions for important regional environmental issues. In addition, these factors have been evaluated as being consistent with long term local environmental policies and environmental master plans (this includes Muangklang).

Endogenous Factors

The factor that played the most important role of the endogenous factors was the strong promotion of policies by the head of the local government. In all four cities, both the present as well as the previous term's mayors of the cities and towns gave priority to environmental policies, and the present mayors have also continued similarly with the promotion of these important policies. An additional factor in policy promotion was the role of coordination and promotion played within the city and town government, NGOs, and new connections with local residents, in addition to the mayor. In Thung Song, the library department and hygienic office within the local government voluntarily organised campaigns and developed the capacity of community leaders. In Rayon, NGOs throughout the country worked to motivate residents to recycle waste and supported monitoring with the participation of residents. In Chiang Mai, local residents co-operated to collect their own food waste oil and produce biofuel. Similarly, in Rayon and Muangklang, ordinary households created an organisation and assumed the responsibility of selecting and collecting organic waste. The actions of resident organisations in the cases of Chiang Mai, Rayon and Muangklang are viewed as moderate organisational activities by local residents generated in the examination process of policies rather than an NGO activity that has a specific purpose. It can be said that in the background of the implementation of these voluntary activities, local governments are autonomous from the central government and higher regional authorities in relation to the decision-making process.

In addition, the method of promoting policies overlaps with the moderate organisation by residents described above. However, it should be mentioned that the adoption and implementation of policies has been established through the organisation of multi-stakeholder meetings and advisory committees. Moreover, sufficient discussions with stakeholders and devising methods of communications further promoted the adoption and implementation of policies.

There were no clear, pertinent cases demonstrating pressure from residents and NGOs, and activities of networks of NGOs and industry groups.

Exogenous Factors

Exogenous factors, such as policies to promote renewable energy by the central government and the preparation of a mechanism to provide financial support, played a major role in overcoming financial difficulties. Specifically, the Department of Alternative Energy Development and Efficiency (DEDE) of the Ministry of Energy provided financial support to the biofuel demonstration project in Chiang Mai through the National Energy Conservation Fund (ENCON Fund) of the Ministry of Energy. In addition, the Energy and Policy Planning Office of the Ministry of Energy granted financial support through the same fund to the construction of biogas facilities as part of its waste management project in both Rayon and Thung Song.

Cases of no practice adoption despite the participation in the network

Batangas, Dagupan and San Fernando (La Union province) in the Philippines, Balikpapan, Bandung, Cilegon, Medan, Pontianak, and Semarang in Indonesia, and Nonthaburi and Phuket in Thailand have participated in CCP programme and yet have not completed the five milestones, with no actual practice adoption and implementation to mitigate climate change. It is difficult to clearly understand why these cities once participated in CCP programme and yet terminated the idea of development and implementation of practices to mitigate climate change. These cities are considered to have participated in the programme since they were invited to and participated in the CCP related workshops once or twice. Yet numbers of participation in network events are not largely different from those of the cities that have completed the five milestones and introduced new practices¹¹.

The reasons of no practice adoption in these cities might be estimated as follows: For the cities that were invited to and participated in workshops of climate protection, the opportunity was an external stimuli to start consideration of formulation and implementation of countermeasure to an environmental issue. This external stimulation had led to stage where local government staffs considered whether they should study and develop actual practices on this issue. Yet without endogenous facilitating factors such as support by the mayor, it might have been difficult for climate protection to obtain priority position as policy agenda within the local governments. The cities did not go on to the stage of serious examination of new polices and measures. Hence the cities where factors that are not relevant to network programmes were missing or weak, are considered to have failed to introduce a new practice that had effects of mitigating climate change.

Conclusions

¹¹ Information on participation record obtained from ICLEI Southeast Asia Secretariat on 28 June 2008

The political factors that facilitate the adoption of new policies through intercity networks, which have been inferred from the analysis of the processes of adoption and diffusion of policies in the above cases, can be summarised below.

We found basically endogenous and exogenous factors are vital as preparedness of the local government so that the government could best utilise the opportunities provided by participating in network programmes (see Table 1 for the summary of factors for each case). Effective interactions of well-preparedness of the city and the effective support through the network seem necessary to make things happen. Importance of political factors within the cities and in developing countries is also suggested from the cases of the cities that initially participated in the network programmes and yet did not reach the stage of adoption of new practices.

First, as for the endogenous factors, the importance of "support of the mayor" is cited as such. This was confirmed in almost all cases. There are also cases such as the one in Thung Song in Thailand, in which clear individual leadership was taken to exceed the mere support of measures. In some cases, the support of departmental staff in charge plays a more important role than the mayor. Although the importance of mayoral support seem obvious, it should be noted that this does not happen always even if the opportunity to learn and adopt seemingly good and attractive practice through network programmes is equally provided to all participating cities. Though no mayors would show an interest in using network programmes when the targeted practices are not relevant and attractive, that does not mean all mayors would support utilisation of network when the practices that are intended to be diffused through network are attractive and effective. Political leaders may or may not utilise these opportunities depending on their contexts and strategies. Regardless of whether the political leader is elected or appointed, some leaders are responsive to solve the local problem and hence may show an interest to learn and adopt a new practice through international networks, and some may not be so responsive.

Next, the role of "coordination and networking of stakeholders by individuals and organisations within and outside of the local government" is also important. In cases where departmental staffs are in the city government and policies are enthusiastically introduced, as in the climate protection policies in Thailand and the Philippines, the introduction and implementation of policies were complimentarily promoted with the support of the mayor and senior employees. In addition, the role played by organised residents and women's groups in the diffusion and establishment of policies has been recognised, as seen in climate protection in Thailand.

In addition, the importance of "perceived autonomy of the city government, including the mayor" was apparent with regard to the "autonomy of local governments from the central government and higher regional authorities, looking at issues from the vantage point of jurisdiction, decision-making, and financial affairs." That is, if an autonomous local political management system is not established en route to local decentralisation, such as is seen in the cases of climate protection policies in Indonesia, the position of solving basic local problems on their own initiative, with outside financial resources, will not be visible. The introduction of policies by the initiatives of international organisations and network secretariats overlaps with a lack of suitable understanding of local conditions by outside experts and can lead to failure.

An additional autonomous side is "finances." When comparatively large investments are required, financial support from the national government become necessary, as is seen in the renewable energy promotion policies in Thailand. In addition, a shortage of financial capacity similarly gives rise to the necessity of outside funding, as in the case of the use of biogas in Indonesia.

There were few cases in which the influence of other factors offered as candidates, such as "pressure from residents and NGOs" and "network activities by NGOs and industrial groups," were clearly confirmed as endogenous factors.

In terms of the exogenous factors for the cities, "political support from the central government and higher regional authorities, in particular the existence of policy support systems" was confirmed to facilitate the implementation of new measures as an exogenous factor. A remarkable case was the adoption of policies related to renewable energy in Thailand. Such national financial scheme might be indispensible for practices that require infrastructure development.

The commonalities of political factors that facilitated the adoption of new practices through intercity network, in three different Southeast Asian countries suggest that leadership of mayors and existence of coordinators in the city, either within or outside of local government, are instrumental to better utilise the international city networks. Such proactive initiative by political leaders, local government officials, or local NGOs to connect external support of network programmes with local problem-solving is vital to materialise the potential opportunities provided by networks. Although this finding may seem self-evident, significance of ownership and self-help efforts of participating cities in developing countries is worth being kept in mind.

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Tables

City	Country	Support of Mayor	Coordinator's role	Autonomy of local government	National government's policy support
Baguio	Philippines	1	1	\checkmark	
Puerto	Philippines	1		\checkmark	
Princesa					
Naga	Philippines	1	1	\checkmark	
Butuan	Philippines	1		\checkmark	
Yogyakarta	Indonesia	\checkmark			
Denpasar	Indonesia	\checkmark	1		
Surabaya	Indonesia	\checkmark			
Chiang Mai	Thailand	\checkmark	1		1
Rayon	Thailand	\checkmark	1		1
Muangklang	Thailand	\checkmark	1		
Thung Song	Thailand	1	1		1

Table 1 Summary of factors facilitating practice adoption through network by cases

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