



## “EU-Asia Dialogue – Shaping a Common Future for Europe and Asia”

### Conference Report

# “Eco-Cities – Sharing European and Asian Experiences in Sustainable Urban Management”

Singapore, May 25, 2012



This project is supported by the European Union



A project implemented by the contractor

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Singapore, 25<sup>th</sup> of May, 2012

## Report

**EU-Asia Dialogue:  
“Eco-Cities – Sharing European and Asian Experiences  
in Sustainable Urban Management”**

The inaugural 1-day workshop was held on 25<sup>th</sup> May, 2012, at the Carlton Hotel in Singapore. Stakeholders from the business sector, along with policy makers and researchers from both European and Asian countries were present. During the discussions, researchers were able to examine the set priorities, practices and challenges encountered in actual planning and performance of the building of eco-cities all around the world. Discussions also touched upon national practices, policy choices, implementation obstacles, challenges and prospects of eco-cities urban management in places all around the world. Additionally, possibilities for closer cooperation between Asia and Europe as well as topics the EU-Asia Dialogue can focus on in the future were identified.

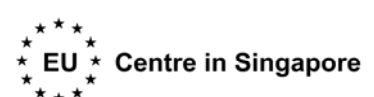
### **General Discussion**

In the first section, general discussions were raised when participants share their respective experiences, input their country-specific implementation models, and identify obstacles in various dimensions.

#### **1) Participation of Residents**

Participation of residents helps strengthening community bonds between dwellers and eco-cities policy measures. The Japanese case of Musashino city and various German cities exemplifies residents' contribution.

Both models reap huge benefits from motivating local people, via education, public lecturing and policy-enactment to boom public awareness and supports to eco-cities urban management. The Japanese Musashino approach also shows that political leadership plays a crucial role to convene sufficient political supports among various



groups, and to stride forward the implementation of relevant policy measures. However, Indonesian experiences with the Adipura award shows that eco-cities urban management has been used as a political tool, which then becomes a benchmark measuring mayoral performance of certain areas. Governmental officers will be rewarded higher positions if they successfully carry out eco-cities urban management in certain areas.

## 2) Practices & Implementations

Participants touched upon several practices featuring feasible outcomes and positive results.

**Governmental incentives** greatly help pushing through the eco-cities plan; they can be further demonstrated and strengthened via economic gains obtained by the building and operation of new eco-cities and remodeling of existing cities.

**Involvement of local people and private sectors** is a crucial element of eco-cities planning, in the sense that the determination from the lower takes effect on, more efficaciously, convening and enhancing political wills in local authorities. In small and poor countries, eco-friendly urban planning may consider incorporating indigenous technologies featured with local cultural contents. Such integration serves to build up the community bonds, to promote public awareness and to obtain people's supports for long-term implementation.

**A contrast of implementation models exist in Europe and Asia.** In Asia, the top-down approach is preferred. It is not uncommon that central and local governments tend to dominate the whole process. Contrarily, the bottom-up approach is adopted in certain European



Photo: Participants during the workshop

areas and appears relatively more efficient when local community gears up to require, design and to ultimately push forward the implementation of eco-cities urban planning. Yet, in both models, an important factor is the financial capacity that can sustain the continuing implementation of the plan. In this regard, initiatives involve private sectors to secure stronger financial inputs and long-term supports become a desirable future direction for policy makers.

The **central and local governments** also play key roles. The government should promulgate integrated long-term planning, and show the required political leadership to enable successful implementations. Besides the demonstration of political wills, dynamic governance that coordinates different interest groups, including harmonizing national



goals and local preferences, also pave the way to successful eco-cities urban planning.

### **Selected Models and Experiences Sharing**

1) Asian Practices: participants from Asia share their lessons and experiences.

#### Japan:

The city of Musashino`s experiences show that supports from the residents could significantly contribute to establish environment-friendly and sustainable living conditions in urban areas. Communities are the most important player in this extraordinary Japanese case. The outcome has been arresting, in terms of Musashino City being ranked as the best in Japan, in income distribution, and social public services (for example, health care, education).

Besides strong civil supports, political leadership is of crucial importance. Mayors, regardless of their party factions, have been supportive of eco-cities planning. Relevant officers are also dedicated to prepare fully required assessment reports, policy agenda proposals, and thoroughly-drafted bills for further examination by City Council. These efforts turn out to be rewarding, in the sense that city legislators thus began to realize the importance of eco-cities urban planning.

Musashino story signifies that the authority needs to solicit the cooperation of all stakeholders, in order to successfully achieve the desired outcomes. When the driving forces come mainly from the most affected, the residents, the authority needs to conduct comprehensive surveys and meaningful communications, rather than to prioritize governmental considerations to local opinions and community needs.

Musashino City has successfully implemented eco-cities urban planning and adopted some inventive measures. One such example is the "reverse mortgage" provided by the city government to the residents over age of 65. Under this government-sponsored project, the city will take good care of all those over 65 in all aspects. In return, those residents will enter into a contract with the city, whereby their houses will be handled by the city government, which will transform such properties into greenery spaces after these residents pass away. In this way, the city government has a stable source of greenery spaces. The government can then make timely arrangement for more efficient utilization of urban landmasses. By this way, the city can also effectively manage the population growth, and prevent the city from sufferings caused by explosive urban populations.



Singapore:

The Singapore government has focused on urban planning and management as early as the 1960s. The outcomes are astonishing: the GDP number increased from \$1,310 in the 60s, to \$63,050 in 2011. The un-employment rate has been largely improved, from 8.6% in the 60s to 2.2% in nowadays. The country also achieved a high percentage of home ownership, with 87.2% of the population owns their own houses. Besides these eye-catching data showing the successful economic stories, the government also achieves the goal of 100% access to clean water by conducting innovative water management planning.

The Singaporean approach is to proceed by adopting dynamic urban governance, together with integrated master planning of urban developments. The desired outcome is of triple dimension: to develop competitive economics, to protect and maintain sustainable environment, and to enjoy high quality of life.

To develop competitive economics, Singaporean government sets up Jurong Industrial Estate, and clean out wet lands which are state properties so that easy execution is possible. To protect and maintain a sustainable environment, the government invests on establishing water management facilities, such as those for storage, purification, and for recycle technology, in order to further improve the quality and to increase the capacity of water provision. Besides, huge efforts are also devoted to promote public awareness and acceptance of recycled water. Along with water management, the provision of quality housing is another important dimension. Of relevancy are the efforts to remodel the usage of urban spaces, such as the clean-up of slums, and renovation of heavily-polluted industrialized areas.

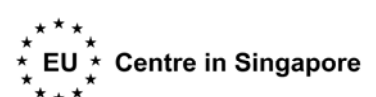
Singapore`s government also pursues integrated planning for urban development. Initially, foreign experts were invited to contribute to the master planning. A 50-years concept plan constitutes the back bone, while a 15-years master plan and a 5-years development one fill out the flesh of the plan. In order to fully implement the planning, inter-ministerial coordination is necessary. Full communication among relevant government agencies are carried out, then a balance-off process kicks off.

In terms of dynamic urban governance, Singapore adopts diversified measures, like area licensing scheme, car-pooling and cleaning-up of river waters.

In essence, the Singaporean experience shows that effective governance, strong political will, and effective management are keys to successful implementation of eco-cities urban planning.

China:

Tianjin is the economic center of the Bohai region. In 2011, the city reached a high



economic growth rate of 16.4%. However, the city was originally not so suitable for human habitation. Despite this limitation, Tianjin remains one of the districts that foreign investors reap the highest profit margins from their investments in China.

Eco-technology is a main focus in Tianjin eco-city planning. Surrounding this focus, the Commission aims at achieving diversified, yet balanced, goals that encompass comprehensive dimensions of an eco-friendly environment. The Tianjin eco-city planning hopes to establish an environment that provides clean water and energy, green buildings and transport, with infrastructures necessary for an intelligent urban living. Also, measures are taken to develop vibrant economy, such as establishing industrial and business areas to sustain business activities, and entertainment facilities to enhance recreational values of the planning.

The Commission was of the view that the biggest challenge in implementation was to change conventional living patterns of the residents, and to further establish new customs that match and make full use of the benefits of the eco-friendly environment. One example is to establish the public awareness and support of waste management system. The residents need to first classify, and later recycle the wastes. It takes time to persuade the public to put up with inconvenience caused thereby, to establish public awareness of the positive impacts, and to cultivate public support to long-term implementation of this new measure. This example also demonstrates a key factor, financial capacity. How to absorb these costs and to garner necessary financial resources became crucially important to the Commission.

Another challenge is coordination among multiple governmental divisions. A comprehensive plan like the Tianjin one indicates significant conflicts between departmental interests and necessary, yet hard-won, compromises among governmental divisions. Issues, like treatment of pollutants, exemplify the difficulty of harmonizing departmental goals: pollution travels everywhere, thus it poses great challenges to identify the pollution origin and to decide attribution of responsibilities.

The implementation of the Tianjin eco-city involved a multi-layered structure. At the top, there was the Joint Steering Council, comprising the deputy prime ministers, ministers, and ministerial officers that oversaw the Tianjin eco-city's implementations. Then, there was the Joint Working Committee comprising ministers and ministerial level officers responsible for evaluating existing policies and coming up with new ones.



Photo: Presentation by a participant

At the company level, both the Chinese and Singaporean consortiums were actively involved to ensure that the Tianjin eco-city project was commercially viable. This would



ensure the long-term sustainability of the project. The combination of strong governmental support coupled with stringent financial disciplines was expected to produce useful experiences for future urban planning projects in China.

Other Asian Countries: The Philippines, Indonesia, India.

The Philippines:

As a liveable city, Manila is ranked the 128<sup>th</sup>, compared with other urban areas worldwide. The Philippine government currently designated two regions to implement eco-cities urban planning; one area was along the Pasig River and near Manila, the other was in Puerto Princesa in Palawan province. The plan is government-driven, with a grand development plan targeting the period from 2011 to 2016.

India:

Up to now, India`s approach is more of a reactive style, and of a problem-solving nature. While the advantage is that this model remains mobile enough to quickly react to all sorts of problems, the drawbacks are reflected on the piecemeal or sectoral initiatives undertaken by different regional and local authorities.

To further encourage and develop eco-cities urban planning, the Indian government identified 65 cities nationwide, and establishes special task missions, like the Jawaharlal Nehru National Urban Renewal Mission. Despite the major governmental initiative, the biggest challenge at provincial levels is the lack of an integrated approach among different cities that embark on eco-cities urban planning. Besides holistic approaches, development plans of different cities nationwide tend to adopt the sectoral approach which is also encouraged by the central government.

Indonesia:

The term "eco-cities" is not used in Indonesia. Rather, green cities or clean cities are more favored. Major eco-cities urban planning is administered under the Ministry of Environment, which also set up contests and gave out awards to winning cities. Such programs started in 1986, which is later interrupted and resumed again in 2000.

One that catches most attentions is the Adipura urban planning award. The Adipura case shows that urban planning projects may turn out to be over-politicized, when failure of its implementation would cost the mayor, or regional authority, political support from both the people, and from the central government. The Adipura case becomes a benchmark for mayoral management capacity, with higher positions or ranks being



rewarded for successful implementation of sustainable urban development plans.

In the city of Jakarta, various eco-friendly measures are adopted. Regional agency is in charge of handling these measures. The city establishes absorption wells to enhance water collection, storage and further, the recycling of usable water. The city also cleans up waterfront and coastal areas, facilitates waste management system, and further tackles wastes that contain chemical ingredients.

#### General Asian Experiences:

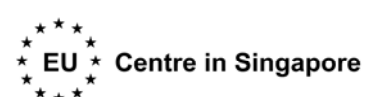
The term “eco-city” has been a contemporary one, as more modern components are incorporated to broaden its scope. Besides original elements like greenery spaces and measures for beautification purposes, the concept “eco-cities” now also focus on issues with constructive characteristics, such as to develop eco-friendly economic activities, and to establish eco-friendly infrastructures. As such, a successful eco-cities urban planning today lives up the name if the city could provide clean air, fresh water, greenery spaces, energy reservation designs, waste management system, and also, resources and incentives for sustainable economic activities. Nevertheless, a prevailing phenomenon around Asian area is high prices of real estate properties in urban regions. The rocketing prices pose significant hurdles to the initiative and implementation of successful eco-cities urban planning.

The Tianjin plan is a feasible one, because relatively, its management skills and technical standards are tailor-made, which appear to be more flexible and responsive to local needs.

The UN-Habitat has many years of working experiences on environment-related issues in Asian urban areas. This experience reveals that the state of Asian cities nowadays can be summarized as followed:

- generally, they are economically resilient and are factories to knowledge economies.
- However, they suffer from “McDonaldization” (standardization) in various aspects and also, from widening urban divide.
- Nevertheless, these Asian cities are regionally connected to each other, and globally to those in the other hemisphere.
- The consumption patterns are generally unsustainable, using up energy and causing huge burdens to their waste management systems.
- Yet, the civil society develops and expands more rapidly in these societies, and in particular, in the scenario of urban city governance.

However, many people in Asian cities will continue to live in slums due to the huge movement from the countryside. In this context, the role of the civil society will be much more important for urban governance in the future. At the same time problems such as





poverty and growing population make the development towards green cities even a bigger challenge. But still the goal for the future is to promote an equitable urban growth with lower carbon energy and resource intensity.

With regard to eco-cities, UN-Habitat has included seven different points in their agenda:

1. Embrace land mosaic patterns that provide for the large green patches and more sustainable urban development
2. Promote compact cities and planned extensions of urban areas
3. Balance strategic facilities with diversified local economic opportunities
4. Expand network infrastructure while getting the most out of existing networks
5. Construct greener built environments that use water and energy efficiently
6. Protect valuable ecosystems service and biodiversity hotspots while increasing resilience to some natural disasters
7. Promote clusters of green industries and green jobs

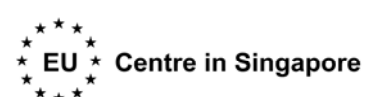
In times of discussions on climate change, water shortage, pollution hazardous waste and carbon reduction, the growing and big cities are the mostly touched regions. Since governance in huge metropolitan areas is very challenging, it was recommended to focus on middle cities which are about to grow in the future. By tackling air-pollution, congestions, noise and insufficient water supply while those cities are still manageable, they might grow in a green way. In order to be successful, the theory has to be complemented with practical experiences and cooperation in a multidisciplinary planning team with the involvement of all stakeholders needs to be enhanced. Such a holistic approach with best practice examples that includes all three harmonies seems very promising.

2) European Practices: participants from Europe share their lessons and experiences.

Germany:

The EU experiences show that results from discussions and interactions at the bottom appear more constructive and feasible. In one case, local villagers stride forward the plan to renovate self-producing energy. Their efforts are significantly rewarding, achieving 3 times more than the original goals in the designated periods.

Bottom-up approach as such is generally more favored and yield more fruitful outcomes in European countries. Germans are very aware of and supportive to eco-friendly measures. In some cases efforts ultimately produce generous results and enable them to



sell the surplus of self-producing energy to GE companies.

#### Finland:

The concept of eco-friendliness, of building up cities with eco-friendly designs and facilities, did not catch up the attention of the majority in Finland in earlier times. The public simply did not care about it. Nowadays, the people are more aware of the negative impacts brought by environmental deterioration and the urgency to redress this problem. One thing to be firstly-noted is regarding the concept of "eco-cities". It is covering both economic and environmental dimensions, requiring adequate measures and policies to stimulate eco-friendly, yet productive economic activities, and to utilize resources and the environment in a sustainable way. It should be a happy marriage between economics and the environment. In this regard, Tianjin is a successful example, a more informed integration. Contrarily, Masdar (an eco-city in Abu Dhabi), is like a machine, with rigid designs that set up goals too impractical to enable actual implementation (In Masdar, the authority set up a goal of 0 carbon emission, and 0 waste, which is a very difficult goal to achieve).

Also, indicators to assess implementation results require careful considerations. Currently, some eco-cities are artificial, in the sense that measures pursued and plans designed are not sustainable, and fail to take into account local conditions and the needs of local communities. A comprehensive set of evaluators of the performance of eco-cities urban planning are yet to be established.

Briefly, there are 3 synergies which can be of referential values:

- cooperation between scientific research institutes to study all aspects of clean environment and technology;
- a model taking into considerations both theories and practices (theory + practice) to build a real eco-city;
- an approach combining both eastern and western concepts and experiences (east + west).

In a successful model of eco-cities urban planning, the cornerstones should be the self-sufficient water and energy supply, optimal recycling of nutrients and wastes as well as eco-friendly public transport. Every plan needs to be carefully intertwined with local characteristics and specific local needs. Never the last, there should not and actually cannot be a universal model identifying how eco-cities urban planning ought to be sketched out.



Sweden:

The city of Helsingborg currently implements two major projects: the H+ project (H+ project), and the Drottninghog H project (H project). The authority aims at renovating areas covered in H+ project into an environment-friendly one. The H+ area is fully-industrialized and heavily polluted. One goal in the H+ project is to produce energy for self-supply and to have even surplus for further transactions. In the H project, the area covered is very much worn down, and contains only a small population. The way to push through D project is mainly resident-focused. Population there, albeit a small group, is high-lighted while their opinions and dialogues to the government is taken into full considerations. It is mainly the people's demands that drive forward the authority to include more greenery spaces in new planning.

The Helsingborg case exemplifies that key factors for a successful eco-cities urban planning are:

- participation of all stakeholders;
- broader cooperation between the people and the authority, and among different governmental agencies;
- strong political wills and consensus among different factions;
- financial supports;
- coordinations between national and municipal levels.

### **Future Work of the EU-Asia Dialogue in the Cluster Eco-Cities**

During the general discussions, participants vigorously exchanged ideas and shared their experiences. One factor that garners most attentions and supports is the involvement of local resident: the people factor.

**Involving local people** will help build up a sense of recognition, or say, an identity. Besides, it is important to make the eco-friendly urban environment available to all walks of life, not just to the rich. As such, the following elements constitute a comprehensive picture of the people factor: an identity for local residents, a sense of mutuality to further enhance residents' relationships among each other, and a community establishment.

Singaporean experiences also share this perception. It is to be recognized that in Singapore, the hardware parts are constructed first. The well-established hard ware then generates spill-over effect and permeates into the software scenario. If this is successful, the authority can more efficiently push through concepts of "eco-cities" and "eco-friendly" measures among the public.

Also, the Singaporean authority takes heed of the community establishment. In this regard, many tactics are available. Examples are the size of neighborhood (not to surpass the capacity of the living environment) or the designs of recreation areas (to



help residents get familiar with each other more easily). All such designs can be tailor-made to meet local needs and enable the involvement of local residents. These initiatives of the Singaporean government show that **good urban governance** with a long-term plan is a key factor in successful urban development. But at the same time, **non-state actors** such as NGOs and the business sector need to be involved as well and cooperate with the authorities.

Another issue worth mentioning is the **contrasting practices** among **European and Asian countries**. In brief, European cases shared in this workshop indicated that a bottom-up approach, by which local people convene and focus their efforts on pushing forward the eco-cities urban planning, can yield fruitful outcomes. Contrarily, it seems relatively rare in Asia that the bottom-up approach can have a role. The Japanese case of Musashino city is of exceptional value. In most cases, it is the local government, sometimes together with the central government making the grand guiding plan, which steers forward the eco-cities urban planning. It is in this sense that involvement of local people appears to be crucial in many Asian experiences. It was indicated that in certain areas, the government does not support strong involvement of the local people, fearing that opening the gate to the public may bring along overloading complaints and polarized opinions, which would further impede smooth implementation of the plan.

It has to be avoided that the people's habitat is destroyed completely through a change of the urban landscape and rising rent prices.

Financial resources for implementation and long-term operation of eco-cities: initially, the pilot project is always expensive and requires governmental supports. Those coming after this initial one may be more financially-equipped, since the public would have known it and would want to make contributions. Also, as the authority earns some experiences from previous projects, it should be more capable in developing sustainable economic activities in these subsequent plans. Then, the financial resources should not be hindering the implementation of the project.

The contrasting experiences in Asia and Europe shed lights on how diversified the model of governance has been pursued in the two continents. Since the government-driven method seems to be continued in near future in Asian countries, the more important issue to be tackled with is the coordination between local and central authorities, and among different governmental agencies. In general, good urban governance

In this regard, it is to be noted that the eco-cities plan should not be over-politicized. While political wills of the authority certainly plays a role, it is not good if political considerations become so dominating that block other factors like eco-technology development from kicking in.

In short, some critical aspects for sustainable urban development are partnership between different cities and key stakeholders, environmental and economic sustainability, representativeness and innovative policy changes as well as policy upgrades.



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This project is supported by the European Union



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