

Networking Meeting for Local Governments Creating Low-Carbon and Sustainable Cities



SEMINAR REPORT

**Held in conjunction with the 3rd High level Seminar on
Environmentally Sustainable Cities
7 March 2012
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Meeting Snapshots



Figure 1: Dr. Eric Sarata, Mayor of Talisay City answering to the questions raised by the participants

Figure 2: Mr. Boyd Dionysius Jouman, Senior Vice President of IRDA answering to the questions raised by the participants



Figure 3: Mr. Hideyaki Mori, President of IGES making his comments on low-carbon city development in Asia

Figure 4: Mr. Adnan Hameed Aliani, Chief of Section, ESCAP making his comments on organic waste composting in Asia



Figure 5: Mr. Rudzaimair Malek, Head of the Environment Department, Kuching North sharing his city experience.



Figure 6: Ms. Supitporn Bunnag, Director, Green City Division, Ministry of Natural Resources sharing her experience in Thailand

Networking Meeting for Local Governments

Creating Low-Carbon and Sustainable Cities

Summary Report

1. Introduction to the Seminar

1.1. Background

The 3rd High Level Seminar on Environmentally Sustainable Cities (ESC) was held in Siem Reap, Cambodia on 6-7 March 2012, and gathered a total of approximately 200 participants from 14 national and 38 local governments from the East Asia region. Further, 24 supportive organisations, including international, regional and bilateral organisations, academia, research institutions, private sector and NGOs attended to discuss the approaches and collaborative activities to develop environmentally sustainable cities in the region.

During the seminar, participants discussed suggestions to enhance local actions and identified priority areas for developing sustainable cities through the implementation of the ESC Model Cities Programme in eight ASEAN countries.

This informal networking meeting was therefore organised in conjunction with the 3rd HLS to provide a further opportunity for interaction among participants and sharing of experiences. Where networking of cities and coordination of supporting organisations efforts were desired, discussion took place on two priority thematic areas: organic waste management; and low-carbon and sustainable city planning.

1.2. Objectives

The main objectives of this informal seminar were:

- To exchange among local governments and supporting organisations views, challenges and opportunities for developing sustainable cities.
- To discuss the challenges that are faced by local governments and to see how these gaps can be filled through the activities of supporting organisations.

- To coordinate and synergise activities and programmes of supporting organisations (using the platform of the ESC Model Cities Programme).
- To facilitate networking among local governments and supporting organisations.

1.3. Methodology

The informal meeting was held in the form of an open forum. It was composed of two thematic sessions; the first on the Kitakyushu Initiative Network and Promotion of Organic Waste Management in Asian Cities, and the second on the Low Carbon and Sustainable City Planning.

It was attended by 50 participants representing local governments, national governments, academia, and international agencies. Each session included presentations delivered by invited local governments, followed by an open forum for discussion. Introductory presentations were given by the Institute for Global Environmental Strategies (IGES) and Clean Air Initiative for Asian Cities (CAI-Asia) respectively, to share additional information on the subject areas and to present some key points for discussion. The discussion was facilitated by the IGES and CITYNET, during which special views and comments were given by international agencies and academia, who are involved in supporting similar initiatives in the region.

2. Thematic Session 1: Kitakyushu Imitative Network and Promotion of Organic waste Management in Asian Cities

The Kitakyushu Initiative Network for a Clean Environment was a 10-year-long (2000-2010) programme implemented by Kitakyushu City with IGES' Kitakyushu Urban Centre (KUC) acting as secretariat, under the assistance of the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP). It was aimed at improving the capacities of local governments in achieving environmentally sustainable cities.

One of the key outcomes of the programme was the replication of Surabaya's decentralised composting and community-based solid waste management model in other member cities. While solid waste management is considered to be one of the most difficult to manage environmental issues for local governments, many cities have shown a great interest in tackling it and have attempted to replicate Surabaya's practices in their cities. They made a commitment to adopt decentralised composting and community-based solid waste management programmes, set specific waste reduction targets, and ultimately developed action plans utilising both local resources and international funds even after the Kitakyushu

Initiative officially ended in 2010.

To support these voluntarily efforts, Kitakyushu City along with the Kitakyushu International Techno-Cooperative Association (KITA) and IGES have continued to assist in the replication of the Surabaya model; offering opportunities for information exchange among local governments, documenting good practices for dissemination, and supporting replication projects by mobilising resources and facilitating cooperation between cities and other stakeholders. This thematic session therefore invited three presentations from member cities, Tarakan, Talisay and Bago to share their experiences of improving municipal solid waste management through a decentralised approach, and to discuss the successful factors and remaining challenges in achieving a sound material-cycle society.

2.1. Presentation 1: Tarakan City, Indonesia by Mr. Subono Samsudi, Head, Department of Cleansing and Greening (DKPP)

Mr. Subono Samsudi, Head, Department of Cleansing and Gardening (DKPP), Tarakan Municipality presented the experience of solid waste management in the city. Tarakan City, with a total population of 230,000 people in 2010, is located in the East Kalimantan Province of Indonesia. The total land area of the city is 650 sq. km and amount of waste generation is 100 tonnes per day, with 52% of this waste comprised of organic materials.

Since 2005, the municipal solid waste management system has been changed from the traditional method of collection, transportation and dumping to promotion of the 3SR (Sorting, Reuse, Reduce, and Recycling), drawing on Surabaya's successful experiences through the Kitakyushu Initiative Network. Based on 3SR, new waste management systems have been developed at household and community levels, and in other specific areas such as markets, public institutions and schools. To make citizens aware of the new waste management system, DKPP started a comprehensive public awareness programme throughout the city and provided assorted plastic bags to the communities ready to start the waste separation programme. At the same time, the municipality has set up 250 units of assorted separate trash bins covering the whole city to enable waste separation in a more hands-on way.

For treating organic materials separately, 6 composting facilities were established in 4 communities and 2 traditional markets. Organic materials are treated at the composting facilities and the final product is used for city gardens. The recycling materials are collected through a Waste Bank at the community-level and the Environment Saving Programme at the schools, an idea inspired by the Eco-Savers Programme in Marikina City, Philippines. The

collected recyclable materials are sold to the junkshop. Only the residual materials from these activities are transported to the final disposal area.

2.2. Presentation 2: Talisay City, Philippines by *Hon. Dr. Eric Saratan, Mayor of Talisay City*

Hon. Dr. Eric Saratan, Mayor of Talisay City presented the experience of his city in implementing the model of sustainable city. Talisay, a 4th Class Component City in the province of Negros Occidental of Western Philippines, is well-known for its historical and architectural buildings. Furthermore, the city contains 40% of the forest coverage of the Northern Negros.

However, similar to many other fast growing cities, Talisay City has been facing a tremendous challenge in achieving the sustainable development. As a result, Talisay City adopted the Performance Governance System (PGS), a four-phase management system that channels the energies, abilities and special knowledge of executives and their stakeholders into one strategy and measurable direction. The system was implemented in 2009 with the technical support of the Institute for Solidarity in Asia (ISA). Based on this process, the city was able to come up with a new vision for achieving a model for balanced development by 2040 and identified the importance of the promotion of green business and green infrastructure in the short- and long-term to achieve them.

The city started to adopt these new strategies for its municipal solid waste management. Talisay City Eco-Centre was established to treat organic materials coming from the public market experimenting with different composting methods such as: vermin-composting, windrow composting, and takakura composting. The centre has been promoting not only making compost but also using the matured compost for local agriculture so that a sound material-cycle society has been built as well.

2.3. Presentation 3: Bago City, Philippines by *Mr. Vicente D Mesias, Supervising Environmental Management Specialist*

Mr. Vicente D. Mesias, Supervising Environmental Management Specialist of Bago City shared the experience of sustainable environmental management in the city. Bago City, a 2nd Class Component City, is located in the Negros Occidental of Western Philippines. The city has 380 sq. km and divided into 24 *barangays*. Being very rich with nature, the city has aimed to become an ecologically balanced community with diverse resources effectively managed and sustainably utilized.

In order to achieve this vision, the municipal government has taken some innovative efforts to implement a variety of environmental projects at the grassroots level with community participation. Some of the key activities are: the introduction of environmental education into the school curriculum and distribution of environmental education textbooks, a marriage vow with nature (use of recycling materials for wedding decoration, plant a tree to remember the day etc.) the promotion of eco-fashion festivals, the establishment of a team of environmental-police for enforcement, reforestation, mangrove planting, eco-tourism and a clean city hall initiative.

Of all its environmental initiatives, the highest emphasis has been put on a solid waste management programme as the flagship project by the municipal government. Through the study tour in Surabaya, Indonesia and expert dispatch from Japan, Takakura composting was introduced in Bago as a low-cost and low-tech source level composting method. In accordance with local conditions and resources, Takakura composting has been adjusted to the locality and widely expanded in the city through community workshops and the distribution of composting baskets. The recycling materials are collected separately and promoted livelihood improvement programmes empowering local women groups, such as turning plastic bags into fashionable, crocheted bags. Other residuals are transported to the sanitary landfill site, the first in the entire region. Furthermore, a Clean and Green contest was initiated among *barangays* and schools to motivate them to engage in environmental activities. These innovative initiatives have been developed further in the city and replicated in its neighbouring region.

2.4. Discussions

The discussion session was started with a brief presentation by Mr. D. G. J. Premakumara, Policy Researcher, IGES, about the follow-up activities of the Kitakyushu Initiative Network and its organic waste management programme. The IGES presentation highlighted some successful factors of the Surabaya's solid waste management model and explained the replication of Surabaya's experience in 5 other cities in Indonesia and further expansion to some other cities in Asia, in countries such as the Philippines, Malaysia and Thailand. He further mentioned that even though the Kitakyushu Initiative Network was officially ended in 2010, many cities have shown great interest in replicating Surabaya's practice in their cities. To support these voluntarily efforts, IGES along with Kitakyushu City and KITA have continued offering opportunities for information exchange, documenting of good practices for dissemination and supporting replication projects by mobilising resources and facilitating cooperation among cities and with other supportive organisations, including ESCAP, JICA and CITYNET. Finally, IGES suggested some topics for discussion, such as key factors for

the successful expansion of Surabaya's model in other cities, key factors for scaling-up the pilot project city-wide, and the importance of a regional network to facilitate information sharing and knowledge transfer.

In response to the topics raised, participants joined in active discussions. They identified that municipalities are allocating larger budget for municipal solid waste management. On the other hand, they also noted a trend of increasing waste generation, inadequate collection, uncontrolled disposal, negative environmental and health impacts and recent global trends and knowledge sharing through international networks persuaded and motivated political interest and support for municipal waste management in their cities.,.

Participants further identified that the decentralised, community-based solid waste management and composting approach adopted in Surabaya City is effective and easy to apply in other cities in developing countries. The method can be established at pilot-scale with very little capital and low operating costs, with the flexibility to conform to the local conditions and scale-up at the household, community and city-wide levels. Additionally, the method integrates existing informal sectors in the city and provides excellent opportunities to improve the city's overall municipal solid waste management system.

However, the participants identified the importance of the following factors to promote successful community-based composting programmes: a strong political will and commitment; integrated waste management strategies developed with the involvement of all stakeholders; inter-departmental coordination and networking with other organizations; clear guidelines and education programmes for waste separation, collection, transportation and composting; integrating informal recycling systems; strong community leadership and public participation; establishing both community awards and legal enforcement to motivate community participation and enabling policies; and laws and regulations.

Joining the discussion, Mr. Adnan Hameed Aliani, Chief of Section, Environment and Development Section, ESCAP, highlighted that composting facilities, which are designed to accommodate around 5-10 tonnes of waste per day prove financially viable and can break even or even make profit. The operational costs of the composting facility can be covered from three main regular income sources: collection fees from users, sale of compost products, and sales of recyclables. In addition, these composting facilities can act as Integrated Resource Recovery Centres (IRRC), accommodating waste water and sludge, which can be treated through application of biogas technology. He further highlighted that there is also a great potential for reducing greenhouse gases in landfills by properly controlling composting facilities. This allows composting facilities to sell their carbon credits under the Clean

Development Mechanism (CDM) and get additional funding for covering capital cost. He finally argued that cities do not want to lose money on organic waste management, and that it is possible to earn profits from the effective management of them.

3. Thematic Session 2: Low-Carbon and Sustainable City Planning

Reflecting the emerging global trends on climate change challenges, imminent tasks for local governments – particularly for environmental management division (and city planning division) – are shifting from traditional pollution control to low-carbon and sustainable city planning, including the land-use, transport, energy and greenery management. To deal with these challenges, local governments need innovative technologies, socio-economic systems, services, business models, and city planning, as well as setting up an inter-sectoral division to coordinate multiple tasks. Coordination with relevant ministries and national agencies is also required, as city governments do not have the authority and resources to design and implement relevant plans in some of these sectors.

This thematic session therefore invited the Iskandar Regional Development Authority (IRDA) to present their experiences in making Sustainable Low-Carbon Scenario (LCS) Development with the strong support from academia and research institutions in Malaysia and abroad as well as to present their achievements and remaining challenges.

3.1. Presentation 4: Iskandar Regional Development Authority (IRDA), Malaysia by *Mr. Boyd Dionysius Jouman, Senior Vice President, Planning and Compliance, IRDA*

Mr. Boyd Dionysius Jouman, Senior Vice President, Planning & Compliance, Iskandar Regional Development Authority (IRDA) presented the Sustainable Low Carbon Scenario (LCS) Development in Iskandar, Malaysia. His presentation gave an introduction to the Malaysian context, the development of LCS, actions taken by the IRDA to implement the LCS, and key factors for the success.

In COP15 (2009), the Malaysian Prime Minister pledged a voluntary target to achieve 40% reduction in CO₂ by 2020. Based on this, the national government has prepared its Tenth Malaysia Plan (2011-2015) identifying some strategies to reduce emissions by applying both adaptation and mitigation measures. With this national policy in mind, IRDA has taken efforts to promote a “Green-focused Agenda” to guide its economic, social, environmental planning and management towards the establishment of a sustainable metropolis.

IRDA recognised the importance of LCS development for achieving its Green-focused Agenda. It has been working closely with University Teknologi Malaysia, Kyoto University and the National Institute for Environmental Studies (NIES) under the Low-Carbon Society research projects to realise Iskandar's commitment to reducing its GHG emissions by 30-50% by 2025. After a comprehensive study carried out by a team of researchers from the aforementioned academic institutions, the IRDA's blueprint for achieving Low-Carbon Society was prepared. This blueprint recommended measures such as integrated public transportation, environmental planning, green building guidelines, integrated land use, renewable energy, integrated solid waste management, drainage and storm water management, and human capital.

For achieving a Low-Carbon Society, IRDA identified potential areas for action such as a walkable/liveable/compact city, green infrastructure, low-carbon lifestyles, green economy, integrated transportation, energy efficient buildings, land use planning and renewable energy. Furthermore, IRDA has identified the following actions, such as expand the air quality stations from 3 to 10, phase out the use of diesel buses replacing to CNG buses, publish an annual state of the environment report, preparation of green plans by all major developments, and implement the green accord initiative award system to encourage private sector participation. Finally, the presentation argued the importance of political commitment, awareness raising and public involvement, capacity building and funding for the successful implementation of LCS developments.

3.2. Discussion

Giving a brief introduction to the discussion, Ms. May Ajero, Air Quality Programme Manager, CAI-Asia, presented the draft findings of the City Baseline Survey of Climate Change Plans and Urban Infrastructure Priorities in Asia, which was carried out by her office. About 139 Asian cities (cities with a total population over 250,000 people) were selected for this survey and data was gathered through websites and publications. The results identified that only 11% of surveyed cities have prepared climate change plans. However, in contrast, 45% of C40 cities have developed their climate change plans. It was further identified that external assistance and the mandate of supportive international organisations is a key factor in influencing the cities to make these plans, and also for deciding the scope of the plan. The existing plans show that water services and energy supply feature prominently in the plans (as equal to 73%). In addition, transport, land use planning, energy (in buildings), flood protection and waste management were identified as priority areas. The findings of this survey further identified that none of the city plans included data on financial investments, which are needed to implement the plan and for infrastructure investments. Finally, it was

indicated that transport and energy sectors are investment priorities of many development partners, including ADB, World Bank and JICA, while very little is allocated to municipal services.

After her presentation, a discussion was started to identify the opportunities and challenges in establishing low-carbon city planning in participant cities and key findings are summarised as follows:

The participants identified the importance of making city-level visions and long-term roadmaps for achieving low-carbon urban development. Specially, Mr. Boyd Jouman, IRDA and Mr. Junichi Fujino, NIES explained how Iskander's low-carbon society blueprint can contribute to achieve balanced development, investing in green infrastructure to promote a green economy. They further argued that without a long-term low-carbon blueprint for the city, the future development in the city will be ad hoc and would have a negative affect on the achievement of environmental sustainability.

However, participants identified that the low-carbon city development is still not a popular subject in the political agenda of their cities, when compared to developed countries. The findings of the CAI-Asia survey also supported this argument indicating that only 3% of cities in Asia (considering 894 cities) have climate change plans, while 45% of C40 cities have one. The participants further argued that without political interest and support, it is very difficult to implement any innovative ideas effectively. In contrast, they found that the successful implementation of the organic waste management programme was successful due to the strong political interest and support, while it is becoming a serious environmental, social and political issue in the city.

In addition, participants argued that even though their cities want to prepare a blueprint or long-term scenario development for low-carbon cities, they had to face some of the following practical challenges, for example, cities usually do not have authority to prepare city development plans or to operate important urban services (transport, electricity, water supply etc.), as these functions usually belong to central ministries. This required a coordination of a number of line-ministries at national level, a complicated and time consuming process.

The mayors, especially from Talisay and Palo argued that even though they would like to take political leadership for making low-carbon cities, their cities faced a tremendous challenge due to a lack of knowledge of these new planning strategies, calculation methods, and innovative technologies. They pointed to the importance of capacity-building and

information-sharing on best practices, which can be facilitated through these types of city networks.

Furthermore, participants discussed the challenges of implementing low-carbon scenario plans. They found that even though their cities would spend time and money to successfully prepare a blueprint plan, it would fail in the implementation phase them due to lack of funds. The implementation of the plans also requires inter-departmental coordination, which is hardly done due to different interests among them.

The participants identified the importance of encouraging public participation to create a shared vision based on local history, culture, and the environment. The participants argued that if communities are involved in the planning stage, they have a sense of ownership of the plan, which can be a key factor in getting public participation for its implementation. The participants identified that one of the success factors for decentralised solid waste management and organic composting programmes is strong community participation in planning, implementation and follow-up monitoring.

In response to the participants' comments, the supportive organisations suggestions some solutions based on their experiences. Ms. Bernadia I. Tjandradewi, Programme Director, CITYNET pointed out that city mayors, who are elected for 3-5 years do not have much time to make low-carbon scenarios, and subsequently for their implementation. The mayors are responsible for providing urgent services to citizens. Therefore, it is very important to having short-term actions along with the long-term visions for achieving low-carbon cities.

Mr. Adnan Hameed Aliani, Chief of Section, Environment and Development Section, ESCAP, highlighted the importance of having an investment plan along with the physical plan. The investment plan gives an idea how the city attempts to secure funds for its implementation and also is helpful for any negotiation with supporting agencies when asking for external funds. Further, ESCAP highlighted that cities can start from one service sector rather than considering cross-sectoral plans. This selection can be done based on the most urgent needs in the city and gradually can be expanded into other areas.

Mr. Hideyuki Mori, President, IGES shared the experiences of Japanese cities and noted that many Japanese cities are now working on developing the low-carbon city development plans due to the national regulations. However, many of these cities are facing tremendous challenges in implementing their plans. Only few larger cities, including Tokyo Metropolitan Government have shown success in implementing their plans. Therefore suitable financial, institutional and policy mechanisms at national level are required to enable local government

achieve low-carbon cities. He further identified the importance of public participation, not only in planning, but also for the implementation. He further shared how public awareness has changed in the area of energy reduction in Japan after the earthquake and tsunami in Tohoku area. Japanese people have taken voluntarily efforts at household level to reduce the energy use. Finally, he emphasised the importance of considering the economic, social, political and institutional mechanisms in each city, before in preparing the low-carbon city development plans.

The discussion session was concluded by a moderator, Mr. Toshizo Maeda, Acting Director, KUC-IGES, who pointed out that solid waste management shows some progress in the region, though low-carbon development needs concrete guidelines with external support. ASEAN Model Cities Programme should be a good platform for facilitating information sharing and networking towards achieving low-carbon city development in Asia. However, this requires strong commitment and support from the mayors, inter-departmental collaboration and collaboration between different stakeholders to achieve low-carbon development, as proofed by the best practices of organic waste management.

4. Concluding Remarks

This informal seminar emphasised the importance of defining city-level visions and locally-led initiatives in achieving low-carbon urban development. The city presentations show that two different approaches can be applied for achieving low-carbon city development. One is presented by IRDA and NIES, where a low-carbon blueprint is prepared based on a detailed survey by professionals from both inside the country and abroad, a long-term and comprehensive plan is formulated, and resources or funds towards the attainment of predetermined goals are mobilised. Another approach is presented by the cities from Kitakyushu Initiative Network, where emphasis was on incremental development. Low-carbon city development is not viewed as an exercise to set common goals, but recognised as an evolutionary process through interaction among different stakeholders in the city. However, both approaches recognised the importance of political commitment, public participation and the need of external support, particularly for capacity-building and for providing knowledge-sharing platforms which can serve as an opportunity to foster synergies among collaborating organisations.

Annex 1: List of Participants

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Annex 2: Presentations



TARAKAN CITY LOCAL GOVERNMENT

PresentationPoint

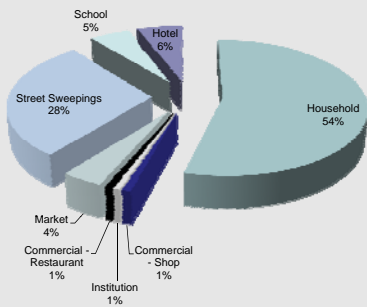
TARAKAN CITY, EAST KALIMANTAN PROVINCE, INDONESIA



- 1. Area (km²) = 650
- 2. Total Population = 230.000 people

PresentationPoint

Figure 1. Tarakan City Waste Source



Total of Waste : 300 m³/day

Total of waste disposed to TPA (final disposal area) /year (2011) = 69.152,5 m³

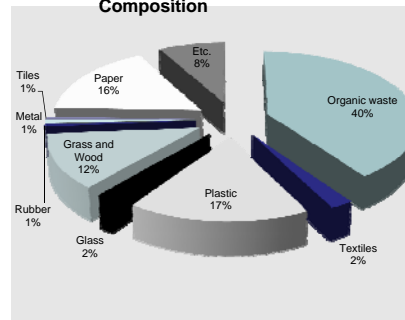
Average / month = 5763 m³

Average / day = 189 m³

Sources: DKKP, 2011

Tarakan City-Indonesia

Figure 2. Household Waste Composition



Type of waste	Percentage (%)
Organic Waste	40%
Textiles	2%
Plastic	17%
Glass	1%
Grass and Wood	12%
Rubber	1%
Metal	1%
Tiles	1%
Paper	16%
Etc.	8%

Type of Waste	Percentage (%)
Organic Waste	52
Non-Organic Waste	48

Sumber data : DKPP 2010

FLAGSHIP PROGRAM

- WASTE MANAGEMENT BY S3R SYSTEM (SEPERATE, REDUCE, REUSE, RECYCLE)
- WASTE MANAGEMENT AT HOUSEHOLD AND COMMUNITY LEVEL
- SOLID WASTE BANK (BANK SAMPAH)
- ENVIRONMENT SAVING (WASTE BANK at SCHOOL="TABUNGAN LINGKUNGAN")
- WASTE COLLECTING
- WASTE TREATMENT AT FINAL DISPOSAL AREA



S3R Assistance by Local Government

Depo Kompos (Compost Center)

Tarakan city have 4 Depo Kompos assistance by DKPP (Department of Cleansing and gardening) that help community-based composting program. Custodians of Depo will collect classified garbage from their neighborhood community.

Tarakan city have 2 Depo Kompos for 2 traditional market. It will collect classified garbage from the market. Organic waste treated into compost and sell an-norganic to the junkshop. The residu will transported to TPA.(Final Disposala Area)

The effectiveness of Depo in neighborhood is 96 %

WASTE MANAGEMENT (composting) AT HOUSEHOLD LEVEL , RT.03/Kel. Karang Anyar & RT.16/Kel. Karang Anyar Pantai

▪ Start 2007



WASTE MANAGEMENT AT HOUSEHOLD LEVEL, RT.16/ KELURAHAN KARANG ANYAR PANTAI



COMPOSTING AT HOUSEHOLD LEVEL, RT 7 JUATA PERMAI



RT 5 JUATA PERMAI

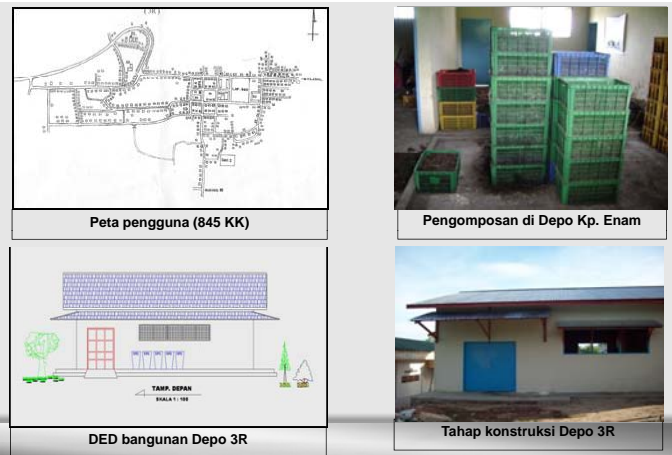


WASTE MANAGEMENT WITH 3R SYSTEM KIPRAH (KITA-PRO-SAMPAH) AT COMMUNITY LEVEL, KELURAHAN KARANG REJO



Produk:
Kompos
Liquid Kompos

WASTE MANAGEMENT WITH 3R SYSTEM, KELURAHAN KAMPUNG ENAM



TIS-KEBAL, producing compost in traditional market



PresentationPoint

3. Community waste sorting program

DKPP provide S3R counseling and classified plastic bag to community



2. Classified Trash Bin

to make separating rubbish easier. There are 250 units of them scattered throughout the city



PresentationPoint

4. Environment Saving

Inspired by the eco-savers from Marikina in the Philippines. Launched at February, 21 th 2012



The Execution of MoU

Launched marked by granting passbook to students

PresentationPoint



THANK YOU



The Village City:

A Model for Balanced Development by 2040



3rd High Level Seminar on Environmentally Sustainable Cities

City of Talisay

Mayor Eric M. Saratan, M.D.

Angkor Era Hotel, Siem Reap, Cambodia



The Village City:

A Model for Balanced Development by 2040

City of Talisay: A Growing City

- 4th Class Component City in the Province of Negros Occidental, in Western Visayas Region of the Philippines



The Village City:

A Model for Balanced Development by 2040



City of Talisay: A Growing City

- Known for its historical landmarks most especially The Ruins
 - 12th most fascinating ruins of the world according to oddee.com



The Village City:

A Model for Balanced Development by 2040



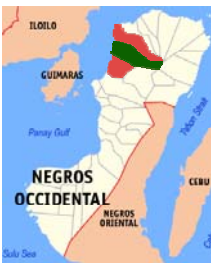
City of Talisay: A Growing City

- Has a total land area of 20,118 hectares or 201.18 sq. km., **32.95%** of which is forest land
- Holds **40%** of Northern Negros forest cover



The Village City:

A Model for Balanced Development by 2040



City of Talisay: A Growing City

- Strategically located between
 - Bacolod City where the seaport is located and
 - Silay City where an airport of international standard is situated
- ...will benefit from the spill-over of development



The Village City:

A Model for Balanced Development by 2040





City of Talisay: A Growing City

Main Challenge

"...how to capture this inevitable development and manage the risks it brings."



City of Talisay: A Growing City

"We envision to be a model for balanced development..."

- Well-paved and extensive road network
- Well-planned urban development
- Accessible basic services
- Modern transport and educational facilities
- Fast growing business and agricultural economy
- Healthy Talisaynon

...yet without disregarding the preservation of our environment."



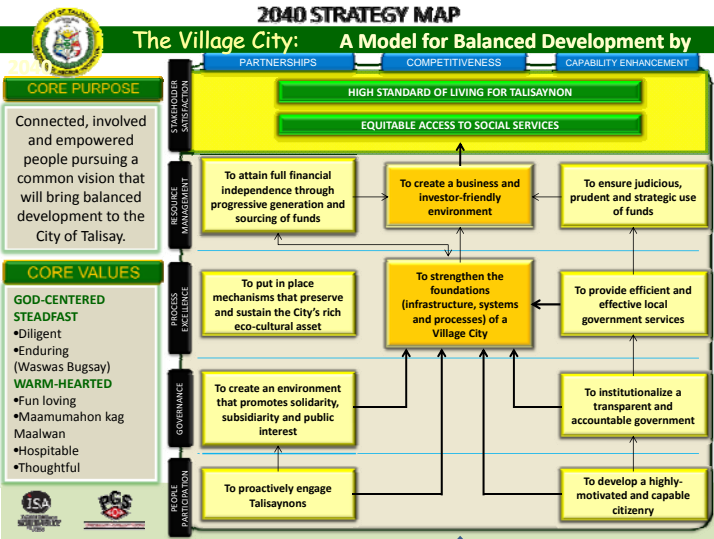
PGS: Moving Forward with Direction

- The City adopted the Performance Governance System (PGS) in November 2009.
- PGS is a four-phase management system that channels the energies, abilities and special knowledge of executives and their stakeholders into one strategic and measurable direction.
- It was developed by the Institute for Solidarity in Asia, a non-profit, non-partisan organization whose core advocacy is promoting governance and economic and organizational reform.



PGS: Moving Forward with Direction

- It utilizes a **balanced scorecard system**, a tool developed by Harvard Business School.
- The City passed the Initiation Stage last March 2010 and the Compliance Stage last October 2011 making it the **only PGS-compliant LGU in the Province.**
- We were able to revisit our previous vision, assess our strengths and weaknesses and set a new vision with mechanisms to attain it.



Talisay City Eco-Center

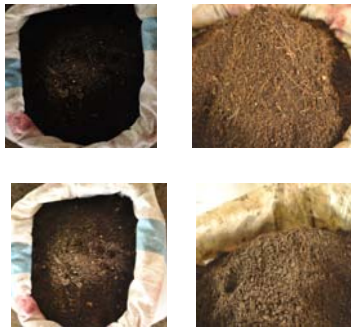
- The City's primary composting plant, which processes the biodegradable materials coming from the Public Market into organic compost utilizing various composting methods
- A demonstration facility in organic compost application



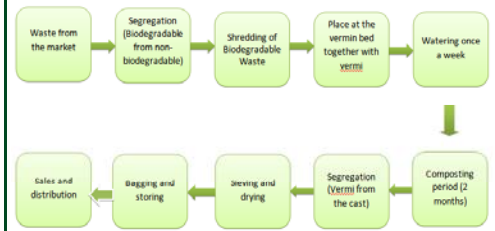
Composting methods used by the City:

- Vermicomposting
- Windrow Composting
- Takakura Composting
- CFA Composting

Talisay Eco-Center: Garbage to Goods



Talisay Eco-Center: Vermi-Composting

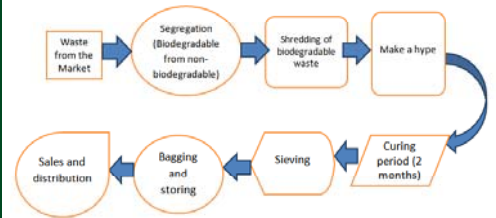


Talisay Eco-Center: Vermi-Composting

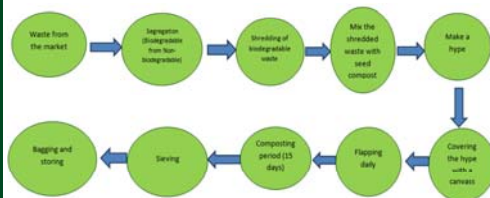


Waswas Bugsay

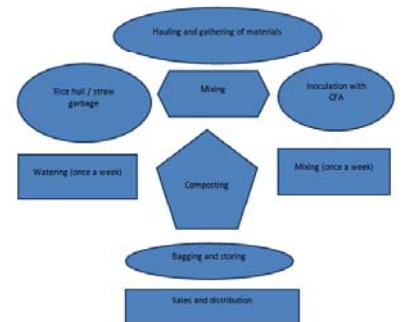
Talisay Eco-Center: Windrow Composting



Talisay Eco-Center: Takakura Composting



Talisay Eco-Center: CFA Composting





The Village City:

A Model for Balanced Development by 2040

Talisay City Eco-Center

Consultants
Engr. Alexander
Fetcher and Mr.
Paul Henares
and City
Agriculturists



The Village City:

A Model for Balanced Development by 2040

Talisay Eco-Center: Compost Application



The Village City:

A Model for Balanced Development by 2040

Talisay Eco-Center: Compost Application



The Village City:

A Model for Balanced Development by 2040



Mayor Eric M. Saratan, M.D.

Madamo guid nga salamat!

(Thank you very much!)



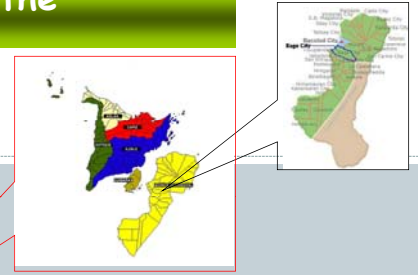


Bago City: Contributing to International Efforts

...

Vicente D. Mesias
Public Servant, Bago City

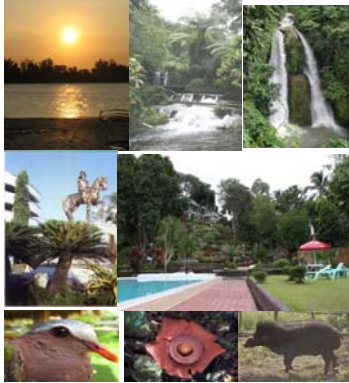
Where in the Philippines?



Bago City is in the fourth district of Negros Occidental, particularly in the western part of Negros Island, 123 degrees longitude, 10 degrees latitude.

Bago City, Philippines

"Home of Historical and Natural Treasures"



- ☺ Bago City is a 2nd Class Component City
- ☺ Land Area of 38,941.29 hectares divided in 24 Barangays; 16 rural, 8 urban
- ☺ Population of 162, 072 in 32,568 HHs
- ☺ Home of high endemism of various flora and fauna in MKNP & Mangroves

Bago City, Philippines

"Home of Historical and Natural Treasures"



- ☺ Actual Internal Revenue Allotment of PhP420,000,000.00; 20% IRA Fund for Development PhP 84,000,000.00
- ☺ ENR-dependent socio-economic activities include farming as it is considered the District Agri-industrial Center and the rice bowl of the Province; fishing as it has become a playground of Irrawady and bottle-nosed dolphins and sea turtles; manufacturing as it is the source of Viva mineral water and GSM alcohol; and eco-tourism with BAMR, RSPNC, Hidden Valley, Pataan Falls, Humberto's Resort etc.

Environment Management Direction

Vision

An ecologically balanced community with diverse resources effectively managed and sustainably utilized by its empowered and self reliant citizenry in partnership with a responsive and accountable governance.

Mission

Maintaining ecological balance through effective conservation, protection and rehabilitation of biodiversity for sustainable management by capacitated community with collaborative assistance from the government.



Envi-Education Initiatives

The City Government believes that a well informed constituency is a supportive populace, hence, the conduct of fora, advocacy campaigns and production of IEC materials .





Environmental Education Workbooks and Notebooks are proofs of integration of environment education in school curricula



Environment Workbooks



Turn-over and Distribution



Recipients



Environment Notebooks



Kasalikasan, A marriage vow with Nature...



Rampakalikasan, A tribute to Eco-fashion...



Crafting of Envi-Code



The City Government partnered with USLS that facilitated the multi-sectoral crafting of the Environment Code, the first of its kind in the Province



Deputation of Envi-Police

The City Government has deputized the following DENROs serving as enforcement arms for the environment, to wit:

- Bantay Katunggan Mangrove Warden 25
- SWM ECO-Enforcers SWM Police 57
- Kanlaon Green Brigade 50 Forest Wardens
- Bantay Dagat Fish Wardens 25



Kahoy Sang Kabuhi (Tree for Life) Project



Establishment of nurseries, tree parks and greenbelts are among the most important interventions continually initiated by the City Government





Kahoy Sang Kabuhi (Tree for Life) Project

Reforestation of 100 hectares for sustainable fuel wood and charcoal production in partnership with local folks

UNFPA is funding a Youth Development Program with USLS directed at developing them into becoming envi vanguards



Mayor Ramon D. Torres delivering a Speech during Project Launching last November 15, 2011 at Barangay Sampinit Satellite Mangrove Nursery

Established Mangrove Nurseries in Four Coastal Barangays of Poblacion, Calumangan, Sampinit and Taloc



Barangay Sampinit Mangrove Nursery with 15,173 propagules and seedlings of Bakauan Pagatpat and Bungalon

Barangay Poblacion Mangrove Nursery with 13,330 propagules and seedlings of Bakauan Pagatpat and Bungalon

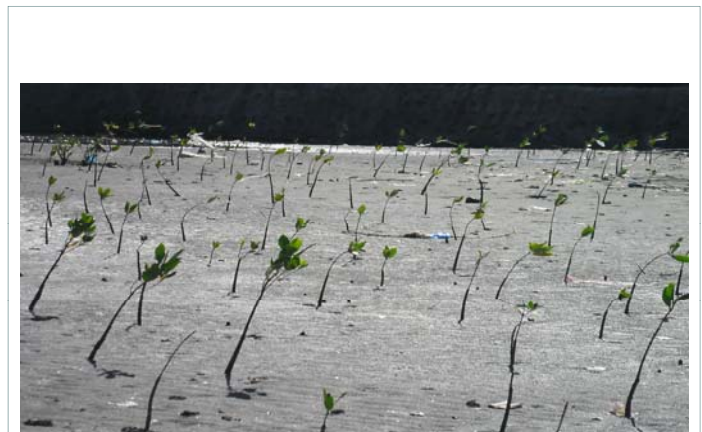
Barangay Calumangan Mangrove Nursery with 8,000 propagules and seedlings of Bakauan Pagatpat and Bungalon



Mangrove Planting inaugurated by DENR, City Officials and other stakeholders and continued by AIMATABA MPC



Mangrove Planting conducted by AIMATABA MPC with Bantay Katunggan Volunteers



Mangrove Planting conducted by AIMATABA MPC with Bantay Katunggan (Mangrove Wardens) Volunteers



Mangrove Co-Management Project



Mangrove Co-Management Project



The City Government and WB-GEF is developing the facilities towards creating a community-based eco-tourism activities



Artificial Reef for Fishes

Jackstone Type concrete artificial reefs were installed in identified fish sanctuary of the City. Today, schools of different species of fishes were already monitored by the fisher folks. 3 additional sites had been identified and awaiting funding.



Environmental Inspection Activities



Environmental Inspection is made a pre-requisite to renewal of Mayor's Permit and License to operate a business in the City



Clean City Hall Initiative



Environment and Client friendly initiatives of offices are monitored, assessed, recognized and given incentives

Solid Waste Management Program



Clean Bago City Program

Pre- KIN SWM Practices in Bago



Bago's SWM was characterized by the use of home-based conventional waste disposal such as pit system to vermin-composting, mixed waste collection and a few ambulant junkers, and garbage disposal in dumpsite and burning of wastes

Technology Exposures

Study tour in Surabaya, Indonesia



Bago was introduced to a low-cost and low-tech source level composting system

Takakura Composting in Bago City



Conduct of Workshops



Pots/Baskets Distribution



Collection of Compostables



Dr. Koji Takakura visited Bago and transformed the SWM practices of Bagonhons through the Takakura Method of Composting

Takakura Method of Composting



Surabaya, Indonesia



10-15 days



Bago City, Philippines



7-10 days

In Bago, black cloth is used to cover composts; rice hull, rice bran and mudpress are used as major components in the preparation of seed compost as they are abundant in the locality; and composting period is further reduced to 7 to 10 days

Bago Takakura Composting, an Evolution



SURABAYA EDITION



BAGO EDITION 1



BAGO EDITION 2

Changes in Bago SWM

The SWM system of Bago City has been improved and it is able to share the technology to other LGUs in the country

Domino Effects of SWM Technology Focus

Bago is the first City to establish an HDPE lined Sanitary Landfill in the entire region

Bago City Sanitary Landfill and Eco-Center

Legend:

- Administration Building
- HDPE Lined Cell 1
- HDPE Lined Cell 2
- Public Restroom
- HDPE Lined Cell 3
- HDPE Lined Cell 4
- HDPE Lined Cell 5
- HDPE Lined Cell 6
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From Dumpsite to Sanitary Landfill

THEN.....



NOW!



Domino Effects of SWM Technology Focus

GIVE YOUR OLD BAGS A NEW LIFE

Drop Off your plastic bags for a cause!

A LOCAL LIVELIHOOD PROJECT IS TURNING PLASTIC BAGS INTO FASHIONABLE CROCHETED BAGS HELPING TO REDUCE OUR IMPACT ON THE PLANET WHILE EMPOWERING A LOCAL WOMEN'S GROUP.

DONATE A BAG TODAY AND SAVE THE PLANET... IN MORE WAYS THAN ONE.



Plastic bags are collected, washed and dried



From Trash to Fashionable Bags





Kabahin Ka Incentives Program



Inter Brgy. Clean and Green Contest among barangays in the implementation of environmental initiatives



Inter School Clean and Green Contest among schools in the implementation of environmental initiatives



1st Place
MSC Elementary School



2nd Place
Bago City Elementary School



3rd Place
V. Cauntoy Elem. School

Outcomes of the Replication Program

Environmental

- Clean and well-maintained surroundings
- Protected and non-polluted air and water

Cultural and Behavioural

- Increased level of awareness among the constituents
- Sense of responsibility and involvement

Economic and Livelihood

- Additional opportunities for income
- Least cost for SWM by government

Political

- Sense of ownership by the entire constituency
- Awards and recognitions for LGU leaders and constituency
- PRIDE for Bagonhons and LEGACY for its leaders

“Good environment is good leadership...”



www.bagocity.gov.ph
(034)4610164
(034)4610540

Introduction to Kitakyushu Initiative Networks (KIN) and its organic waste management programme

D.G.J.Premakumara,
Policy Researcher, IGES



1. Kitakyushu Initiative (KI) for Clean Environment (2000/2010)

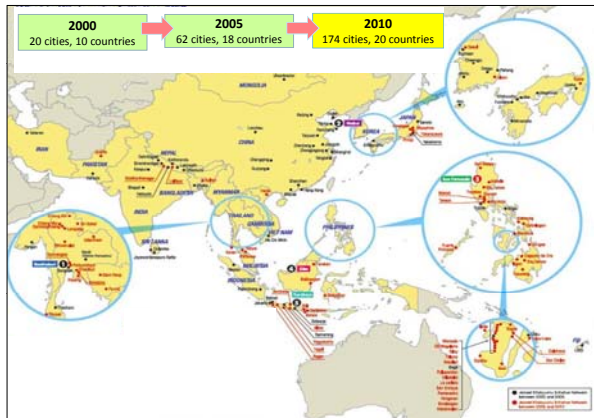
❖ It was a programme adopted in 2000 during the 4th Ministerial Conference on Environment and Development in Asia and the Pacific (MCED 4) in Kitakyushu City, Japan.

❖ It was aimed to improve the urban environment in Asia and the Pacific under the direction of the UNESCAP, funding support from the government of Japan and Kitakyushu City, secretariat of the IGES and the participation of local, national and international partners.

1st Cycle (2000-2005) Aim: Collection and documentation of good practices <ul style="list-style-type: none"> • KI networking Seminars • Thematic Seminars • Financial assistance for the implementation of pilot projects 	2nd Cycle (2005-2010): Aim: Replication of good practices <ul style="list-style-type: none"> • Organising study visits, workshops and seminars for facilitating replication of good practices • Training, information sharing for capacity building. 	Focused area: Water supply and sanitation, Solid waste management, Air quality management, Transport and Urban Landscape With cross-cutting issues on: Poverty, Public participation, Capacity building
--	--	--



2. The Kitakyushu Initiative Network



3. Decentralised Solid Waste Management in Surabaya City



(Photo courtesy of PKK Surabaya (top row) and Environmental Cadre of Tegalsari, Surabaya (bottom row))



3. Surabaya's achievement inspired the other cities



Photo: Surabaya City, 2010



4. Replication in five other cities, Indonesia



3rd High Level Seminar on Environmentally Sustainable Cities

SUSTAINABLE LOW CARBON SCENARIO DEVELOPMENT: LCS FOR ISKANDAR MALAYSIA

By Boyd Dionysius Joeman
SVP Planning and Compliance, IRDA
boyd@irda.com.my
6-8 March 2012



Presentation Outline

- ◆ Introduction: Malaysian Outlook
- ◆ Research into Policy > VIDEO
- ◆ IRDA : Roles & Responsibility
- ◆ LCS for Iskandar Malaysia Research Studies
- ◆ IRDA's Actions for LCS
- ◆ Essential Mechanisms for Success



Malaysian Outlook

- In COP15 (2009), Malaysian Prime Minister ; YAB Dato' Seri Mohd Najib Tun Abdul Razak, has pledged a voluntary 40% reduction of CO₂ emission intensity by 2020.
- Under the Tenth Malaysia Plan (2011-2015); The Government has intensified effort to reduce emission by climate adaptation and mitigation measures.



- With this in Focus, we look towards lowering the CO₂ emission intensity in Iskandar Malaysia by 50% by 2025 (base 2005).
- **The Tools** (ExSS & Backcasting Models) as tools to assist IRDA and the Local Authorities design Policies & Guidelines towards Low Carbon Scenarios.

On-going region-specific studies



A Low Carbon Asia: From Iskandar Malaysia to Asia

Research into Policy-Making: Towards Implementation

Video

[Iskandar Malaysia](#)

At COP16
Cancun, Mexico

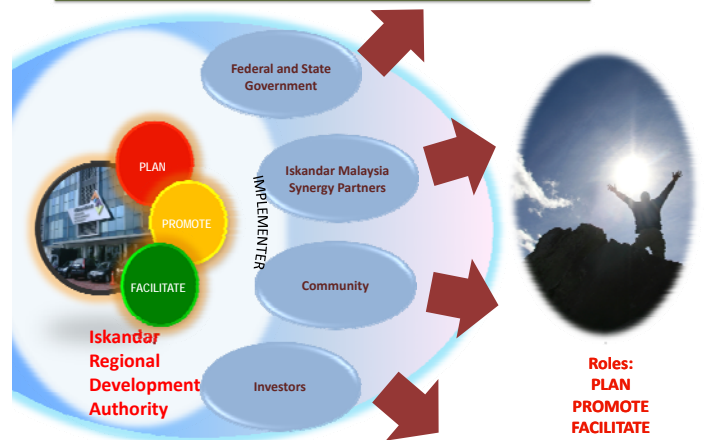
Nov/Dec 2010

Rationale why Iskandar Malaysia has adopt LCS



- Timely for developing countries like Malaysia to adopt the pathway towards a low carbon society – due to high increase in greenhouse gas emission and increasing public awareness.
- Many developing countries need clean technologies, energy efficiency technology, cost-effective RE that would allow them to expand their economies while curbing emissions.
- Pathway towards LCS requires concerted effort from the experts, government and political will to realise the vision.
- There is no doubt that urban land use planning policies i.e. at building scale to city-scale will have important implications for energy demand and supply which will in turn affect environmental sustainability.

IRDA: Roles and Responsibilities



Comprehensive Development Plan 2006-2025



Main document to guide Iskandar Malaysia's economic, social, environmental planning and management toward the establishment a "sustainable metropolis of international standing".



DEVELOPMENT STRATEGIES:

- Balanced Development
- Protect & Conserve Nature, Historic & Open Spaces
- TODs
- Promote Infill & Redevelopment
- Enhance Accessibility
- Promote Key Economic Areas as Focal Point For Growth
- Plan & Manage Regional Growth
- Plan for Innovative & Sustainable Infrastructure & Utilities
- Liveable, Walkable Green Cities - Quality and Sustainable Neighbourhoods

Downloadable at

www.iskandarmalaysia.com.my

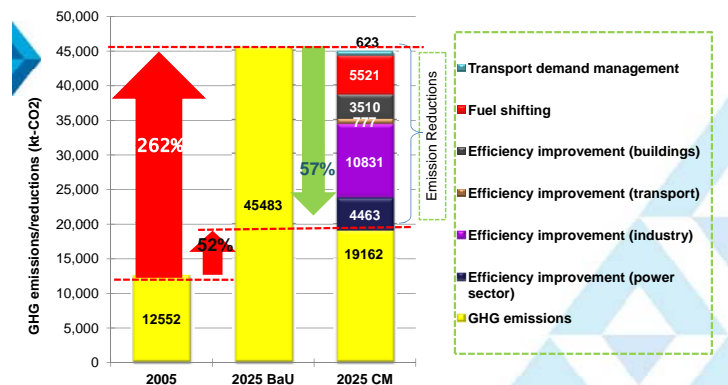
Page 9



IRDA Blueprints that promote LCS



Potential Mitigation in IM

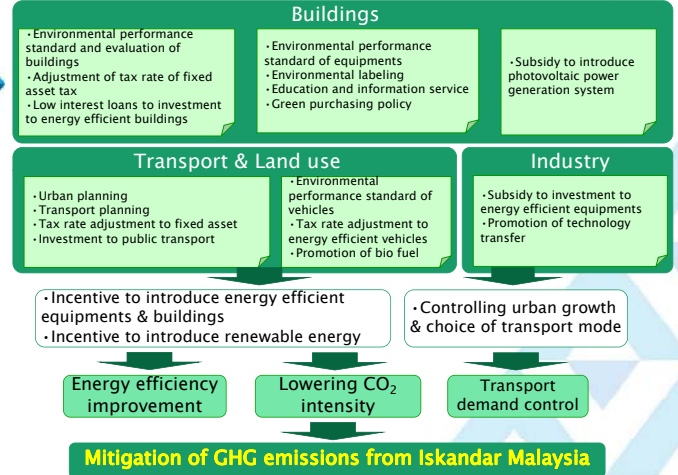


ISKANDAR MALAYSIA VISION

"Strong Sustainable Metropolis of international standing"



Low Carbon Cities Policy Package



To achieve Low Carbon Society status by 2025, what do we need to do together?

IRDA's Actions:

- Action 1: Walkable/Liveable/Compact City
- Action 2: Green & Blue Network/ Infrastructure
- Action 3: Low Carbon Lifestyle
- Action 4: A Green Economy
- Action 5: Integrated Transportation
- Action 6: Energy-efficient buildings
- Action 7: Land Use Planning
- Action 8: Efficient Energy Systems & Renewable Energy

LCS: Other Updates



1. Prepare a **LCS Blueprint** to collate all the information from the various blueprints – by Q4 2012
2. **Expand The Network Of Air Quality Stations in Iskandar Malaysia (3 to 10)**
3. Phase out the use of diesel public buses by either replacing or retrofitting to CNG buses.
4. Publish an Annual State of the **Environment Report** in IM.
5. The Preparation Of **Green Plans** By All Major Developments In IM To Promote Private Sector Environmental Stewardship.
6. Implement A Green Accord Initiative Award (**GAIA**) For The Private Sector To Encourage Corporate Commitments To The Environment.

Environmental Governance



Low Carbon Green Growth Institute

Korea's GGGI; UNESCAP (Busan); KeTTHA's LCGGA

ARNLCD

'Greening Iskandar Malaysia' Campaign

26 million trees; green & blue spaces; green corridors/species movement; Cycling launched on Earth Hour

IRDA's Environmental Sustainability Development LCSIM Consensus-Building

Awareness-Raising & Public Involvement; Charrettes/FGDs/Village Appraisals

Future City Initiative

Smart City; RE; Super-aging; city and town planning

CASBEE CITY

1st Pilot study outside Japan

Conclusion: Essential Mechanisms for Success of LCSIM





Thank You!

3rd HLS ESC

boyd@irda.com.my

6-8 March 2012





City Baseline Survey of Climate Change Plans and Urban Infrastructure Priorities in Asia

May Ajero/Sophie Punte
Air Quality Program Manager/Executive Director

6-8 March 2012
3rd High Level Seminar on Environmentally Sustainable Cities



Objectives

- The status of climate change and other relevant plans for Asian cities and their focus on climate change adaptation versus mitigation
- Where demand for climate change related infrastructure projects exists based on these plans

Steps



- Select 139 Asian cities: 250,000 – 5 million plus capital cities for comparison
- Survey of climate change and other relevant plans for selected cities and countries
- Review of selected other websites and publications to put this the baseline survey in a broader perspective
- Comparison with priorities of IFIs and relevant development partners
- Report

REPORT CONTENTS

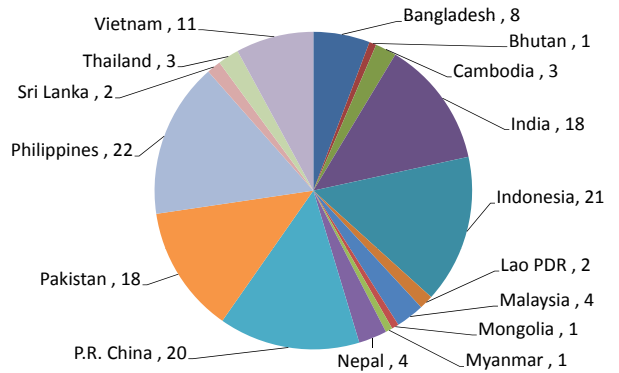
- Executive summary
- 1. Introduction
- 2. City Plans relevant to climate change
- 3. National Plans relevant to climate change
- 4. Comparison with IFI and development partner priorities
- 5. Conclusions
- 6. Recommendations
- 7. Annexes
 - List Asian cities surveyed
 - Baseline survey questionnaire
 - Climate change plans for C40 cities and infrastructure categories
 - IFIs and development partners
 - Country summaries
 - References

(UNPUBLISHED results – not to be cited)

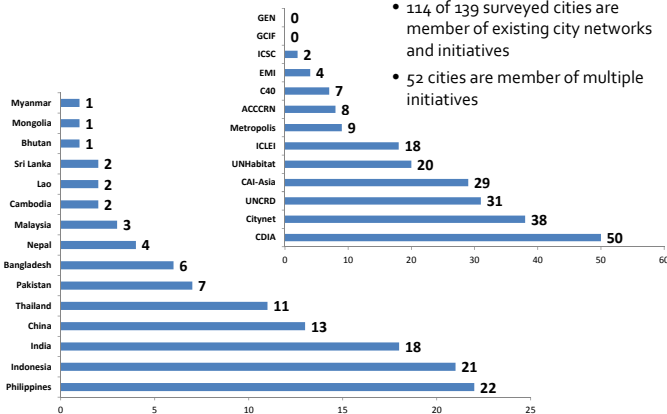
1. Select Cities: 139 Cities from 16 Asian Countries



Cities 250,000 – 5 million + Capital cities



1. Selection of Cities: membership of city networks and initiatives



• 114 of 139 surveyed cities are member of existing city networks and initiatives

• 52 cities are member of multiple initiatives

2. Survey of Climate Change and other Plans



- Country, population size, and location in a coastal area
- Membership or association with city networks or initiatives

Existing Climate Change Plans

- Existing Climate Change Plans
 - Mitigation, adaptation or both
 - Title, time period, issuing/implementing authority and source
- Sectors covered by Climate Change Plans (Based on C40 Baseline of Climate Action for Mega Cities)
 - Transport
 - Energy (Energy supply and distribution, Buildings, Outdoor lighting)
 - Municipal services (Waste management, Water)
 - Planning and Urban Land Use
 - Flood protection

Other key studies/websites consulted

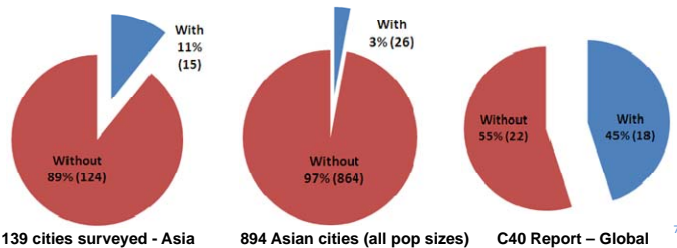
- C40 baseline study on climate actions
- Global Carbon Project and the Urban and Regional Carbon Management Initiative
- World Bank Urban Development Series on Climate Change and Cities
- ADB's brochures on Green, Competitive, and Inclusive Cities

- Too little information on infrastructure investments
- Other Plans and reference to climate change: Socio Economic, Disaster Risk Management, Urban Development, Transport, Environment/ Health/ Clean Air, and Energy

2. Survey of Climate Change Plans: Existing plans

India: Ahmedabad, Chennai Delhi, Gorakhpur, Indore, Surat
Indonesia: Bandar Lampung, Semarang
China: Guiyang, Nanchang
Thailand: Bangkok
Vietnam: Can Tho, Danang, HCMC, Qui Nhon

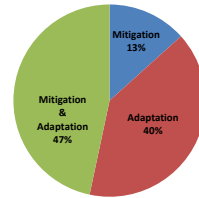
- The development of city climate change plans is at an early stage in Asia. Climate change plans were only found for
 - 15 (11%) of the 139 surveyed cities
 - 26 (3%) of the 894 cities with all population sizes
 - 4 Asian capital cities (Bangkok, Delhi, Singapore, Tokyo)
- 45% of C40 cities have plans thus an increase is to be expected
- 77 climate change plans were found worldwide (26 in Asia)
- 14 of 16 surveyed countries have climate change plans (in development for Myanmar and Pakistan)



2. Survey of Climate Change Plans: Mitigation vs. Adaptation



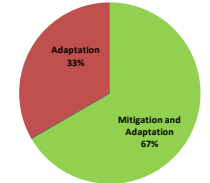
139 cities surveyed - Asia



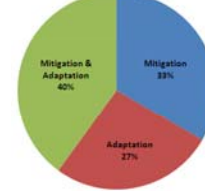
External assistance is a key factor of influence on the existence of plans and their scope

- Asian Cities Climate Change Resilience Network (ACCCRN): 7 surveyed cities, adaptation focus
- Low Carbon Pilot of China's NDRC: both Chinese cities with plans, mitigation focus

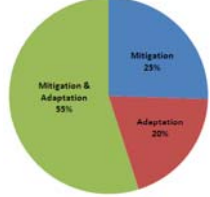
16 National CC Plans - Asia



C40 Report - Global



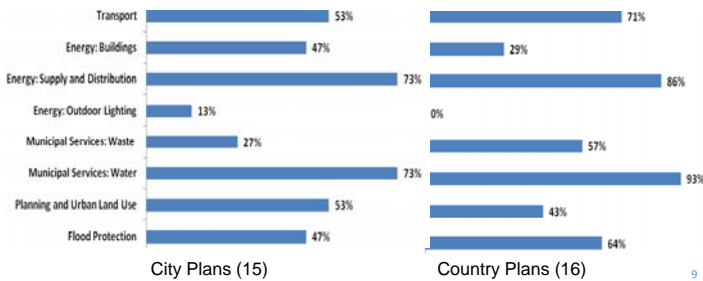
57 cities Global Carbon Project



2. Survey of Climate Change Plans: Sectors Covered



- Water services and Energy supply and distribution most frequently covered
- National plans better sector coverage than city plans
- All sectors apply to mitigation and adaptation, except flood protection, favoring combined plans
- None of the city plans included data on financial investments needed to implement the plan or for infrastructure investments
- National plans include total infrastructure investment estimates only



2. Survey of other Plans relevant to Climate Change



- Climate change has not yet been mainstreamed in selected city plans analyzed. Climate change is explicitly mentioned in:
 - 10 of 13 transport plans
 - 2 of 23 urban development plans
 - None of socio economic plans (4), disaster risk management plans (6), environment, health and clean air plans (19), and energy plans (1)
- At the national level the situation is more hopeful
 - 15 countries have socio-economic plans, most refer to climate change
 - 9 countries have disaster risk management plans and 8 countries include climate change except for P.R. China that focuses on earthquakes only
 - Few have urban development(4), transport (6), environment, health and clean air (4) and energy plans, (2) and climate change is covered by some
- National bodies are thus ahead of cities in mainstreaming climate change in sector plans and policies

4. IFI and development partner priorities



- Country coverage**
 - IFIs and other development partners broadly cover the 16 Asian countries
 - Bhutan and Myanmar are covered by fewer agencies
- Sector coverage**
 - Transport and energy sectors are investment priorities of all IFIs
 - Insufficient detail to understand CC related infrastructure investments
 - KfW provided urban investments: >50% towards municipal services and explicit inclusion of planning and urban land use
 - Only JICA lists flood protection separately as an investment area
- Other development partners work around development themes (health, environment, education)

IFIs:

- ADB
- AFD
- JICA
- KfW
- World Bank

Development Partners:

- GIZ
- Sida
- Austria
- KOICA
- UN Habitat
- Rockefeller Foundation

	ADB	%	World Bank	%	JICA	%	KfW - Urban Investments 2006-2010	%	KfW - Investments in 2010	%	AFD	%
Total investment	11,462		58,747		10,461		2,332		4,612		5,268	
Transport	3,831	33%	9,002	15%	4,756	45%	546	23%	2,487	54%	1,844	35%
Energy	2,454	21%	9,925	17%	2,463	24%	171	7%	785	17%		
Municipal Services	607	5%	4,103	7%			1,231	53%			474	9%
Planning/Urban land use							102	4%				11
Flood protection					39	0.4%						

For more information



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CAI-Asia Country Networks

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CAI-Asia Center Members	231 CAI-Asia Partnership Members	Donors in 2011
	<ul style="list-style-type: none"> 45 Cities 19 Environment ministries 13 Other Government agencies 17 Development agencies & foundations 67 NGOs 37 Academic and research institutes 33 Private sector companies 	<ul style="list-style-type: none"> Asian Development Bank Cities Development Initiative for Asia ClimateWorks Foundation Energy Foundation Fredskorpset Norway Fu Tak lam Foundation German International Cooperation (GIZ) Guangdong Government Institute for Global Environmental Strategies (IGES) Institute for Transport Policy Studies Institute for Transportation and Development Policy International Union for Conservation of Nature Korea Transport Institute MAHA Philippine Business for the Environment United Nations Centre for Regional Development (UNCRD) United Nations Environment Program Partnership for Clean Fuels and Vehicles (UNEP PCFV) Veolia World Bank