

## **Managing Urban Biodiversity – A Case Study of Sibu City, Sarawak, Malaysia**

**East Asia Summit High Level Seminar (HLS) on  
Environmentally Sustainable Cities (ESC)**

**Jakarta Indonesia  
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### **Outline of Presentation**

- 1 About Sibu City and key challenges
- 2 Policy in conservation and management of greenery
- 3 Private sectors participation in parks development
- 4 Other urban biodiversity initiatives

### **Sibu – Gateway and Regional Centre of Central Sarawak, Malaysian Borneo**



### **About Sibu**

- 1 Area: 129.5 sq.
- 2 Population: About 200,000
- 3 Location: Central of Sarawak

## Vision

### To be a dynamic, competitive and proactive local authority by 2015

- Dynamic – Always moving forward, stimulating changes and continuous improvement.
- Competitive – Highly motivated to achieve excellence and become the benchmark to other local authorities
- Proactive – Committed, responsive and sensitive towards a transparent, orderly and effective delivery system

## Mission

- Sibul Municipal Council is responsible for acting as the catalyst for improving the quality of life of the Sibul community by the active and effective provision of municipal services, infrastructure and support.
- In all our endeavors, we will be sensitive and responsive to the socio-economic needs and aspirations of the Sibul community, in consonance with the state and national vision "towards 2020"

## Key Challenges of Sibul City

1. Urban Infrastructure:-
  - Sinking roads and drains in deep peat soil
2. Environmental & Sanitation Concerns:-
  - Sanitary Landfill
  - Regulation of recycling business
  - Mass organic waste generated from markets and farms
  - Birds problem in town area

## Key Challenges of Sibul City

3. Beyond Traditional Roles:-
  - Promotion of Sibul through various tourism related activities such as Annual Borneo Cultural Festivals & Annual Countdown
  - Eradication of Urban Poverty

## Policy In Conservation and Management of Greenery



Quality and Integrated Landscape Development in making Sibu City a garden city to meet the needs and well being of the community.

Developing quality and integrated landscape program to balance development and environment.

## Policy In Conservation and Management of Greenery



Ensuring the areas for landscaping, public parks, open spaces and recreation grounds are competitive/practical.



Retaining and enriching the landscape resources for future generation.

Ensuring the competitiveness of the landscaping industry

## Private Sector Participation in Parks Development



Parks development in Sibu took a turn in 2001 when the local authority called for smart partnership urban parks projects

Since then, Sibu has added 10 parks, 3 sports facilities and 3 statues



Smart partnership is beginning to become a trend in Sibu nowadays and giving a facelift all over Sibu City, not only fulfilling aesthetic value, but also benefit the society and sustaining the urban environment.

## Modus Operandi in Decision Making

- Private sector (NGOs and communities) express their interest on smart partnership projects
- Local authority studies the proposal and offer terms and conditions
- Financial contribution by the private sector while the Government offers land and facilitates construction

## Modus Operandi in Decision Making

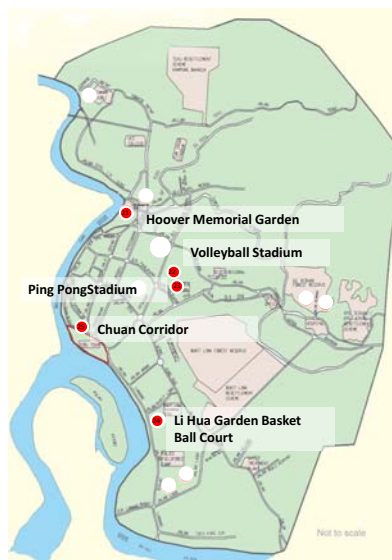
- Private sector reserves the priority to name the project after their organisation and also priority to use the facilities
- The government retains the ownership and is responsible to maintain the facilities



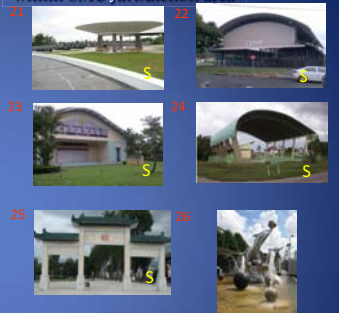
Location of Gardens & Sponsored Parks within SMC jurisdiction area



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## Wong Nai Siong Memorial Garden



Completed in March 2001 at the cost of RM1.0 million

## Sungai Merah Heritage Walk



A project to commemorate the founding of Sibü by the late Wong Nai Siong. - 0.5 km heritage walk along Sungei Merah completed in 2001

## Heng Hua Garden



A garden at Jalan Seduan costing RM1.0 million completed in March 2002

## Hui Ning Garden



Completed in June 2002 cost of RM 0.8 million

## Su Kuok Garden



Completed in November 2002 cost of RM 0.5 million

## Hii Association's Garden



Completed in November 2002 cost of RM 0.4 million

## Friendship Memorial Park



Completed in June 2003 at cost of RM 0.6 million

## Kutien Memorial Park



Completed in 2004 at cost of RM 1.8 million

## Chiang Chuang Garden



Completed in March 2005 at cost of RM 0.6 million

## Ling Clan Swan Garden



Completed in Year 2005

## Swan Mascot



## Dolphin Mascot



Completed in Year 2009 cost of RM 0.25 million- Sponsored by Ho Kang Yu Clan Association

## Lake Garden Phase 1



Project with Jabatan Landskap Negara  
Completed in Year 2002 at cost of RM 3.9 million

## Lake Garden Phase 2



Project with Jabatan Landskap Negara  
Completed in Year 2005 at cost of RM 4.6 million

## Sibu Gateway & Sibu Walk



## Taman Harmoni



Completed in Year June 2003 at cost of RM 1.7 million

## Hoover Memorial Garden



Completed in Year 2007 at the cost of RM1.2 million

## Chua'ng Corridor



Completed in Year 2007

## Rejang Esplanade



Upgrading of the park completed in Year 1997 cost of RM 1 million

## Bukit Aup Jubilee Park



Completed Phase I in 1993  
at cost of RM3.1 million

Completed Phase II in 1996  
at cost of RM 3.5 million

### **Benefits**

- Initial capital/outlay by the private sectors, so less burden to the Council and cost saving
- Instill the sense of belonging
- Citizens/private sectors are happy to have the parks or facilities named under their associations
- Associations can showcase their history

### **Barriers & Challenges**

- Identification of communities who are committed towards smart partnership
- Selective urban parks concept & designs
- Coming to mutual agreement on terms & conditions
- Maintenance of the community parks
- Diversification of smart partnership projects – Sports facilities, urban security
- Problem of birds and nuisances

### **Barriers & Challenges**

- Vandalism
- Soft and peat soil factors that lead to high maintenance cost in some recreational areas.
- Political will

### **Future Potentials**

- Sibu is now embarking on the other opportunities of private sector participation
- Residential Mini-Libraries
- Leveling and beautification of five-footways
- Beautification of side and back lanes in town centre

## Other Urban Biodiversity Initiatives

- Tree Planting Programme
- Community Composting
- Enzyme Making
- Recycling Activities

## Planting Tree is Fun



Tree Planting Day 2008 at Sibü Town Square Phase 2

## Tree Planting is Great



Tree Planting Day 2009 at Jalan Lada Sibü

## Tree Planting is Enjoyable



Adopt-A-Tree Programme 2009 at Brooke Drive Sibü

## Community/Household Composting

- Started in 2008
- Pilot projects in 2 residential neighborhoods and 2 secondary schools
- Activities
  - Briefing, demonstration, free compost bins, follow up inspection.
  - Communal composting centre (Market hawkers and schools)
  - JICA had organised a regional workshop on Takakura Method of composting in Dec 2009

## Community/Household Composting

- With the introduction of community/household composting, Council is also encouraging “Green Your Home” concept.
- Community/household composting not only reduce the waste but also improve the environment
- Future plan: Composting plant for waste from market and parks



Taman Grand Height

Started July, 2008

### Stakeholders' Participation



SMK Agama

Started August, 2008



Taman Li Hua

Started April, 2008



Launching of Household Composting project in Sibul



SMK Teknik

Started October, 2008



Individual Household

Started in 2008

## Takakura Method of Composting (Training in Sibul)



## Community Garbage Enzyme Making

- ▣ Household garbage enzymes has suddenly became very popular among the community
- ▣ SMC and the NGOs have been going round schools, religious bodies and the communities to give talks and giving demos
- ▣ Objectives: reducing garbage while producing environmental friendly enzymes for household use and cleansing drains, toilets, septic tanks, lakes, etc. to improve biodiversity



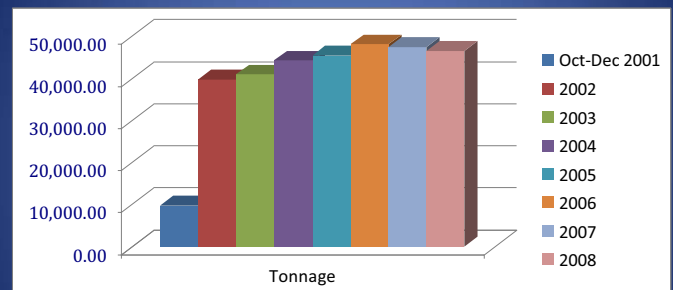
## Pouring Enzyme to Improve Biodiversity



## Community Recycling

- Started in 1990's
- Working closely with Sibü Kidney Foundation – all proceeds from sales of recyclable items goes to charity
- Activities
  - Talks to schools and NGOs
  - Giving free recycling bins and receptacles
  - Free collection from bins placed with NGOs premises
  - Management of Communal recycling centres
- Future plan:- Waste segregation at source
  - Working with community and looking into legislation

## Monthly waste disposed at Kemunyang Sanitary Landfill, Sibü from 2001 up to date



Oct-Dec 2001	2002	2003	2004	2005	2006	2007	2008
9,759.49	39,876.52	41,055.83	44,372.14	45,503.81	48,225.73	47,532.01	46,714.64

Total tonnage up to date = 365,571.14  
Population Served = 200,000

Total tonnage for 2009 = 42,580.97

## Waste Characterization

Item	Material	Percent [%]
1	Organic matters	49.50
2	Plastic	14.50
3	Paper	10.51
4	Paper Carton	8.80
5	Textile Waste	5.20
6	Glass	3.80
7	Ferrous Material	3.40
8	Rubber	2.80
9	PVC	1.20
10	Polystyrene	0.10
11	Aluminium	0.10

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## Environmental Commitment of Sibu

The City of Sibu is committed to address the mounting challenges of urbanization; its impact on the environment, society and economy and take a leading role in promoting environmental stewardship building mutual support and cooperation with cities in Asia Pacific region. As a concrete demonstration of this commitment, by the year 2015, the City of Sibu will:

(Adopted on 11 February 2010 at the 5<sup>th</sup> Kitakyushu Initiatives Network Meeting, Rigma Royal Hotel, Kitakyushu, Japan)

## Environmental Commitment of Sibu

❖ DECREASE WASTE GENERATION BY 20%-25% (BASED ON 2009 FIGURES) BY ACTIVELY PROMOTING REDUCE, REUSE AND RECYCLE PRACTICES THROUGHOUT THE MUNICIPALITY

## Environmental Commitment of Sibu

- ❖ To achieve the target, the following measures will be taken:-
  - ✓ Sustaining its current success in recycling, garbage enzyme and composting
  - ✓ Expanding Takakura Composting Method throughout the municipality

### **Environmental Commitment of Sibul**

- ✓ Promote Garden City and Garden Homes through tree planting, creation of parks and creative landscaping
- ✓ Promote waste segregation at source – showcase the pilot activity and replicate throughout the municipality
- ✓ Promote community level awareness, training and involvement of corporate sector in our journey towards a sustainable urban environment

### **Environmental Commitment of Sibul**

- ❖ The process will be significantly facilitated if assistance through international cooperation is provided for:-
  - ✓ Access to relevant technical information
  - ✓ Training of campaigners/community leaders
  - ✓ Expert visits/advice

### **Environmental Commitment of Sibul**

- ✓ Participation in the information/exchange/events
- ✓ Financial assistance for the campaigns and technical requirements

(Towards A Sustainable City of Sibul)



**Thank You  
Terima Kasih**