PENANG, Malaysia

City Information

Population - About 1.7 million

Area (km$^2$) - About 1030 square kilometers

Climate - Tropical

Main Economic Activities - Industrial and commercial on island and agricultural on mainland

City website –

http://www.penang.gov.my/

http://www.visitpenang.gov.my/portal3/


Country Information

Population - 2010 census 28,334,135

Area (km$^2$) - 329,847 km$^2$

Economy and GNI/Capita 46.2 High

Main Economic Activities – Agricultural, industry and mining

Website of National Government Agency responsible for guidance on waste legislation

**MSW Sector Overview: City Level**

*Classification of MSW* – household, commercial, industrial, institutional

*MSW Generation* – About 800,000 tonnes per year – About 470 kg per capita

*Collection Coverage and Type* – Government as well as private collection system – 100% in both urban and rural areas

*Waste Composition*

<table>
<thead>
<tr>
<th>Item</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food</td>
<td>44.6%</td>
</tr>
<tr>
<td>Yard &amp; Garden</td>
<td>11.5%</td>
</tr>
<tr>
<td>Paper</td>
<td>12.7%</td>
</tr>
<tr>
<td>Plastics</td>
<td>16.4%</td>
</tr>
<tr>
<td>Textile/Rubber</td>
<td>3.2%</td>
</tr>
<tr>
<td>Metal</td>
<td>4.0%</td>
</tr>
<tr>
<td>Hazardous</td>
<td>0.3%</td>
</tr>
<tr>
<td>Others</td>
<td>7.5%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100.0%</td>
</tr>
</tbody>
</table>

*Source: Satang for UNDP SWM Study Report 2007*
**Waste Management Practice**
Dumpsites and sanitary landfill. Formal recycling and treatment of food waste and green waste.

**Formal Waste Sector**
Level 3 Sanitary Landfill being upgraded to Level 4 with leachate treatment plant. Composting facilities in communities, residential areas, recycling of both sorted and co-mingled waste.

**Informal Waste Sector**
Scavengers at the landfill and dumpsites, itinerant street collectors.

**Financing of MSW**
Property tax, trade service tax, subsidies from the Federal Government

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**MSW Sector Overview: Country Level**

*General description and overview of common practice*
Waste generated is collected (80%) and disposed of in a sanitary manner by the local municipalities. A total of 165 landfills remain open and operating in Malaysia. Of these, eight are classified as sanitary landfills, with another 11 sanitary landfills at various stages of construction.

*Waste Generation (per capita/year)*
0.5-0.8 kg per capita / day or 182.50 kg - 292.00 kg per capita/year

*Collection Coverage*
95% of population receiving collection services

*Number of Landfills/MSW Disposal rate (tonnes/year)*
165 operational landfills,

*Recycling Rate*
Overall about 5-15%

*Waste management of Organic fraction (composting, anaerobic digestion)*
Household, community and municipal composting

*Energy Recovery Rate*
Not available
City Level

Aimed at improving Waste Management in General

- Penang’s Solid Waste Management Policy Framework
- Integrated Solid Waste Management (ISWM) Framework For Penang - Implementation Strategies

Aimed at addressing Climate change and reducing SLCPs through waste related activities

- Penang’ Organic Waste Policy
  - Waste separation at source
  - Waste diversion from the landfill
  - Incentivising the system
  - Capacity Building & Awareness Programmes

Other City Projects

1. Landfill gas extraction and flaring for CDM
2. Turning pig waste into bio-gas and electricity - Sustainable Bio-fuels Co. using the Indian system bio-gas project in Kg Valdor. June 2012
3. Cultivation of algae from pig waste for animal feed
   a. Ministry of Environment, Japan - a pilot project a zero discharge system using pig waste to cultivate Chorella algae as well as composting in Pinang Tunggal. 2011/12
   b. UTAR pilot project for production of Spirulina from pig waste in Juru
Country Level

Aimed at improving Waste Management in General

3Rs, household composting, resource recovery

The preference hierarchy remains clear. Avoidance, reduction, and reuse remain the most preferred options; recovery and treatment are next, with disposal and landfilling being the least preferred options.

Privatisation of collection of household and similar solid waste and public cleansing with long term concessions.

Aimed at addressing Climate change and reducing SLCPs through waste related activities

Establishing Integrated Waste Management facilities – MRFs, Biological / Thermal treatment of waste

Legislation

City Level

Legislation governing MSW management

1. Local Government Act 1976 (Act 171)
2. Road, Drainage And Building Act 1974 (Act 133)
3. Town And Country Planning Act 1976 (Act 172)

Guidance for MSW management (after legislation, before inspection activities)

- Environmental Quality (Prescribed Premises) (EIA) Order 1987
- EQA new regulations (final drafting stage, 2007)
- Public Cleansing and Safety By-Laws, 1980
- Refuse Collection, Removal and Disposal By-laws
- Municipal Council (Compounding Of Offences) By-Laws
- Anti-Litter laws
**Inspection activities/supervision and enforcement of legislation**

- Regularly for illegal dumping and violations
- Environmental Quality (Prescribed Premises) (EIA) Order 1987
- EQA new regulations (final drafting stage, 2007)
- Public Cleansing and Safety By-Laws, 1980
- LGA 1976 U02 Collection, Disposal and final Disposal of Rubbish By-Laws
- LGA 1976 U04 Public Toilets 1993
- LGA 1976 U06; Businesses that are Dangerous, Unhealthy or Offensive
- Street, Drainage and Building Act
- LGA 1976 U01 Prevention of Littering By-Laws KTSP 1975

**LGA = Local Government Act**

**National Level**

**Legislation governing MSW management**

Solid Waste and Public Cleansing Management Act 2007 (Act 672)

**Guidance for MSW management (after legislation, before inspection activities)**

Not available

**Inspection activities/supervision and enforcement of legislation**

Department of Environment

Ministry of Health
**Involvement to date in CCAC MSW Initiative**

**City**

*Global Environment Centre Foundation (GEC)*

2-110, Ryokuchi-koen, Tsurumi-ku, Osaka 538-0036 Japan  
Tel: +81-(0)6-6915-4121  
Fax: +81-(0)6-6915-0181  
Website: gec.jp

*UNEP IETC (International Environmental Technology Centre)*

2-110 Ryokuchi koen  
Tsurumi-ku, Osaka 538-0036, Japan  
Tel: +81-6-6915-4581  
Fax: +81-6-6915-0304  
Website: http://www.unep.org/ietc/

**Country**

Not available

**Current Projects or activities aimed at reducing SLCP Emissions**

**City Level**

- Methane avoidance organic waste diversion from landfill and dumpsites through food waste separation for composting and conversion to bio-soil enhancers.
- Treatment of landfill gas
Country Level (and/or international)

- Waste minimization and diversion
- Treatment of landfill gases
- Thermal treatment of waste - incineration
- Waste to energy

Key Stakeholders

MINISTRY OF HOUSING AND LOCAL GOVERNMENT

1 2 - 38, No. 51, Persiaran Perdana, Presint 4, 62100, Putrajaya, Malaysia.
Tel. Number: 603-8000 8000
Fax: 603-8891 3182


SOLID WASTE AND PUBLIC CLEANSING MANAGEMENT CORPORATION (PPSPPA)

Wisma UOA Pantai, Tingkat Mezzanine, 2, 3 & 4, No 11 Jalan Pantai Jaya (Jalan 4/83A), Peti Surat 12038, 59200 Kuala Lumpur
Tel: 603-2245 9292
Fax: 603-2245 9394 / 9293
Email: ppsppa@sisa.my

FEDERAL TOWN AND COUNTRY PLANNING DEPARTMENT (JPBD)

Jalan Cenderasari, 50646, Kuala Lumpur.
Tel: 603-2698 9211
Fax : 603-2692 9994
Email : webmaster@townplan.gov.my

LOCAL GOVERNMENT DEPARTMENT (JKT)
Aras 25-29, No. 51, Persiaran Perdana, Presint 4, 62100 Putrajaya
Tel : 603-8891 5000
Fax : 603-8891 3090
Email : jkt@kpkt.gov.my

Additional useful information

Department of Environment
Ministry of Natural Resources and Environment
Level 1 – 4, Podium 2 & 3, Wisma Sumber Asli
No.25, Persiaran Perdana, Precint 4
Federal Government Administrative Centre
62574 Putrajaya, Malaysia.

Complaints Line: 03-8889 1972
Hotline: 1-800-88-2727
General Line (Request information & Contact DOE Staff)
Telephone: 03-8871 2000 / 2200
Fax: 03-8889 1973/75
URL : http://www.doe.gov.my/
Ministry of Health
Jalan Rumah Sakit Bangsar 59000 Kuala Lumpur
Tel: (6)03 2282 5921/2297 1555 Fax: (6)03 2282 5172
Email: www.moh.gov.my

The Government of Malaysia’s Official Portal

Contacts

MSW Initiative City Lead
Hon. Mr Phee Boon Poh
State Environment Minister
Level 53, KOMTAR, George Town,
10503 Penang Malaysia.
Tel: 604 262 0870 Email: pheeboonpoh@penang.gov.my

MSW Initiative City Representatives

1. Mubarak Bin Junus
   Director of Urban Services
   Penang Island Municipal Council
   Address:
   Bahagian Perkhidmatan Perbandaran
   Majlis Perbandaran Pulau Pinang
   Jalan Padang Kota Lama 10200 Pulau Pinang
   Tel: +604 263300  Fax: +604-2633036  Email: mubarak@mppp.gov.my
2. Ms Rosnani bte Mahmod  
Director of Urban Services  
Seberang Perai Municipal Council  
Jalan Perda Utama, Bandar Perda,  
14000 Bukit Mertajam, Pulau Pinang  
Tel: +604-5497601  Fax: +604-5395588  Email: rosnani@mpsp.gov.my

MSW Initiative Country Contact

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