Milestones Towards PGC2025: Putrajaya Green City Initiatives
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COP20 Japan Pavilion NIES Event “Low Carbon City Design by AIM”
9 December 2014, COP20 Lima, Peru
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2. Background of Putrajaya
Background of Putrajaya, Malaysia’s Federal Government Administrative Centre

Land Use Components

<table>
<thead>
<tr>
<th>Land use</th>
<th>Hectares</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government Use</td>
<td>225.38</td>
<td>4.57</td>
</tr>
<tr>
<td>Residential</td>
<td>733.64</td>
<td>14.88</td>
</tr>
<tr>
<td>Commercial</td>
<td>139.41</td>
<td>2.83</td>
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<tr>
<td>Mixed Use</td>
<td>40.82</td>
<td>0.83</td>
</tr>
<tr>
<td>Special Use</td>
<td>132.92</td>
<td>2.70</td>
</tr>
<tr>
<td>Service Industry</td>
<td>11.23</td>
<td>0.23</td>
</tr>
<tr>
<td>Public Amenities</td>
<td>344.27</td>
<td>6.98</td>
</tr>
<tr>
<td>Parks &amp; open Space</td>
<td>1,918.66</td>
<td>38.91</td>
</tr>
<tr>
<td>Infrastructure &amp; Utilities</td>
<td>482.57</td>
<td>9.79</td>
</tr>
<tr>
<td>Transportation</td>
<td>902.10</td>
<td>18.29</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>4,931.00</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Current Status of Development (2014)

<table>
<thead>
<tr>
<th>Component</th>
<th>Planned (2025)</th>
<th>Current Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>347,700</td>
<td>36,000</td>
</tr>
<tr>
<td>Housing</td>
<td>65,000</td>
<td>27,589 units</td>
</tr>
<tr>
<td>Government office space</td>
<td>2.75 million sqm</td>
<td>2.37 million sqm</td>
</tr>
<tr>
<td>Other government use</td>
<td>1.20 million sqm</td>
<td>214,604 sqm</td>
</tr>
<tr>
<td>Commercial space</td>
<td>4.35 million sqm</td>
<td>579,000 sqm</td>
</tr>
</tbody>
</table>
3. Putrajaya’s Low Carbon Green City Policy & Initiatives
Background of Putrajaya as a Green City

- At the Copenhagen COP15, Malaysia has made a conditional commitment of a reduction of carbon emission intensity of Malaysian GDP, of up to 40% by 2020 from a 2005 baseline.

- In tabling the 2010 Malaysian Budget, the Prime Minister announced to “develop Putrajaya and Cyberjaya as pioneer township in Green Technology as a showcase for the development of other townships”.

Prime Minister of Malaysia: Dato’ Sri Mohd Najib Tun Abdul Razak
Putrajaya Structure Plan: Sustainable Putrajaya 2025

Regulatory Framework that sets policies & initiatives/programmes to turn Putrajaya into a sustainable low carbon green city

PGC2025 has identified initiatives/programmes to be implemented in line with the policies of the structure plan.
a) Putrajaya Bikeable City
Putrajaya Structure Plan: Sustainable Putrajaya 2025

Policy 6: Implementing Integrated Transportation System

Initiative 6.5:
Encourage Walking and Cycling. This is to ensure that walking and cycling will become a preferred transport/movement options complementing the use of public transportation

Programmes:
P6.5A: Provision of a seamless, comfortable and safe pedestrian environment
P6.5B: Provision of dedicated routes and
P6.5C: Encouraging bicycle rental services
PGC2025 : Putrajaya Green City 2025

Make Putrajaya a Bikeable & Walkable City

Programmes

1-1  Make Cycling as preferred transport option:
   - provision of separate route for cyclists & pedestrians,
   - facilities; cycling parking space and shower facilities,
   - improvement of existing cycle lanes
   - safer routes to school &
   - bicycle rental services.

1-2  Make walking as preferred transport option:
   - provision of separate route for cyclists & pedestrians
   - pedestrianized streets,
   - covered pedestrian walkways
   - pedestrian related facilities
   - information kiosks & benches

The anticipated contribution in terms of reduction in GHG emission is 53ktCO$_2$eq or 3% of the total reduction for 2025.
Existing Programmes

Putrajaya Inter-Parks Rides (Healthy Parks Healthy People)

Kayuhan Ceria @ Putrajaya (Bicycle Fun Ride @ Putrajaya)
Current Initiative
1. To implement the Putrajaya as a bikeable city action identified in PGC2025
2. To reduce the GHG emission from the transportation sector
3. To support the tourism related activities in Putrajaya especially along the boulevard (Persiarian Perdana) of the city centre

First Phase: 24 km
b) Inventory of GHG Emissions 2013
Inventory of Putrajaya GHG Emission 2013
1. Government buildings
2. Commercial buildings
3. Public amenities and facilities
4. Residential
5. Passenger transport
6. Freight transport &
7. Solid waste

The overall GHG emissions for year 2013 were 1,316ktCO$_2$eq as compared to 1,120ktCO$_2$eq for year 2012 due to the increase in:
- the completed building floor space
- the number of population
- the number of workers.

Emissions per capita were 13.2tCO$_2$eq.
The inventory results indicate that the highest GHG emissions is from the building sector at 72% (953 ktCO$_2$eq), followed by the transportation sector at 24% (312ktCO$_2$eq) and solid waste at 4% (51ktCO$_2$eq).

The highest source of GHG emissions is from the use of electricity at 58% (785ktCO$_2$eq), followed by petroleum at 22% (288ktCO$_2$eq) and natural gas at 16% (214ktCO$_2$eq). This indicates that the citywide energy sources are still dependent on non-renewable energy.
c. Scheme for Reduction of Energy Consumption in Buildings
Programmes and measures targeting at the reduction of energy consumption in buildings.

The GHG inventory in 2013 indicates that the building sector contributes the highest in terms of city’s GHG emissions at 72%.

PPj with the assistance of AIM & Tokyo Metropolitan Government (TMG) is proposing a scheme targeting at reduction of energy consumption in buildings in Putrajaya.

1. Set up institutional framework involving various parties and agencies
2. Devise implementation mechanism for energy consumption reductions in buildings:
   - measuring and reporting of energy consumption in buildings/facilities
   - responsible actors/parties to develop energy consumption reduction plans in buildings/facilities & disclose reports
3. Formulate regulatory instrument & provide incentives
4. Prepare support instrument to facilitate the scheme
2) Devising an implementation mechanism for energy consumption reductions in buildings

Institutions for energy consumption reduction in buildings/facilities

a. Measuring and reporting of energy consumption in buildings/facilities

- Request to report energy consumption by Putrajaya Corporation
- Report their Energy consumption by building owners

b. Developing energy saving plans in buildings/facilities

- Request to submit energy saving plans Evaluate their energy saving effort by Putrajaya Corporation
- Submit their Energy saving plan by building owners

Instruments to enhance implementations by buildings/facilities

- c. Associated regulatory instruments & Incentives for the implementation of the scheme
- d. Support instrument to facilitate the implementation of the scheme

1) Institutional framework involving various parties and agencies to participate in the scheme
PERBADANAN PUTRAJAYA

Way Forward
Way Forward

- In the years to come, PPj will ensure that cycling as a mode of transport will be realised via promotional and educational programmes targeting at workers, residents and schools.
- PPj with the assistance of AIM, NIES and TMG will expedite the implementation of the scheme targeting at reduction of energy consumption in buildings in Putrajaya.
- PPj will monitor closely the initiative to reduce GHG emissions by 2025 by intensifying programmes identified in Putrajaya Structure Plan and PGC2025.
THANK YOU