



PUTRAJAYA

LOW CARBON GREEN CITY

INITIATIVES REPORT

TENTH EDITION | December 2025



Putrajaya Low Carbon Green City Initiatives Report **©Putrajaya Corporation 2025**

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Tenth Edition
December 2025

Foreword **From The President**

Assalamualaikum warahmatullahi wabarakatuh and greetings,

Alhamdulillah, congratulations and well done on the publication of the tenth edition of the Low Carbon Green City Initiatives Report. This publication reflects Putrajaya Corporation's (PPj) continued commitment to supporting the national sustainability agenda and the aspiration to position Putrajaya as a model low-carbon city. This report serves as an official reporting medium to record progress in implementing Putrajaya's low-carbon initiatives, while also showcasing multi-stakeholder collaboration and urban governance in support of local climate change mitigation and adaptation efforts.



The Putrajaya Climate Action Plan 2030 (PCAP 2030) has set a target to reduce absolute greenhouse gas (GHG) emissions by 33% by 2030, in line with the National Low Carbon Cities Masterplan (NLCCM). In addition, the Putrajaya Model Low Carbon City 2030 Roadmaps have been developed as a guide for implementing initiatives by task force members under six (6) themes:

- i) Task Force 1: Energy
- ii) Task Force 2: Urban Planning and Building Regulations
- iii) Task Force 3: Mobility
- iv) Task Force 4: Blue and Green
- v) Task Force 5: Community
- vi) Task Force 6: Climate Resilience

The implementation of these Task Forces involves PPj officers in collaboration with external agencies across various fields of expertise to ensure that the initiatives are carried out comprehensively and in an integrated manner. The highest appreciation is extended to all Task Force members for their continued cooperation and commitment in implementing the agreed initiatives. May these efforts continue in support of the Government's aspiration to make Putrajaya a model low-carbon city in Malaysia.

Thank you.

DATO' HAJI MOHD SAKERI BIN ABDUL KADIR
PRESIDENT
PUTRAJAYA CORPORATION
DECEMBER 2025

Message **From The Vice President**

Assalamualaikum warahmatullahi wabarakatuh and greetings,

All praise and gratitude be to Allah SWT for His blessings, through which the Putrajaya Low Carbon City Task Force and its strategic partners have successfully implemented various low-carbon city initiatives throughout 2025. Overall, as of December 2025, out of a total of 144 initiatives outlined in the Putrajaya Low Carbon City Model Roadmaps, 56% have been successfully completed, 29% are currently in progress, and 15% are planned for future implementation.



Among the key initiatives implemented in 2025 are as follows:

- i) Installation of solar panels at the PPj Complex and covered pedestrian walkways between MRT Putrajaya Sentral and Putra Harmoni Apartments;
- ii) Upgrading of LED lighting systems at the Neighbourhood Complex, Precinct 11;
- iii) MyCREST certification for the PPj Complex;
- iv) Improvement of pedestrian and cycling lane in Precinct 9;
- v) Putrajaya Car Free Day;
- vi) Phase 2 e-scooter rental services;
- vii) Aquatic plant replanting in Wetland Cells;
- viii) Putrajaya Green Residence Incentive (IKH);
- ix) Putrajaya Green Initiative Awards (AIH);
- x) Used beverage carton collection campaign; and
- xi) Putrajaya lake water intake facility.

In closing, highest appreciation and sincere thanks are extended to all task force members, strategic partners, government and private agencies, as well as the Putrajaya community for their commitment in advancing the low-carbon city agenda.

Thank you.

DATIN TPr HJH. SALMAH BINTI HJ. SALMAN
VICE PRESIDENT OF CITY PLANNING
PUTRAJAYA CORPORATION
DECEMBER 2025

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Lebih Banyak Bintang
Lebih Jimat Tenaga
More Stars
More Energy Saving

PENGUNAAN TENAGA ENERGY CONSUMPTION

Kipas Domestik
Domestic Fan



KDK
K15V0

Penggunaan Tenaga Purata Setahun
A Average Energy Consumption Per Year

208 kWh

Produk ini menggunakan 15% kurang tenaga
daripada produk berbeza 2-Bintang terendah
This product consumes 15% less energy than the lowest 2-Star rated product
Enan Dhafl eseng/kaz / Tattad accord 2-Stardinga 1220 2014

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Energy Commission

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1.0
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1.0 ENERGY

1.1 The Building Sector Energy Use and Carbon Reporting Programme (BECO₂R).

- Objectives :**
- To assess building performance covering Energy, Water & Carbon Indices using a voluntary reporting method by building owners and managers.
 - To establish performance benchmarks (common carbon metrics) to identify carbon abatement potential.
 - To secure engagement and foster collaboration among key building stakeholders to support continuous carbon reduction.

Strategic partners : JKR Putrajaya, government and private building owners/ managers.

Table 1.1: Total Buildings in the BECO₂R Programme 2025

Building Types	Number of Buildings
Government Office	79
Commercial	10
Hotel	2
Public Facilities	3
Residential (Apartment)	3
Government Quarters	6
School/University	1
Total	104

1.1.1 Performance and Benchmarking for Government Office Complexes.

The evaluation of 79 government office buildings under the BECO₂R programme for the year 2025 shows significant improvements across all three key performance indices when compared to the 2012 base year. However, when comparing 2025 to 2024, the results indicate mixed trends. While both the BEI and BCI continued to improve, the BWI recorded a 3% increase between 2024 and 2025, rising from 0.753 m³/m²/year to 0.774 m³/m²/year. Overall, the 2025 assessment demonstrates strong progress in energy and carbon performance, with sustained downward trends, whereas water consumption requires renewed attention due to the slight year-on-year increase.

Building Energy Index

2012 (Base year)	2025		2024	2025	
188 kWh/m ² /year	114 kWh/m ² /year	 39%	123 kWh/m ² /year	114 kWh/m ² /year	 7%

Building Carbon Index

2012 (Base year)	2025		2024	2025	
97kgCO ₂ /m ² /year	56kgCO ₂ /m ² /year	 42%	60kgCO ₂ /m ² /year	56kgCO ₂ /m ² /year	 7%

Building Water Index

2012 (Base year)	2025		2024	2025	
1.005m ³ /m ² /year	0.774m ³ /m ² /year	 23%	0.753m ³ /m ² /year	0.774m ³ /m ² /year	 3%

Source: Building Sector Energy Use & Carbon Reporting System (BECO₂R), PPj

Outreach and Promotion

Date : 21 January 2025
Location : Putrajaya Corporation Complex
Number of participants : 15 peoples



A briefing session for new participants was conducted to educate them on the value of measuring and reporting their building performance. The attendees were representatives from the Property Management Division (BPH), facility managers of government quarters, and the Facility Management Division of Putrajaya Corporation.

1.1.2 Incentive of the BECO₂R Programme

Free training and technical assistance were provided to new BECO₂R participants, as follows

Date : 6 March 2025
Location : Putrajaya Corporation Complex
Number of participants : 15 peoples



Hands-on training was provided to assist reporting entities in reporting and monitoring energy and water consumption through the PPj online system.

Building Energy Management Clinic

Objectives : To provide free walk-through energy audits and energy management advice.

Location & date :

- Phase 5R6 Quarters, Precinct 5 (15 May 2025)
- Phase 1C Quarters, Precinct 16 (15 May 2025)
- Phase 1 & 2 Quarters, Precinct 9 (28 May 2025)
- Phase 5 & 6 Quarters, Precinct 9 (28 May 2025)

Strategic partner : Sustainable Energy Development Authority (SEDA) Malaysia.



Inspection of the electrical wiring system design and operation at Phase 5R6 Quarters, Precinct 5.

Proposed improvement to replace the existing air-conditioning units with 4-star or 5-star rated units at Phase 5R6 Quarters, Precinct 5



A briefing session on building profile analysis and trends in energy and water consumption was conducted with the facility management of Phase 1C Quarters, Precinct 16.



Proposed improvement to segregate the hall's electrical wiring system according to designated zones at Phase 1C Quarters, Precinct 16."



It is recommended to install motion sensors at the lift lobby to optimise energy consumption at Phase 5 and 6 Quarters, Precinct 9.



Inspection of lighting levels in office spaces to prevent unnecessary electricity wastage.

1.2 Energy Efficiency Improvement

Objectives : To reduce electricity consumption by improving the energy efficiency of lighting and cold-water pump.

1.2.1 Public Lighting

Number of LED lights replaced : 1,966 units

Energy reduction : 1,138,800 kWh

Table 1.2: Locations of Public LED Streetlight Installed in Putrajaya, 2025

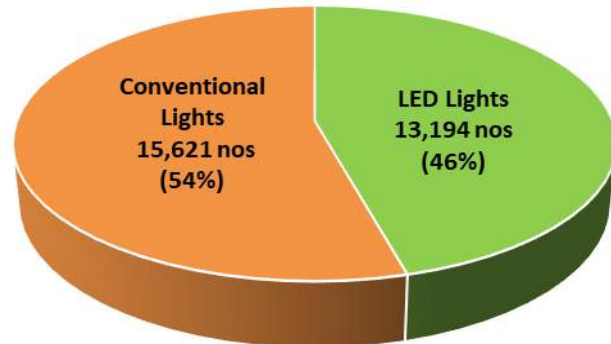
No.	Location	Number of Lights
A) Street Lights		
1	Jalan P1146	101
2	Jambatan Seri Wawasan	22
3	Jalan Tunku Abdul Rahman	171
4	Persiaran Utara	260
5	Jalan Diplomatik 2/2, 2/4, 2/5 & 2/6	126
6	Jalan P11	414
7	Jalan P5	304
8	Jalan P15H4	115
9	Jalan P9A, P9B, P9B/1 & P9B/2	99
10	Jalan P11A	176
B) Area Lights		
11	Kompleks Seri Perdana	38
12	Taman Putra Perdana	121
13	Taman Wetland	19
Total		1,966

Source: Engineering and Maintenance Department, Putrajaya Corporation

Table 1.3: Total Public LED Streetlights Installed, 2018–2025

Year	Number of Lights
2018	824
2019	112
2020	1,389
2021	1,513
2022	1,807
2023	2,548
2024	3,054
2025	1,966
Total	13,194

Chart 1.3: Distribution of Public Lighting Types in Putrajaya



Source: Engineering and Maintenance Department, Putrajaya Corporation



Jambatan Seri Wawasan



Persiaran Utara



Jalan P5, Precinct 17

1.2.2 Government Quarters

Location : 33 Government Quarters in Putrajaya

Number of LED lights replaced : 2,216 units

Energy reduction : 30% compared to the previous lights



Phase 18R12 Quarters, Precinct 18



Phase 11 Quarters, Precinct 9

Location : Blocks TB, CB and TD, Phase 4C Quarters, Precinct 8

Number of LED lights replaced : 3 units

Energy reduction : 20% compared to the previous system



A new high energy-efficiency variable speed drive (VSD)/ inverter cold-water pump was installed

1.3 Renewable Energy Expansion

1.3.1 Solar Photovoltaic Covered Pedestrian Walkways

Location	: MRT Putrajaya Sentral, P7 – Pangsapuri Putra Harmoni, P9
Number of LED lights replaced	: 42MWh (33kWp)
Energy reduction	: 24.7tCO ₂ eq



The covered pedestrian walkway has a total length of 560m, with solar photovoltaic (PV) panels installed along a 100m section of the walkway. The electricity generated is supplied to the grid to reduce electricity bills.

1.3.2 Solar Photovoltaic at Putrajaya Corporation Premises

Location	: Putrajaya Corporation Complex, Precinct 3
Number of LED lights replaced	: 518MWh (405.3kWp)
Energy reduction	: 302.9tCO ₂ eq



Solar panel installation was completed in October 2025 and expected to commence operation in April 2026

1.4 Quick Facts

Table 1.4: Annual Electricity Consumption per Capita in Putrajaya, 2020-2025

Description	2020	2021	2022	2023	2024	2025
Annual Domestic Electricity Consumption (MWh)	226,298	153,238	155,879	153,153	177,319	180,158
Total Population	113,300	134,391	143,363	154,094	155,818	125,200
Annual Electricity Consumption per Capita (kWh)	1,997	1,140	1,087	994	1,138	1,439
kWh/day/capita	5.47	3.12	2.98	2.72	3.12	3.94

Source: MURNInets Achievement Report 2018–2025.

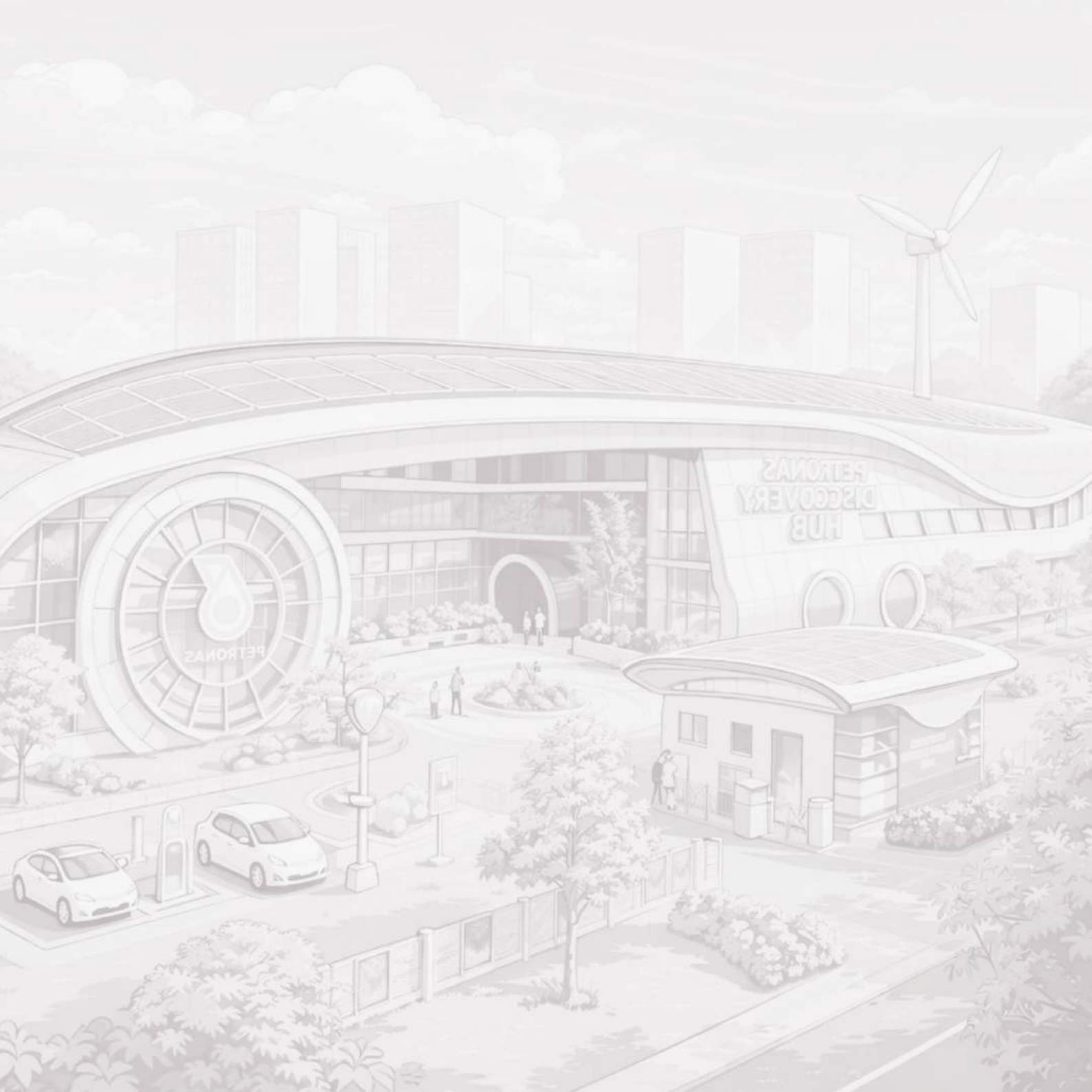
Table 1.5: Renewable Energy Composition (REC) in Putrajaya, 2020-2025

Description	2020	2021	2022	2023	2024	2025
Total electricity consumption (MWh) ⁽¹⁾	862,272	866,804	892,281	1,001,164	1,102,655	997,153
Electricity Generated from Solar PV (MWh) ⁽²⁾	3,082	3,299	3,646	4,153	5,789	6,804
Renewable Energy Composition (%)	0.36	0.38	0.41	0.41	0.53	0.68
Carbon Avoidance (tCO ₂ eq)	1,803	1,930	2,133	2,430	3,387	3,980

Note: tCO₂/MWh = 0.585 (CDM, 2017)

Source: (1) Tenaga Nasional Berhad (TNB)

(2) Sustainable Energy Development Authority (SEDA) Malaysia & City Planning Department, Putrajaya Corporation





2.0 URBAN PLANNING AND BUILDING REGULATIONS



2.0 URBAN PLANNING AND BUILDING REGULATIONS

2.1 Green Building Rating

2.1.1 List of Green Building Ratings in Putrajaya

In general, four types of rating systems are applied in Putrajaya to assess the sustainability of a building's design and operations, as follows:

- i. Green Building Index (GBI).
- ii. MyCREST.
- iii. GreenPASS.
- iv. National Building Energy Intensity (BEI) Labeling.

The rating status for each system in 2025 is shown in Tables 2.1 to 2.4.

Table 2.1: List of Buildings with Green Building Index (GBI) Certification

No.	Building	Certification Status
1.	Ministry of Science, Technology and Innovation (MOSTI), Precinct 1	GBI final rating SILVER (NREB), 2011
2.	Suasana PJH, Precinct 2	GBI provisional rating SILVER (NRNC), 2014
3.	Malaysian Anti-Corruption Commission (MACC), Precinct 7	GBI provisional rating CERTIFIED (NRNC), 2014
4.	Danau Suria, Precinct 16	GBI provisional rating CERTIFIED (RNC), 2014
5.	MRCB Tower, Precinct 2	GBI provisional rating GOLD (NRNC), 2015
6.	Office Tower on Plot Z10, Precinct 1	GBI final rating CERTIFIED (NRNC), 2015
7.	3 Star Hotel on Plot Z10 (The Everly Putrajaya)	GBI final rating CERTIFIED (NRNC), 2015
8.	Energy Commission Building	GBI #1 rating PLATINUM (NRNC), 2016
9.	Perdana Putra Building	GBI #1 rating PLATINUM (NREB), 2017
10.	Putrajaya Islamic Complex Block A & B	GBI provisional rating CERTIFIED (NRNC), 2017
11.	Putrajaya Islamic Complex Block C	GBI provisional rating CERTIFIED (NRNC), 2017
12.	Putrajaya Islamic Complex Block D	GBI provisional rating CERTIFIED (NRNC), 2017
13.	Heriot-Watt University Malaysia, Putrajaya	GBI final rating CERTIFIED (NRNC), 2017

No.	Building	Certification Status
14.	PJH Tower	GBI #1 rating GOLD (NRNC), 2018
15.	Government Building Block F1	GBI provisional rating GOLD (NRNC),2013
16.	Government Building Block F2	GBI provisional rating GOLD (NRNC),2013
17.	Government Building Block F3	GBI provisional rating GOLD (NRNC),2013
18.	Government Building Block F4	GBI provisional rating GOLD (NRNC),2013
19.	Government Building Block F5	GBI provisional rating GOLD (NRNC),2013
20.	Government Building Block F6	GBI provisional rating GOLD (NRNC),2013
21.	Government Building Block F7	GBI provisional rating GOLD (NRNC),2013
22.	Government Building Block F8	GBI provisional rating GOLD (NRNC),2013
23.	Government Building Block F9	GBI provisional rating GOLD (NRNC),2013
24.	Government Building Block F10	GBI provisional rating GOLD (NRNC),2013
25.	Government Building Block F11	GBI provisional rating GOLD (NRNC),2013
26.	Shaftsby Putrajaya	GBI provisional rating CERTIFIED (RNC),2017
27.	Zenith Hotel Putrajaya	GBI provisional rating SILVER (NRNC),2013
28.	Hening (39 Units of Terrace Houses)	GBI provisional rating CERTIFIED (RNC), 2014
29.	Office Tower @ Z1, Precinct 1	GBI provisional rating CERTIFIED (NRNC),2020
30.	Shell Petrol Station, Precinct 18	GBI provisional rating CERTIFIED (NREB), 2022

Source: Green Building Index Sdn. Bhd.

Note: NRNC (Non-Residential New Construction), NREB (Non-Residential Existing Building), RNC (Residential New Construction).

Table 2.2: List of Buildings with MyCREST Certification

No.	Building	Certification Status
1.	Ministry of Communications	2 Stars
2.	Ministry of Foreign Affairs (WP1)	2 Stars
3.	Ministry of Foreign Affairs (WP2)	1 Star
4.	Ministry of Women, Family and Community Development (KPWKM)	1 Star
5.	Ministry of Rural and Regional Development (KKLW)	1 Star
6.	Putrajaya Corporation Complex	2 Stars

Source: Construction Industry Development Board (CIDB) Malaysia

Table 2.3: List of Buildings with GreenPASS Certification

No.	Building	Certification Status
1.	Ministry of Finance Malaysia	3 Diamond
2.	Galeria PJH	2 Diamond
3.	The Everly Hotel	2 Diamond
4.	Dorsett Hotel Putrajaya	1 Diamond
5.	Putrajaya Islamic Complex A & B	1 Diamond
6.	Putrajaya Islamic Complex C	1 Diamond
7.	Putrajaya Islamic Complex D	1 Diamond
8.	Zero Energy Home P14	5 Diamond

Source: Sustainable Energy Development Authority (SEDA) Malaysia

Table 2.4: List of Buildings with National Building Energy Intensity (BEI) Labeling

No.	Building	Certification Status
1.	C1 Public Service Department	4 Stars
2.	C2 Public Service Department	5 Stars
3.	C3 Public Service Department	5 Stars
4.	C4 Ministry of Science, Technology and Innovation	5 Stars
5.	C5 Ministry of Science, Technology and Innovation	4 Stars
6.	C6 Malaysian Meteorological Department	4 Stars
7.	C7 Malaysian Meteorological Department	5 Stars
8.	D1 Ministry of Home Affairs	3 Stars
9.	D2 Ministry of Home Affairs	3 Stars
10.	D3 Ministry of Human Resources	2 Stars
11.	D4 Ministry of Human Resources	3 Stars
12.	D5 Prime Minister's Department	3 Stars
13.	D6 Ministry of Home Affairs	5 Stars

No.	Building	Certification Status
14.	D7 Ministry of Home Affairs	3 Stars
15.	D8 Ministry of Home Affairs	4 Stars
16.	D9 Ministry of Home Affairs / RELA	4 Stars
17.	E2 Ministry of Education	4 Stars
18.	E8 Ministry of Education	4 Stars
19.	E9 Ministry of Education	5 Stars
20.	E11 Ministry of Education	4 Stars
21.	E12 Ministry of Education	4 Stars
22.	E13 Ministry of Education	4 Stars
23.	E14 Ministry of Education	4 Stars
24.	E15 Ministry of Education	4 Stars
25.	2G1 Accountant General's Department of Malaysia	3 Stars
26.	2G1 Royal Malaysian Customs Department	3 Stars
27.	2G2 Ministry of Finance Malaysia / Treasury	3 Stars
28.	2G3 Ministry of Domestic Trade and Cost of Living	4 Stars
29.	2G5 National Registration Department	3 Stars
30.	2G6 Menara Usahawan	3 Stars
31.	2G8 Ministry of Finance Malaysia / Treasury II (2M11)	3 Stars
32.	2G8 Public Sector Housing Financing Board (2M10)	4 Stars
33.	2C10 Election Commission	4 Stars
34.	Energy Commission	5 Stars
35.	3G1 Legal Affairs Division Building	4 Stars
36.	3G3 Palace of Justice	4 Stars
37.	4G1 Ministry of Agriculture & Food Security (Wisma Tani)	4 Stars
38.	4G2 Ministry of Agriculture & Food Security (Wisma Tani)	4 Stars

No.	Building	Certification Status
39.	4G5 Ministry of Transport Malaysia	4 Stars
40.	4G9 Ministry of Communications	3 Stars
41.	5G2 Ministry of Tourism, Arts and Culture (Tower 1)	3 Stars
42.	5G2 Ministry of Higher Education (Tower 2)	4 Stars
43.	Fire and Rescue Department of Malaysia (Headquarters)	4 Stars
44.	Fire and Rescue Department of Malaysia	5 Stars

Source: Energy Commission



Putrajaya Corporation Complex, Precinct 3
(MyCREST – 2 Stars)



Shell Petrol Station, Precinct 18
(GBI – Certified)

2.1.2 MyCREST Certification Rating for Putrajaya Corporation Complex

Duration : May – December 2025

Objectives : To measure and reduce the building’s carbon footprint through the Malaysian Carbon Reduction and Environmental Sustainability Tool (MyCREST) rating system.

Putrajaya Corporation (PPj) is the first local authority complex to receive MyCREST certification.



The application of MyCREST enables PPj to monitor building energy performance and carbon management effectively.



PPj Complex has officially received a MyCREST (2 Stars) rating from CIDB on 22 December 2025.

Table 2.5: MyCREST Certification Assessment Criteria

Code	Criteria
IS	Infrastructure and Sequestration
EP	Energy Performance Impacts
OH	Occupant & Health
EC	Lowering the Embodied Carbon
WE	Water Efficiency Factors
WM	Waste Management and Reduction
FM	Sustainable Facility Management
IN	Sustainable and Carbon Initiatives

Source: Construction Industry Development Board (CIDB) Malaysia



PPj Complex MyCREST rating certificate

2.2 New Buildings with Low-Energy Design

Putrajaya Corporation has established a low-energy building design requirement in the checklist for building plan approval. These requirements include passive design strategies, solar photovoltaic (PV) installation, energy-efficiency measures, and compliance with roof thermal transfer value (RTTV) limits.

Buildings with Low-Energy Design approved in 2025 are as follows:



Indonesian Embassy, Precinct 4
(GREENRE-Gold)



Pusat Pengajian Pertahanan Nasional
(PUSPAHANAS), Precinct 1 (GBI-Certified)



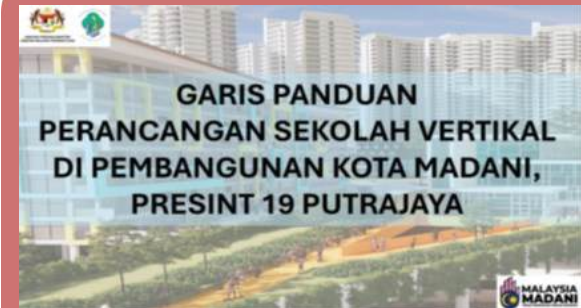
Petronas Geoscience Technology Centre, Precinct 5
(GBI-Gold)

2.3 Regulatory Frameworks

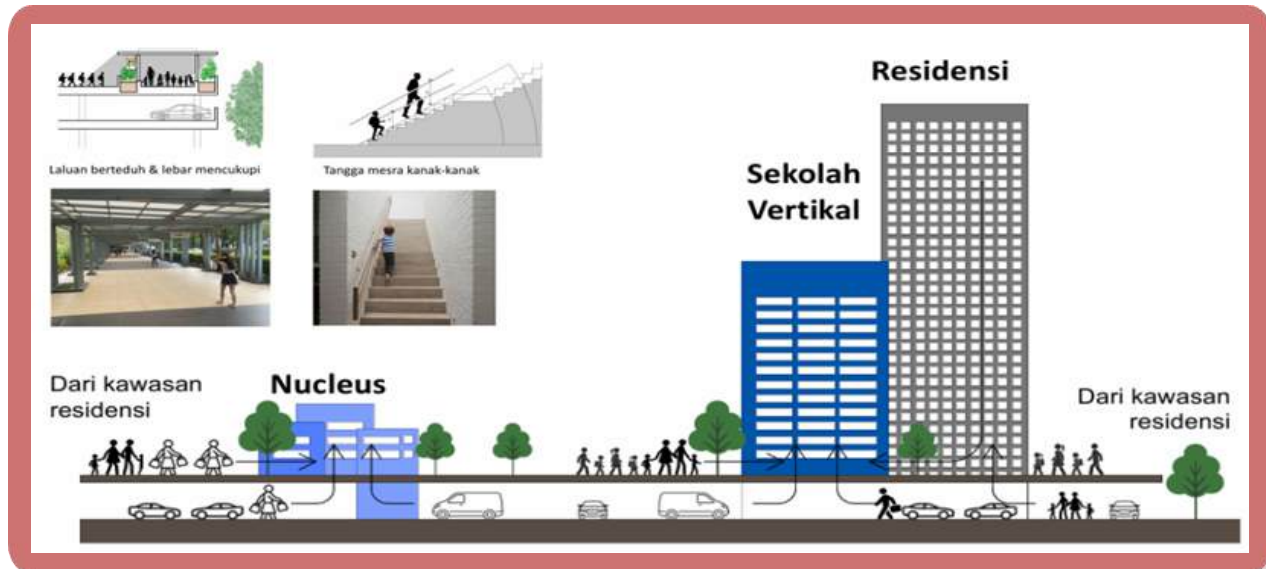
2.3.1 Vertical School Planning Guidelines

The guidelines were approved during the Work Progress Reporting Meeting for the Proposed Development of Kota MADANI, Precinct 19, held on 7 July 2025. Green technology and sustainability are mandatory components of the vertical school design, including:

- i) Rainwater harvesting.
- ii) Solar panels for sustainable and clean energy.
- iii) Roof garden.
- iv) Window overhangs for heat reduction.
- v) Atrium “Sky Garden” for passive ventilation with green walls.



Putrajaya Corporation has prepared the Vertical School Planning Guidelines for development in Kota MADANI, Precinct 19



The Vertical School Design Concept emphasizes connectivity and prioritizes student safety. It also ensures convenient access from residential areas by reducing travel distances between key urban functions and promoting energy-efficient design.



3.0 MOBILITY





3.0 MOBILITY

3.1 Improvement of Pedestrian and Bicycle Lane

In 2025, improvements to pedestrian and bicycle lane facilities continued in Precinct 9. Efforts to enhance the comfort and safety of bicycle and pedestrian lane users focused on the following main scopes:

- i. Installing pedestrian and bicycle lane signage.
- ii. Marking pedestrian and bicycle lane symbols.

Installing Pedestrian and Bicycle Lane Signage

Before



After



A total of 34 signages were installed along the pedestrian and bicycle lanes at Jalan P9, Jalan P9A, and Jalan P9B.

Marking Pedestrian and Bicycle Lanes Symbols



A total of 35 pedestrian and bicycle lanes symbols marking were added along Jalan P9, Jalan P9A, and Jalan P9B.

3.2 Car Free Day Putrajaya

- Objectives** : To support the implementation of low-carbon city practices by raising awareness about the importance of reducing dependence on motor vehicles to lower carbon emissions.
- Strategic Partners** : Government and private agencies.

Table 3.1: List of Car Free Day Programmes, 2025

No.	Date	Strategic Partner	Number of Participants
1	26 January 2025	Young Officers, Putrajaya Corporation	3,000
2	9 February 2025	Federal Territories Department	4,000
3	13 April 2025	Ministry of Health Malaysia	4,500
4	11 May 2025	National Youth and Sports Department	3,500
5	15 June 2025	Koperasi Pusat Pungutan Zakat Berhad	2,500
6	17 July 2025	BOOM and Malaysia Runners Club	3,500
7	10 August 2025	Putrajaya Holdings Sdn. Bhd. & Malaysia Runners Club	4,000
8	14 September 2025	Federal Territory Sports Council	4,500
9	12 October 2025	National Youth and Sports Department & Malaysian Institute of Planners	4,000
10	9 November 2025	Ministry of Education Malaysia	10,000
11	14 December 2025	Construction Industry Development Board (CIDB)	10,000

Source: Traffic and Public Transport Division, Putrajaya Corporation



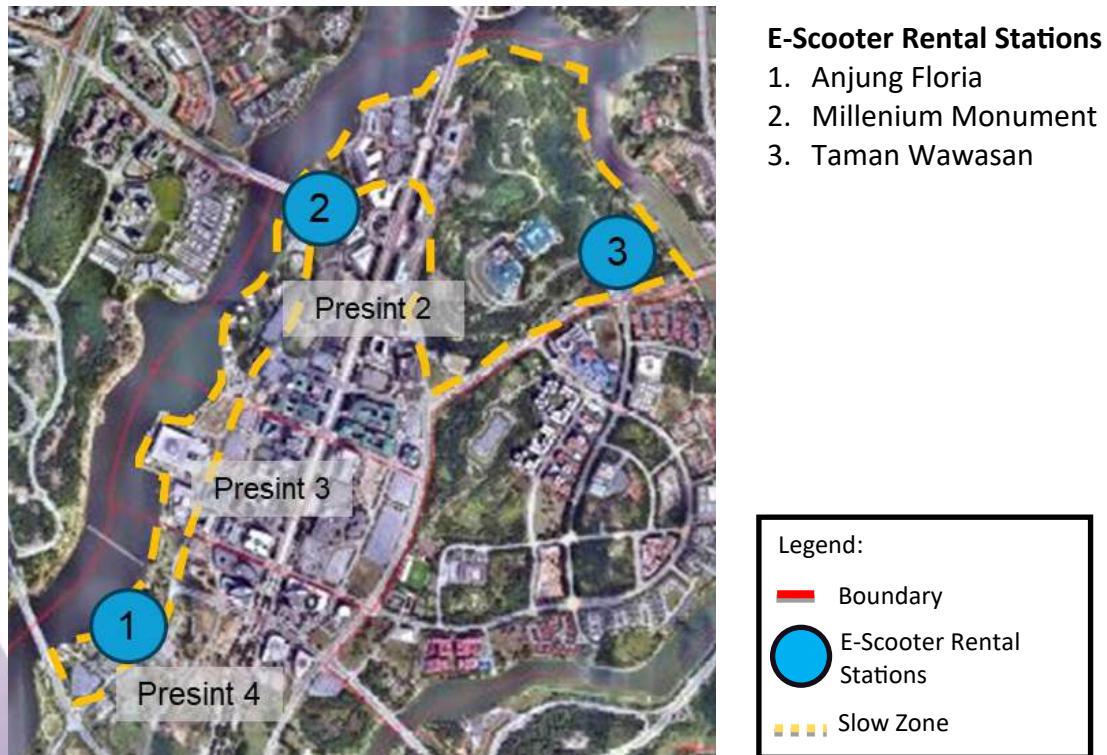
Persiaran Perdana transformed into a vibrant, car-free public space during Car Free Day Putrajaya. The programme is conducted monthly in collaboration with different partners and themes.

3.3 E-Scooter Rental Service in Putrajaya (Phase 2)

Operation start date	: 1 August 2025
Total units in operation	: 30 units (phase 2)
Speed limit	: 10 km/h
Number of users	: 4,472 (August to December 2025)
Cumulative distance	: 25,910km
Carbon avoidance	: 4,663.80 kgCO ₂ eq ⁽¹⁾

Note : (1) LCCF: 1km travel by car (petrol) emit 0.18kgCO₂

Figure 3.1: Location Plan for E-Scooter Rental Stations (Phase 2)





The rental station at Anjung Floria, Precinct 4, is the most popular station and records the highest ridership for e-scooter rental service (phase 2).

Summary of E-scooter Rental Service

Number of total station : 9 stations (Phase 1 & 2)

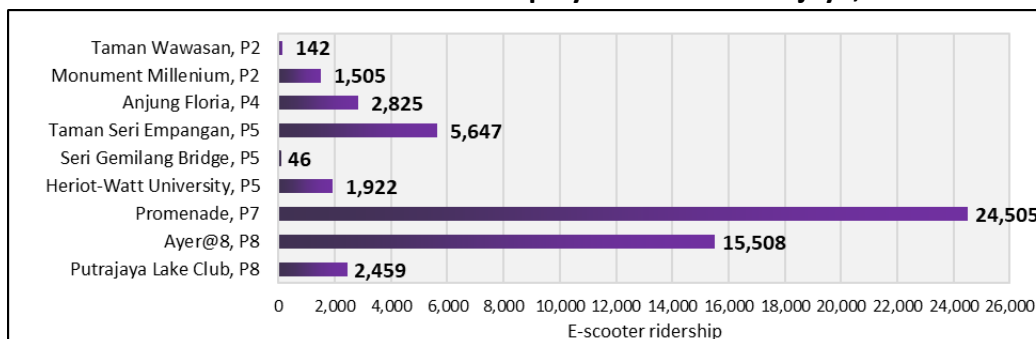
Number of users : 52,533

Cumulative distance : 252,768km

Carbon avoidance : 81,858 kgCO₂eq⁽¹⁾

Note : (1) LCCF: 1km travel by car (petrol) emit 0.18kgCO₂

Chart 3.1: E-scooter Ridership by Station in Putrajaya, 2025



3.4 Promotion of NadiPutra Bus Service

- Objectives :**
- To increase public awareness of NadiPutra bus services and routes.
 - To promote the Nadi Card Monthly Pass and increase subscriptions among the community and government agencies.
 - To accelerate the transition from private vehicles to public transport.

Exhibition and Promotion at Government Complex

Date : 26 June 2025 (Thursday)

Time : 9:00 am – 3:00 pm

Location : Ministry of Rural and Regional Development (KKDW), Precinct 4, Putrajaya



Visitors were briefed on the bus routes and types of Nadi Card. The Nadi 30 Card offers an unlimited monthly pass for the public, while the Nadi 10 Card provides an unlimited monthly pass specifically for senior citizens, persons with disabilities (OKU), and students.

NadiPutra Breakfast Day

Date : 10 July 2025 (Thursday)
Time : 6:30 am
Location : Complex E Bus Stop, Precinct 1



Putrajaya Corporation celebrated its one-millionth passenger as a significant milestone of the NadiPutra Putrajaya bus service, which has been operating since 1 January 2023. Besides, free breakfast was provided to passengers as an incentive to promote the use of public bus services.

Date : 21 July 2025 (Thursday)
Time : 6:30 am
Location : Entire NadiPutra bus network.



The event was organised in conjunction with the Independence Day celebration. As part of the activities, breakfast and Malaysian flags were distributed to bus passengers across seven NadiPutra bus routes in Putrajaya.

3.5 Electric Vehicle Charging Facilities in Putrajaya

- Objectives :**
- To encourage the use of electric vehicles in Putrajaya through the installation of 100 charging facilities by the year 2030.
 - To reduce dependence on vehicles powered by fossil fuels such as petrol and diesel.

Table 3.2 : Total Electric Vehicle Charging Facilities in Putrajaya, 2025

Type	Public ⁽¹⁾	Limited Access ⁽²⁾	Total
Charging stations	35	7	38
Charging plugs	3	4	7
Socket outlets	0	10	10
Total	38	21	55

Notes: (1) Public - Accessible to the public.

(2) Limited Access - Accessible only to owners, residents, tenants or customer of the premises.



Charging stations (DC - 120kW)
at Laman Perdana, Precinct 1.



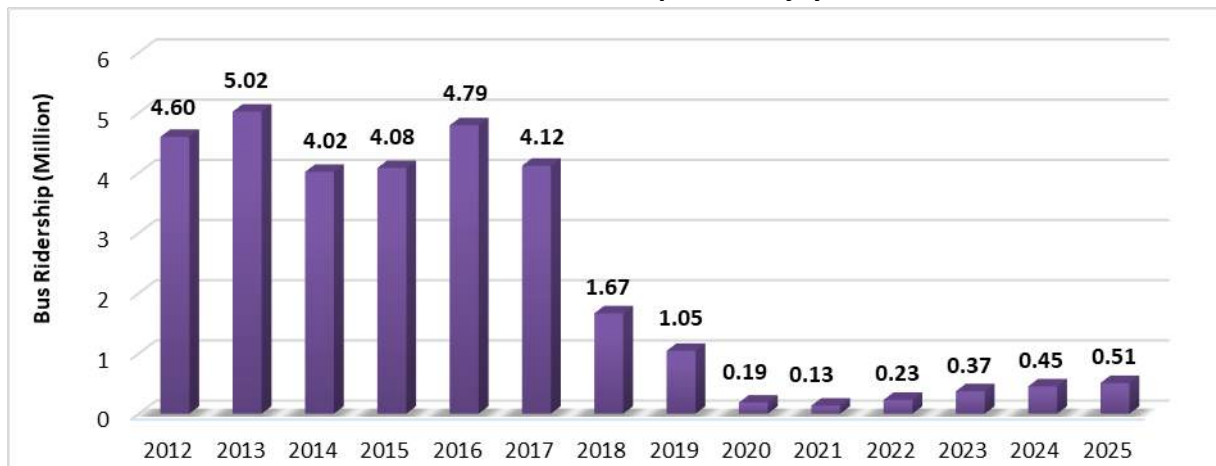
Charging stations (AC - 22kW)
at Taman Saujana Hijau,
Precinct 11



Charging stations (AC - 7kW) at
Laman Perdana, Precinct 1

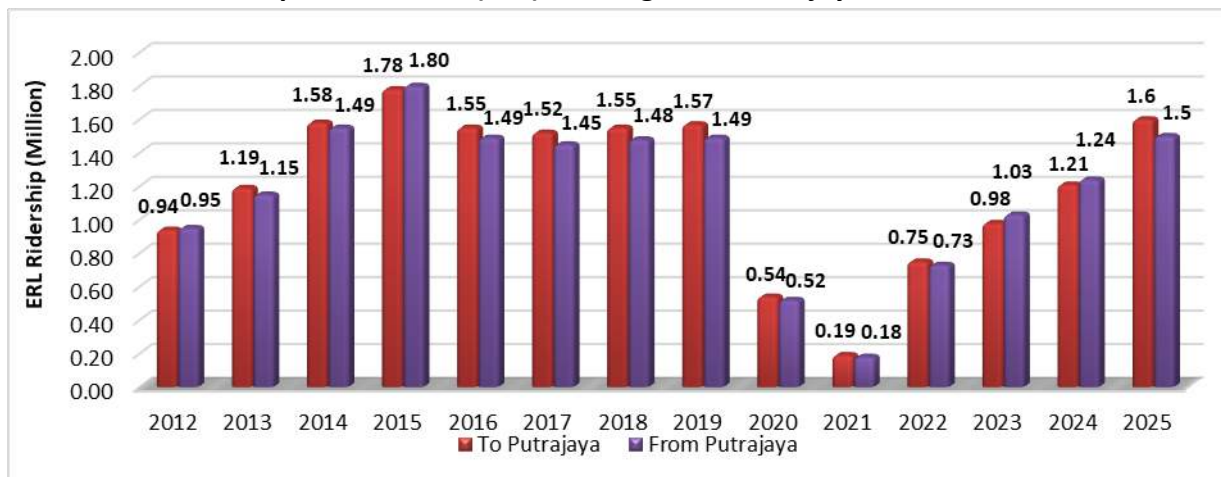
3.6 Quick Facts

Chart 3.2: Annual Bus Ridership in Putrajaya, 2012–2025



Sources: (1) 2012–2022 Data: Putrajaya Travel & Tours Sdn. Bhd. (Public Transport)
(2) 2023–2025 Data, Rapid Bus Sdn. Bhd.

Chart 3.3: Annual Express Rail Link (ERL) Passengers at Putrajaya Sentral Station, 2012–2025



Source: Express Rail Link Sdn. Bhd.



A vibrant, cartoon-style illustration of a park. In the foreground, a calm pond reflects the surrounding greenery. A grassy bank with scattered yellow and orange leaves borders the pond. In the middle ground, a dense line of trees with various shades of green and yellow foliage stands against a clear blue sky. A tall, thin cross is visible on the left side of the tree line. The text '4.0 BLUE & GREEN' is overlaid in the center of the image.

4.0 BLUE & GREEN



4.0 BLUE AND GREEN

4.1 Tree Planting Programme

100 Million Tree Planting Campaign at the Federal Territory of Putrajaya

This campaign has been held annually from 5 January 2021 to 2025. The tree-planting target for the Federal Territory of Putrajaya is 400,000 trees by 2025, and the campaign’s achievements are presented in Table 4.1.

- Objectives** :
- To increase carbon sequestration in Putrajaya by increasing the number of trees.
 - Support the national climate change and sustainable development agenda through the engagement of communities, government agencies, and NGOs.

Table 4.1: Achievements of the 100 million Tree Planting Campaign at the Federal Territory of Putrajaya, 2021-2025

Year	Number of Trees (including shrubs)
2021	68,850
2022	91,614
2023	121,647
2024	109,845
2025	120,667
Total	512,623

Source: Horticulture Management Division, Putrajaya Corporation

Corporate Social Responsibility by Bank Rakyat Staff Cooperative (Sekatarakyat)

Date : 9 August 2025 (Saturday)
Location : Laman Putra 5, Precinct 1, Putrajaya
Strategic partner : Bank Rakyat Staff Cooperative (Sekatarakyat)
Total trees planted : 10 trees
Number of participants : 40 people



The programme was officiated by the Chairman of Sekatarakyat, YBhg. Datuk Mohamed Arsad Sehan, together with YBhg. Dato' Badlishah Haji Ahmad, Vice President of Landscape & Parks, Putrajaya Corporation, and the management of Sekatarakyat.

National Environment Week 2025

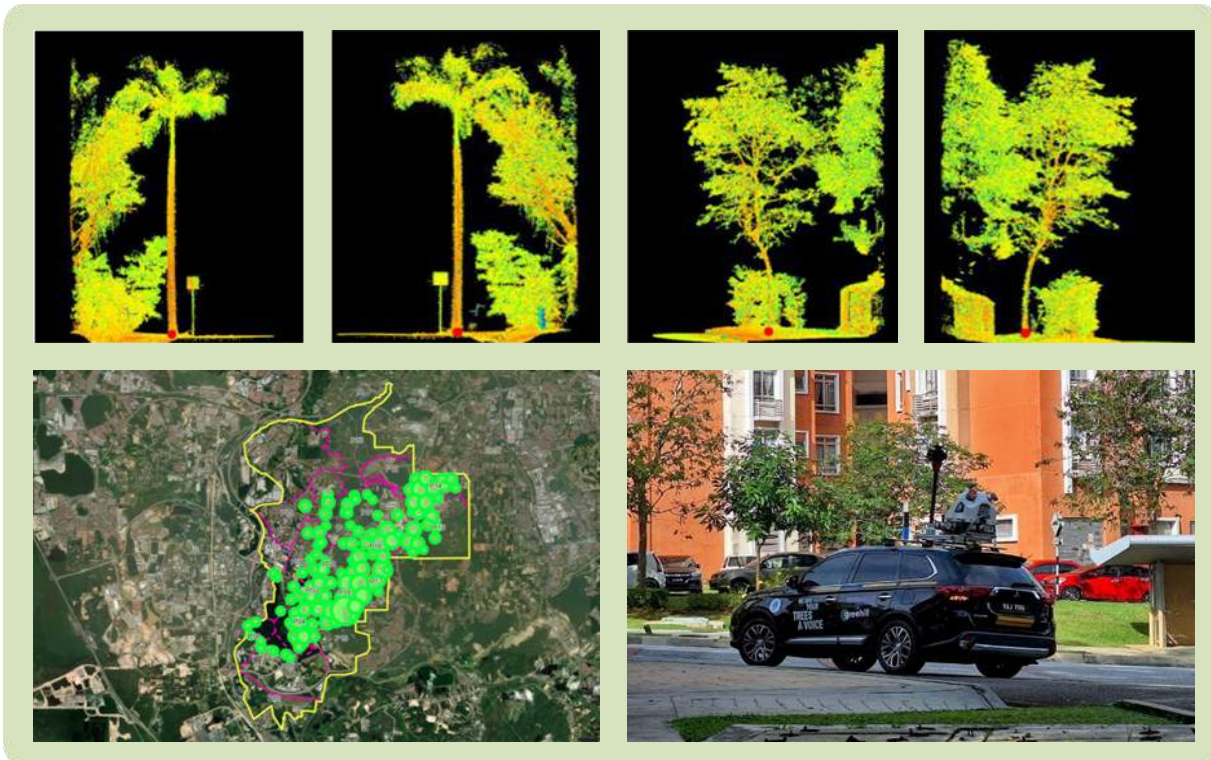
Date	: 25 October 2025 (Saturday)
Location	: Taman Botani, Precinct 1
Strategic partner	: Malaysia Rapid Transit Corporation Sdn. Bhd.
Total trees planted	: 200 trees, comprising 20 species
Number of participants	: 90 people



The programme was officiated by YBhg. Dato' Seri Jana Santhiran Muniayan, Secretary-General of the Ministry of Transport Malaysia; YBhg. Datuk Mohd Zarif Mohd Hashim, Chief Executive Officer of MRT Corp; and YBhg. Dato' Badlishah Haji Ahmad, Vice President of the Landscape & Parks Department, Putrajaya Corporation

4.2 Smart Tree Profiling & Risk Monitoring Project in Putrajaya

- Objective** : To enhance public safety, strengthen low-carbon initiative, and improve climate adaptation efforts by enabling efficient assessment and maintenance of high-risk trees through an artificial intelligence (AI) inventory system.
- Duration** : June to November 2025
- Strategic partner** : Ministry of Digital through the Malaysia Digital Economy Corporation (MDEC) and Digital Nasional Berhad (DNB).



AI and vehicle-mounted LiDAR technology are used to digitally map urban trees, strengthening low-carbon initiatives through data-driven tree management and climate resilience. An annual total of 5,000 tree inventory records is systematically collected to enable effective and continuous monitoring of carbon sequestration in Putrajaya.

4.3 Gazettement of Public Open Spaces

The gazetted public open spaces targeted for 2030 cover 1,480 hectares, comprising public parks and water bodies. This gazettement aims to maintain 40% green areas in Putrajaya to ensure a balance between development and environmental conservation, while preserving long-term carbon sequestration capacity.

Figure 4.1 Gazetted Open Spaces in Putrajaya

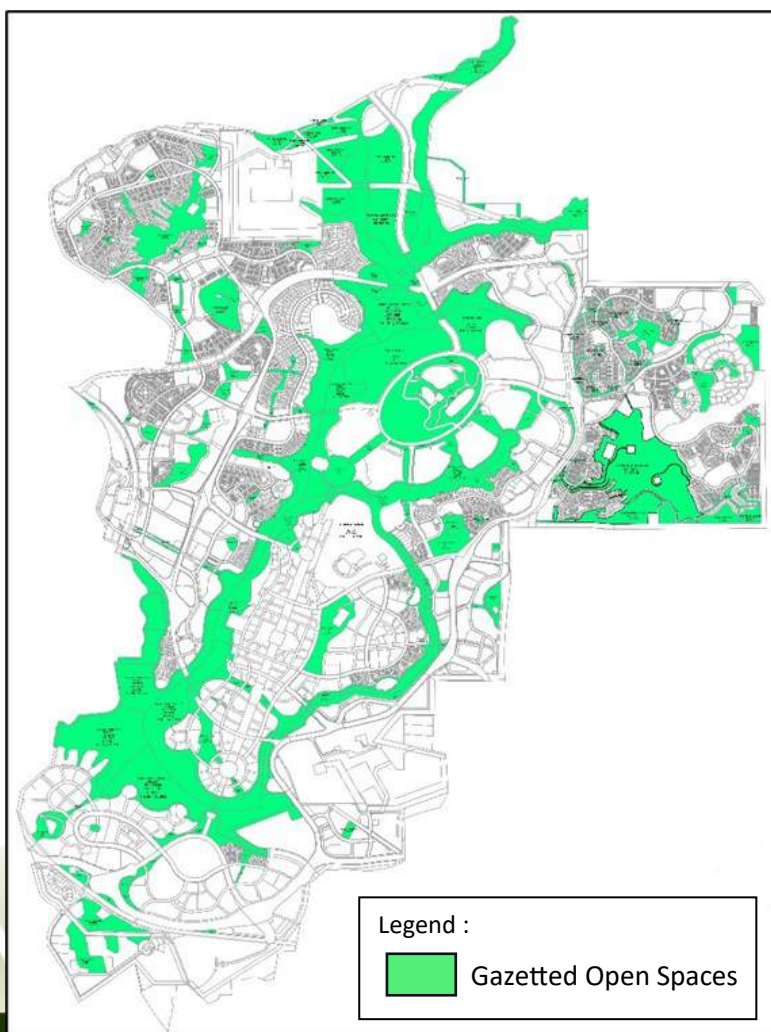


Table 4.2: Gazetted Open Spaces Areas, 2022-2025

Year	Gazetted Area (hectares)
2022	931.4
2023	931.4
2024	959.48
2025	1,411.63
2030	1,480 (target)

Source: Source: Planning and Development Control Division, Putrajaya Corporation

4.4 Lake Water Quality Control

Aquatic Plant Replanting in Wetland Cells

Objectives : To efficiently filter pollutants and ensure compliance with Putrajaya Lake water quality standards for safe water sports and recreational activities.

Location : Taman Wetland, Precinct 13

Total aquatic plant : 241,340 nos

Duration : March – August 2025



Wetland plant species planted include *Hanguana malayana* and *Phragmites karka*.

4.5 Lake and Wetland Awareness Programme

- Objective** :
- To increase community awareness and stewardship in protecting and conserving clean water resources in order to maintain the water quality of Putrajaya Lake.
 - To strengthen Putrajaya Lake and Wetland as a knowledge-based recreational and reference site that supports low-carbon lifestyles through scientific and technical knowledge sharing.

Putrajaya Lake and Wetland Explorace

Date : 4 October 2025

Location : Taman Botani, Precinct 1, Putrajaya

Strategic partner : UNESCO-IHP Malaysia

Number of participants : 204 people



A total of 11 activity modules were conducted, including wildlife identification, mystery challenges, and other activities.

Young Ecologist

Date : 18 September 2025
Location : Taman Wetland, Precinct 13, Putrajaya
Strategic partner : Alam Sekitar Malaysia Sdn. Bhd.
Number of participants : 150 people



Programme modules included water quality monitoring, insect diversity studies, and other activities.

4.6 Quick Facts

Table 4.3: Ratio of Public Open Space per 1,000 Population in Putrajaya, 2020-2025

Year	Total Open Space (ha.) ⁽¹⁾	Population ⁽²⁾	Public Open Space (ha.): 1,000 Population ⁽³⁾
2020	1941.44	113,300	17.14
2021	1,941.44	134,391	14.45
2022	1,968.00	143,363	13.72
2023	1,968.00	154,094	12.77
2024	1,968.00	155,818	12.63
2025	1,957.04	120,800	16.20

Sources:

(1): Planning and Development Control Division, Putrajaya Corporation.

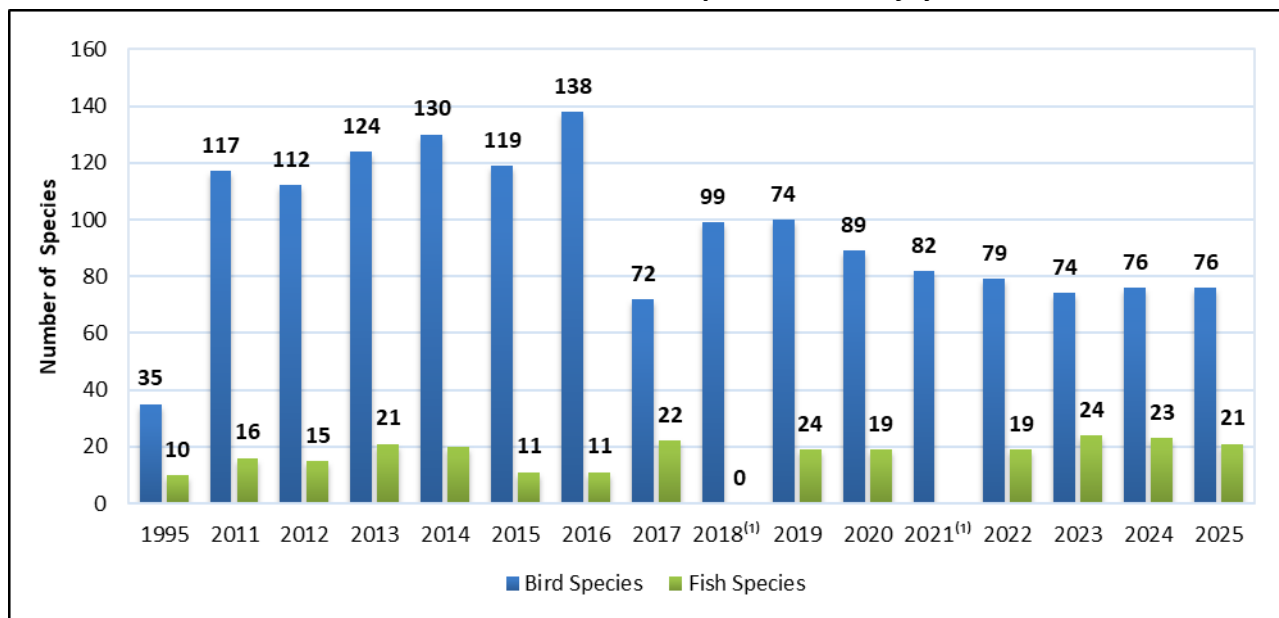
(2): Malaysian Urban-Rural National Indicators Network for Sustainable Developme (MURNInets).

(3): Planning Guidelines of Open Space and Recreational Areas.

Table 4.4: Number of Species Found in Putrajaya Lakes and Wetlands, 2007-2025

Fauna Species	2007 (Baseline)	2020	2021	2022	2023	2024	2025
Insects	21	900	898	1058	1158	1092	2089
Amphibian	2	7	6	6	6	4	16
Reptile	5	10	10	9	7	9	23
Mammal	7	9	9	8	8	9	17

Source: Environment, Lake and Wetland Division, Putrajaya Corporation.

Chart 4.1: Number of Bird and Fish Species in Putrajaya, 2015-2025

Source: Environment, Lake and Wetland Division, Putrajaya Corporation.

Notes: (1) Fish sampling was not carried out in 2018 and 2021.

Table 4.5: Comparison of Lake and River Water Quality Index, 2020-2025

Location	Lake and River Water Quality Index					
	2020	2021	2022	2023	2024	2025
Chau River Inlet	77.5 (Class II)	84.6 (Class II)	84.8 (Class II)	82.7 (Class II)	76.6 (Class II)	75.3 (Class III)
Lake Water	92.8 (Class I)	93.3 (Class I)	93.6 (Class I)	93.8 (Class I)	92.5 (Class I)	91.5 (Class II)
Outlet after Putrajaya Dam	90.5 (Class II)	92.6 (Class II)	92.7 (Class II)	91.5 (Class II)	89.7 (Class II)	89.0 (Class II)

Source: Environment, Lake and Wetland Division, Putrajaya Corporation.



5.0 COMMUNITY





5.0 COMMUNITY

5.1 CAREton@Putrajaya

5.1.1 Collection of Used Beverage CARtons (UBC) With Incentives Campaign 2025

- Objectives** :
- To increase the collection of UBCs for recycling.
 - To increase the supply of PolyAl boards contributed to the PolyAl Bank.
 - To increase the annual recycling rate in Putrajaya.
- Date & Location** :
- Putrajaya Open Day 2025 (6 - 9 February 2025)
 - Pangsapuri PR1MA, Precinct 11 (17 May 2025)
 - Putrajaya Corporation Complex (9 July 2025)
 - Putrajaya Carnival 2025 (26 – 28 September 2025)
- Strategic Partners** : Tetra Pak Malaysia & Nestle Milo UHT



The total collection of Used Beverage Cartons (UBC) recorded in 2025 is 19,427 UBC, exceeding the annual target of 8,000 UBC.

5.1.2 PolyAl Bank Putrajaya

- Objectives** :
- To support local circular-economy applications by prioritising the use of PolyAl boards in public facilities, community spaces and pilot projects.
 - To supply PolyAl boards for community-benefit projects in Putrajaya, supporting a circular economy.
 - To strengthen public–private collaboration in recycling efforts.
 - To increase the recovery and recycling of PolyAl material from used beverage cartons through a structured collection and processing pathway.

Strategic Partners : Tetra Pak Malaysia & Nestle Milo UHT

PolyAl board stock : 267 pieces (market value RM14,600 – RM17,300)

There are two (2) PolyAl Bank contribution projects for 2025:

Project 1: Laman Madani, Putrajaya Botanical Garden, Precinct 1



A polyal-board bench has been placed at Laman Madani, Putrajaya Botanical Garden, Precinct 1 for visitors' use.

Project 2: Exhibition Booth for the National Planning Congress (NPC) 2025



PolyAI boards were used as wall and roof materials for the exhibition booth, which showcased flora and fauna from the Putrajaya Lake and Wetlands.

5.2 Low Carbon Incentives and Recognition

5.2.1 Putrajaya Green Residence Incentive 2025 (IKH Putrajaya 2025)

- Objectives** : An incentive for Putrajaya residents who practise a low-carbon lifestyle, focusing on energy and water savings, the use of solar energy, solid waste reduction, and increased utilisation of buses and electric/ hybrid vehicles.
- Duration** : 6 February – 6 April 2025
- Strategic Partners** : Tenaga Nasional Berhad (TNB), Sustainable Energy Development Authority (SEDA) Malaysia, Air Selangor, Alam Flora Environmental Solutions Sdn. Bhd. dan Energy Commission (ST).
- Number of applicants** : 369 people
- Number of recipients** : 158 people

Figure 5.1: Six (6) IKH Putrajaya 2025 Initiatives



Figure 5.2: Distribution of IKH Applicants by Housing Category

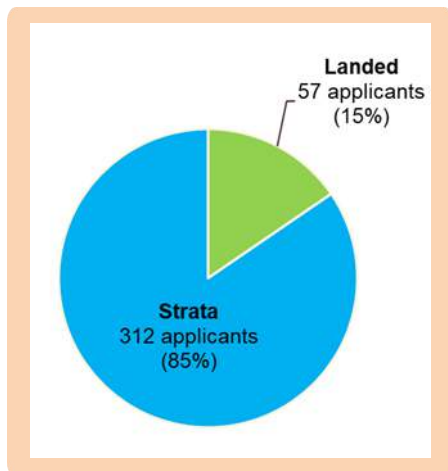


Figure 5.3: Distribution of IKH Applicants by Initiatives

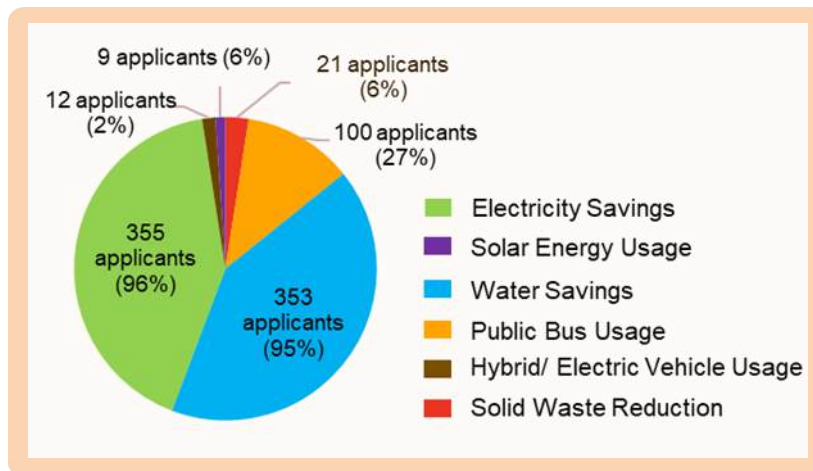
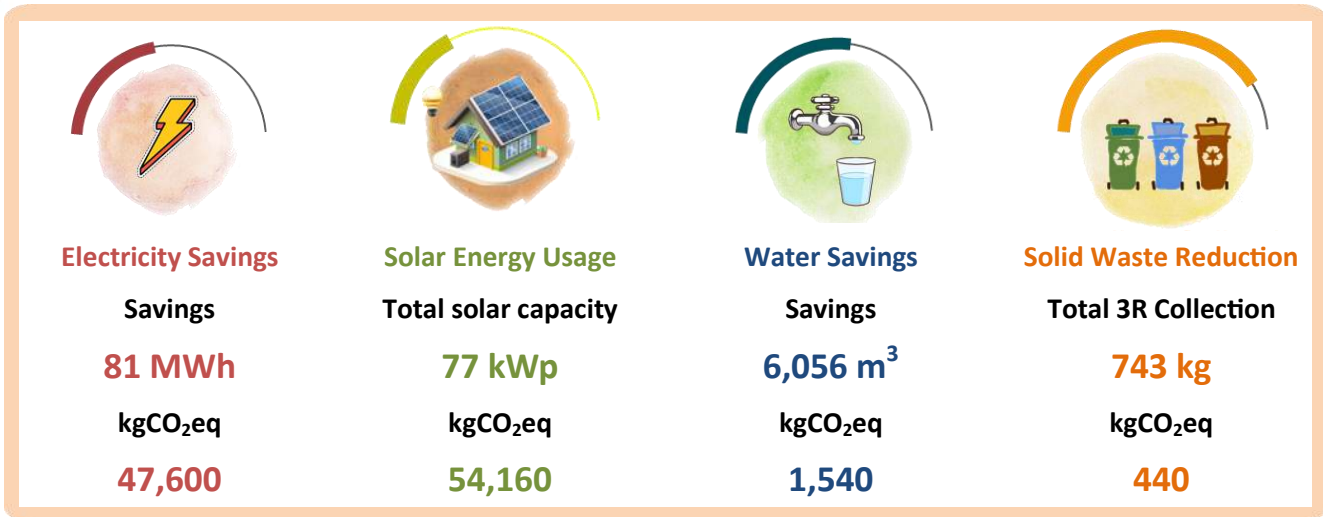


Figure 5.4: Key Contributions and Achievements of IKH Putrajaya 2025



5.2.2 Putrajaya Green Initiative Award 2025 (AIH Putrajaya 2025)

- Objectives** : An annual award for public and private institutions that have consistently implemented low-carbon initiatives in Putrajaya.
- Duration** : 15 July – 15 August 2025
- Strategic Partners** : Tenaga Nasional Berhad (TNB), Sustainable Energy Development Authority (SEDA) Malaysia, Air Selangor, Alam Flora Environmental Solutions Sdn. Bhd. and Energy Commission (ST).
- Number of participants** : 29 participants

Figure 5.5: Key Contributions and Achievements of IKH Putrajaya 2025



Figure 5.6: Distribution of AIH Participants by Initiatives

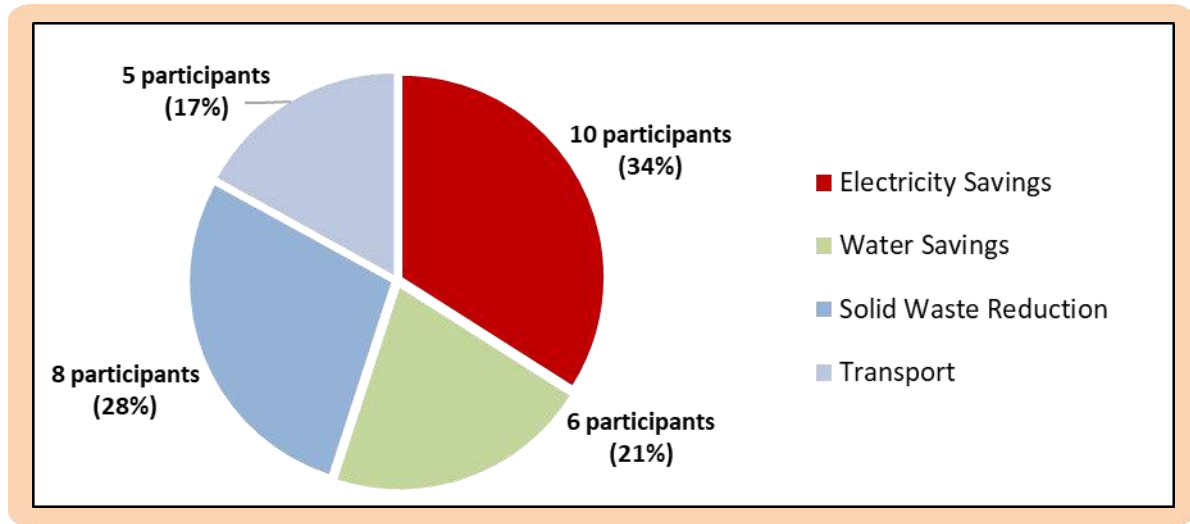


Figure 5.7: AIH Putrajaya 2025 Evaluation Criteria

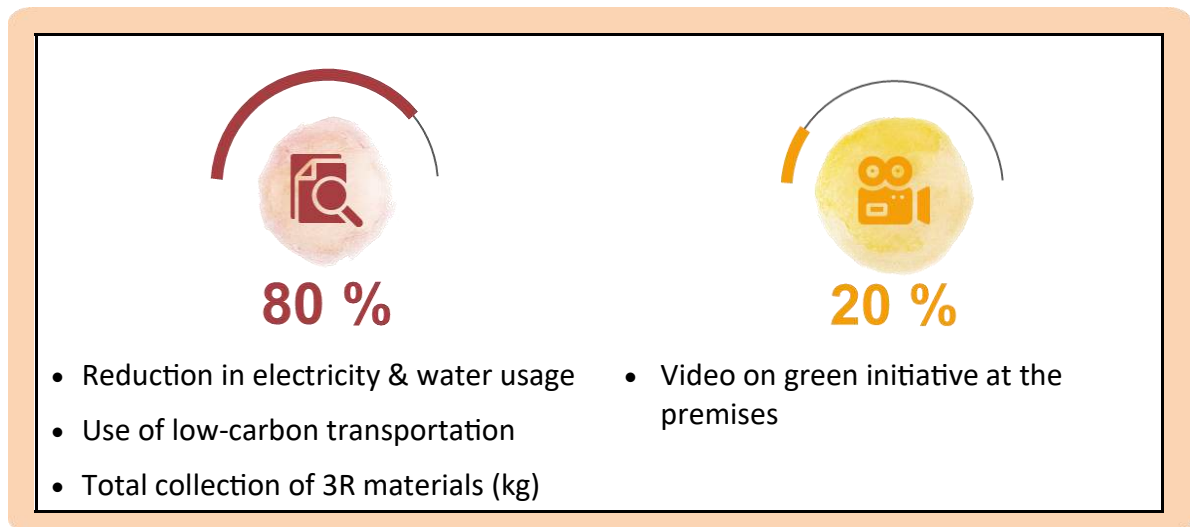


Figure 5.8: Key Contributions and Achievements of AIH Putrajaya 2025



AIH Putrajaya 2025 Award Ceremony

The ceremony was held on 2 October 2025 at the Putrajaya Corporation Complex and was officiated by YBhg. Datin TPr. Hj Salmah binti Hj Salman, Vice President of the Urban Planning Department, Putrajaya Corporation.



A total of **24 winners** received cash prizes as follows:

- i) Champion: RM1,500.00
- ii) Runner-up: RM1,000.00
- iii) Third place: RM800.00
- iv) Consolation: RM500.00

5.2.3 Star Rating Assessment for Management Quality of Putrajaya Strata Development Schemes

Objectives : To encourage the implementation of low-carbon practices among strata development management bodies in Putrajaya by evaluating energy usage, water consumption, transportation, solid waste management, and other environmentally friendly practices.

Implementation period : June – July 2025 (1 month)

Total schemes assessed : 30 strata schemes

Among the low carbon initiatives implemented at the strata residences are:



Use of energy-efficient lighting



Provision of bicycle racks

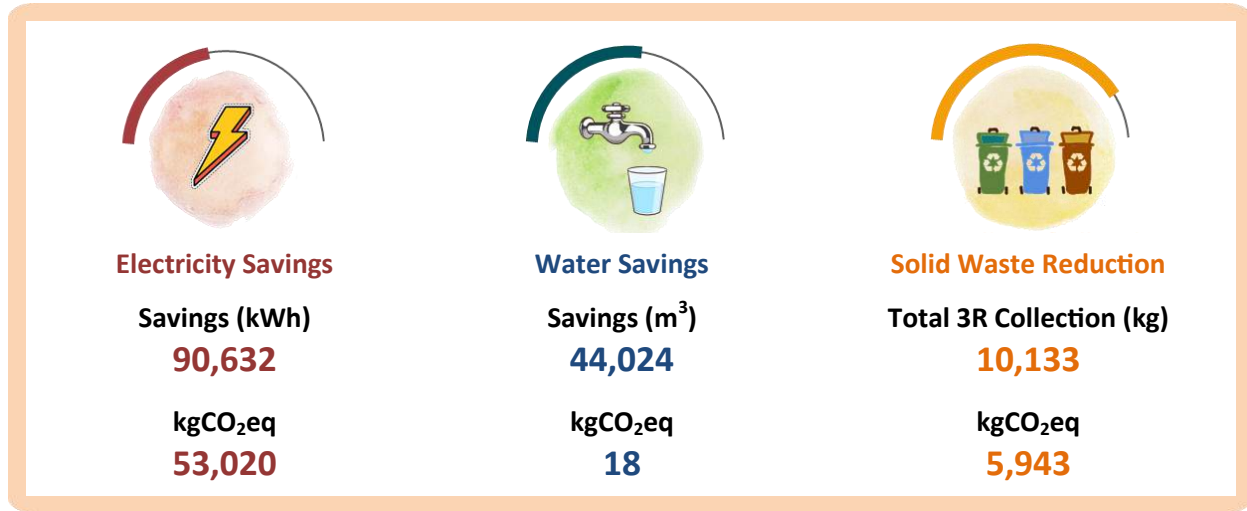


Recycling bin facilities



Rainwater harvesting systems

Figure 5.9: Key Contributions and Achievements of Star Rating Assessment



5.3 Single-Use Plastic Avoidance Programme

- Objectives** :
- To encourage the public to bring their own bags and food containers when purchasing food and beverages.
 - To educate visitors on prudent purchasing and buying according to their needs.
 - To support solid-waste reduction in Putrajaya through the avoidance of single-use plastics.

Duration : 2 March - 30 March 2025

Location : Ramadan Bazaar at Precinct 3, 11, 14 and 16.

The effort to reduce the use of single-use plastics is an important step in supporting environmental sustainability initiatives and reducing plastic pollution. This initiative is aligned with the low-carbon city targets as well as the commitment to reducing solid waste.



Reusable bags were distributed to visitors at the Ramadan Bazaar Precinct 3 and Precinct 11.

5.4 Recycling Facilities

AI Smart Vending Machine

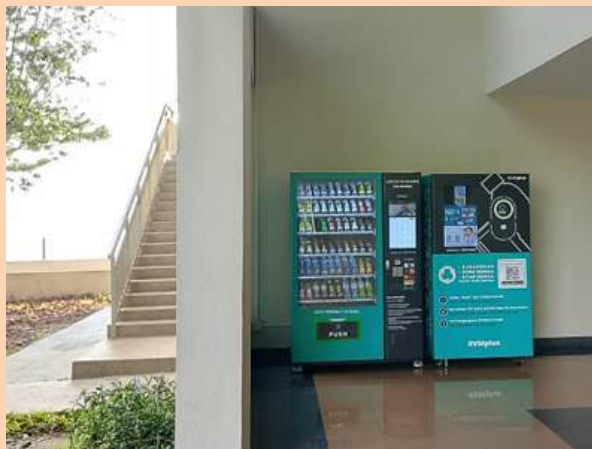
- Objectives** : To increase recycling rates in Putrajaya by encouraging PET bottle recycling among employees and the local community.
- Number of machines** : 5 units are deployed around Putrajaya, including Putrajaya Corporation premises.



Users can earn reward points for each recycled bottle, and these points can be redeemed for beverages provided by the machine.



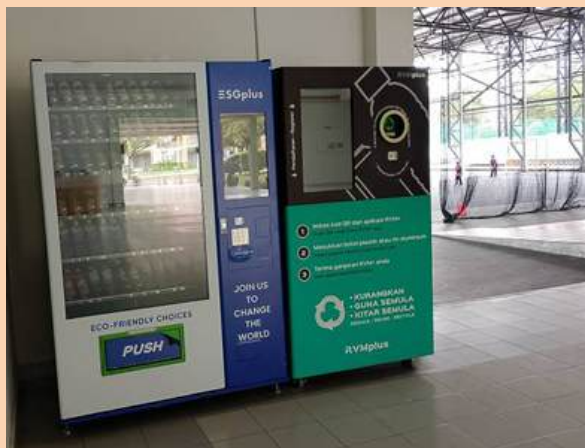
Putrajaya Corporation Complex, Precinct 3



Kompleks Sukan Air Putrajaya, Precinct 6



Medan Selera, Precinct 9



Kompleks Futsal, Precinct 18

5.5 3R Creativity Competition: Shadow Art

- Objective** : To increase the use of recycled materials in producing creative shadow art.
- Duration** : 26 December 2025 - 4 January 2026.
- Strategic partners** : Lembaga Pembangunan Seni Visual Negara and Akademi Seni Budaya & Warisan Kebangsaan (ASWARA)
- Number of participants** : 12 groups, comprising residents' associations, higher education institutions, and professional companies nationwide.



The artworks were exhibited throughout Festival Lentera 2025

Award Ceremony

Date : 15 January 2026

Location : Seri Siantan Hall, Putrajaya Corporation Complex



The ceremony was held in conjunction with the Putrajaya Appreciation Ceremony 2025 and officiated by YBhg. Dato' Haji Mohd Sakeri Bin Abdul Kadir, President of Perbadanan Putrajaya.

5.6 Quick Facts

Table 5.1: Solid Waste Generation Rate in Putrajaya, 2016-2025

Year	Total Solid Waste (kg) ¹	Solid Waste (tons/day)	Total Domestic Waste (tons) ²	Domestic Waste (tons/day)
2016	40,084.76	109.8	29,360.29	80.4
2017	41,516.81	113.7	28,903.84	79.2
2018	42,797.90	117.2	30,191.62	82.7
2019	40,729.37	111.5	30,539.68	83.7
2020	41,337.84	113.3	30,906.28	84.7
2021	45,890.02	125.7	33,740.22	92.4
2022	45,742.53	125.3	34,239.96	93.8
2023	45,571.75	124.9	35,325.53	96.8
2024	45,846.97	125.6	35,234.00	96.5
2025	47,714.88	130.7	39,059.07	107.0

Source: (1)-(2) Environmental Health Division, Putrajaya Corporation

Table 5.2: Per Capita Domestic Solid Waste Generation in Putrajaya, 2016-2025

Year	Annual Domestic Waste (kg) ¹	Population ²	Per Capita Domestic Waste (kg/capita/day)
2016	29,360,290	84,400	0.95
2017	28,903,840	86,900	0.91
2018	30,191,620	90,400	0.92
2019	30,539,680	103,800	0.81
2020	30,906,280	113,300	0.75
2021	33,740,220	134,391	0.69
2022	34,239,960	143,363	0.69
2023	35,325,530	154,094	0.63
2024	35,234,000	155,818	0.64
2025	39,059,070	125,200	0.85

Sources: (1) Environmental Health Division, Putrajaya Corporation
(2) MURNInets 2016-2025.

Table 5.3: Putrajaya Recycling Rate, 2016-2025

Year	Total Domestic Waste (kg)¹	Total Recycle Material Collection (kg)	Recycle Rate (%)
2016	29,360.29	2,382.17	8
2017	28,903.84	2,503.00	9
2018	30,191.62	2,837.73	9
2019	30,539.68	3,101.90	10
2020	30,906.28	4,314.20	14
2021	33,740.22	5,310.75	16
2022	34,239.96	6,282.66	18
2023	35,325.53	7,084.90	20
2024	35,234.00	7,771.95	22
2025	39,059.07	8,605.97	22.03

Source: Environmental Health Division, Putrajaya Corporation



6.0 CLIMATE RESILIENT



6.0 CLIMATE RESILIENCE

6.1 Climate Disaster Early-Warning and Monitoring

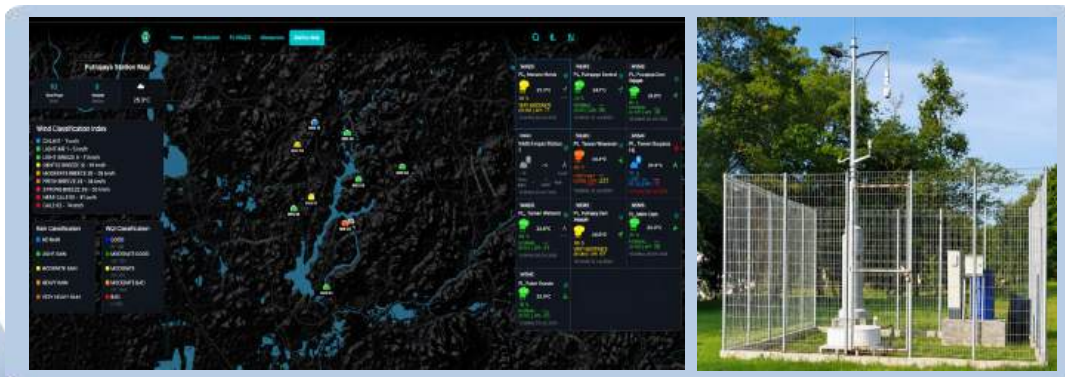
Due to the extreme weather conditions experienced in the city, Putrajaya is increasingly vulnerable to climate-related disasters such as flash floods, heatwaves, storms, and severe wind events. To strengthen resilience and reduce risks, Putrajaya Corporation has developed monitoring and early-warning systems that support proactive climate-disaster mitigation.

6.1.1 Integrated Environmental Monitoring System (IEMS)

Putrajaya Corporation operates the Integrated Environmental Monitoring System (IEMS) to capture real-time environmental data and provide early warnings related to climate risks. The system monitors air, water, and weather conditions to support informed decision-making and immediate response actions.

Objective:

- To obtain real-time weather data and strengthen climate adaptation through timely alerts on environmental risks.
- To enhance resilience against extreme weather and climate variability, including reducing the number of flash-flood hotspots in Putrajaya.



Air, water, and weather data are captured in real time to minimise the risks of climate-related disasters through the Integrated Environmental Monitoring System.

6.1.2 Putrajaya Dam Safety System (SKEP)

The Putrajaya Dam Safety System (SKEP) facilitates continuous monitoring of the Putrajaya Dam to ensure its structural safety and operational integrity under changing climate conditions. This system provides real-time water-level information and triggers early warnings during potential hazards such as flooding, dam failure, or abnormal water fluctuations.

Objective:

- To obtain real-time data on the Putrajaya Dam to support climate-resilient infrastructure monitoring.
- To provide early warnings in the event of risks such as flooding, dam failure, or water-level changes, strengthening climate-adaptation and disaster-response capabilities



The implementation of SKEP directly enhances the safety of the Putrajaya Dam as a critical mitigation measure against weather related impacts and climate change.

6.2 Climate Resilience Through Preventive Maintenance and Risk Mitigation

Putrajaya implements a range of urban maintenance and risk-mitigation activities to strengthen the city's resilience against climate-related impacts. These efforts include systematic inspections, preventive maintenance, and targeted interventions designed to reduce risks associated with extreme weather events. Through coordinated actions involving landscape upkeep, drainage maintenance, and infrastructure reinforcement, Putrajaya Corporation ensures that public facilities, green spaces, and essential urban systems remain safe, functional, and adaptable amid evolving climate challenges.

6.2.1 Fallen Tree Prevention

Severe wind hazards in Putrajaya have increased the risk of fallen trees. Putrajaya Corporation has identified vulnerable locations where trees are more likely to fall during adverse weather and implement early preventive actions.

Objective:

- Prevent climate-related hazards through proactive pruning and risk assessment.
- Improve stormwater management by maintaining trees that help absorb rainfall, reduce run-off, and mitigate flood risks.
- To reduce losses and damage to public property.



Early pruning works as pre-caution action to reduce fallen trees at Taman Selatan, Precinct 20



Decayed and high-risk trees were removed to prevent accidents and damage to public property along Jalan P8H, Precinct 8.

Table 6.1: Overview of Tree Maintenance Operations, 2025

Maintenance Works	Number of Trees
Pruning	13,917
Fallen trees	112
Split/cracked	97
Tree felling	534
Total	14,660

Source: Tree Management and Urban Agriculture Section, Putrajaya Corporation

6.2.2 Flash Flood Prevention

Putrajaya Corporation manages the maintenance of 146 Gross Pollutant Trap (GPT) units across the city, comprising 123 conventional units and 81 non-conventional units. The conventional GPT units follow a structured maintenance cycle of six times per year, whereas the non-conventional units undergo maintenance two to three times annually, based on their respective operational requirements.

Objective:

- To prevent blockages in the main drainage system caused by litter, silt, and waste debris.
- To improve climate resilience by ensuring efficient stormwater flow during heavy rainfall and reducing the risk of flooding.



The scope of GPT maintenance includes periodic cleaning and the repair of structural damages to the GPT units.

6.3 Water Conservation

6.3.1 Putrajaya Lake Water Intake Facility

The Putrajaya Lake water intake facility was constructed at a strategic location to facilitate the extraction of water from Putrajaya Lake. The facility is equipped with water pumps and meters to record the volume of lake water extracted. Companies such as contractors, developers, and operators must submit their applications to PPj for prior approval before extracting lake water from any lake water intake facility in Putrajaya.

Objective: :

- To provide a sustainable alternative water source for municipal operations by utilising lake water for various uses, such as landscape irrigation, road dust control, and the cleaning of drains and siltation in construction areas.
- To optimize lake water usage and reduce carbon emissions.

Lake water used : 25 million litres in 2025

Carbon reduction : 10,475kgCO₂eq



Lake water intake station, Precinct 6

6.4 Quick Facts

Table 6.2: Annual Lake Water Usage as an Alternative Water Resource, 2012-2025

Item	2012-2020	2021	2022	2023	2024	2025
Approved Annual Lake Water Intake (million litres)	1,748.20	104	162	0.73	43.06	25
Savings from Not Consuming Treated Water (RM) ⁽¹⁾	RM2,822,637	RM166,764	RM260,820	RM1,175	RM69,327	RM35,420
Annual Water Consumption ⁽²⁾	Equals 23,211 People	Equals 1,398 People	Equals 2,186 People	Equals 10 People	Equals 581 People	Equals 297 People
Carbon Reduction CO ₂ (kgCO ₂) ⁽³⁾	734,587	43,400	67,878	306	18,042	10,475

Note:

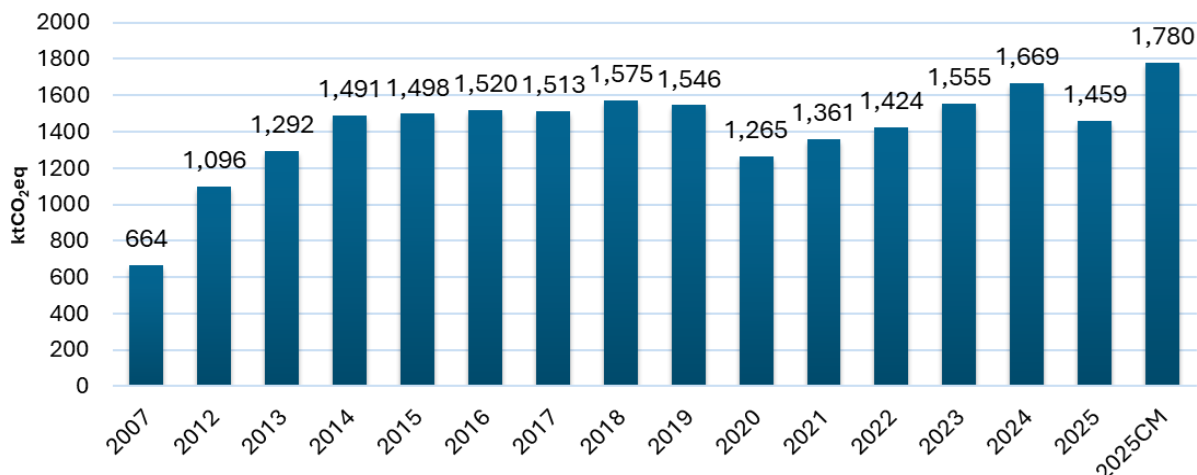
(1) Based on government departments, rate at RM1.61/m³.

(2) Estimated based on Malaysia average daily domestic consumption (203liters/person) x 365 days.

(3) LCCF : The system processes for 1m³ emit 0.419kgCO₂

PUTRAJAYA GHG INVENTORY 2025

Chart 7.1 : Total Net Emissions Trend in Putrajaya [ktCO₂eq]



Notes: 2007: base year, 2025: target year

Chart 7.2 : GHG Emissions from the Seven Sectors



Chart 7.3 : GHG Emissions from the Three Main Sectors 2025

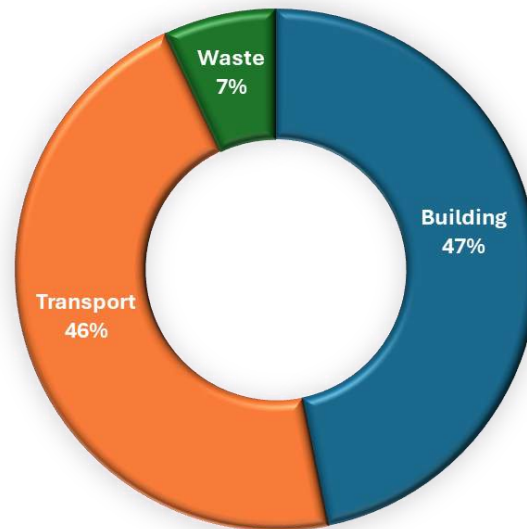


Chart 7.4 : GHG Emissions Per Capita 2025

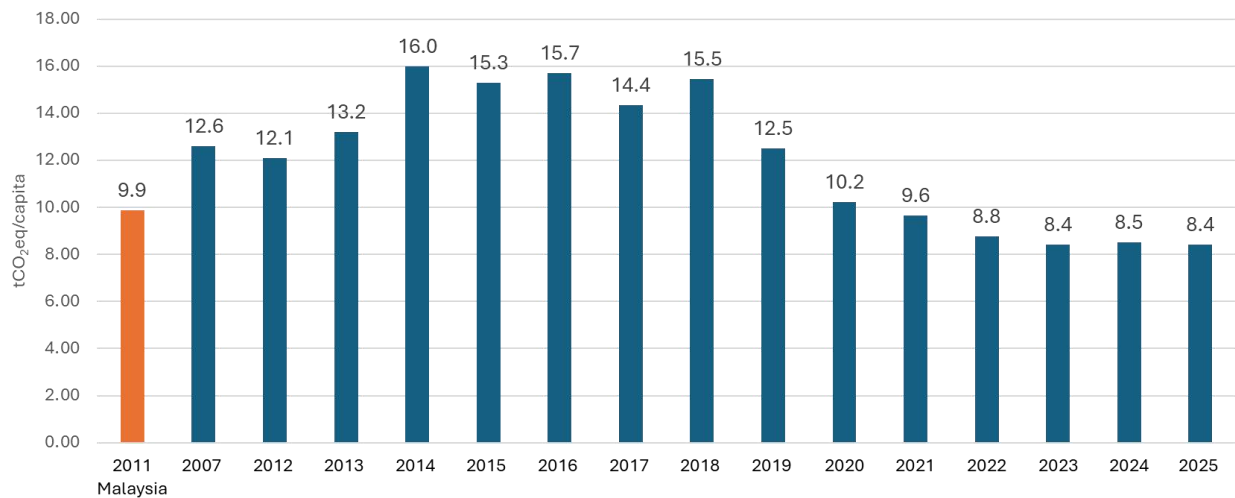


Chart 7.5 : Building Sector Carbon Emissions 2025

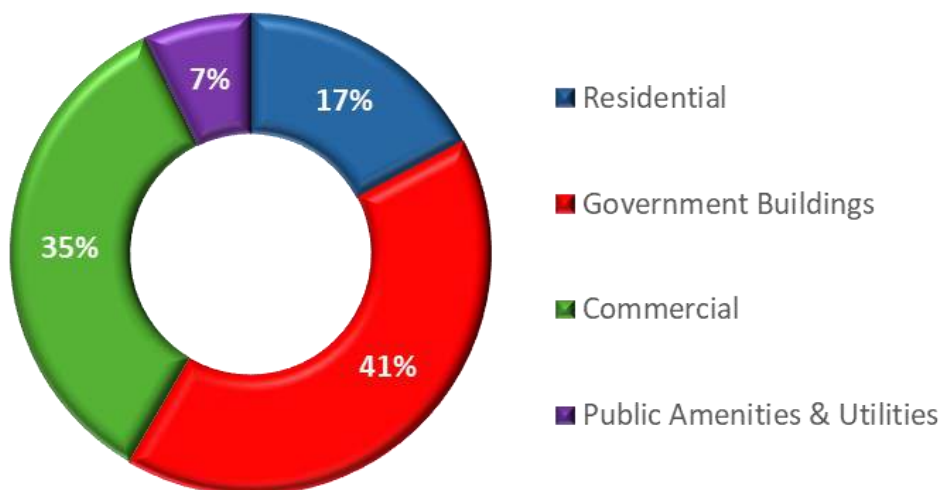


Chart 7.6 : Emissions Intensity by Floor Area [tCO_2/m^2]

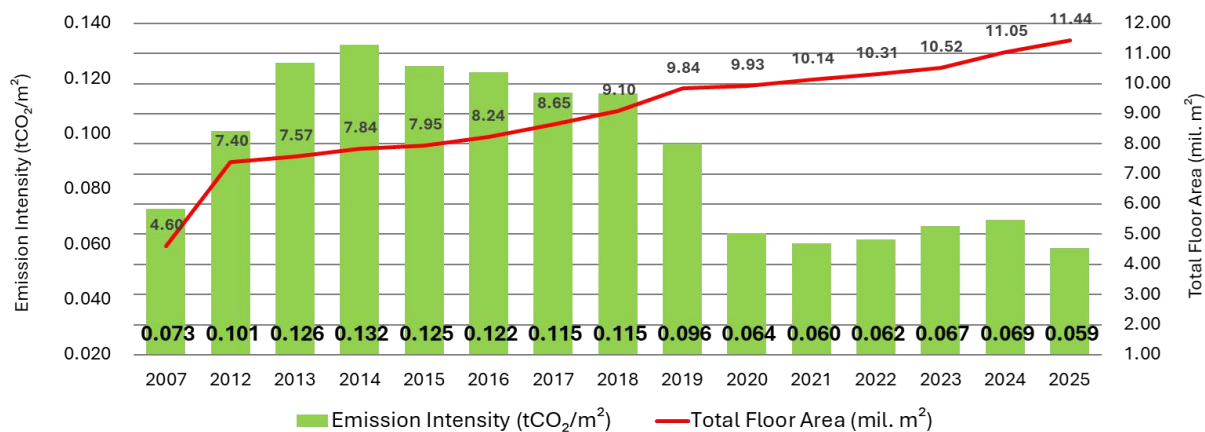


Chart 7.7 : Transportation Sector Carbon Emissions 2025

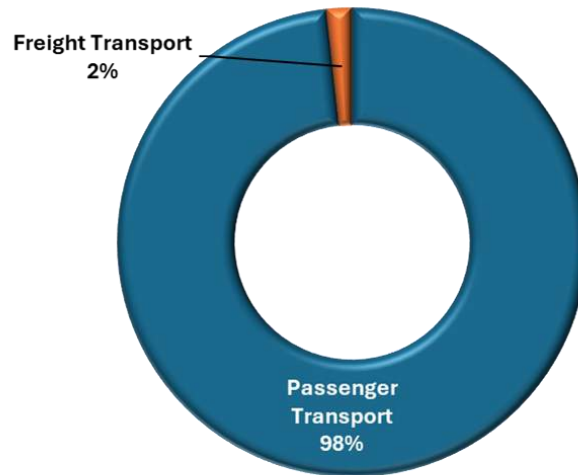
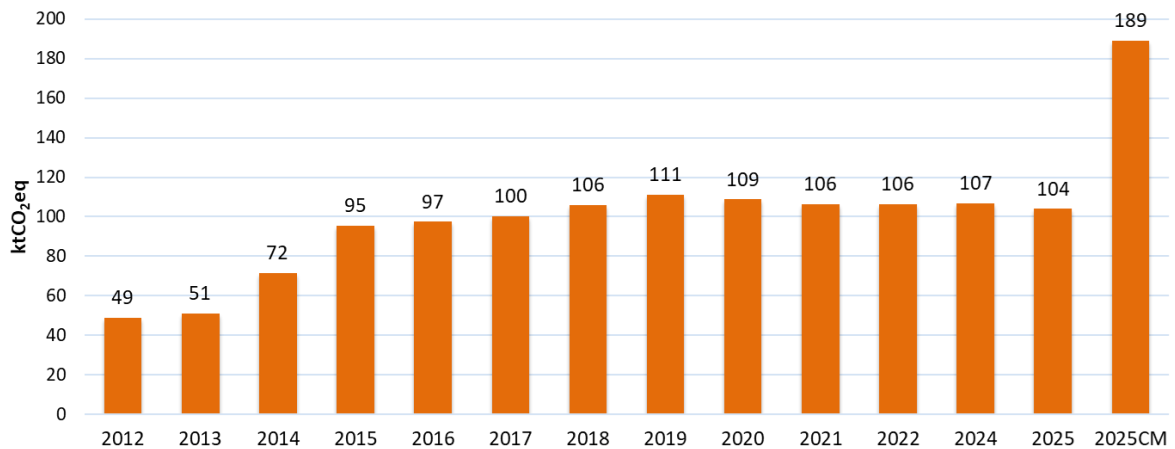


Chart 7.8 : GHG Emissions Trend for Solid Waste Sector [ktCO₂eq]



Notes: 2007: base year, 2025: target year

APPENDIX B
PUTRAJAYA GREEN CITY COMMITTEES,
PUTRAJAYA CORPORATION

PATRION:

YBhg. Dato' Haji Mohd Sakeri Bin Abdul Kadir
President, Putrajaya Corporation.

CHAIRMAN:

YBhg. Datin TPr. Hj. Salmah Binti Hj Salman
Vice President City Planning.

MEMBERS:

TPr. Noor Sita Binti Abbas
Director Sustainable Development & Housing Division,
City Planning Department.

TPr. Norazle Bin AB. Malek
Planning & Development Control Division,
City Planning Department.

Tn. Hj. Zainal Ariffin Bin Baseri
Director of the Architecture and Building
Inspectorate Division,
City Planning Department.

Pn. Ruhselah Binti Hj. Ismail
Director Environment, Lakes & Wetland Division,
City Planning Department.

En. Mohd Hafiz Bin Abdul Khalek
Director Project Management Division,
Engineering & Maintenance Department.

En. Mohd Azli Bin Haji Arifin
Director Facility Management Division,
Engineering & Maintenance Department.

En. Faridz Amlu Bin Shaharudin
Director Road Division,
Engineering & Maintenance Department.

LAr. En. Haris Bin Kasim
Director of the Horticulture Management
Division, Landscape & Park Department.

LAr. Aida Farisa Binti Eberahim @ Ibrahim
Director Recreation & Operation Division,
Landscape & Park Department.

Encik Hazman Bin Md Zaki
Director of the Landscape Management and
Maintenance Division,
Landscape & Park Department.

Dr. Mohd Helmi Bin Abdul Hamid
Director Environmental Health Division,
City Services Department.

En. Mohd Suzilan Bin Sahak
Director Traffic & Public Transport Division,
Engineering & Maintenance Department.

SECRETARIAT

(PUTRAJAYA GREEN CITY UNIT):

Wang Tze Wee (TPr.)
Ahmad Helmi Bin Abu
Muhammad Fahri Bin Zulkipli
Muhammad Syafiq Fauzan Bin Othman

APPENDIX C

LIST OF APPRECIATIONS

- JABATAN KERJA RAYA WP PUTRAJAYA
- SUSTAINABLE ENERGY DEVELOPMENT AUTHORITY MALAYSIA (SEDA)
- PROPERTY MANAGEMENT DIVISION (BPH)
- CONSTRUCTION INDUSTRY DEVELOPMENT BOARD (CIDB)
- GREEN BUILDING INDEX (GBI)
- ENERGY COMMISSION
- PENGANGKUTAN AWAM PUTRAJAYA TRAVEL & TOURS SDN. BHD. (PAPTT)
- RAPIT BUS SDN. BHD.
- EXPRESS RAIL LINK SDN. BHD.
- MALAYSIA RAPID TRANSIT SDN. BHD.
- BANK RAKYAT COOPERATIVE BERHAD
- TETRA PAK (MALAYSIA) SDN. BHD.
- NESTLÉ (MALAYSIA) BERHAD
- TENAGA NATIONAL BERHAD (TNB)
- PENGURUSAN AIR SELANGOR SDN BHD
- ALAM FLORA ENVIRONMENT SOLUTIONS SDN BHD (AFES)
- NATIONAL VISUAL ARTS GALLERY
- NATIONAL ACADEMY OF ARTS, CULTURE AND HERITAGE (ASWARA)
- INDAH WATER KONSORTIUM SDN. BHD.
- GAS DISTRICT COOLING (PUTRAJAYA) SDN. BHD.
- GAS MALAYSIA BERHAD (PUTRAJAYA)

PHOTO SEPERATOR SOURTESY OF:

Putrajaya Tourism and Photo Contest
Putrajaya Lake & Wetland Photo Contest



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