



COUNTRY PROGRAMME ACTION PLAN 2016-2020



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ANNUAL PROGRESS REPORT 2018

Green Technology Application for the Development of Low Carbon Cities (GTALCC)

Award ID: 00085917

Project ID: 00093379

PROJECT DESCRIPTION (500 characters max):

To facilitate the implementation of low carbon initiatives in at least five Malaysian cities and showcase a clear and integrated approach to low carbon development, through removing barriers to integrated low carbon urban development.

UNDP MALAYSIA CPAP OUTCOME:

- Inclusive Growth & Development
 Sustainable & Resilient Development

11th MALAYSIA PLAN STRATEGIC THRUST:

Pursuing green growth for sustainability and resilience

GENDER MARKER RATING:

PROJECT PROFILE

PROJECT PERIOD: May 2016 – Dec 2020		REVISED PERIOD (if any):	
PROJECT BUDGET: USD 4,354,794 USD 55,258,266 (in-kind)	REVISED BUDGET (if any): -	2018 BUDGET (AWP): USD 1,227,324.09	Revised 2018 budget amount: USD 800,000

IMPLEMENTING PARTNER:

Ministry of Energy, Science, Technology, and Climate Change (MESTECC)

NATIONAL PROJECT DIRECTOR:

Asdirhyme bin Abdul Rasib, Senior Under Secretary, MESTECC

NATIONAL STEERING COMMITTEE CHAIR:

Datuk Seri Dr. Mohd Azhar bin Haji Yahaya
Secretary-General, Ministry of Energy, Science, Technology, and Climate Change

PROJECT IMPLEMENTATION

2018 UTILIZATION (AS OF 31 Dec 2018): USD 754,697.64	RATIO OF 2018 BUDGET (%): 94%
PROJECT UTILIZATION TO-DATE: 1,213,991.17	RATIO OF TOTAL BUDGET (%): 28%

PROJECT STATUS

	Project scheduled for Year 1 implementation in 2018	National/Project Steering Committee Meetings: 1. 5 Feb 2018 2. 11 Dec 2018
X	Project scheduled for Year 2 and above implementation in 2019	
	Project scheduled for completion in 2018, but extended to 2019	
	Project completed in 2018	



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Project Outcome Snapshot

Outcome Description	2017	2018
Outcome 1: Policy support for the promotion of integrated low carbon urban development.		
Output 1.1.1: Approved city policies, legislations and regulations and strengthened enforcement systems for integrated low carbon urban development.	<input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved	<input type="checkbox"/> On Track <input checked="" type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved
Output 1.1.2: Established GHG accounting framework and decision-making tools for national and sub-national levels	<input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved	<input type="checkbox"/> On Track <input checked="" type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved
Output 1.1.3: Completed and approved evidence-based low carbon development plans and investment programmes for cities and precincts.	<input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved	<input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved
Outcome 2: Awareness and Institutional Capacity Development.		
Output 2.1.1: Strengthened and operational coordination mechanisms for effective implementation of low carbon city policy	<input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved	<input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved
Output 2.2.1: Completed training programs for policy decision makers, local governments, green practitioners and financing institutions on strategic urban planning processes for low carbon and climate resilient development	<input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved	<input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved
Output 2.2.2: Operational knowledge management systems for low carbon city development	<input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved	<input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved
Outcome 3: Low Carbon Technology Investments in Cities		
Output 3.1.1: Applied design considerations into BRT for enhanced GHG emission reduction potential.	<input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved	<input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved
Output 3.1.2: Leveraged investments to support the scaling up of low carbon public transport systems	<input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved	<input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved
Output 3.1.3: Validated and scaled-up green technology incentive scheme in target cities for households and SMEs	<input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved	<input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved
Output 3.1.4: Leveraged investments in low carbon urban systems based on low carbon development plans	<input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved	<input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved
Output 3.1.5: Approved pilot NAMA proposal for low carbon urban development	<input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved	<input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved



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Outcome Description	2017	2018
Output 3.2.1: Operationalised electric vehicles and charging station infrastructure	<input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved	<input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved
Output 3.2.2: A commissioned BRT system operating in Iskandar Development Region	<input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved	<input type="checkbox"/> On Track <input checked="" type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved
Output 3.2.3: A commissioned city cycleway in Putrajaya	<input type="checkbox"/> On Track <input type="checkbox"/> Off Track <input checked="" type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved	<input type="checkbox"/> On Track <input type="checkbox"/> Off Track <input checked="" type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved
Output 3.2.4: Operationalised on-site waste processing projects in Petaling Jaya	<input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved	<input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved
Outcome: Project Management		
Output 4: Project Management	<input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved	<input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved

Scheduled evaluation & assurance activity

Activity	Yes/No	Year	Ratings/Results
HACT Assurance Activity: [spotcheck/audit]	Yes	2018	
Evaluation: [MTR/TE/Others:]	No		
Project Implementation Review	Yes	2018	DO Rating: Moderately Satisfactory IP Rating: Moderately Unsatisfactory
Others:			

ANNEX

Please list additional documentation included in this report (including NSC meeting minutes; PIR report summary; additional project reporting including list of activities)

1. NSC # 1/ 2018
2. PIR 2018 (Jul 2017-Jun 2018)



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SECTION 1: 2018 PROGRESS REPORT NARRATIVE

Describe the project's progress of outcomes and/or outputs in outlined in the Annual Work Plan since the MYPR.

Describe the issues and challenges faced, and the project management response.

Outcome 1: Policy support for the promotion of integrated low carbon urban development.	Progress Status
<p>Output 1.1.1: Approved city policies, legislations and regulations and strengthened enforcement systems for integrated low carbon urban development</p> <p>Summary of output target As of 2018, Putrajaya and Iskandar Malaysia has gazetted their respective low carbon development plans. Every city or local authority is required to prepare local plans (Rancangan Tempatan Daerah) at municipal level and state structure plans (Rancangan Struktur Negeri) based on the provisions of the Town and Country Planning Act 1976 (Act 172)</p> <p>Putrajaya's state structure plan, Sustainable Putrajaya 2025 has outlined policies to transform Putrajaya into a low carbon city. The supporting document to achieve this target is the Putrajaya Green City 2025 : Baseline and Preliminary Study (PGC2025).</p> <p>Iskandar Malaysia has prepared their local plan which is the Rancangan Tempatan Daerah Johor Bahru and Kulai 2025 which covers 4 of 5 local authorities in Iskandar Malaysia which are Majlis Bandaraya Iskandar Puteri, Majlis Bandaraya Johor Bahru, Majlis Perbandaran Pasir Gudang and Majlis Perbandaran Kulai.</p> <p>The other participating cities have prepared low carbon action plans. Petaling Jaya with the assistance of Carbon Trust has produced the MBPJ Low Carbon City Action Plan 2015 – 2030. Cyberjaya completed the Cyberjaya Smart and Low Carbon City 2025 blueprint in 2017. Hang Tuah Jaya in collaboration with PLANMalaysia Melaka has completed the Pelan Induk Bandar Hijau Hang Tuah Jaya in early 2018.</p> <p>Summary of activities as per AWP 2018</p> <p>National Low Carbon Cities Masterplan & Policy Roadmap (NLCCMP & PR)</p> <p>UNDP assisted GTALCC in the procurement of the consultant. AJM Planning & Urban Design Group was appointed as the consultant on 1st November 2018. The work plan was submitted on the 19th November 2018. The first stakeholder consultation workshop was held on 12 December 2018 at Doubletree by Hilton Kuala Lumpur. The Inception report was submitted on the 21st December 2018. The target date of the final document is on 5th June 2019. It is expected that this will be a major policy document to guide policymakers at all levels of government on the implementation of low carbon cities in Malaysia.</p>	<p><input type="checkbox"/> Achieved <input type="checkbox"/> On track <input checked="" type="checkbox"/> Off track <input type="checkbox"/> Not Achieved</p> <p>Output Target: Five (5) cities gazetted low carbon development plans by Year 3.</p> <p>Target for 2018: 3</p>



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Training of council officers in the promotion and appraisal of development proposals with regards to green technology regulations

The project undertook a series of training workshops on MS 1525 which is the energy efficiency code of practice for non-residential buildings. The trainings were conducted to educate local council officers on enforcement of the Uniform Building By Law (UBBL) Clause 38 A which is the only green technology by law in the UBBL.

List of trainings are as follows:

Date	Location	Participants
7 th March 2018	Johor Bahru, Johor	Local council officers in Iskandar Malaysia
31 st May 2018	Shah Alam, Selangor	Local council officers in Selangor
25 September 2018	Georgetown, Penang	Local council officers and state government officers from Perlis, Perak, Kedah and Penang

The project also collaborated with the Malaysia Green Building Confederation (MGBC) on a seminar entitled "Towards Net Zero Energy Buildings" on 18th October 2018 in Kuala Lumpur Convention Center. 40 GTALCC stakeholders participated in the seminar. The Component Manager was invited to speak on building sector energy efficiency policies during the Building Energy Monitoring and Reporting System (BEMRS) workshop in Iskandar Malaysia on the 29th October 2018.

Low Carbon Island Model Desktop Study

The Low Carbon Island Model Desktop Study was completed in May 2018. The study was undertaken by UTM Low Carbon Asia Research Center.

Engagement with stakeholders

Meetings were held with important stakeholders such as Malaysia Green Technology Corporation (MGTC), PLANMalaysia and Jabatan Kerajaan Tempatan. GTALCC organized a low carbon city workshop with Majlis Bandaraya Petaling Jaya (MBPJ) on the 19th December 2018. The workshop was held to brief the Deputy Mayor on the collaboration between GTALCC and MBPJ.

Appointment of International Urban Planning and Policy Expert

This activity was changed to the appointment of Chief Technical Advisor (CTA). The CTA will not only advise on Component 1 outputs but the other 2 components as well. Besides that, the CTA will also assist the National Project Manager in preparation for the upcoming Mid-Term Review in 2019. The CTA is expected to come



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on board in December 2018.

Issues and Challenges:

The delay in the appointment of the consultant to undertake the National Low Carbon Cities Masterplan and Policy Roadmap has caused other delays in the preparation of policies on integrated low carbon urban development. The gazettelement of low carbon development plans in the remaining participating cities (Petaling Jaya, Cyberjaya and Hang Tuah Jaya) by EOP will be challenging and will have to be tackled in 2019.

Output 1.1.2: Established GHG accounting framework and decision-making tools for national and sub-national levels

Summary of output target

As of 2018, 4 out of 5 cities have published their respective GHG inventories. The following table summarizes the GHG inventories.

City	GHG emission (ktCO ₂ eq/year)	Reporting year
Putrajaya	1,515	2015
Petaling Jaya	3,496	2014
Cyberjaya	182	2016
Iskandar Malaysia	15,564	2016

Hang Tuah Jaya intends to develop their GHG inventory in 2019. Therefore, the project is confident that the targets in this output will be achieved in 2019.

Although the targets under output can be easily achieved, the GHG accounting methodology differs from city to city. This is because the development of GHG inventories was undertaken by third party consultants. For example, the GHG inventory of Iskandar Malaysia adopted the Global Protocol for Community-scale Greenhouse Gas Emission Inventories (GPC) and the consultant for Cyberjaya adopted the Atkins methodology. The standardization of GHG accounting methodology is crucial for proper bottom-up GHG accounting.

Summary of activities as per AWP 2018

Develop a citywide GHG data model and ensure consistency with the guidelines for national GHG inventory to facilitate comparability and aggregation at the national level

The project conducted a stakeholder consultation workshop on 13 July 2018 to discuss the suitable GHG accounting methodology. The post-workshop report has been circulated amongst the stakeholders.

- Achieved
- On track
- Off track
- Not Achieved

Output Target:
Five (5) cities with
GHG inventories
less than 5 years
old by Year 2

Target for 2018: 5



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<p><u>Development of a web-based portal for collection and analysis of disaggregated data for bottom-up GHG accounting</u></p> <p>The project has prepared the Terms of Reference to appoint a consultant to develop the web portal. The completion of the web-portal is targeted around Q2 2019.</p> <p>Issues and Challenges: Different GHG accounting methodologies are available to be used by local authorities to develop their GHG inventory making benchmarking difficult. The National Low Carbon Cities Masterplan and Policy Roadmap shall provide the policy direction on the GHG accounting framework.</p>	
<p>Output 1.1.3: Completed and approved evidence-based low carbon development plans and investment programmes for cities and precincts.</p> <p>Activities under this output will only commence once the National Low Carbon Cities Masterplan and Policy Roadmap in Output 1.1.1 and the web-based portal for GHG accounting for Output 1.1.3 has been completed. Besides that, the investment programs are dependent on the outputs from Component 3.</p> <p>Correction: The project in past reports has declared Putrajaya has achieved this target. However, the assumption was based on the targets in the Putrajaya Green City 2025 blueprints which were established before the completion of the Project Document. The GHG reduction targets in this output shall be based on updated low carbon development plans and latest GHG inventories of the participating cities.</p>	<p><input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved</p> <p>Output Target: Three (3) cities officially adopted GHG reduction targets by EOP</p> <p>Target for 2018: 1</p>
<p>Outcome 2: Awareness and Institutional Capacity Development:</p>	<p>Progress Status</p>
<p>Output 2.1.1: Strengthened and operational coordination mechanisms for effective implementation of low carbon city policy</p> <p>Mitigation / Adaptation Measures</p> <ul style="list-style-type: none"> Study on An Institutional Framework for Low Carbon Cities (IFSLCC) is in progress with the expected completion in June 2019. The study also covers the strengthening of the One Stop Centre (OSC) at local authorities as LCC advisory that will expedite low carbon based projects / initiatives. 	<p><input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved</p> <p>Output Target: Five (5) cities exceeding national benchmarks for appraisal and approval processes for local low carbon development projects</p> <p>Target for 2018: 1</p> <p>Average of Two (2) annual low carbon city projects per city identified in local plans, commencing</p>



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	<p>Implementation starting by Year 3.</p> <p>Target for 2018: 0</p>
<p>Output 2.2.1: Completed training programs for policy decision makers, local governments, green practitioners and financing institutions on strategic urban planning processes for low carbon and climate resilient development</p> <p>Development of Low Carbon Cities Assessment and Accreditation Panel, Facilitator and Accessor / Verifier Training Curriculum under 'Train the Trainer' Activity; to complete by June 2019. Commencement of training shall start July 2019 onwards.</p>	<p><input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved</p> <p>Output Target: Five (5) cities where evidence-based low carbon planning is integrated with normal urban development planning processes by Year 4.</p> <p>Target for 2018: 2</p>
<p>Output 2.2.2: Operational knowledge management systems for low carbon city development</p> <p>Development of Low Carbon Cities Assessment and Accreditation Panel, Facilitator and Accessor / Verifier Training Curriculum under 'Train the Trainer' Activity; to complete by June 2019. Commencement of training shall start July 2019 onwards.</p>	<p><input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved</p> <p>Output Target: 50% of trainees who are effective in evidence-based integrated low carbon climate resilient development planning and project implementation by Year 2 and 75% by Year 4.</p> <p>Target for 2018: 50%</p>
<p>Outcome 3: Low Carbon Technology Investments in Cities</p>	<p>Progress Status</p>
<p>Output 3.1.1: Applied design considerations into BRT for enhanced GHG emission reduction potential</p> <p>Iskandar Region Development Authority (IRDA) has implemented two monitoring systems such as BOMS and mobility management system (MMS) which are separate but interrelated. The BOMS will provide routing data to MMS and MMS will provide data where commuters can assess and use it. MMS user's carbon footprint will be calculated through MMS system. Therefore, based on this information and feedback from IRDA, Component 3 will focus on the remote monitoring system of GHG emission from BRT buses for Iskandar Malaysia.</p>	<p><input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved</p> <p>Output Target: *\$1 billion (estimate) Vs \$0 (2018 target) of new investment leveraged for low carbon transport in participating cities by Year 3.</p>



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<p>A Terms Of Reference (TOR) has been prepared to appoint a consultant to design, pilot and implement GHG remote monitoring and reporting of road transportation along the BRT Corridor at Jalan Tebrau and Jalan Skudai, which will assist Iskandar Regional Development Authority (IRDA) in a robust bottom up quantification of GHG emission inventory. The results will provide feedback into the Transport Master Plan 2010-2030, Low Carbon Blueprint for Iskandar 2025, and Iskandar Malaysia GHG Inventory. IRDA has reviewed the document and the consultancy is targeted to be awarded in January 2019.</p> <p>In 2018, series of focus group discussion (FGD) was organised with IRDA, Suruhanjaya Pengangkutan Awam Darat (SPAD) Southern Region, Perbadanan Pengangkutan Awam Johor (PAJ), GHG monitoring technology provider and bus operators on the most practical implementation of the monitoring system. The outcome from the FGD is to agree on Remote Monitoring System (RMS) and installation of carbon tracking system with target reduction of 15 percent of GHG emission based on Low Carbon Society Blueprint for Iskandar Malaysia 2025.</p>	<p><i>*Estimate will be confirmed in 2019 based on the BRT awarded project sum for construction & fee of appointed BRT design consultant.</i></p> <p>Target for 2018: 0</p>
<p>Output 3.1.2: Leveraged investments to support the scaling up of low carbon public transport systems</p> <p><u>Consultancy For Low Carbon Public Transport (Bus): Scaling-Up Financing And Viable Business Cases For Cities</u></p> <p>The scope of study and budget has been endorsed by GTALCC Project Technical Committee on 27 April 2018 in meeting No. 2/2018. The consultancy was awarded on 8 October 2018 and the stakeholder engagement workshop was held on 6 December 2018. The study will be concluded in April 2019.</p> <p>The main objectives of the study are to remove barriers that hinder investment in low carbon public transport focusing on bus in Malaysia and to scale-up financing; and to develop viable business cases for cities public transport investment and implementation towards low carbon public transport. The scopes of study are as follows:</p> <ol style="list-style-type: none"> I. Task 1: Comprises of the presentation of research methodology, activity scheduling and reporting sequence. II. Task 2 (a): Review existing investment and operational requirements that have been implemented since 2010 for conversion of Bus Rapid Transit (BRT), city bus, stage and intercity bus services to low carbon vehicles III. Task 2 (b): Review existing institutional setup, regulatory framework, legislation and financial mechanisms and resource allocation in Malaysia to achieve rational investment of low carbon public transport IV. Task 3 (a): Identify shortfalls and barriers in all low carbon public transport consuming that currently hinder the adoption of low carbon public transport in Malaysia V. Task 3 (b): Identify examples of successful national low carbon public 	<p><input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved</p> <p>Output Target: \$153m of new investment leveraged for low carbon transport in participating cities by Year 3.</p> <p>Target for 2018: 0 \$3m achieved for 2018.</p>



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<p>transport efforts in selected countries</p> <p>VI. Task 4 (a): Develop a viable business cases for cities bus operators for the adoption of low carbon vehicles</p> <p>VII. Task 4 (b) Develop action plan for scaling-up financing for low carbon public transport providers</p>									
<p>Output 3.1.3: Validated and scaled-up green technology incentive scheme in target cities for households and SMEs</p> <p><u>Consultancy For A Study On Business Plan On Green Technology Incentive Scheme For Households And SME By Local Authorities</u></p> <p>The scope of study and budget has been endorsed by GTALCC Project Technical Committee on 27 April 2018 in meeting No. 2/2018. The consultancy was awarded on 8 October 2018 and the stakeholder engagement workshop was held on 6 December 2018. The study will be concluded in April 2019.</p> <p>The main objectives of the study are to prepare a business plan on green technology incentive schemes for households and SME to be adopted by the local authorities which includes policy statement and programme; and to improve and scale-up the incentive scheme. The scope of study are as follows:</p> <ol style="list-style-type: none"> I. Task 1: Comprises of the presentation of research methodology, activity scheduling and reporting sequence II. Task 2 (a): Review existing programmes/projects that have been implemented since 2011 by local authorities III. Task 2 (b): Review and identify examples of successful national green technology incentive scheme efforts at international level IV. Task 3 (a): Develop a comprehensive business plan and market assessment for local authorities in Malaysia V. Task 3 (b) Develop a comprehensive policy and programmes for cities to scale-up local incentive scheme for green technology investment VI. Task 4: Stakeholders' Workshop 	<p><input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved</p> <p>Output Target: \$1.2m of new investments by participants in council green incentive schemes starting in Year 3.</p> <p>Target for 2018: 0 \$46k achieved for 2018.</p>								
<p>Output 3.1.4: Leveraged investments in low carbon urban systems based on low carbon development plans.</p> <p>Component 3 will support participating cities to mobilise investment according to their low carbon development plans on technical assistance in the preparation of the project designs and mobilising investment; and build partnership. Potential investment opportunities arising from the planning by local authorities are as follows:</p> <p>Table 1: List of Potential Investment Opportunities Arising from the Planning by Local Authorities</p>	<p><input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved</p> <p>Output Target: \$30m of new investment leveraged through local plans of participating cities for low carbon projects by EOP.</p> <p>Target for 2018: 0 \$22m achieved for 2018.</p>								
<table border="1"> <thead> <tr> <th data-bbox="220 1827 284 1912">No.</th> <th data-bbox="284 1827 564 1912">Local Authority</th> <th data-bbox="564 1827 970 1912">Project</th> <th data-bbox="970 1827 1169 1912">Amount of Project (RM)</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	No.	Local Authority	Project	Amount of Project (RM)					
No.	Local Authority	Project	Amount of Project (RM)						



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1.	Majlis Perbandaran Pasir Gudang	Building retrofitting (Menara Aqabah)	150,000.00	
2.	Majlis Bandaraya Iskandar Puteri	Installation solar panels (council building) and street lighting retrofitting (at Taman Ungku Tun Aminah Multipurpose Hall (TUTA), TUTA Sports Complex, and street lights around Jalan Perwira 8, 16, 16, 17, 18 and 19)	200,000.00	
3.	Perbadanan Putrajaya	Putrajaya Cycleway Phase 2	3,515,520.00	
4.	Perbadanan Putrajaya	Home composting	267,300.00	
5.	Majlis Perbandaran Hang Tuah Jaya	Building retrofitting	4,390,000.00	
6.	Majlis Perbandaran Hang Tuah Jaya	Street lighting retrofitting	3,500,000.00	
<p>Output 3.1.5: Approved pilot NAMA proposal for low carbon urban development</p> <p>This Output will not focus on developing a NAMA proposal but support to future GEF-7 climate change mitigation projects, with input from a low carbon urban development perspective. This will be carried out in 2019.</p>				<input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved Output Target: \$10m of approved pilot Urban NAMA project In Year 5. Target for 2018: 0
<p>Output 3.2.1: Operationalized electric vehicles and charging station infrastructure</p> <p>The activity has not had any direct interventions on this indicator for 2018. This is partly due to on-going Low Carbon Mobility study by Malaysia Green Technology Corporation and UNIDO. Collaboration and engagement with stakeholders is in progress. GTALCC project with the assistance of MESTECC is currently exploring possible collaboration with Malaysia Green Technology Corporation.</p>				<input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved Output Target: 794/1504 of operating electric cars by year 3 and year 5. Target for 2018: 0 348 achieved for 2018. 3550/8750 of operating electric scooters by year 3 and year 5. Target for 2018: 0 155/670 of



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	<p>operating recharge stations in year 3 and year 5.</p> <p>Target for 2018: 0 234 achieved for 2018.</p>
<p>Output 3.2.2: A commissioned BRT system operating in Iskandar Development Region</p> <p>This Output has been delayed due to external factors beyond the control of the project, as the schedule for the construction of the BRT has been delayed.</p> <p>The <i>Iskandar Malaysia Bus Rapid Transit (IMBRT)</i> is expected to be awarded for construction in Q4, 2019 and Phase 1 to be completed by Q3, 2022. IMBRT's focus for 2018 was on development planning, land acquisitions, designs of the stations and public engagements. The approval from the <i>National Project Management Committee</i> led by <i>Economic Planning Unit</i> was obtained in January 2018.</p> <p>This means that the BRT will only be operating after the project has closed.</p>	<p><input type="checkbox"/> On Track <input checked="" type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved</p> <p>Output Target: 100% completion of BRT phase 1 by start of Year 3</p> <p>Target for 2018: 0 5% achieved for 2018.</p>
<p>Output 3.2.3: A commissioned city cycleway in Putrajaya</p> <p>The first phase of Putrajaya's cycle-way was completed prior to the start of GTALCC project mid-2017.</p> <p>Component 3 had identified bicycle sharing business model with preferred operator based in Malaysia which most sustainable and viable proposal. Public Bike Share (project in Melaka and Johor), LinkBike (project in Penang) and OBike (project in Selangor and Kuala Lumpur) among service provider of bicycle sharing program currently operated in Malaysia.</p> <p>Public Bike Share (project in Melaka and Johor), LinkBike (project in Penang) and OBike (project in Selangor and Kuala Lumpur) were invited for a meeting on proposal and business plan of bicycle sharing program. However, only OBike give a feedback and the meeting was held on 15th August 2017. OBike under GTALCC project has deployed 400 bicycles in Putrajaya's commercial building.</p> <p>Majlis Perbandaran Hang Tuah Jaya (MPHTJ) collaborated with OBike under GTALCC project to deploy 200 bicycles at Multimedia University Melaka Branch (MMU) and Universiti Teknikal Malaysia Melaka (UTeM) area.</p>	<p><input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved</p> <p>Output Target: Phase 2 of cycle-way reviewed and approved by EOP.</p> <p>Target for 2018: 0</p>
<p>Output 3.2.4: Operationalized on-site waste processing projects in Petaling Jaya</p> <p>The output target numbers were based on the assumption that CH Green Sdn. Bhd</p>	<p><input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved</p>



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<p>will be appointed by Majlis Perbandaran Petaling Jaya to carry out on-site waste processing projects (on-site food waste to biogas & compost project). To date, the company has only 2 plants in operation.</p> <p><u>On-site Processing Detail Site Suitability Study & Business Model in Cyberjaya:</u> A study was carried out to resolve an approximately 600-700 metric tonne of waste from Cyberjaya sent to Tanjung 12 landfill periodically which is in line with Cyberjaya Smart and Low Carbon City Blueprint 2025 under Action 5.3: To Provide Efficient and Effective Resource Management. GTALCC under Component 3 has facilitated the study for Cyberjaya. The consultancy for the study was awarded in May 2018 and concluded in July 2018. The paper was presented in IGEM 2018 held at KLCC Convention Centre in October 2018.</p> <p>The recommendations of the study shall be the basis for projects to be implemented in 2019 under this Output, namely in Cyberjaya, Putrajaya and Melaka.</p> <ul style="list-style-type: none"> • Project to adapt to activities that contributes to the reduction of CO2 emission and increase new investment by: <ol style="list-style-type: none"> a) Increasing awareness and application by households and commercial facilities (schools, markets & hospitals) in Putrajaya, Cyberjaya and Hang Tuah Jaya to composting and carry out urban farming b) Facilitating partnerships between Local Authorities and Private Sectors (Developers and Waste Management Operators) on application of On-site Waste Processing Projects 	<p>Output Target: 95 of commercial onsite waste processing plants operating by EOP.</p> <p>Target for 2018: 0 2 achieved for 2018.</p>
<p>Outcome: Project Management</p>	<p>Progress Status</p>
<p>Output 6.1: Project Management</p> <p>The project has conducted the required management and monitoring requirements as outlined in the project document:</p> <ul style="list-style-type: none"> • NSC Meeting – Every Half Year • PTC Meeting – Every Quarter • JKKPP Meeting – Every Month • Internal Project Team Coordination Meeting – Every Two Weeks • Ad-Hoc Problem Solving Meeting – As and When Required 	<p><input checked="" type="checkbox"/> On Track <input type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved</p> <p>Output Target: Project management activities conducted as per AWP 2018.</p>



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SECTION 2: 2018 Project Progress/Contribution to National Development Agenda

- 2.1 Please elaborate project's contribution to the review/revision/formulation of national or sectoral policies, strategies and action plans, in line with the mid-term review of the 11th Malaysia Plan and relevant sectoral policies.

The project has recently begun work to develop the National Low Carbon Cities Masterplan and Policy Roadmap (NLCCMP & PRM), which will be completed in early Q2 2019. The NLCCMP&PRM will be an important national policy document which will chart a roadmap to drive the nation's low carbon cities agenda in an integrated manner at all levels of implementation. It will also consolidate and synergize the existing national and sub-national policy and regulatory frameworks related to low carbon urban planning in Malaysia.

- 2.2 Please indicate activities undertaken by the project to strengthen and enhance capacity and technical knowledge on key development challenges/thematic issues/cross-cutting issues.

(Please attach as annex a full list of consultation/training/workshop events. See attached Capacity Building Activity Template)

The project adopts an active engagement approach to secure buy-in, solicit feedback, and collect information, knowledge exchange and dissemination. A total of nine (9) capacity building activities were organized from Jan- Nov 2018. Another two (2) capacity building activities are scheduled to be held in Dec 2018 (see attached list of capacity building activities).

- 2.3 What has the project done in 2018 to build/strengthen capacity to implement or sustain systemic changes? (Institutional Capacity Development)

The project is taking a pro-active approach for institutional capacity development through the following:

- Study on An Institutional Framework for Low Carbon Cities (IFSLCC) due to complete in June 2019. This study includes strengthening of the One Stop Centre (OSC) at local authorities as LCC advisory that will expedite low carbon based projects / initiatives.
- Development of Low Carbon Cities Assessment and Accreditation Panel, Facilitator and Accessor / Verifier Training Curriculum under 'Train the Trainer' Activity; to complete by June 2019. Commencement of training shall start July 2019 onwards.
- National Low Carbon Cities Network will be established as a knowledge sharing and data management platform at the national level.



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- 2.4 What has the project done in 2018 to generate/develop or improve/update datasets, statistics and models? Please indicate their utilization by Implementing Partner to strengthen national evidence-based policymaking.

The project has started the preparation for the development and establishment of a National Low Carbon Cities Network in 2019 as a knowledge sharing and data management platform at the national level.

- 2.5 Please elaborate on project's efforts to mainstream gender equality through project outputs and activities in 2018. E.g. having equitable participation; generating sex-disaggregated data; planning gender analysis on outputs or gender sensitization to stakeholders.

The project team was exposed to Gender Concepts under UNDP through the PIR 2018 exercise. Prior to that the gender equality efforts was indirect i.e. ensuring a balanced representation at every workshops / focus group discussions etc. Efforts are now being made to mainstream gender equality through project outputs and activities in 2019.

- 2.6 What has the project done in 2018 to develop or demonstrate/pilot new and/or innovative approaches and solutions? Please indicate how they have contributed to inform decision- and policymaking, and if it has led to actual/planned upscaling or replication.

The project team has successfully facilitated the entry of a bike-sharing operator into the administrative capital Putrajaya under its cycle-way initiative. This venture has led to another bike-sharing operator entry into Putrajaya. The same model was also explored for higher learning institution in the state of Melaka.

- 2.7 Has the project Risk Analysis been reviewed and updated? Please indicate status critical risks in 2018. (please consult with UNDP CO support)

The risk analysis is reviewed every quarter or on ad-hoc basis in light of potential risk (if any) and to mitigate potential impact.

- 2.8 Please indicate any additional comments on areas of improvement that should be taken into consideration by EPU and UNDP Malaysia in the implementation of future projects.

N/A

SECTION 3: JUSTIFICATION FOR EXTENSION (for projects scheduled for completion this year)

Please indicate reasons for the project extension: N/A



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Proposed duration of extension: [xx] months

Agreement by National Steering Committee:

Date of meeting: (minutes attached in Annex)

Annual Progress Report 2018 approved by:

Name: Asdirhyme bin Abdul Rasib

Designation: National Project Director, GTALCC

Senior Under Secretary, MESTECC

Date:



FOR UNDP USE

UNDP Observations and Assessment

For UNDP Programme Management to comment on the reported contributions and activity progress by IP as Quality Assurance assessment

Section 1: Overall Implementation of Project Outputs as per Signed Annual Work Plan 2018

Outcome 1:

Work on the National Low Carbon City Masterplan and Policy Roadmap was delayed due to the procurement freeze for all government agencies post Malaysia's 14th General Election. In view that the procurement of the consultant and offer of contract could not be done by SEDA, UNDP practiced adaptive management and took over hiring of the consultant. As of early November, a consultant has been selected and work on the National Low Carbon City Masterplan and Policy Roadmap has commenced, starting with the development of the Inception Report and a stakeholder consultation. The project has provided technical advisory support and capacity building through several workshops conducted under Component 1.

Outcome 2:

Under Component 2, two key studies have commenced: (i) Study on the Institutional Framework for Low Carbon Cities and the Development of Low Carbon Cities Assessment and Accreditation Panel, Facilitator and Accessor / Verifier Training Curriculum, in response to demands by stakeholders that to increase the MRV support system for the Low Carbon City Framework. On-demand trainings have been carried out to meet the needs of stakeholders. However, the activities conducted under Outcome 2 have not yet shown progress towards meeting the end-of-project targets, though the completion of the two key studies is expected to generate momentum towards achieving these targets.

Outcome 3:

There has been more progress on Component 3 in 2018 as compared to 2017. Several important parcels of work are in progress, namely the consultancy for low carbon public transport: scaling up financing and viable business cases for cities, and the study on business plans for green technology incentive schemes for households, and pilot projects with cities.

The delay in the schedule of construction for Iskandar Malaysia's Bus Rapid Transit has affected the planned work under Component 3 and the achievement towards the Project targets, including GHG emissions reduction, where the BRT is expected to contribute towards a majority of the project's



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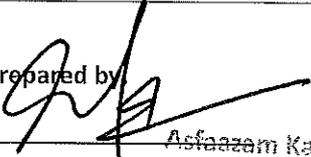
emissions reduction. With this in mind, the project has begun exploring other initiatives which can allow for similar GHG emissions reductions and have begun talks with the Mass Rapid Transit Corporation Sdn Bhd, the developed of Klang Valley's MRT. At the same time, BRT related Outputs (Outputs 3.1.1 and 3.2.2) will go on as usual, although GHG emissions reduction benefits will only accrue after the project has concluded.

Section 2: Project Progress/Contribution towards National Development Agenda in 2018

The project contributes to the Mid Term Review of the 11th Malaysia Plan, Pillar V on Enhancing Environmental Sustainability through Green Growth. The National Low Carbon Cities Masterplan and Policy Roadmap contributes to Strategy A1 on strengthening policy, legislation and institutional framework for green growth. The project also directly supports the achievement of Strategy C1 on intensifying climate change mitigation, which focuses on mitigation measures to address climate change. The project has been implementing pilot projects and capacity building activities on climate change mitigation, especially with regards to greenhouse gas reduction, energy, low carbon mobility, green buildings and waste management which aids the achievement of this Strategy.

In general, the project has made important progress in 2018. However, two factors have contributed to delays. Firstly, the 14th General Election resulted in procurement of consultants being delayed. Secondly, there has been some changes in the project team – the previous component managers for component 2 and component 3 have left and been replaced. There was a short gap where the component manager positions were not filled up. A full team is now in place, consisting of a Project Manager, a Chief Technical Advisor, three Component Managers, a Finance Officer and an Admin Executive, which is expected to greatly aid in the delivery of project outputs and activities.

Prepared by


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Programme Manager