



COUNTRY PROGRAMME ACTION PLAN 2016-2020



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MID-YEAR PROGRESS REPORT 2018

PROJECT PROFILE

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

AWARD ID: 00085917

PROJECT ID: 00093379

PROJECT PERIOD:

Mar 2015 – Dec 2019

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

IMPLEMENTING PARTNER:

Ministry of Energy, Green Technology, and Water

NATIONAL PROJECT DIRECTOR:

Datuk Badriyah Hj Ab Malek, Deputy Secretary-General (Energy and Green Technology), Ministry of Energy, Green Technology, and Water

NATIONAL STEERING COMMITTEE CHAIR:

Dato Seri Ir Dr Zaini b Ujang, Secretary-General, Ministry of Energy, Green Technology, and Water

NSC MEETING(S) HELD:

5 Feb 2018

minutes attached

UNDP MALAYSIA CPAP OUTCOME:

Inclusive Growth & Development

Sustainable & Resilient Development

11TH MALAYSIA PLAN STRATEGIC THRUSTS:

Enhancing inclusiveness towards an equitable society

Improving wellbeing for all

Accelerating human capital development for an advanced nation

Pursuing green growth for sustainability and resilience

Strengthening infrastructure to support economic expansion

Re-engineering economic growth for greater prosperity

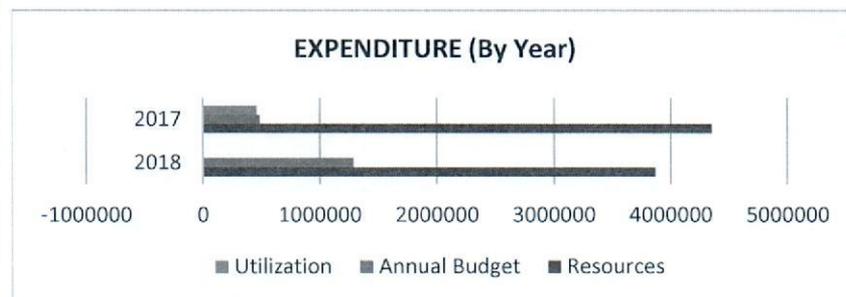
PROJECT DESCRIPTION (500 words max):

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.

PROJECT IMPLEMENTATION OVERVIEW

EXPENDITURE:

YEAR	BUDGET	UTILIZATION	RATIO (%)
2017	\$484,487	\$459,236	95
2018	\$1,287,324	\$26,036	2
CUMULATIVE	\$1,771,811	\$485,272	27



Project Outcome Snapshot

Component/Outcome & Total Outputs	Achieved (Output #)	On Track (Output #)	Off Track (Output #)	Not Achieved (Output #)
Component 1: Total outputs: 3	-	1.1.1, 1.1.2, 1.1.3	-	-
Component 2: Total outputs: 3	-	2.1.1, 2.2.1, 2.2.2	-	-
Component 3: Total outputs: 9	-	3.1.1-3.1.5; 3.2.3	3.2.1, 3.2.2, 3.2.4	-
Outcome: Project management		Project Management		

List the outputs under outcomes in page 2.

Risk Management

Date Identified	Type	Management Response
[no risks identified]	[no risks identified]	[no risks identified]



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Project Outcome Snapshot (expanded)

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 checked="" type="checkbox"/> On Track <input 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 checked="" type="checkbox"/> On Track <input 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 type="checkbox"/> On Track <input checked="" 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 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 3.2.4: 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 type="checkbox"/> On Track <input checked="" type="checkbox"/> Off Track <input type="checkbox"/> Achieved <input type="checkbox"/> Not Achieved
Outcome: Project Management		
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

RISK MANAGEMENT (EXPANDED)

Date Identified	Type	Management Response
[no risks identified]	[no risks identified]	[no risks identified]

ANNEX

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

1. NSC Minutes of Meeting
2. _____
3. _____



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MID-YEAR REPORT NARRATIVE

Describe the project's achievements of outputs in 2018, with brief descriptions of progress of planned activity results for the year. Please highlight any contributions to gender made if any.

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

Component 1: Policy support for the promotion of integrated low carbon urban development.		Progress Status
Output 1.1.1: Approved city policies, legislations and regulations and strengthened enforcement systems for integrated low carbon urban development.		<input type="checkbox"/> Achieved <input checked="" type="checkbox"/> On track <input type="checkbox"/> Off track
Approved activities for 2018 and status of the activities are summarized in the following table:		
No.	Activities for 2018	Progress as of 30 June 2018
1.	National Low Carbon Cities Masterplan & Policy Roadmap (NLCCMP & PR)	Terms of reference for the consultant was prepared and advertised. A stakeholder workshop was organized with representatives from federal, state and local governments to deliberate on the scope of work under the NLCCMP & PR. Procurement of the consultant by SEDA was at the financial and technical evaluation stage but has been halted due to the current government ruling on temporary suspension of procurement activities. The procurement of this consultancy has been taken over by UNDP to avoid further delays.
2.	Training of council officers in the promotion and appraisal of development proposals with regards to green technology regulations.	2 training workshops on MS 1525 standard were held in Johor Bahru and Iskandar Malaysia respectively. Local authorities from each of the 5 participating cities have participated since the first workshop held in October 2017.
3.	Review of standards and preparation of policy and guidelines regarding on-site processing of waste and integration with building systems and urban services	This activity is ongoing with expected completion in August 2018.
4.	Low Carbon Island Model Desktop Study	Completed in May 2018. GTALCC collaborated with UTM Low Carbon Asia Research Center and Universiti Malaya to complete this activity.
5.	Engagement with stakeholders	Meetings were held with Malaysia Green Technology Corporation (MGTC), PLANMalaysia and Jabatan Kerajaan Tempatan.
6.	Preparation of guidelines to support cities to identify and establish private	Activity scheduled to start in September 2018.
		Output Target: Number of cities which have gazetted low carbon development plans by Year 3



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	partnerships for low carbon infrastructure											
7	Appointment of International urban planning and policy expert	Activity scheduled to start in July 2018.										
<p><i>Issues & Challenges:</i> Appointment of the consultant to undertake the National Low Carbon Cities Masterplan and Policy Roadmap has been delayed due to freezing of procurement of new consultants after the change in government on 9th May 2018.</p> <p><i>Action Taken by implementing Partner: -</i></p> <p><i>Additional Support Requested from UNDP/ EPU:</i> Procurement for consultant to develop the National Low Carbon Cities and Policy Roadmap</p> <p><i>UNDP Management Response:</i> Output 1.1.1 is progressing well. There have been a few key achievements in 2018 including the finalization of the Low Carbon Island Desktop Study and the commencement of work for the National Low Carbon Cities Masterplan and Policy Roadmap.</p>												
<p>Output 1.1.2: Established GHG accounting framework and decision-making tools for national and sub-national levels</p> <p>Approved activities for 2018 and status of the activities are summarized in the following table:</p> <table border="1"> <thead> <tr> <th>No.</th> <th>Activities for 2018</th> <th>Progress as of 30 June 2018</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>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</td> <td>Desktop study on the available methodologies for GHG accounting was carried out. A stakeholder workshop was held on 13th July 2018 to seek consensus on a standardised GHG accounting methodology for local authorities.</td> </tr> <tr> <td>2.</td> <td>Development of a web-based portal for collection and analysis of disaggregated data for bottom-up GHG accounting</td> <td>The Terms of Reference for the appointment of the contractor was finalized in April 2018. The procurement will only commence upon completion of Activity No.1</td> </tr> </tbody> </table> <p><i>Issues & Challenges:</i> The development of the web-based portal for collection and analysis of disaggregated data for bottom-up GHG accounting was delayed due to the decision of the Project Technical Committee members to study further on the proper GHG accounting methodology to be promoted under the project.</p> <p><i>Action Taken by implementing Partner:</i> Stakeholder workshop was scheduled on 13th July 2018 to resolve issues on standardization of the GHG accounting methodology for cities.</p>			No.	Activities for 2018	Progress as of 30 June 2018	1.	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	Desktop study on the available methodologies for GHG accounting was carried out. A stakeholder workshop was held on 13 th July 2018 to seek consensus on a standardised GHG accounting methodology for local authorities.	2.	Development of a web-based portal for collection and analysis of disaggregated data for bottom-up GHG accounting	The Terms of Reference for the appointment of the contractor was finalized in April 2018. The procurement will only commence upon completion of Activity No.1	<input type="checkbox"/> Achieved <input checked="" type="checkbox"/> On track <input type="checkbox"/> Off track Output Target: Number of participating cities which have GHG inventories less than 5 years old by Year 2 Target by 2018 – 5
No.	Activities for 2018	Progress as of 30 June 2018										
1.	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	Desktop study on the available methodologies for GHG accounting was carried out. A stakeholder workshop was held on 13 th July 2018 to seek consensus on a standardised GHG accounting methodology for local authorities.										
2.	Development of a web-based portal for collection and analysis of disaggregated data for bottom-up GHG accounting	The Terms of Reference for the appointment of the contractor was finalized in April 2018. The procurement will only commence upon completion of Activity No.1										



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<p><i>Additional Support Requested from UNDP/EPU: -</i></p> <p><i>UNDP Management Response:</i> The project has realized that it is important to have stakeholder feedback on the GHG accounting tools used, as cities are currently using different accounting tools. The web-based portal for collection and analysis of disaggregated data cannot be developed without an agreement from the stakeholders of the pilot cities on which accounting framework to use. The meeting on 13th July helped to understand the views of the local authorities and to seek consensus on a unified GHG accounting framework. Local authorities decided that the GHG Protocol for Cities (GPC) methodology will be used for city scale accounting. The next steps that the project team will need to take is to engage with the climate change unit of the Ministry of Energy, Technology, Science, Climate Change and Environment on how the city level accounting based on GPC will feed into the national GHG accounting based on the IPCC methodology.</p>	
<p><i>Output 1.1.3: Completed and approved evidence-based low carbon development plans and investment programmes for cities and precincts.</i></p> <p>Activities in Output 1.1.3 are scheduled to begin in 2019 upon completion of Output 1.1.1 and Output 1.1.2, as the delivery of this output is expected to draw on the guidelines of Output 1.1.1 and the data and tools from Output 1.1.2.</p> <p><i>Issues & Challenges: -</i></p> <p><i>Action Taken by implementing Partner: -</i></p> <p><i>Additional Support Requested from UNDP/EPU: -</i></p> <p><i>UNDP Management Response: -</i></p>	<p><input type="checkbox"/> Achieved <input checked="" type="checkbox"/> On track <input type="checkbox"/> Off track</p> <p>Output Target: Number of cities which have officially adopted GHG reduction targets by EOP</p>
<p>Component 2: Awareness and Institutional Capacity Development.</p>	<p>Progress Status</p>
<p><i>Output 2.1.1: Strengthened and operational coordination mechanisms for effective implementation of low carbon city policy</i></p> <p>During an internal strategic meeting for GTALCC project on the 27th and 28th January 2018, the Component Manager for Component 2 had presented the idea of developing an institutional framework for low carbon cities, besides others two activities under the output including:</p> <ol style="list-style-type: none"> 1) Development of a Benchmarking System for Development Appraisal and Approval (Planning Permission) Process for Low Carbon Cities. 2) Strengthening and Enhancing the One-Stop-Center (Osc) at Local Authorities as a Green Technology And Low Carbon Cities Advisory. <p>The institutional framework will help to facilitate the successful implementation of low carbon development in this country and act as a platform to spell out the overall direction and key policy decisions concerning the matter. The Project Technical Committee and National Steering Committee has endorsed this recommendation and work will be starting this year.</p> <p>Discussions have also been held with an expert in institutional framework and climate change from the Department of Law, Universiti Kebangsaan Malaysia on 9 January 2018 to seek advice on developing the framework to support the planning, development and implementation of low</p>	<p><input type="checkbox"/> Achieved <input checked="" type="checkbox"/> On track <input type="checkbox"/> Off track</p> <p>Output Target: Number of cities exceeding national benchmarks for appraisal and approval processes for local low carbon development projects, Average annual number of low carbon city projects per city identified in local plans, commencing implementation starting by Year 3.</p>



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carbon cities. A series of discussions with the Department of Town and Country Planning, Peninsular Malaysia known as PLANMalaysia and Department of Local Government (DLG), Ministry of Housing and Local Government have been held to explore collaboration on developing the institutional framework.

The Terms of Reference (TOR) for the institutional study has been developed and was presented during the Project Technical Meeting No.2. The project had taken into consideration the inputs from the technical committee members on the approach of combining three (3) TOR under the Output 2.1.1 which were: 1) The institutional Framework for Low Carbon Cities; 2) The development of Benchmarking System For Development Appraisal And Approval (Planning Permission) Process For Low Carbon Cities and Strengthening And Enhancing The One-Stop-Center (OSC) At Local Authority As Green Technology And Low Carbon Cities Advisory as one for better synergy.

Issues & Challenges:

Action Taken by implementing Partner:

Additional Support Requested from UNDP/EPU:

UNDP Management Response: The current planned activities for this output needs to be better strategized to contribute towards the achievement of the output indicator, which is "Number of cities exceeding national benchmarks for appraisal and approval processes for local low carbon development projects". The institutional framework study is a necessary baseline, but the framework should be conducted soonest so that the output can focus more on establishing/strengthening the national benchmark for appraisal and approval processes, and activities aimed at increasing the capacity of cities to exceed the benchmark.

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

During an internal strategic meeting for the project on 27th and 28th January 2018, it was identified that there was a need to train experts on Low Carbon Cities assessment and accreditation, consisting of an accreditation panel, facilitators and assessors/verifiers using a 'Train the Trainer' approach with a specific training curriculum developed.

On February 2018, a meeting was held between the project and the Sustainable Living Division of Malaysian Green Technology Corporation (GreenTech Malaysia) to discuss on the Low Carbon Cities Framework (LCCF) and its training module. The LCCF is a baseline activity highlighted in the GTALCC Project Document and the training module is intended to increase the capacity of local authorities in applying the LCCF principles. On June 2018, GreenTech agreed to collaborate together for the project to use the LCCF and its training module as a basis in developing the "Train the Trainer" curriculum for accreditation panel, facilitators and assessors/ verifiers.

A meeting also was held with Local Government Training Institute (LGTI), Ministry of Housing and Local Government (previously known as Ministry of Urban Wellbeing, Housing and Local Government) on training that is currently available which is imparted to local authority officers on low carbon cities. The project found that there is no specific module developed and used by

- On Track
- Off Track
- Achieved
- Not Achieved

Output Target:
Number of cities where evidence-based low carbon planning is integrated with normal urban development planning processes by Year 4



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<p>the institute as the training was imparted by GreenTechn Malaysia using the LCCF Training module.</p> <p>Discussions have been held with the Malaysian Institute of Planners (MIP) who played a key role in developing the LCCF document to explore collaboration for the development of the “Train the Trainer” module.</p> <p>The TOR has been developed and was presented during PTC No.1 and 2 and was approved to develop the module.</p> <p><i>Issues & Challenges:</i> Developing a new module for training on low carbon cities involves high cost and a lot of effort. Currently, there is no other training module on low carbon cities planning and development that has been developed. GTALCC has the intention to develop a comprehensive curriculum for a “Train the Trainers” module based on the LCCF, and is seeking to collaborate with GreenTech Malaysia as they are the custodians of the LCCF.</p> <p><i>Action Taken by implementing Partner:</i> A meeting has been held with GreenTech Malaysia to discuss about the intention of the project and strategies to develop the training curriculum by using the LCCF Training Module. GreenTech responds towards the issue and positively looking forward for any collaboration efforts that can be made.</p> <p><i>Additional Support Requested from UNDP/ EPU: -</i></p> <p><i>UNDP Management Response:</i> The project is currently embarking on a “Train the Trainers” module based on the LCCF framework. There is a need to also focus on training for low carbon development/ planning for skills that are not covered under the LCCF framework, and to also look at other demand-driven training for state and city officers.</p>	
<p>Output 2.2.2: Operational knowledge management systems for low carbon city development</p> <p>The intention to develop a National Low Carbon Cities Network has been highlighted during the National Project Steering Committee No.2 chaired by the Secretary General of Ministry of Energy, Green Technology and Water. The committee has agreed and the establishment of the National Low Carbon Cities Network will be starting this year.</p> <p>The project also presented the intention to develop an institutional framework for low carbon cities in 2018 during the Project Technical Committee (PTC) No.1 on 26th January 2018 and was agreed and approved by the committee on 5th February 2018.</p> <p>The project has presented has developed the Terms of Reference (TOR) for hiring a consultant to develop the national communications strategy and plan and will be developing the plan this year.</p> <p>The project had an opportunity to take part several events for knowledge sharing which are listed below:</p>	<p><input type="checkbox"/> Achieved <input checked="" type="checkbox"/> On track <input type="checkbox"/> Off track</p> <p>Output Target: Percentage of trainees who are effective in evidence-based integrated low carbon climate resilient development planning and project implementation by Year 2 and Year 4</p>



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<ul style="list-style-type: none"> • The World Urban Forum (WUF) 9 Kuala Lumpur which was held in Kuala Lumpur Convention Center from 7th-13th February 2018- Exhibition and panel discussion • International Sustainable Energy Summit 2018 in Sarawak from 10th-11th April 2018- Participation as panel in Deep Dive Workshop on low carbon cities development <p><i>Issues & Challenges:-</i></p> <p><i>Action Taken by implementing Partner: -</i></p> <p><i>Additional Support Requested from UNDP/ EPU: -</i></p> <p><i>UNDP Management Response: -</i></p>	
<p>Component 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>This output has focused on the design and implementation of a personal GHG emission calculator and dashboard that will be incorporated into the Bus Rapid Transit (BRT) Operational Management Systems (BOMS); and the design, pilot and institutionalization of a GHG monitoring and reporting framework.</p> <p>The project in its early stage has focused on the evaluation of the BRT phase 1. However, due to the delayed commencement of BRT phase 1, the project had to amend its scope. Currently, the Iskandar Region Development Authority (IRDA) has implemented two monitoring systems which are the BOMS and mobility management system (MMS) which are separate systems but are interrelated. BOMS is intended to provide data on routing to MMS and MMS will provide data which commuters can assess and use. MMS user's carbon footprint will be calculated through the MMS system. Therefore, based on this information from IRDA, Component 3 will focus on the remote monitoring system of GHG emissions from buses for Iskandar Malaysia's BRT.</p> <p>A series of focus group discussions (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 developing a Remote Monitoring System (RMS) and the installation of a carbon tracking system with a target GHG emissions reduction of 15 percent based on Iskandar Malaysia's Low Carbon Society Blueprint 2025. The salient points of discussion are as follows:</p> <ol style="list-style-type: none"> The installation of global positioning system (GPS) as part of SPAD's requirements where it is compulsory for stage busses and express busses and SPAD will do compliance audit for each bus; Data provided by using GPS are fuel use (diesel bus) and distance, and bus operators must include fuel/km and original/destination passengers manually; The implementation of a monitoring system can use real time data to calculate carbon emission; Two main bus operators related with BRT are Handal Indah Sdn. Bhd. with 130 buses and Syarikat Pengangkutan Maju Berhad with 114 buses; and Widely focus on monitoring GHG emission to all land transport using the lanes along BRT system. 	<p> <input type="checkbox"/> Achieved <input checked="" type="checkbox"/> On track <input type="checkbox"/> Off track </p> <p>Output Target: Total amount of new investment leveraged through local plans of participating cities for low carbon projects by EOP</p>



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The location of pilot monitoring system has identified at Tebrau Busway with 14km distance and Johor Bahru central business district (CBD) with 4.2km distance.

Issues & Challenges:

The total targeted GHG emission reductions of the project is 346,442 tonnes CO2 equivalent. A bulk of these emissions reduction as identified in the Project Document comes from the BRT in Iskandar Malaysia, of which implementation has been delayed. Should the BRT project in Iskandar Malaysia not materialize within the timeframe of the project or should it not be able to fulfill its intended objective, the project will need to explore a new source of GHG emission reductions.

Action Taken by implementing Partner:

The project team is exploring working together with the Klang Valley's Mass Rapid Transit (MRT) and the existing public transport operating on NGV / CNG i.e. buses and taxis to deliver the emissions reductions expected, as a back-up.

Additional Support Requested from UNDP/EPU: -

UNDP Management Response:

The project should explore other initiatives for emissions reductions beyond the planned initiatives for the Iskandar Malaysia BRT, and should look into stock-taking on the design and implementation practices for maximizing emissions reductions and climate proofing of other urban transport projects in Malaysia.

Output 3.1.2: Leveraged investments to support the scaling up of low carbon public transport systems

Component 3 has developed the scope of study on low carbon public transport (bus): scaling-up financing and preparation of viable business cases for cities. The scope of the study and budget was endorsed by GTALCC Project Technical Committee on 27 April 2018 in meeting No. 2/2018. 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 scope of study are as follows:

- 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 transport efforts in selected countries
- VI. Task 4 (a): Develop a viable business cases for cities bus operators for the adoption of low carbon vehicles
- VII. Task 4 (b) Develop action plan for scaling-up financing for low carbon public transport providers

- Achieved
 On track
 Off track

Output Target:
Amount of new investment leveraged for low carbon transport in participating cities by Year 3



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<p><i>Issues & Challenges:-</i></p> <p><i>Action Taken by implementing Partner: -</i></p> <p><i>Additional Support Requested from UNDP/EPU: -</i></p> <p><i>UNDP Management Response:-</i></p>	
<p>Output 3.1.3: Validated and scaled-up green technology incentive scheme in target cities for households and SMEs</p> <p>Component 3 has developed the scope for business plans on green technology incentive schemes for households and SME by local authorities. The scope of study and budget has endorsed by GTALCC Project Technical Committee on 27 April 2018 in meeting No. 2/2018. The main objectives of the study are to prepare business plans on green technology incentive schemes for households and SMEs to be adopted by the local authorities, which includes policy statements and programmes; and to improve and scale-up the incentive schemes. 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><i>Issues & Challenges:-</i></p> <p><i>Action Taken by implementing Partner: -</i></p> <p><i>Additional Support Requested from UNDP/EPU: -</i></p> <p><i>UNDP Management Response:-</i></p>	<p><input type="checkbox"/> Achieved <input checked="" type="checkbox"/> On track <input type="checkbox"/> Off track</p> <p>Output Target: Average amount of new investments by participants in council green incentive schemes starting in Year 3</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, providing technical assistance in the preparation of the project designs, and building 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 type="checkbox"/> Achieved <input checked="" type="checkbox"/> On track <input type="checkbox"/> Off track</p> <p>Output Target: Total amount of new investment leveraged through local plans of participating cities</p>



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No.	Local Authority	Project	Amount of Project (RM)	for low carbon projects by EOP
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><i>Issues & Challenges:</i></p> <p><i>Action Taken by implementing Partner:</i></p> <p><i>Additional Support Requested from UNDP/ EPU:</i></p> <p><i>UNDP Management Response:</i></p>				
<p>Output 3.1.5: Approved pilot NAMA proposal for low carbon urban development</p> <p>This output will be carried out in Year 4 of the project. The project will identify a mitigation action project under the Global Environment Facility or Green Climate Fund and prepare the necessary targets, prioritization of actions and accompanying studies, strategies and frameworks to track progress of the intended mitigation project.</p> <p><i>Issues & Challenges:-</i></p> <p><i>Action Taken by implementing Partner: -</i></p> <p><i>Additional Support Requested from UNDP/ EPU: -</i></p> <p><i>UNDP Management Response:-</i></p>				<input type="checkbox"/> Achieved <input checked="" type="checkbox"/> On track <input type="checkbox"/> Off track Output Target: Value of approved pilot Urban NAMA project in Year 5



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<p>Output 3.2.1 Operationalised electric vehicles and charging station infrastructure</p> <p>The project has not had any interventions on this indicator yet. However, collaboration and engagement with stakeholders is in-progress. KeTTHA as the lead ministry is currently assisting the project at policy and working level with possible collaboration with Malaysia Green Technology Corporation for their existing electric cars initiative. (Source: KeTTHA, No. of Registered EV Car for 2017 in Low Carbon Mobility Blueprint and Action Plan Workshop).</p> <p><i>Issues & Challenges:</i> -</p> <p><i>Action Taken by implementing Partner:</i> -</p> <p><i>Additional Support Requested from UNDP/EPU:</i> -</p> <p><i>UNDP Management Response:</i> The project has start engaging the relevant stakeholders (MGTC, Ministry of Transport) on activities relating to this output. So far, there has been no engagement and planned activities, which has to be prioritized and included in the 2018 work plan.</p>	<p><input type="checkbox"/> Achieved <input type="checkbox"/> On track <input checked="" type="checkbox"/> Off track</p> <p>Output Target: Number of operating electric cars by year 3 and year 5, Number of operating electric scooters by year 3 and year 5, Number of operating recharge stations in year 3 and year 5</p>
<p>Output 3.2.2: A commissioned BRT system operating in Iskandar Development Region</p> <p>The BRT project is scheduled for completion by mid-2021 due to the delayed commencement of the project. In 2018, Iskandar Regional Development Authority (IRDA) will focus on development planning, land acquisitions, designs of the stations and series of public engagements. Collaboration and engagement between GTALCC and IRDA is in-progress. GTALCC will fund the BRT design review and the implementation of GHG monitoring in Iskandar Malaysia. The objective of GHG monitoring is for land transportation reporting, which will assist IRDA in a robust bottom up quantification of GHG emission inventory and the results will provide feedback for the Transport Master Plan and Low Carbon Plan for Iskandar Malaysia.</p> <p><i>Issues & Challenges:</i> Implementation of the BRT in Iskandar Malaysia has been subjected to delays. As a bulk of the emissions reductions target in the Project Document is expected to come from the BRT in Iskandar Malaysia, the project will need to engage closely with IRDA on the expected timeframe and explore a new source of GHG emission reductions should the timeline of the BRT commissioning not happen within the lifetime of the project.</p> <p><i>Action Taken by implementing Partner:</i> The project team is exploring working together with the Klang Valley's Mass Rapid Transit (MRT) and the existing public transport operating on NGV / CNG i.e. buses and taxis to deliver the emissions reductions expected, as a back-up.</p> <p><i>Additional Support Requested from UNDP/EPU:-</i></p> <p><i>UNDP Management Response:</i> The project needs to prioritise identifying new projects and collaboration that can deliver the same emissions reductions as that planned under the BRT outputs.</p>	<p><input type="checkbox"/> Achieved <input type="checkbox"/> On track <input checked="" type="checkbox"/> Off track</p> <p>Output Target: % completion of BRT phase 1 by start of Year 3</p>



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Output 3.2.3: A commissioned city cycleway in Putrajaya

Phase 1 of Putrajaya cycleway has been completed and Putrajaya is currently developing Phase 2. GTALCC was involved in this regard through facilitating the collaboration between O Bike, a bike sharing company and Putrajaya Corporation, which saw the deployment of 400 bicycles at Putrajaya's boulevard area.

Issues & Challenges: -

Action Taken by implementing Partner: -

Additional Support Requested from UNDP/ EPU: -

UNDP Management Response: -

- Achieved
 On track
 Off track

Output Target:

Output 3.2.4: Operationalised on-site waste processing projects in Petaling Jaya

Desktop research has been conducted on existing policy and regulatory frameworks, as well as a review of existing standards from Ministry of Urban Wellbeing, Housing and Local Government (KPKT), Ministry of Energy, Green Technology and Water (KeTTHA) and Solid Waste Management Department (JPSPN). The existing policy and regulatory framework are tabulated below:

Table 1: The existing policy and regulatory framework on waste management

Act	Policy	Master Plan	Guideline
Solid Waste and Public Cleansing Management Act 2007 (Act 672) Kuala Lumpur, Putrajaya, Pahang, Johor, Melaka, Negeri Sembilan, Perlis & Kedah	National Strategic Plan for Solid Waste Management in Malaysia	Food Waste Management for Industrial, Commercial and Institution Sector	Sanitary Landfill Design and Operation (Technical)
Solid Waste and Public Cleansing Management Corporation Act 2007 (Act 673)	National Solid Waste Management Policy	Master Plan on National Waste Minimization	Formulation of Local Action Plan on Waste Minimisation
		Eleventh Malaysian Plan (RMK11)	Source Separation of Municipal Solid Wastes
		Green Technology Master Plan	

Source: KPKT, KeTTHA and JPSPN

A preliminary gap analysis for on-site waste processing among local authorities highlighted the following gaps:

- I. Lack of details on policy and guidelines on operational on-site waste processing;
- II. Lack of awareness on "waste to wealth" business model at local authority; and

- Achieved
 On track
 Off track

Output Target:
 Number of commercial onsite waste processing plants operating by EOP



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- III. Unavailability of data on the costs and benefits of improving waste management to promote low carbon investment.

Majlis Perbandaran Sepang (MPSepang) organised a meeting to propose a detailed site suitability and business model study for waste to energy project in Cyberjaya. The outcome of the study is expected to resolve an approximately 600-700 metric tonne of waste from Cyberjaya sent to Tanjung 12 landfill periodically. The study 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 study is in-progress and targeted to receive final report by 13 July 2018.

Issues & Challenges:

Currently, the number of commercial onsite waste processing plants operating is only 2. Private sector service provider, CH Green Sdn Bhd that was identified in the Project Document as planning to introduce at least 95 on-site waste treatment plants of different capacities in Petalina Jaya has clarified that this was not in their plans, and the actual number of waste treatment plants that they are planning to introduce is far less.

Action Taken by implementing Partner:

This activity will need to be replaced with some other emissions reduction initiative if CH Green is not intending to develop 95 on-site waste treatment plants.

Additional Support Requested from UNDP/EPU: -

UNDP Management Response: Engagement with other waste service providers will need to be carried out soonest possible to identify a replacement that can allow this output to achieve a similar emissions reduction target.

Mid Year Progress Report 2018 approved by:

Name:

DATUK BADRIYAH BINTI AB. MALEK

Designation:

Deputy Secretary General
Energy and Green Technology Sector
Ministry of Energy, Green Technology and Water
Malaysia

Date: