### Management Response to the Midterm Review

### Project Title: Achieving Low Carbon Growth in Cities through Sustainable Urban Systems Management in Thailand

Project PIM	1S #:	4778
GEF Projec	t ID:	5086
Midterm R	eview Missic	on Completion Date: 5 February 2020
Date of Iss	ue of Manag	ement Response: 2 March 2020
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Cleared by	:	Project Board meeting on 12 March 2020

## Background

The Achieving Low Carbon Growth in Cities through sustainable Urban Systems Management in Thailand (LCC) Project aims to strengthen the capacities and processes at local level for bottom-up integrated low carbon development planning and the implementation and sustainable management of low carbon development projects. The 4-year project (2016-2220) focuses on low carbon urban systems, in particular waste management, energy, and sustainable transport, in 4 cities, while experiences will be shared with other cities to learn from.

The project objective is to "promote sustainable urban systems management in selected cities to achieve low carbon growth." The objective will be achieved by removing barriers to adoption of low carbon development in cities in Thailand through the following components:

a) Low carbon sustainable urban development planning in 4 cities, which will enable them to formulate and implement low carbon sustainable urban development plans

b) Low carbon investments in 4 cities leading to more energy efficient urban systems

c) Financial incentives and institutional arrangements to increase volume of investments in energy efficient urban systems by government and private sector

The project is financially supported by the Global Environment Facility (GEF), with the Thailand Greenhouse Gas Management Organization (TGO) Public Organization, as the Implementing Partner. The total GEF-supported funding is US\$ 3,150,000.

# Findings – MTR Ratings and Summary

Measure	MTR Rating	Achievement Description
Project Strategy	N/A	<ul> <li>The Project goal and objective were assessed to be not well conceived and designed.</li> <li>The Project goal was too narrow and was not well connected to one or two UNDP practice areas such as climate changes or sustainable development.</li> <li>The design of the LF generally, but not specifically responded to these barriers.</li> <li>The LF provided a good logical chain for components I and I.2 (2), but not for component 2.1 (3).</li> <li>There were not second level activities particularly for component 1.2 in the LF, which might create a series of problems for implementation and M&amp;E.</li> <li>Some indicators and targets were not appropriate for the outputs and outcomes.</li> </ul>
Progress Towards Results	Objective Achievement Rating: Moderately Unsatisfactory (MU)	<ul> <li>33,195.72 as of 2019 vs targets: 177,708/182,000 (update) tCO2eq</li> <li>18.24% achieved, far below the target <ul> <li>KK: 23,923.37 vs target: 100,500; 23.80% achieved</li> <li>NR: 7,705.47 vs target: 10,000; 77.06% achieved</li> <li>CM: 946.47 vs target: 10,000; 1.35% achieved</li> <li>SM: 620.41 vs target: 1,500; 41.36% achieved</li> </ul> </li> <li>Cumulative direct GHG emission reductions is a good indicator. In practice, (i) some components might not generate cumulative direct GHG emission reductions. (ii) Other components might have already achieved cumulative direct GHG emission reductions without the Project.</li> <li>177,708 tCO2 eq. was considered as an unrealistic target for goal as the realized cumulative direct GHG emission reductical assistance and investments up to the end of 2019 and by the end-of-project were significantly lower than this figure.</li> <li>The actual amount of fuel saving was not available and Annual amount of waste gainfully used was 244,043.36 tonnes as of Dec 2019; Target is 63% achieved.</li> </ul>

Outcome I.I Achievement Rating: Highly Satisfactory (HS)	<ul> <li>No. of cities that have approved and adopted low carbon development plans by 2017: 4 cities; EOP target is 100% achieved</li> <li>Percentage of participating cities where evidence-based low carbon planning is integrated with normal urban development planning processes by EOP: Target is 100% achieved</li> <li>No. of cities which have completed carbon footprints in selected sectors and have institutionalized the process by 2018: 4 cities; completed by100%</li> <li>No. of cities where carbon footprint has been prepared for selected sectors: 4 cities; completed by100%</li> <li>No. of city officials trained on the carbon footprint process and organized into carbon footprint working groups: 115 city officials, completed by 575%</li> <li>No. of integrated low carbon urban development and action plans prepared: 4 cities; completed by 100%</li> <li>No. of individual sector specific plans prepared (e.g., waste management plans, sustainable transport plans) with inter-linkages with all other relevant sectors taken into account: 20 individual sector specific plans prepared; completed by 250%</li> <li>No. of monitoring plans for waste management facilities developed and implemented; 4 cities; completed</li> </ul>
	by 100%.
Outcome 1.2 Achievement Rating: Satisfactory (S)	<ul> <li>GHG emission reductions completion: <ul> <li>KK: 23,923.37 vs target: 100,500; target is 23.80% achieved</li> <li>NR: 7,705.47 vs target: 10,000; target is 77.06% achieved</li> <li>CM: 946.47 vs target: 70,000; target is 1.35% achieved</li> <li>SM: 620.41 vs target: 1,500; target is 41.36% achieved</li> </ul> </li> <li>Indicators: <ul> <li>No. of low carbon demonstration projects implemented as a result of technical and investment assistance in participating cities by EOP: 18 projects; completed by 95%</li> <li>No. of low carbon projects designed based on or influenced by the results of the demonstration projects and the low carbon city plans by EOP: 5 projects; 63%</li> </ul> </li> <li>Activities: <ul> <li>Nakhon Ratchasima, completed by 85%</li> <li>Energy efficiency in the city waterworks system; completed by 70%</li> <li>Low emissions building for the department stores and malls; completed by 90%</li> <li>Damage cost study from traffic congestion in the municipality area; completed by 100%</li> </ul> </li> </ul>
	<ul> <li>Samui, completed by 70%</li> <li>I. Wastewater treatment plant installation; completed by 50%</li> </ul>

Outcome 2.1 Achievement Rating: Moderately Satisfactory (MS)	<ul> <li>2. Composting of organic waste in households; completed by 100%</li> <li>3. Organic Waste Management Improvement for Samui Organics Recycling Bophut Station; completed by 100%</li> <li>4. Organic Waste Management Improvement for Baan Ya Suan Pu Station; completed by 100%</li> <li>5. Capacity Buildings for Food Waste Management in Hotels; completed by 60%</li> <li>6. Capacity Buildings for Internal Waste Management for Bangkok Airways Co., Ltd. (Samui International Airport) ; completed by 30%</li> <li>o Chiang Mai, completed 70%</li> <li>1. Develop an integrated connection points between different bus routes; completed by 100%</li> <li>2. Electronic Common Ticket for all urban transit in Chiang Mai City; completed by 40%</li> <li>3. Real time tracking system via on-line application; completed by 100%</li> <li>4. CCTV Surveillance System; completed by 30%</li> <li>o Khon Kaen, completed by 85%</li> <li>1. Light Rail Transit (LRT); completed by 100%</li> <li>2. Waste Management; completed by 100%</li> <li>4. Solar Roof Top; completed by 100%</li> <li>4. Solar Roof Top; completed by 100%</li> <li>4. Solar Roof Top; completed by 100%</li> <li>7. Vaste Management; leveraged through local plans of participating cities for low carbon projectsUSD 105.32; completed by 658%</li> <li>No. of new policies facilitating low carbon investments in cities endorsed and approved by line agencies: No progress; completed by 0%</li> <li>No of guidelines on international and national sources of climate finance in Thai prepared and published: The indicator and target had not been updated although the activities were updated; completed by 10% for activities. The output was not on target to be achieved.</li> <li>No. of policy recommendations facilitating low carbon investments in cities prepared, submitted and endorsed/approved by line agencies and reported to NCCC: No progress; completed by 0%</li> <li>No. of policy recommendations facilitating low carbon investments in cities prepared, submitted and endorsed/approved by line ag</li></ul>
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Project Implementation	Satisfactory (S)	<ul> <li>No. of cities which have provided inputs to the preparation of national NAMAs: No progress; completed by 0%</li> <li>No. of MRV frameworks for specific sectors in the 4 cities developed and institutionalized: 4 cities; completed by 100%</li> <li>No. of trained officers who are actively involved in low carbon planning/decision making/approving/project implementation: more than 40 officers; completed by 100%</li> <li>No. of trained private sector investors/practitioners actively involved in designing, financing and implementation of low carbon projects in cities: more than 115 officers and private sector investors; completed by 100%</li> <li>No. of cities that are officially members of the LCC Network; around 20; completed by 80%</li> <li>No. of national and international events in which the results of the project and experiences of cities on low carbon investments have been shared: more than 2 per year; completed by 100%</li> <li>No. of communication products on successful low carbon investments and activities in cities disseminated: no progress; completed by 100%</li> <li>No. of infographics/video/audio clips prepared, produced and disseminated for modern (social) media and community radio: no progress; completed by 100%</li> <li>No. of audience reached with awareness campaigns in cities: no progress; completed by 100%</li> <li>PB was an effective organization of the management arrangements for the Project in general and the PMU was an effective unit to undertake the daily activities of the Project. The DIM with UNDP assistance in</li> </ul>
•	Satisfactory (S)	<ul> <li>No. of communication products on successful low carbon investments and activities in cities disseminated: no progress; completed by 100%</li> <li>No. of lessons learned reports/best practice examples published: no progress; completed by 100%</li> <li>No. of infographics/video/audio clips prepared, produced and disseminated for modern (social) media and community radio: no progress; completed by 100%</li> <li>No. of audience reached with awareness campaigns in cities: no progress; completed by 100%</li> <li>PB was an effective organization of the management arrangements for the Project in general and the PMU</li> </ul>

		<ul> <li>The reporting for the project was followed as laid out in the both the Monitoring and Evaluations plans in the Project Document and the Progress tracker, annual reports, PB reports were all being completed at the appropriate stages.</li> <li>Communication among the core stakeholder group was extensive, particularly in the first year of the implementation.</li> </ul>
,Sustainability	Moderately Likely (ML)	<ul> <li>The Project faces certain financial risk to sustainability as some subprojects are facing difficulty in securing financial resources.</li> <li>The Project faces certain socio-economic risk to sustainability as the Project has insufficient communication with the wider circle of stakeholders and there is an increasing understanding of environmental and health effects caused by urban waste by the public.</li> <li>The Project faces certain institutional risk to sustainability as the project was implemented through a working group supported by the community for some household related projects.</li> <li>The Project faces certain environmental risk to sustainability as the WTE plant will receive negative GHG reduction</li> </ul>

### **Recommendation and management response**

**Mid-term Review Rating: N/A for Project Strategy.** The Project goal and objective were assessed to be not well conceived and designed. The Project goal was too narrow and was not well connected to one or two UNDP practice areas such as climate changes or sustainable development. The design of the LF [log frame] generally, but not specifically responded to these barriers. The LF provided a good logical chain for components I and I.2 (2), but not for component 2.1 (3). There were not second level activities particularly for component I.2 in the LF, which might create a series of problems for implementation and M&E. Some indicators and targets were not appropriate for the outputs and outcomes.

**Management Response: Disagree.** The project was designed in line with GEF's goal on climate change mitigation - GHGs emissions reduction. It is also aligned with the United Nations Partnership Assistance Framework (UNPAF) Area 4 on climate change; and, the UNDP's Strategic Objective to help countries achieve sustainable development by eradicating poverty in all its forms and dimensions, accelerating structural transformations for sustainable development and building resilience to crises and shocks. As such, this project was designed to deliver results that are measurable, reportable, and verifiable in direct response to the high-level mandates and national framework for climate change (i.e., NAMA, NDC)

The project was logically designed in the way that the project components were specifically designed to remove the barriers that inhibit achievement of sustainable urban system management as stated in the project document. Accordingly, the Project Result Framework (i.e., log frame) shows that the outputs in each project component collectively contribute to the achievement of the expected outcome of that component, and that the outcomes collectively contribute to the achievement of the project objective. While not shown in the log frame, the activities were designed to deliver the specific outputs in each project component.

Key Actions	Timeframe	Responsible	Tracking	
			Comments	Status
No actions needed. Clarifications provided.	N/A	N/A	N/A	N/A

Mid-term Review Rating: Objective Achievement Rating: Moderately Unsatisfactory (MU). 33,195.72 tCO2e as of 2019 vs targets: 177,708/182,000 (update) tCO2eq completed by 18.24%, far below the target.

- KK: 23,923.37 tCO2e vs target: 100,500 tCO2e; completed by 23.80%
- NR: 7,705.47 tCO2e vs target: 10,000 tCO2e; completed by 77.06%
- CM: 946.47 tCO2e vs target: 70,000 tCO2e; completed by 1.35%
- SM: 620.41 tCO2e vs target: 1,500 tCO2e; completed by 41.36%

Cumulative direct GHG emission reductions is a good indicator. In practice, (i) some components might not generate cumulative direct GHG emission reductions. (ii) Other components might have already achieved cumulative direct GHG emission reductions without the Project. 177,708 tCO2 eq. was considered as an unrealistic target for goal as the realized cumulative direct GHG emission reductions resulting from the technical assistance and investments up to the end of 2019 and by the end-of-project were significantly lower than this figure. The actual amount of fuel saving was not available and Annual amount of waste gainfully used was 244,043.36 tonnes as of Dec 2019; completed by 63%.

**Management Response: Partially agree**. The assessment of the project achievement at MTR must be done against the mid-term target (24,529 tCO2e of which 33,195 tCO2e has been achieved as of Dec 2019), not the end of project (EOP) target (177,708 tCO2e). As such, it is unreasonable to compare the achievement of Year II against the EOP target. While it is agreed that the EOP target would be challenging to meet given that the anticipated major low carbon projects would need more time to materialize due to technical and political issues (e.g. land expropriation). There are some ideas discussed among the cities to address this shortfall. However, these were included in the report. In addition, a specific recommendation is missing from this report, i.e., how the project should mitigate this potential shortfall.

Key Actions	Timeframe	Responsible	Tracking	
			Comments	Status
Project Board meeting to discuss mitigation measures to address the shortfall target	Mar – Jun 2020	Project Board		

**Mid-term Review Recommendation I:** A good PLF [Project Log Frame] design always results in a good implementation, which in turn results in good project outcomes. The Project should update the LF by taking into account the chain between activities, outputs and outcome and also the chain between the results, targets and indicators as these two logical chains provide a powerful instrument for managing and monitoring the project implementation. More importantly, any updates on outcomes, outputs and activities should take into account the indicators and targets at the same time, vice versa.

**Management Response: Disagree**. It is not clear in the report why the LF needs to be updated. The Result Framework was logical, was developed based on conditions and critical assumptions during the project development (PPG) stage; and was approved by the GEF Council. Any changes to the Results Framework (specifically the goal, objective and outcomes) need re-approval from the GEF Council and the Thai Cabinet, which is a time-consuming process and not recommended at this point of the project timeline, if it does not involve drastic change in the risk analysis. Therefore, changes at the outcome level are not necessary unless it can be proven that there are substantive changes in the magnitude of the barriers and the conditions and assumptions described in the project document.

Key Actions	Timeframe	Responsible	Tracking
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			Comments	Status
No action needed.	N/A	N/A	N/A	N/A

**Mid-term Review Recommendation 2:** The Project should use the consistent methodology to estimate the GHG emission reduction for both target and performance evaluation purposes. The Project should also use the traditional approach based on some assumptions to verify and estimate the actual GHG emission reduction for GEF. In the same time, the Project should also utilize ERM service to re-estimate the goal of GHG emission reduction and distribute total amount of emission reduction among subprojects in four municipalities based on the activities undertaken and the total target.

**Management Response: Agree.** There are two sets of methodologies that were used for GHG emissions reduction calculation. One is the methodology used in the project design, which gives an estimate based on various assumptions. The other methodology is the one developed during project implementation, which is more conservative, based on internationally accepted procedures, and is applicable to the current project environment. These two methodologies provide different results in terms of magnitude and direction. The recommendation to re-examine the methodology and GHG reduction target is valid. The project has decided to use the original methodology that was used during the project design, so that the comparison of the actual GHG ER that will be achieved by the project can be logically compared to the set EOP target value

Key Actions	Timeframe	Responsible	Tracking	
			Comments	Status
Use the methodology developed during the project design to reporting results. However, for accuracy purpose, continue to use ERM methodology to track progress of pilots and convert the figures to the original methodology used by the Project Document.	Throughout project period	UNDP and TGO		

**Mid-term Review Recommendation 3:** The Project should update the first two indicators and targets of the objective. The Project can delete the existing first two indicators and targets as the two indicators do not provide consistent measurement. Alternatively, the Project can re-design the indicators of the objective by three sectors: waste management, transport and energy. In addition, the targets of objective by sector should be consistent with the target of goal.

Management Response: Disagree. Cumulative direct fuel savings and annual amount of waste gainfully used are key indicators of the project

objective. These indicators are linked to the project goal particularly in terms of the associated reduction of future GHG emissions from cities. The way the project was designed considered the consistency of the link the project objective and the project goal. Achieving the project objective, means the project is contributing to the achievement of the project goal. There is no apparent reason as to why these indicators should be revised. However, it is agreed their targets should be revised as per Recommendation 2.

Key Actions	Timeframe	Responsible	Trac	king
			Comments	Status
No action required	N/A	N/A		

**Mid-term Review Recommendation 4:** The Project should work on the gap after the end of MTR so as to enhance the effectiveness of the Project. In particular, the Project should give high priority to the key outputs that have been delivered but have not yet been implemented in order to enhance the impact of the subprojects, particularly

- Electronic Common Ticket for all urban transit, Chiang Mai;
- Real time tracking system via on-line application, Chiang Mai
- Organic Waste Management Improvement for Samui Organics Recycling Bophut Station, Samui
- Organic Waste Management Improvement for Baan Ya Suan Pu Station, Samui
- Energy saving for the household sector, Nakhon Ratchasima
- Low emissions building for the department stores and malls, Nakhon Ratchasima
- Damage cost study from traffic congestion in the municipality area, Nakhon Ratchasima
- Light Rail Transit (LRT), Khon Kean

**Management Response: Agree**. The implementing partner, the cities and stakeholders must maintain the momentum built in the implementation of low carbon technology demos to ensure that GHG emission reduction will be realized. However, some of the above activities related to the transport sector in Chiang Mai and Khon Kaen are facing great challenge regarding existing laws and regulations, which are beyond the cities' authority/jurisdiction. However, it does not mean the proposed demonstrations have to be cancelled.

The following activities are already completed:

- Low carbon home handbook as a part of energy saving for the household sector This is provided to the municipality for distribution.
- Damage cost study from traffic congestion in the municipality area This is in Nakhon Ratchasima and has been presented to the Mayor. It is well accepted and will be used as inputs for city planning.

The implementation of the rest of the demos are ongoing. Results are expected by the end of the project.

Key Actions	Timeframe	Responsible	Tracking	
			Comments	Status
Continue implementation of the activities. AWP 2020 needs to be monitored.	Now – Dec 2020	UNDP/TGO		
Mid-term Review Recommendation 5: The total amount of new investment leveraged throu the investment in the subprojects in 4 municipa Output 1.2.2 through Output 1.2.5 (subprojects	igh local plans of plans of plans under Outco	participating cities for the I.2. Further, the	or low carbon projects by EC ne Project should re-design t	OP is closely associated with
Management Response: Disagree. There is Even though some of the activities to deliver the Updated indicators and associated targets are all	se outputs were c	hanged these activit		
Key Actions	Timeframe	Responsible	Tracking	
			Comments	Status
No need for action.				
Mid-term Review Recommendation 6: The updated. As the first general indicator and targ grouped into a component called "Capacity Build target.	get has been move	ed to Outcome 1.2	, the remaining activities und	er Outcome 2.1 can be re-
Management Response: Disagree. There is Reduction Scheme being in place before the pro- the results of these analyses were shared with re- an analysis of public policies to stimulate private similar analysis for energy efficiency is currently decisions to further promote low carbon city ac	ject started, there spective authoritie investments on r ongoing. These kn	e are other analyses es at the four cities. renewable energy (i owledge products c	of financial incentive scheme Further, through other UND .e., a low carbon solution) w	es that were carried out and P Country Office's projects, ras completed in 2017 and a
Key Actions	Timeframe	Responsible	Tracking	

			Comments	Status
Mid-term Review Recommendation 7: The that the level of resourcing and implementation should install a Project Management System by in system should be connected to local municipality	timeframe are be acorporating proje	etter aligned with the	he objectives and scope of th urement, asset management, a	e Project. Also, the Project
Management Response: Partially Agree. T with remaining budget and timeframe to ensure developed the SOP for operations/implementation management, and grant disbursement, there are asset inventory) to plan and support these tasks. Project Management System at this point of the	successful achieve on which is being f mechanisms alread . It is not clear what	ment of the require followed by TGO/L dy in place both at l at this part of the re	d project goal and objective. INDP. For project accounting UNDP and TGO (e.g. financia ecommendation specifically ad	The project has already , procurement, asset l audit, procurement plan,
Key Actions	Timeframe Responsible		Tracking	
			Comments	Status
Continue closely plan the remaining AWPs and monitor implementation in alignment with the remaining budget and timeframe.	Now – Dec 2020	UNDP/TGO		

**Mid-term Review Recommendation 8:** The Project should change the methodology for co-financing from an official co-financing letters provided to PMU to an innovative leveraged investment approach, where the actually realized co-financing contributions against the sizable commitment should be provided before the actual disbursement of GEF funds.

**Management Response: Disagree.** While a need to see tangible investments being made prior to actual disbursement of GEF funds is practical, it is difficult to do since some investments were expected to be triggered by successful implementation of the project-supported demos. This will continue to be a challenge. However, during the implementation period, all partners with committed co-financing are required by GEF procedure to provide updates to their actual co-financing amounts. This is considered a means to mitigate a risk of the committed co-financing funds not being fully realized by the end of the project.

Key Actions	Timeframe	Responsible	Tracking
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			Comments	Status	
<b>Mid-term Review Recommendation 9:</b> In addition to the target of GHG emission reduction for the Project and the subprojects in 4 municipalities, the Project should design a set of indicator and target for 6 activities in Samui, and 4 activities in Chang Mai, Khon Kaen Nakhon Ratchasima respectively. For 4 activities in Chiang Mai as an example, no, of passengers in the public (integrated) transport system might be a					

Ratchasima respectively. For 4 activities in Chiang Mai as an example, no. of passengers in the public (integrated) transport system might be a good indicator to avoid small incremental low carbon benefits during the project life. Other indicators can be designed for the Light Rail Transit (LRT) in Khon Kaen to avoid no benefits from emission reduction before the end of the Project.

**Management Response: Partially Agree.** While the good intention of this recommendation is understood, highlighting milestones achievements of individual demos/activities would not attribute to the total amount of GHG emissions reduction (tCO2e) as expected at the project goal level. In fact, to mitigate the target shortfall risk for GHG emission reduction amount, the project has started to investigate the impacts of other related activities, such as the 'Say No to Plastic Bag' campaign, which is widely implemented in the four cities, as a means to count towards achieving the cumulative GHG reduction target. Instead, achievements from individual low carbon technology application demos should be presented as co-benefits/contributions towards other SDGs.

Key Actions	Timeframe	Responsible	Tracking	
			Comments	Status
Continue to explore low carbon attributions from alternative activities/campaigns in cities	Now – end of project	UNDP		