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## SUSTAINABLE TRANSPORT IN EGYPT

### TERMINAL EVALUATION REPORT

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## Acronyms and Abbreviations

BMS	Bus Management System
BRT	Bus Rapid Transit
CBD	Cairo Business District
CEO	GEF Chief Executive Officer
CNG	Compressed Natural Gas
CREATS	Cairo Regional Area Transport Study
CTA	Cairo Transit Authority
CTEB	Cairo Traffic Engineering Bureau
EEAA	Egyptian Environmental Affairs Agency
ENR	Egyptian National Railways
GC	Greater Cairo
GCPA	Greater Cairo Parking Authority
GDP	Gross Domestic Product
GEF	Global Environment Facility
GHG	Greenhouse Gas
JICA	Japanese International Co-operation Agency
MDGs	UN Millennium Development Goals
M&E	Monitoring and Evaluation
MoE	Ministry of State for Environmental Affairs
MoHUD	Ministry of Housing and Urban Development
MoT	Ministry of Transport
NMT	Non-motorized transport
PDF	Project Development Facility
PIR	Project Implementation Review
PM	Project Manager
PSC	Project Steering Committee
SFD	Social Fund for Development
STP	Sustainable Transport Project
TDM	Transport Demand Management
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Program
VMS	Variable Message Sign

## Glossary of Evaluation-related Terms

Term	Definition
Baseline data	Data that describe the situation to be addressed by an intervention and serve as the starting point for measuring the performance of the intervention
Beneficiaries	The specific individuals or organizations for whose benefit an intervention is undertaken
Capacity development	The process by which individuals, organizations, institutions and societies develop their abilities individually and collectively to perform functions, solve problems and set and achieve objectives
Conclusion	A reasoned judgement based on a synthesis of empirical findings or factual statements corresponding to a specific circumstance
Effect	Intended or unintended change due directly or indirectly to an intervention
Effectiveness	The extent to which the development intervention's objectives were achieved, or are expected to be achieved
Efficiency	A measure of how economically resources/inputs (funds, expertise, time, etc.) are converted to results
Finding	A factual statement about the programme or project based on empirical evidence gathered through monitoring and evaluation activities
Impact	Positive and negative, intended and non-intended, directly and indirectly, long term effects produced by a development intervention
Indicator	Quantitative or qualitative factors that provide a means to measure the changes caused by an intervention
Lessons learned	Generalizations based on evaluation experiences that abstract from the specific circumstances to broader situations
Logframe (logical framework approach)	Management tool used to facilitate the planning, implementation and evaluation of an intervention. It involves identifying strategic elements (activities, outputs, outcome, impact) and their causal relationships, indicators, and assumptions that may affect success or failure. Based on RBM (results-based management) principles
Outcome	The likely or achieved (short-term and/or medium-term) effects of an intervention's outputs
Output	The product, capital goods and/or service which results from an intervention; may also include a change resulting from the intervention which is relevant to the achievement of an outcome
Rating	An instrument for forming and validating a judgement on the relevance, performance and success of a programme or project through the use of a scale with numeric, alphabetic and/or descriptive codes
Recommendation	A proposal for action to be taken in a specific circumstance, including the parties responsible for that action
Relevance	The extent to which the objectives of an intervention are consistent with beneficiaries' requirements, country needs, global priorities and partners' and donor's policies
Risk	Factor, normally outside the scope of an intervention, which may affect the achievement of an intervention's objectives
Sustainability	The continuation of benefits from an intervention, after the development assistance has been completed
Stakeholders	The specific individuals or organizations that have a role and interest in the objectives and implementation of a programme or project
Theory of Change	A set of assumptions, risks and external factors that describes how and why an intervention is intended to work.

## **Acknowledgement**

The consultant would like to acknowledge the cooperation, help and advice provided by the UNDP Country Office in Egypt as well as the STP project implementing team and thank them heartfully for provision assistance needed in terms of substantive matters and logistics. They not only provided support, documentation and explanations as required, but they went out of their way to make the consultant feel welcome during the evaluation mission.

## EXECUTIVE SUMMARY

### Project Information Table

<b>Project Title</b>			
<b>UNDP Project ID (PIMS #):</b>	3523	<b>PIF Approval Date:</b>	2 August 2006
<b>GEF Project ID (PMIS #):</b>	2776	<b>CEO Endorsement Date:</b>	15 July 2008
<b>ATLAS Business Unit, Award # Proj. ID:</b>		<b>Project Document (ProDoc) Signature Date (date project began):</b>	20 November 2008
<b>Country(ies):</b>	Egypt	<b>Date project manager hired:</b>	
<b>Region:</b>	Africa	<b>Inception Workshop date:</b>	
<b>Focal Area:</b>	Climate Change	<b>Midterm Review completion date:</b>	February 2013
<b>GEF Focal Area Strategic Objective:</b>	GEF 3 – OP 11	<b>Planned planned closing date:</b>	31 December 2013
<b>Trust Fund [indicate GEF TF, LDCF, SCCF, NPIF]:</b>	GEF TF	<b>If revised, proposed op. closing date:</b>	31 December 2015
<b>Executing Agency/Implementing Partner:</b>	UNDP Egypt Egyptian Environmental Affairs Agency (EEAA)		
<b>Other execution partners:</b>			
<b>Project Financing</b>	<b><i>at CEO endorsement (US\$)</i></b>	<b><i>At Terminal Evaluation (US\$)</i></b>	
<b>GEF financing:</b>	6,900,000	6,768,792	
<b>Total co-financing</b>	37,100,000	75,240,000	
<b>PROJECT TOTAL COSTS</b>	44,000,000	82,008,792	

### Project Description

The rationale for the Egypt Sustainable Transport Project (STP) was to reduce transport-related greenhouse gas (GHG) emissions by encouraging modal shifts away from the private car to public transport and non-motorized transport (NMT) modes such as walking and cycling. Past attempts to reduce the impacts of traffic congestion in Cairo and other provincial cities had resulted in modest increases in road construction with little or no new investments to improve public transport. In Cairo, the problem was somewhat magnified by the construction of satellite cities in the desert to the east and west of Cairo city center with no plans in place for public transport. The result has been an increasing reliance on private car ownership for urban mobility needs.

In addition, EST was also designed to assist the Government of Egypt to gradually remove fuel subsidies, as the growth in transport-fuel related subsidies was growing at an alarming rate. By

demonstrating alternative modes of urban transport to Egypt's urban citizens, the Government wanted to catalyze a modal shift towards greener urban mobility options and a reduced dependence on the use of the private cars for urban travel. This should translate into reduced budgets for fuel subsidies in the future.

### **Summary of project results**

For the first time in Egypt, STP has proposed a decent transport alternative to the current unsustainable transport patterns through delivery of a high-quality public urban transport service by a private operator under supervision of the city government. The service to be delivered is based on a smart bus equipped with a modern bus management system and an incentive parking ("park-and-ride") facilities to allow commuters and other people heading to the city centre to leave their vehicles and transfer to the bus lines for the remainder of the journey, making thus the new bus service attractive to current car users. In order to ensure generation of enough revenue for the private transport service operator and avoid public subsidies, the project elaborated a mechanism of affordable fare increase and additional revenue generation through bus terminal concession agreements and bus stops advertisement.

STP has been instrumental in shifting the transport behavior in favor of non-motorized transport (NMT) in the Fayoum and Shebin El-Kom cities. The establishment of the pilot NMT corridors has proven to be an urban development initiative that supports the required behavioral change.

Through implementation of the pilot demonstration project on Variable Parking Message system, STP raised awareness of the Cairo Governorate stakeholders of its importance and following the successful operation it enabled the Governorate to issue a ban of on-street parking in the Central Business District for the first time ever. This STP pilot achieved the goal of design of a parking policy in Cairo CBD that allows full utilization of the off-street parking facilities and imposing gradual ban of on-street parking in the CBD.

STP supported determination of emission factors of CO<sub>2</sub> and pollution emissions CO, HC and NOX for cars and taxis in Greater Cairo (GC) that was conducted for the first time ever in Egypt. This allows the relevant agencies of the Government not to depend on imported models of emission estimation calibrated in other countries and provides them with robust information base for proper assessment of CO<sub>2</sub> emissions as foundation for development of countermeasures and mitigation policies.

STP enabled preparation of a training programme for your engineers from urban planning departments of 17 cities in Egypt. The training curricula also included practical examples from the NMT demonstration pilot in the Fayoum and Shebin El-Kom cities and thus paved a way towards replication elsewhere in the country.

### **Sustainability and progress to impact**

STP was successful in demonstrating financial sustainability of the operation of new high-quality bus lines for the Sheikh Zayed, 6<sup>th</sup> October and Dreamland cities and the concept and proposed business model has been replicated and running in Greater Cairo by a private bus operator Mwsalat Misr.

On 1 January 2018, Mwsalat Misr launched an intelligent headway-based bus network service system for all its buses operated in Cairo and the 6 new cities. The service is based on the same intelligent transportation system that had been designed by STP. Currently, Mwsalat Misr operates 288 buses on lines in Cairo and 65 buses in the new cities and has plans further expansion.



Moreover, the establishment of VMS for parking in Cairo (under Outcome 3) has also been successfully operated due to public-private partnership of the Governorate with the private owners of the participating garages. The VMS pilot demonstrated that introduction of such uncompromising parking policy measure was possible due to the professional design and implementation of the complementary parking management. Further impact will depend on efforts of the Cairo Governorate top officials and chief engineers for replication of the STP pilot by simply encouraging owners and operators of major off-street parking facilities located out of the CBD to join the current VMS system.

There is also fair prospect of continuation and replication of activities on non-motorized transport, determination of emission factors and capacity building for sustainable transport to continue beyond the STP time boundaries. This is due to the existing national institutional capacities and commitment of the various levels of the Government and the transport engineering groups in the academia.

Direct CO<sub>2</sub> emission reductions projected for the 20 years lifetime of the STP investments exceeded the expectations for Components 1,2 and 3, but in total STP fell short of the cumulative direct emission reductions that were expected at STP inception. The shortage is mainly due to the fact that no interventions for emission reductions were implemented under Component 4 of STP.

The consequential CO<sub>2</sub> emission reductions of the interventions introduced under Components 1 and 2 exceed the expectations at STP inception. However, the expected replications of Component 3 were much higher than the reality. The difference is that only one of the planned three TDM interventions was implemented under Component 3.

### Summary of evaluation ratings

The summary of evaluation ratings<sup>1</sup> according to the required evaluation criteria is displayed in the Box below.

<b>Evaluation Criteria</b>	<b>Evaluator's Rating</b>
Monitoring and evaluation: design at entry	Highly Satisfactory (S)
Monitoring and evaluation: plan implementation	Satisfactory (S)
<b>Overall quality of monitoring and evaluation</b>	<b>Satisfactory (SS)</b>
Quality of UNDP Implementation	Satisfactory (S)
Quality of Execution - Executing Agency	Satisfactory (S)
<b>Overall quality implementation / execution</b>	<b>Satisfactory (S)</b>
<b>Relevance</b>	<b>Relevant (R)</b>
<b>Effectiveness</b>	<b>Satisfactory (S)</b>
Outcome 1	Satisfactory (S)
Outcome 2	Highly Satisfactory (HS)
Outcome 3	Moderately Satisfactory (MS)
Outcome 4	Moderately Unsatisfactory (MU)
Outcome 5	Satisfactory (S)
<b>Efficiency</b>	Moderately Satisfactory (MS)
<b>Overall Project Objective Rating</b>	<b>Satisfactory (S)</b>
Institutional framework and governance	Likely (L)
Financial	Likely (L)
Sociopolitical	Likely (L)
Environmental	Likely (L)
<b>Overall likelihood of sustainability</b>	<b>Likely (L)</b>

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<sup>1</sup> Performance ratings of GEF projects are given in Annex 5.

## Summary of conclusions and recommendations

This Terminal Evaluation makes two types of recommendations. Recommendations on STP substantive matters are provided for consideration of the project partners in order to ensure the project results are fully consolidated with the key project stakeholders. These recommendations are suggested for implementation as soon as possible using the existing institutional capacities and frameworks that had been created by the current project.

### Recommendations to follow-up and/or reinforce initial benefits from the project:

<u>Conclusion 1:</u> STP put in place a decent effort to conduct studies and produce related reports on freight transport and created thus solid technical base that could serve as a foundation for further work in the area of freight transport.	<i><u>Recommendation 1:</u> UNDP and EEAA should find ways to further support technical and capacity building support for improvements in the freight transport sector. Studies and reports on the freight transport produced by STP should be presented to relevant donors such as the Green Climate Fund (GCF) and to private sector associations in order to mobilize necessary funding.</i>
<u>Conclusion 2:</u> Experience and lessons learnt from the demonstration projects have to be disseminated in order to fully realize the benefits and the potential of the pilots.	<i><u>Recommendation 2:</u> GoE and UNDP should find financial support for wider dissemination of experience and results from the demonstration pilots</i>
<u>Conclusion 3:</u> Multiplication of demonstration pilots for large scale modal shift in transport and related GHG emission reductions are beyond the scope of the single project and may only be realized well after a project closes. Such results need to be monitored over an extended period.	<i><u>Recommendation 3:</u> UNDP in cooperation with the GoE should support extended monitoring of parameters needed for calculation of CO<sub>2</sub> emission reductions originating from STP.</i>
<u>Conclusion 4:</u> Numerous national stakeholders (agencies of the central and regional government, municipalities, educational institutions, private sector transport operators, NGOs) will benefit if the project-related technical and informational documentation is accessible to them beyond the project implementation period.	<i><u>Recommendation 4:</u> UNDP in cooperation with EEAA should ensure that the technical and informational materials prepared by the project, are posted on the website of a relevant agency of the Government and eventually create a dedicated part of the website related to sustainable transport.</i>
<u>Conclusion 5:</u> The bike-sharing scheme in Fayoum City is an important initiative that can reinforce the local and global NMT benefits achieved under STP and should be replicated elsewhere.	<i><u>Recommendation 5:</u> UNDP in cooperation with GEF/SGP and the Fayoum University should collect experience from the initial phase of the bike-sharing scheme in Fayoum City and find a mechanism for sharing the experience with other universities in Egypt.</i>

## Recommendations to improve programming and preparation of projects

<p><u>Conclusion 6:</u> The expectation to complete and operationalize the demonstration pilot on high-quality bus service within the implementation period of STP was unrealistic. The nature of planned activities effectively made it an investment sub-project but with a number of challenges that had to be overcome and collectively contributed to slow progress delayed delivery of the outputs.</p>	<p><i><u>Recommendation 6:</u> For preparation of projects with components on infrastructure building, UNDP should consider less ambitious targets (e.g. completion of technical work and commitment of financing) that do not include actual completion of infrastructure works.</i></p>
<p><u>Conclusion 7:</u> The wide scope and inclusion of several outputs related to sustainable transport agenda made STP more complex and more difficult to implement.</p>	<p><i><u>Recommendation 7:</u> UNDP should carefully select concrete topics and areas for projects supporting broad national agendas and limit the support to a smaller number of topics/areas that are inter-related or reinforce each other and that have the strongest ownership and commitment by relevant stakeholders. Hence, in hindsight, it would have been preferable to limit the project scope to the parts of with the strongest ownership and commitment of relevant national stakeholders.</i></p>
<p><u>Conclusion 8:</u> It might have been better to ensure more prominent and proactive roles to other respective line ministries give responsibility for delivery of some outcomes and/or outputs in order to sustain their initial commitment to implementation of previously agreed interventions.</p>	<p><i><u>Recommendation 8:</u> For implementation of complex projects, UNDP and Government of Egypt should consider a matrix project implementation structure with more national implementing partners and assign implementation responsibility according to substantive mandates of the national implementing partners.</i></p>
<p><u>Conclusion 9:</u> Promoting of new technologies and/or conceptually new services has its implementation challenges and risks that must be considered during project preparation. For a GEF project of relatively short duration it is difficult to fully mitigate the risks of long implementation delays caused by prolonged procurement events.</p>	<p><i><u>Recommendation 9:</u> UNDP should not include under the future projects procurement events that depend on involvement of multiple decision makers and are not under full control of the project implementing teams.</i></p>
<p><u>Conclusion 10:</u> Careful planning and sequencing of outputs in the project logframe as well as preparation of a risk mitigation plan could have expedited implementation of STP components and ensured timely delivery of STP results.</p>	<p><i><u>Recommendation 10:</u> UNDP should ensure that target indicators in the results framework have timeframes for achievement and that a risk mitigation plan is included in all project documents.</i></p>
<p><u>Conclusion 11:</u> Gender mainstreaming in M&amp;E processes ensures a shift beyond pure tracking numbers of female beneficiaries or general description of activities that target women and lay foundations for sound gender analysis in the project context and demonstration of the longer-term gendered impacts.</p>	<p><i><u>Recommendation 11:</u> For future transport projects, UNDP should use the M&amp;E and Reporting Guidelines to ensure that gender is properly monitored and reported on throughout the projects' implementation.</i></p>

## INTRODUCTION

This document presents results of the terminal evaluation of the UNDP/GEF Sustainable Transport Project (herein referred to as the “Project” or STP). The terminal evaluation was conducted in accordance with the GEF Monitoring and Evaluation Policy<sup>2</sup>, the Guidelines for GEF Agencies in Conducting Terminal Evaluations<sup>3</sup>, and the UNDP Evaluation Guidelines<sup>4</sup>.

### Objective of the evaluation

The objective of the evaluation is to provide the project partners i.e. GEF, UNDP and the Government of Egypt with an independent assessment and comparison of planned *vis-à-vis* actually achieved outputs and outcomes, identify the causes and issues which contributed to the degree of achievement of the project targets, and draw lessons that can improve the sustainability of benefits from the project, as well as contribute to overall enhancement of UNDP programming.

The Terms of Reference for the Terminal Evaluation is provided as Annex 1 to this report.

### Scope and methodology

The evaluation covers all activities undertaken in the framework of the project. The time scope of the evaluation is the implementation period of the STP, namely from January 2009 to June 2019. The geographic scope of the evaluation is Egypt.

The Evaluation used a combination of approaches to assess the achievements of the project from several perspectives and a mix of quantitative and qualitative methods of data collection and analysis. Desk reviews, face-to-face meetings, and follow up with key stakeholders were applied as necessary. The evaluation was conducted in three phases as follows:

*Preparatory phase:* The first step in the evaluation was a desk review of the most important documents covering project design and implementation progress that provided the basic information regarding the activities carried out to attain the desired outcomes and outputs and the actual achievements. The review was followed by preparation of questions and discussion points aiming at gathering information from chosen respondents about attitudes, preferences and factual information linked to the performance indicators in the evaluation matrix.

*Evaluation Matrix:* An evaluation matrix was constructed based on the evaluation scope presented in the TOR. The matrix is structured along the five GEF evaluation criteria for TEs and included principal evaluation questions. The matrix provided overall direction for the evaluation and was used as a basis for interviewing stakeholders and further review of the project implementation reports.

Apart from the evaluation questions on the relevance, efficiency, effectiveness, sustainability and progress to impacts, the evaluation matrix also included evaluation questions on cross-cutting issues relating to the promotion of values from a human development perspective, namely questions on gender equality and on social inclusion. The Evaluation Matrix is provided as Annex 2 to this report.

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<sup>2</sup> The GEF Monitoring and Evaluation Policy, Global Environmental Facility, November 2010

<sup>3</sup> Guidelines for GEF Agencies in Conducting Terminal Evaluation for Full-sized Projects, Global Environmental Facility, April 2017

<sup>4</sup> Evaluation Guidelines, UNDP, January 2019

*Evaluation Field Mission:* An evaluation field mission to Egypt was undertaken from 11 to 17 May 2019. The preparation of the field mission was done in close coordination with the UNDP Country Office in Egypt. From the CO, advice was sought to agree the timing of the mission and schedule of visits of the key informants. The purpose of the mission was to verify the information from the project implementation reports, collect missing data and learn about the opinions of stakeholders and project participants. To the extent possible, visit of relevant project sites to make direct observations of selected project outputs were also conducted during the evaluation mission.

The mission started with a briefing by the UNDP PMU and the project team. Interviews with key stakeholders and project participants were planned in advance of the mission with the objective to obtain a critical sample of stakeholders' views during the time allocated to the evaluation mission. The interviews aimed at soliciting responses to predetermined questions using semi-structured interviews based on the discussion points in a conversational form. The interviews were designed to obtain in-depth information about the key informants' impressions and experiences in the project implementation. Triangulation of results, i.e. comparing information from different sources, such as documentation and interviews, or interviews on the same subject with different stakeholders, were used to corroborate or check the reliability of evidence. The mission concluded with a presentation of initial findings to the UNDP and the project team.

A limitation for the evaluation mission was the fact that the standard 5-day length of the mission was not enough to visit all relevant project stakeholders and to make a detailed assessment of the methodology for calculation of CO<sub>2</sub> emissions used by the national project consultants. While the visits scheduled for the evaluation mission are always a representative sample of the project stakeholders, the assessment of the CO<sub>2</sub> emissions calculation was considered important since this issue had been highlighted by the Mid-term Review. Therefore, this limitation was addressed by the split of the TE team on day 3 of the evaluation mission when the Transport Advisor had a detailed discussion with the national consultants on the CO<sub>2</sub> emission calculation methodology while the Evaluation Consultant visited project stakeholders and beneficiaries in the Fayoum city.

The itinerary of the evaluation mission and list of people interviewed during and after the evaluation mission are provided as respective Annexes 3 and 4 to this report.

*Assessment of Evidence:* After the data collection phase, data analysis was conducted as the third and final phase of the evaluation through review of documents that were made available to the team by the project implementing partners as well as of other documents that the evaluator obtained through web searches and contacts with relevant projects stakeholders and beneficiaries. This process involved organizing and classifying the information collected, tabulation, summarization and comparison of the results with other appropriate information to extract useful information that responds to the evaluation questions and fulfils the purposes of the evaluation.

The list of documents reviewed is provided as Annex 5 to this report.

### Structure of the evaluation report

The structure of the evaluation report follows the "Evaluation Report Outline" presented in Annex F of the ToR of the assignment (contained in Annex 1 to this report).

## PROJECT DESCRIPTION AND DEVELOPMENT CONTEXT

The population of Egypt is currently 98.10 million and growing at a rate of about 2.6 % annually<sup>5</sup>. Approx. 2.6 million people are added every year, and the population is expected to reach about 114 million by 2025<sup>6</sup>. Together with a robust economic growth of 5.3 % recorded in 2017/18<sup>7</sup>, the pressure on the country's transportation system is increasing every year. In the year 2012/13, the transport sector's share of total petroleum energy consumption (petroleum products and natural gas) increased to reach 23% and 48% respectively. The increasing energy consumption by the transport sector resulted in more than 49 million tons of CO<sub>2</sub> emitted in 2012/2013. This represented 26% of total CO<sub>2</sub> emissions by all sectors during the same year<sup>8</sup>.

The major urban centres of Egypt which includes the Greater Cairo Metropolitan Area (GCMA) and other major cities such as Alexandria are facing acute traffic congestion problems. Due to this, it is estimated that Egypt's GDP growth is reduced by 3.6 %, according to World Bank studies. They are also a major contributor to pollution and increase in CO<sub>2</sub> emissions in the country. Due to the inability of public transport infrastructure to cope up with the demand, the bulk of the transportation needs of the public is met by private cars as well as privately owned and operated shared taxis (informal transport). It is estimated that the bulk of transport sector emissions (more than two third) are caused due to urban transport.

The transport demand in Egypt has been witnessing rapid growth along with the parallel growths of the population, economy and urbanization. The transportation sector is one of the major drivers of economic growth in Egypt, linking production and consumption centres. Egypt's unique geographic location along with an increasing infrastructure base is enhancing the country's position as a key global logistics hub. Egypt is currently embarking on a host of transportation projects. This includes metros and tunnels, railways, ports, and roads. The transport sector, being one of the core drivers for social and economic development in Egypt, is also at the same time one of the major energy consumer and contributor to CO<sub>2</sub> emissions. The integration between urban planning and transport is crucial for Egyptian cities which are experiencing a rapid demographic and urban growth considering that population is growing by about 2.6 million people per year.

The problems are particularly acute in the cities of Cairo and Alexandria. Greater Cairo Metropolitan Area (GCMA), one of the world's mega-cities with a population of about 20 million, consists of all cities in the Cairo Governorate as well as Giza, 6th of October, Sheikh Zayed City in the Giza Governorate and Shubra El Kheima and Obour in the Qalyubia Governorate. The demand for mobility in GCMA has greatly outpaced the capacity of the public transportation system to cope. The gap has been primarily filled with private owned and operated shared taxis (so called informal transport) and the use of private cars. Consequently, congestion has become a major problem and the air quality has deteriorated to an alarming level. It has been estimated that between 10,000 and 25,000 deaths a year in Cairo can be attributed to air pollution, to which transport is one of the main contributors.

The traffic congestion in the GCMA is a serious problem and has large and adverse effects on the quality of life for its citizens and for the economy. Traffic congestion is the cause of unwanted and unnecessary fuel consumption, additional wear and tear of vehicles, increase in

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<sup>5</sup> CAPMAS – [www.capmas.gov.eg](http://www.capmas.gov.eg)

<sup>6</sup> Calculations as per the author

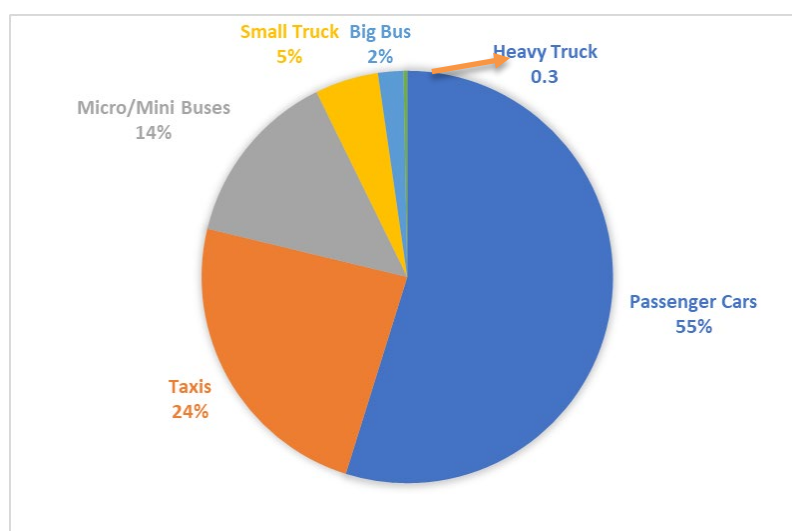
<sup>7</sup> World Bank - <http://www.worldbank.org/en/country/egypt/publication/economic-monitor-april-2019>

<sup>8</sup> United Nations ESCWA – Case Study Egypt – by Hamed Korkor – Policy Reforms to Promote Energy Efficiency in the Transportation Sector

harmful emissions and Green House Gases (GHG) while lowering air quality and increase in the costs of transportation for both citizens as well as business. The GCMA is an important economic centre for Egypt, contributing to about 30 % of the total GDP of the country. As the population of the GCMA continues to increase, traffic congestion is becoming worse and the need to address this congestion is becoming more urgent.

In the GCMA area, cars outnumber all other modes of transport by a wide margin. The share of private cars is higher on all major corridors and streets. Private cars and taxis are the major contributors for the congestion in the GCMA area. According to a World Bank study, during peak periods, average speeds on sampled surface streets are between 6 to 25 kilometres per hour. The average speeds on the sampled major corridors, all of which are within the Ring Road, are between 20 to 45 km per hour<sup>9</sup>.

Figure 1 - Modal Split on Surveyed Surface Streets within Cairo



\* Source – ‘Cairo Traffic Congestion Study’ by World Bank Study (2014)

The causes of the traffic congestions were most frequently due to the following:

- Poor traffic management
- Relative ease of owning a car and low transport cost due to subsidized fuel
- Inadequate supply of mass rapid transit systems (MRTS) and other non-motorized means of transport

While the Government of Egypt has invested and continues to invest significant resources into the development of the cities, it is important that the principles of sustainable transport sector planning are integrated into the general urban planning of new settlements as well as the re-development of existing ones.

The roadmap for the successful implementation of sustainable transport projects in Egypt can be achieved by the successful attainment of the following measures:

- Reduction in the growth of overall transport demand by improved land use and other urban planning measures especially in new urban areas currently under development

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<sup>9</sup> ‘Cairo Traffic Congestion Study’ by World Bank Study (2014)



- Increasing the modal share of sustainable public transport and reduce the use of private cars and other low capacity motorized transport for regular daily commuting
- Increasing the modal share of non-motorized transport, with a focus on the provincial medium size cities

Improving the energy efficiency and logistics of freight transportation by promoting a modal shift from road to rail and inland waterways and by promoting measures towards optimizing the cargo transport system and vehicles used for that purpose in general

### Brief description of the project

The rationale for STP was to reduce transport-related greenhouse gas (GHG) emissions by encouraging modal shifts away from the private car to public transport and non-motorized transport (NMT) modes such as walking and cycling. Past attempts to reduce the impacts of traffic congestion in Cairo and other provincial cities had resulted in modest increases in road construction with little or no new investments to improve public transport. In Cairo, the problem was somewhat magnified by the construction of satellite cities in the desert to the east and west of Cairo city center with no plans in place for public transport. The result has been an increasing reliance on private car ownership for urban mobility needs.

In addition, STP was also designed to assist the Government of Egypt to gradually remove fuel subsidies, as the growth in transport-fuel related subsidies was growing at an alarming rate. By demonstrating alternative modes of urban transport to Egypt's urban citizens, the Government wanted to catalyze a modal shift towards greener urban mobility options and a reduced dependence on the use of the private cars for urban travel. This should translate into reduced budgets for fuel subsidies in the future.

With the wide distribution of responsibilities for urban transport amongst the Government of Egypt agencies, STP was designed to provide a demonstrative approach to sustainable transport concepts that implement best international practices and approaches to reduce urban transport-related energy intensities. The expected outcome of these demonstrations is willingness and ability of local and central Government authorities to design and commit to the replication of these demonstrations, and to formulate sustainable transport policies using information from the demonstrations to guide and regulate future sustainable transport developments. Considering the lack of specific baseline energy information for urban transport, STP was designed to perform the required but extensive work to determine emission factors of motor vehicles plying in urban areas, and to demonstrate various means of reducing the carbon intensity of road transport from which sustainable transport policies can be derived.

The GEF project grant approved for the project amounts to US\$ 6,900,000 complemented with 37,100,000 US\$ expected total co-financing composed of contributions from various national stakeholders such as the central and local governments and private sector. The total resources committed to the project at inception was thus US\$ 44,000,000.

### Project start and duration

The project implementation milestones are summarized in the Table 1 below.

**Table 1:** Key project implementation milestones

<b>Milestone</b>	<b>Date</b>
Approval of the Project Concept	2 August 2006
Endorsement by GEF CEO	15 July 2008
Signature by Government of Egypt	20 November 2008
Project Inception Workshop	28 July 2009
Planned Mid-term Review	March 2012
Actual Mid-term Review	September 2012 - February 2013
Planned Terminal Evaluation	June 2017
Actual Terminal Evaluation	May 2019

The request for STP was received by GEF on 8 April 2005. For elaboration of the project, a Project Preparatory Grant (PPG) was approved on 24 May 2005, and the Project Concept on 2 August 2006. The project was approved for implementation as a full-size project on 15 July 2008.

The project implementation officially commenced in November 2008 (the date of signature by the recipient government) and the original completion date was 31 December 2013. The project implementation period was initially extended until the end of 2015.

Due to initial delays and several unforeseen challenges in implementation, UNDP/GEF and the Government approved another extension of additional two years and set a new project completion date at 31 December 2017.

### Problems that the project sought to address

During the preparatory activities for the project, several barriers were identified that prevented effective implementation of sound strategies and plans that had been developed for addressing the challenges faced by the transport sector. The main identified barriers were as follows:

- lack of inter-sectoral co-ordination (harmonization of policies, institutional co-operation) and limited institutional capacity to effectively adopt, implement and further develop the programs;
- focus on single infrastructure investments or technology driven approaches without an integrated view on broader requirements for successful intervention;
- pressing needs to find solutions to pending day-to-day problems at the costs of adequately addressing the long-term sustainable development needs of the transport sector;
- shortage of sustainable transport models and new approaches tested in Egypt to gain experience, reduce the risks and build the confidence of the targeted stakeholders;
- negative experiences with some early experiments such as the introduction of separated bus lanes in Cairo in late 1970's and 1998;
- possible public perception, social and cultural barriers and occasionally conflicting interest between the different key stakeholders;
- limited access to suitable financing mechanisms to meet the required investments needs; and

- inadequate emphasis on integrating sustainable transport planning with urban planning of new cities and on promotion of non-motorized transport in middle size provincial cities.

In the baseline scenario, the introduction of some measures to facilitate sustainable development of Egypt's transport sector would be continued by different public authorities and other local stakeholders, but the speed would be considerably slower and some programs may not be implemented at all due to the limited resources of the public authorities to overcome the existing barriers to their implementation.

### **Immediate and development objectives of the project**

The immediate objective of the project is to create an enabling policy and institutional environment and to leverage financial resources for the sustainable transport sector development, measured by the level of success in initiating replication of the sustainable transport concepts promoted in the project and the level of adoption of the required institutional changes and improvements in the general policy framework.

The development objective of the project is to reduce the growth of the energy consumption and the related greenhouse gas emissions of the transport sector in Egypt, while simultaneously mitigating the local environmental and other problems of increasing traffic such as deteriorated urban air quality and congestion. This was to be achieved by increasing or sustaining the modal share of greenhouse gas emission reducing public and non-motorized transportation options, discouraging the use of private cars and facilitating freight transportation by more energy efficient truck operations and increasing the share of cargo transported on rail and inland waterways.

The project was designed to achieve its immediate and development objectives by working through the following sustainable transport concepts: 1) initiating the concept for the development of new, integrated high quality public transport services for Greater Cairo and its satellite cities (to exert shift from car use) on the basis of public-private partnerships and facilitating its effective replication; 2) promoting non-motorized transport in medium sized provincial cities; 3) introducing new traffic demand management measures, with an objective to gradually scale them up over the time; 4) improving the energy efficiency of freight transport; and 5) enhancing the awareness and capacity and strengthening the institutional basis to promote sustainable transport during and after the project in general. These components constituted the core of project activities, around which the project has been built.

As was clearly indicated during the project preparatory phase, the successful implementation of all of the above would call for a major improvement of the current institutional and the overall transport sector policy environment in Egypt, which cannot be expected to take place overnight. Therefore, the selected project strategy focused on relatively small pilot initiatives in order to work through the identified barriers first at a smaller scale. By building on the results of those concepts and demonstrating early success, the project seeks to facilitate their effective expansion and replication and address the broader institutional and sector development needs.

### **Baseline Indicators established**

Project baseline data is the initial information on program activities collected prior to the program intervention that are used later down the project implementation trajectory to provide a comparison for assessing project outcomes or impacts.

The baseline indicators as described in the original Project Document are listed in Table 2 below.

**Table 2:** List of baseline indicators for STP outcomes

Outcome	Baseline Indicator
<b>Outcome 1:</b> The concept for new, integrated high quality public transport services (to exert shift from private cars) for Cairo and its satellite cities successfully introduced and replicated on the basis of public-private partnerships.	No adequate public transport services that can attract car users for the satellite cities available. No feeder system that can attract car users for metro in place. Lack of experience with more advanced, road based public transport systems such as BRT.
<b>Outcome 2:</b> The modal share of non-motorized transport (NMT) in middle size provincial cities increased or sustained.	Modal share of NMT 52 % in Shebin El-Kom and 31 % in Fayoum
<b>Outcome 3:</b> Successful introduction of the Transport demand Management (TDM) concept with an objective to expand it towards more aggressive measures over time to effectively discourage the use of private cars, when good quality public transport services are available.	No real strategy in place to effectively proceed with TDM in order to reduce the local air pollution and congestion in Greater Cairo area and Alexandria and simultaneously contribute to GHG reduction.
<b>Outcome 4:</b> Improved energy efficiency of freight transport	Inefficient operation of the existing truck fleet. Low utilization of the available rail and river-based freight transport options.
<b>Outcome 5:</b> Strengthened institutional capacity to promote sustainable transport sector development during and after the project.	Low level of awareness and capacity of the key stakeholders as well as the level of adoption and implementation of the required legal, regulatory and institutional changes to facilitate sustainable transport sector development.

### Main stakeholders

The Project Document provided a list of the main expected project stakeholders that is provided as Annex 6 to this report. Table 3 below provides an update on those ones that actively participated in STP implementation and provides a short description of their general functions in urban transport as well their specific roles in the project.

**Table 3:** Updated list of project stakeholders and their responsibilities

Institution	General Role	Envisaged Role in the Project
Minister of State for Environmental Affairs / Egyptian Environmental Affairs Agency	GEF Operational Focal Point, Executing Agency	Executing Agency Co-financier of STP components 1 and 4
Ministry of Transport (MoT) and its underlying agencies: Egyptian National Railways (ENR), River Transport Authority (RTA) and General Authority for Roads, Bridges and Land Transport (GARBLT)	In charge of intercity freight transport and infrastructure. All rail based public transport modes such as Cairo metro under jurisdiction of the MoT and its underlying agencies such as ENR and Cairo Metro Organisation (CMO). Head of the Higher Committee for Greater Cairo Transportation Planning	Together with EEAA, main partner for component 4 and, as regards integration with the metro service, component 1 (through CMO). Expected co-financier of component 4 (rail and river infrastructure, freight terminals) Key beneficiaries of the envisaged training and capacity building activities under component 5 to develop and implement sustainable transport policies and actions in the field of freight transport

<b>Institution</b>	<b>General Role</b>	<b>Envisaged Role in the Project</b>
Ministry of Housing and New Urban Communities (MoHNUC) and its underlying agencies ·General Organisation of Physical Planning (GOPP) and General Organisation of New Urban Communities (GONUC)	In charge of the development and management of new cities, including the satellite cities around Cairo.	Technical and logistical support and allocation of land for the new bus terminal facilities in new satellite cities under component 1  One main beneficiary of the envisaged training and capacity building activities under component 5 to integrate land use and sustainable transport planning
Governorate of Cairo (GC) and its underlying agencies Cairo Transport Authority (CTA) and Greater Cairo Bus Company (GCBC)	In charge of the management of Cairo, including the road based public transport modes  Issuing the licenses for the new private bus operators in Cairo area	GC: Main partner, co-financier and beneficiary of the first pilot activities under component 3  CTA and GCBC key partners to discuss the co-ordinated development of the different public transport modes in the Greater Cairo Area in general.
Cairo Traffic Engineering Bureau (CTEB)	Engineering work (design of intersections, parking etc.)	Potential beneficiary of training and capacity building
Governorates of Alexandria, Giza and Qalyobeya	In charge of the management of their respective cities  Issuing the licenses for any new public transport operators in their respective areas	Primary partners and co-financiers for and beneficiaries of replication of Sustainable Transport (ST) concepts introduced under components 1 and 3
Governorates of Fayoum and Monofia	In charge of the management of the cities of Fayoum and Shebin El-Kom	Primary partners and co-financiers for and beneficiaries of the representing the pilot activities under component 2 (NMT)
Fayoum University	Education	A partner for component 2 supporting the public awareness raising, marketing and bicycle purchase.
Ministry of Interior (MoI) and the Local Traffic Police working under MoI	Traffic Control	A partner for design and enforcement of the proposed TDM measures under component 3
Social Fund for Development (SFD)	Financing of projects with environmental and social benefits	Loans for the establishment of SMEs such as bicycle manufacturing/assembling and repair shops etc
International Environment Services (IES):	A private company involved in transport sector related activities	Possible private partner for component 1
British Egyptian Bussiness Association (BEBA), private bus operators	An association of companies interested in promoting business opportunities between Egypt and Britain	Possible private partners for component 1

## Expected results

The project was designed to specifically address the principal barriers listed above within the overall project component framework set out in the original PIF but with appropriate expansion and modification of outcomes and outputs based on the PPG work.

The project was designed to deliver immediate results in the form of the following five substantive outcomes:

Outcome 1: Introduction and replication of the concept for new, high quality integrated public transport services for Cairo and its satellite cities to exert shift from private car;

Outcome 2: Increased or sustained modal share of non-motorized transport (NMT) in middle size provincial cities;

Outcome 3: Introduction of the Transport Demand Management (TDM) concept with an objective to expand it towards more aggressive measures over time to effectively discourage the use of private cars;

Outcome 4: Improved energy efficiency of freight transport;

Outcome 5: Enhanced awareness, capacity and strengthened institutional basis to promote sustainable transport sector development during and after the project;

The project results framework expected the above five substantive outcomes to be delivered through total of 27 substantive outputs.

In the same project logframe, a number of key indicators of the successful project implementation were proposed including the following:

- Successful finalization of the pilot projects and their continuation and/or replication on a self-sustaining basis;
- A mechanism established to facilitate sustainable and co-ordinated development and implementation of the public transport system in Greater Cairo area, including integrated scheduling, fare policy, route planning etc. as well as effective development and enforcement of supporting transport demand management measures;
- The share of public transportation in the targeted locations maintained or, if possible, increased;
- The length of new non-motorized corridors (bicycle lanes or pedestrian zones) reaching 50 km by the end of the project constructed and being used for the purpose meant;
- Over 100,000 tons savings in fuel consumption by the end of the project as a result of the project activities to improve the energy efficiency of urban freight transport;
- The amount of financial resources leveraged for the replication and follow up of the proposed pilot concepts and other sustainable transport measures by the end of the project;

The main expected national and local benefits of the project are as follows:

- Reduced local air pollution and congestion;
- Improved public transport services;
- Economic costs savings at the national level;
- Improved and safer facilities for NMT

The major expected global environmental benefits of the project was the cumulative, direct GHG reduction resulting from the implementation of the proposed pilot projects, estimated at about 1.48 million tons of CO<sub>2</sub> over the next 20 years, with an estimated replication potential and indirect impact of 5 - 10 million tons of CO<sub>2</sub> over 20 years.

## FINDINGS

This section provides a descriptive assessment of the achieved results. In addition, several evaluation criteria are marked in line with the requirements for GEF Terminal Evaluations.

### Analysis of the project results framework

The design of STP was based on the conceptualization and creation of pilot model demonstration projects to introduce and promote sustainable transport and urban mobility solutions to improve urban environment quality. Implementation of the pilot projects and the experience gained is expected to provide policymakers with experience and insight to develop and replicate similar sustainable transport interventions.

One way of evaluating the quality of design of STP is to find out how the latter has been aligned to the “Avoid, Shift and Improve (ASI)” sustainable transport framework composed of the following three main avenues:

- Avoid/Reduce
- Shift/Maintain
- Improve

The design of STP Component 3 is in line with the Avoid/Reduce instrument and attempts to reduce the need to travel and the trip length through transport demand management approach.

STP Components 1 and 2 are in line with the Shift instrument and seeks to improve trip efficiency. A modal shift from the most energy consuming mode (cars) towards more environmentally friendly modes such as NMT and public transport by high-quality buses). Although the latter also generate emissions, lower specific energy consumption per passenger/kilometer and higher occupancy levels imply that the associated CO<sub>2</sub> emissions per passenger km will be lower compared to cars.

The design of STP Component 4 is aligned to the Improve instrument and addresses the need to improve energy efficiency of freight transport and truck vehicle technology

A standard project results framework that was formulated at the time of project design outlines the project’s overall objective and defines the project’s outcomes and outputs. Furthermore, the results framework contains Objectively Verifiable Indicators (OVIs) and their pre-project (baseline) as well as post-project (target) values that were selected for measuring the change in the indicators’ values over time (from baseline to target values) and therefore for measuring the effectiveness of the intervention. Additionally, the results framework suggests verification sources for the OVI target values and assumptions for their achievement.

As pointed out at the end of the previous section, the original project results framework consisted of 5 substantive outcomes and 27 substantive component outputs. The 6<sup>th</sup> outcome, consisting of 4 outputs, is related to monitoring, learning, adaptive feedback and evaluation. The complete project results framework as it was incorporated in the approved Project Document is provided as Annex 7 to this report.

A number of modifications of the project log-frame were suggested at the time of the Mid-Term Review (MTR) of the project. The 4<sup>th</sup> meeting of the Steering Committee was conducted on 13 March 2013 after receiving the MTR report. Modifications of the MTR were taken into consideration for preparation of the 2013 work plan that was presented to the meeting and approved by the PSC. The modified results framework is provided in Annex 7a.



The indicators to determine the achievement of the Project results were fixed at the output level. However, in several cases there is a mix up between the outputs, indicators and activities as shown on the examples in Table 4 below.

**Table 4:** Examples of incorrectly formulated outputs and indicators in the STP results framework

Output	Indicator	Comment
<b>Output 1.1:</b> The public bidding and negotiations for the new service finalized	Status of the tender	This is not output but rather a milestone in implementation
<b>Output 2.2:</b> Construction of a new 13,6 km NMT corridor in Fayoum.	The status of construction of the NMT corridor in Fayoum.	These are not outputs but rather activities
<b>Output 2.3:</b> Construction of a new 6,5 km NMT corridor in Shebin El-Kom	The status of construction of the NMT corridor in Shebin El-Kom	
<b>Output 2.4:</b> In co-operation with the local stakeholders, facilitate the establishment and training of the staff of local bicycle manufacturing, selling and repair shops, conduct promotional campaign to raise the social acceptance of cycling and to lower the barriers to bicycle purchase and use.	The status of the promotional campaign and the establishment of supporting rental, sale and repair services for bicycles	
<b>Output 4.3:</b> Improved energy efficiency of trucks and reduced number of driven kilometers as a result of improved logistics of truck operations in urban areas	Fuel consumption, load data and revenue data of the truck operators co-operating with the project	This is not a right indicator to measure the improvement of energy efficiency
<b>Output 5.2</b> By building on the early results of the project, preparing a national, cross sectoral sustainable transport policy document setting concrete short, medium and long term targets in different key areas the project is addressing.	The adoption of a national, integrated urban planning and sustainable transport policy	This is not output but rather activity

In addition to the above, there were few outputs in the original results framework, that were found too ambitious to achieve. For example, there was a plan to establish semi-public authority to coordinate development of public transport systems (Output 5.3) and another authority to enforce parking policies (Output 5.4). The results framework suggested background studies for the two agencies and establishment of the agencies as the target indicators to measure the success in the achievement of the two outputs. These targets are in fact only the first and last milestones in the establishment process. Since a long and complicated process of approval by relevant central and local authorities is needed for establishment of new agencies, it is not realistic to expect going from the very first to the very last milestone within the project.

The target values of indicators did not have time value hence it was anticipated that all will be implemented by the end of the project. This is conceptually not correct in case sequential implementation of outputs is necessary. For example, the last outputs under the Outcomes 1, 2, and 3 called for collection of experience from implementation of the new public transport services (Output 1.4), from use of the NMT corridors (Output 2.5) and from experience with operation of new TDM measures (Output 3.6). In all these cases it was implicitly expected that the establishment of the new transport services, NMT corridors and TDM measures would be completed sometime before the end of the Project. However, there was no time indication in the targets to measure the achievement of the outputs.

### Risks and assumptions

The Project Document identified the main risks for STP those closely related to the institutional and public perception barriers that have prevented the transport sector to develop measures that had been recommended before for development and/or enforcement in practice. The strategy for addressing these risks under STP is to focus initially on relatively small pilot projects that have a small number of key stakeholders. Successful implementation of these small pilot



initiatives would create foundations for addressing the institutional, public awareness and perception barriers on a broader and expanded scale.

Furthermore, the STP Project Document identifies another risk of strong negative reactions of some stakeholder groups towards the new measures promoted by STP such as the operators of the private shared taxis towards the introduction of new public transport means or, especially in the field of transport demand management, a possible negative reaction of at least a part of the general public towards the new measures introduced. The Project Document proposes to address the risk above through selecting relatively small pilot initiatives, in which these risks are considered as manageable.

One specific risk discussed in detail in the Project Document is the risk related to provision of a new, high quality integrated public transport services by public-private partnerships. The essence of the risk probability of difference between the minimum projected and the actual number of passengers during the first year of operation. First year revenues, if lower than projected, could negatively affect the possibility to sustain the project financially. To mitigate this risk, the project budget was constructed to include partial risk guarantees to cover up to 50% of the lost first year revenues. It is also important to note that the risk sharing instrument was proposed not for assuming the whole risk of lower than expected revenues but for sharing this risk on equal share (50-50) basis, thereby maintaining at the same time an incentive for the selected service provider to minimize losses. After the first year, the operating risks would remain entirely with the service provider.

Apart from the risks discussed in the body text of the Project Document, the STP results framework contains in the last column assumptions as events or circumstances expected to occur during the project life-cycle and therefore as important necessary conditions for achievement of the project results. Assumptions are intrinsically related to risks as they have the same characteristics as risks, namely probability of occurrence and potential impact on the project.

The evaluators found the assumptions listed in the project results framework reasonable. However, listing of assumptions and/or risks as such, i.e. without rating and mitigation measures does not have a great value as it does not provide for proper risk management. Therefore, the evaluators could not find any sort of a risk management plan e.g. in the form of a standard risk management matrix that would contain rating of the assumptions and related risks by severity and likelihood as well as suggested risk mitigation measures.

### Lessons from other relevant projects incorporated into project design

The project design took a lesson from the case of the earlier attempt on hydrogen fuel cell bus project in Egypt. In contrast with the latter, GEF funds for STP were not requested for subsidizing major “high-tech” demonstration fleets, but mainly for technical assistance activities and for sharing the costs and/or risks of selected pilot activities demonstrating, to the extent possible and depending on the type of measure to be promoted, the potential for full cost recovery.

STP was in the first batch of GEF projects on promotion and support for sustainable transport and hence no experience from implementation of sustainable transport projects in other countries was available at the stage of STP inception.

### Planned stakeholder participation

During the PIF/PPG phase, extensive consultations were held with relevant agencies of the central, regional and municipal governments, and with national technical experts previously engaged in transport-related projects and activities.

The original Project Document contains a number of suggestions for stakeholder involvement and concludes that a well-designed communication strategy addressing the different key stakeholders is a key to the success of the project. While the details and concrete implementation arrangements of this communication strategy were not available at that stage, the main elements of the plan for stakeholder involvement were as follows:

- Early involvement and awareness raising of the key public authorities about the goals, objectives and foreseen benefits of the suggested project activities, thereby securing their commitment to support the project from the very beginning and responding to the specific needs and constraints eventually brought up in the consultations that had been done already during the PDF-B phase;
- Awareness raising of the targeted private sector stakeholders and the general public affected by the proposed project activities, about the purpose and foreseen benefits of the project as well as about the experiences of similar activities in Egypt and in other countries;
- Specific marketing campaigns to promote the adoption and increasing use of the sustainable transport options promoted under the project;
- Enhanced networking and information exchange between the different local entities (academic research community, environmental NGOs etc.) interested in promoting sustainable transport and protection of environment so as to identify areas of mutual interest and possible joint action optimizing the use of the resources and efforts;
- Facilitation of networking and international information exchange so as to learn from and adopt experiences, results and best practices from similar activities in other countries;
- Effective use of the public media such as newspapers, radio, TV etc. to bring the issues addressed by the project into the public discussion and to inform the public about the possible options for improvement and the experiences and results produced by the project during its implementation, including the pilot concepts promoted;
- Specific national or international seminars and workshops; and
- Effective use of the project webpage for maintaining and disseminating information about the project and for working as a general clearing house for information about sustainable transport activities and the related framework conditions in Egypt.

Some of the above stakeholder involvement plan have been effectively used during the implementation. For example, there was substantive information exchange between the academic research community, represented by DRTPC, and environmental NGOs in Fayoum and Shebin El-Kom cities under Component 2. Also, an info-graphic video that was played on a street advertising screen in Shebin El-Kom from June 2016 to March 2017 was a good example of effective outreach to local stakeholders. Last but not least, the project web page served as a good source of information about the project goals and achievements and progress in implementation for a wide range of stakeholders.

### Replication approach

The selected project strategy of the project was to focus initially on relatively small pilot initiatives in order to overcome the identified barriers first at the smaller scale. By building on the results and demonstrating early success, STP planned to facilitate and address their effective expansion and replication as well as the broader institutional and sector development needs.

### UNDP comparative advantage

UNDP is well equipped to help the recipient countries to address the transition to more inclusive and sustainable growth pathways. On the substantive side, UNDP's specific strengths include a proven ability to influence policy and develop capacity through its focus on policy-based and cross-sectoral approaches and collaboration with a wide range of local stakeholders (e.g. the central, regional and municipal governments and general public). Furthermore, UNDP's strength is anchored in the thematic focus on poverty reduction, pro-poor economic policies and environmental sustainability. Hence, the organization has tools to support countries in pursuing a balanced inclusive and sustainable growth patterns.

In Egypt, UNDP has built a very good reputation with diverse stakeholders including institutions of the Government of Egypt, the Governorates and municipality self-governments. The high esteem had helped in the inception phase of STP and involvement of UNDP in the project was found very conducive for facilitating access to and cooperation with diverse partners and stakeholders in the implementation phase.

In general, UNDP's comparative advantage to other donor agencies is the role of knowledge management broker, i.e. in accumulation of first-hand experience from implementation of similar projects. As already pointed above, there was not much information from similar projects implemented abroad for inclusion into STP. However, given the delays in implementation of STP due to the period of political instability, UNDP could have used the time-lag for collection and sharing of experience from implementation of urban transport projects in other countries for the benefit of STP.

### Linkages between project and other interventions within the sector

STP was built upon results of earlier interventions in the transport sector. In the design phase, it was built upon the vision of transformation of urban transport that was articulated in the "Greater Cairo Urban Transport Master Plan" (CREATS), prepared under support of JICA in 2002. The plan supported approaches to implementing a safe and environment-friendly transport system that would significantly reduce carbon emissions, offer an economically effective urban transport system, and provide equitable mobility for all transit users.

Furthermore, STP design was affected by the "Proposed Urban Transport Strategy for Greater Cairo" that was prepared by the World Bank in 2006. This study provided an assessment of the urban transport system in Greater Cairo, identified the most pressing urban transport problems, and proposed a framework for urgent policy actions and investment priorities as a basis of a formal transport strategy to be adopted and implemented by the authorities of the metropolitan area of Cairo.

The design of the project was linked to another study funded by JICA, namely the "Strategic Urban Development Master Plan Study for Sustainable Development of the Greater Cairo Region". This study that was prepared for the Ministry of Housing and Urban Development (MoHUD) and completed in 2008, emphasized the importance of integrating effective and balanced urban development with development transportation development outlined balanced

urban development and formulating an implementation scheme for priority development corridor(s).

In the implementation phase, STP established strong linkages to the Agence Francaise de Developpment (AFD)/French GEF (FFEM) project “*Support to an Improved Urban Transport System in Cairo*”. The project was designed to support support actions promoting the organization of the city’s public transport in Cairo, facilitate private sector operation of public transportation services and to determine emission factors for diesel buses and other commercial vehicles, adding to the knowledge base of emission factors of motor vehicles in urban areas.

The AFD project comprised of various components:

- Financing of the premium for scrapping polluting two-wheel vehicles for a replacement with less polluting vehicles;
- Implementation of a “Green Garage” pilot project in the Cairo Transport Authority’s main bus depot, which involves improving maintenance management and quality;
- Support for the estimation and modelling of CO<sub>2</sub> and other air pollutant emission factors from the various modes of public transport (buses, minibuses, microbuses) based on the actual situation in Cairo, in addition to the same program applied to passenger cars;
- Support for the definition of simplified appraisal methods for the Clean Development Mechanism for urban transport in Cairo;
- Additional actions to support the coordination of activities and awareness-raising on issues of sustainable mobility.

### Management arrangements

The project was executed in line with the established UNDP procedures for National Implementing Modality (NIM). The executing agency of STP was the Egyptian Environmental Affairs Agency (EEAA) following the UNDP national execution arrangements. In executing the project, the EEAA responsibility was to ensure the liaison and co-ordination with the other ministries and city administrations and the agencies and authorities under them, which had a stake in STP.

The UNDP Country Office (CO) in Cairo assumed a role of the Supplier - being the GEF Implementing Agency represented in the country. It was responsible for monitoring and ensuring proper use of UNDP-GEF funds to assigned activities, timely reporting of implementation progress as well as undertaking of mandatory and non-mandatory evaluations and audits. In this context, UNDP provided necessary backstopping to ensure proper implementation progress and provided feedback to various products and documents from the Project and ensured the project results to be in line with overall objectives as well as GEF-UNDP requirements.

The day-to-day management of the project was carried out by a Project Management Unit (PMU) under the overall guidance of the Project Steering Committee (PSC). PMU was established within the premises of the executing agency, EEAA, for the convenience of reporting to EEAA and the PSC and was led by a full-time Project Manager that had been selected jointly by the executing agency and UNDP, in consultation with the UNDP/GEF Regional Co-ordination Unit. The Project Manager provided administered the project funds and payments to the different beneficiaries according to UNDP procedures and regulations

The Project Steering Committee was established to oversee and supervise project planning and implementation processes monitor STP progress, to guide the Project implementation and to support the Project in achieving targeted outputs and outcomes. PSC membership included the CEO of EEAA, the Project Director, a representative of the UNDP CO, one representative each

from the main stakeholder ministries (MoT, MoHUD, MoI, MFA) and of the Governorates of Fayoum and Menoufia.

The evaluators consider the established managerial arrangements adequate for the size of the project. However, considering the level of complexity of the project, the role of the cooperating line ministries, such as Ministry of Transport and Ministry of Housing in STP implementation was not sufficient. As a result of the agreed managerial arrangements, EEAA assumed responsibility for delivery of all project results, even for outputs that were mostly within responsibility of the other ministries (particularly under Components 3 and 4). Despite consultations with the cooperating ministries took place, their respective roles in the project implementation were not prominent enough to ensure smooth and steady progress towards delivery of project results.

### Adaptive management

Adaptive management is discussed in GEF evaluations as ability to direct the project implementation through adapting to changing conditions outside of control of the project implementing teams. Therefore, an adaptive approach involves exploring alternative ways to meet project objectives and implementing one or more of these alternatives.

Between late 2010 and 2012, Egypt was hit by political instability that had a substantially adverse effect on all political decision-making process and had postponed implementation decisions for several project pilots. In response to this situation, the project implementing partners pursued an adaptive strategy that redirected the project implementation towards tasks that did not require extensive involvement or approvals from the government officials. This was reflected in the adjustments of the workplan for 2011/2012 when it became clear that implementation of the demonstration projects would be impossible. Instead, the project implementation focused on carrying out surveys and technical design studies, elaboration of curricula for training courses, and other possible desk work while waiting for the Government to be in a better position to take implementation decisions. The adaptive strategy has proven to be effective for preparation of foundations for delivery of several project outputs under all project components, but in particular under Outcomes 3, 4 and 5.

### Partnership arrangements

During the implementation, the project had established three partnerships that had been conducive to the project implementation.

A very close partnership was established with the AFD through implementation of the project *Support to an Improved Urban Transport System in Cairo*. The PMU of STP participated in the design and preparation of the AFD project. The project started in June 2010 and EEAA decided to task the STP PMU with management of the AFD project to ensure complementarity with STP activities and ensure participation in consultations on future AFD assistance. This partnership had proven to be particularly important for development of CO2 emission factors.

Another important partnership established with the GEF Small Grants Programme (SGP) in Egypt that was essential for implementation of Component 2 of STP in the Fayoum and Menofia Governorates. Through this partnership the Project secured SGP funding for various activities for demonstration of non-motorized transport options such as public awareness campaigns, establishment of bicycle parking racks and revolving funds for supporting bicycle purchases. With the help of these funding arrangements, STP directly reached out to local NGOs in the Fayoum and Menofia Governorates and indirectly to professional cycling groups such as Global Biking Initiative, Go Bike, and 4bikes.

STP also established two important partnerships for implementation of a pilot bike-sharing schemes. The Project has partnered with the Egypt programme of UN-Habitat that had been working with the Cairo Governorate on a three-year funding scheme for bikeshare to provide NMT options to one of the Universities in Cairo. More recently, the Project has established cooperation based on a MoU with the University of Fayoum for implementation of the bike-sharing for students of the University.

UN Habitat has also been working with NUCA to implement a BRT system within 6 of October City and connected to El Haram Area in the Giza Governorate and they are coordinating with STP project to ensure integration with the new high-quality bus lines developed under the STP assistance.

With the help of STP, the Fayoum Governorate as one of the key stakeholders of STP had established a financial partnership with the Social Fund for Development (SFD) and received assistance in terms of co-funding was provided by SFD as part of the local contribution for development of NMT infrastructure in the Fayoum City.

Further substantive matters related to the above partnerships are described in the text under the section Effectiveness and Efficiency.

### Project finance

According to the Project Document, the GEF grant was approved at 6,900,000 US\$ and together with expected co-financing at 37,100,000 the total funding required for the project was 44,000,000 US\$. Table 5 displays dynamics of STP implementation by years of the project implementation period.

**Table 5:** STP expenditures by years of the implementation period (US\$)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2010-2018
<b>Total GEF</b>	124,737	403,533	382,669	361,595	360,665	477,927	1,937,702	640,101	1,020,183	666,609	393,071	6,768,792
<b>%</b>	1.84	5.96	5.65	5.34	5.33	7.06	28.63	9.46	15.07	9.85	5.81	100.00

The STP expenditures by years demonstrate relatively continuous spending patterns. Lower expenditures in 2011-2013 reflect the period of political instability and an adaptive strategy of implementation that focused on conduct of feasible office and field work (technical studies, design of training courses, etc.). Once the Government was able to take implementation decisions the spending increased.

Table 6 below provides comparison of the planned and actual expenditures by STP outcomes.

**Table 6:** Planned and actual expenditures by the project components (US\$)

<b>Result</b>	<b>Planned</b>	<b>Actual</b>	<b>%</b>
Outcome 1	1,540,000	1,676,794	108.88%
Outcome 2	1,520,000	1,544,199	101.59%
Outcome 3	1,580,000	1,454,764	92.07%
Outcome 4	490,000	475,936	97.13%
Outcome 5	940,000	680,244	72.37%
Outcome 6	250,000	179,262	71.70%
PMU	680,000	757,593	111.41%
<b>Total<sup>10</sup></b>	<b>7,000,000</b>	<b>6,768,792</b>	<b>96.70%</b>

<sup>10</sup> The expenditures include US\$ 100,000 co-financing contribution from the Implementing Agency (UNDP CO)



The comparison of the planned and actual expenditures indicates only moderate variations of the planned budget with overspending only around 110% of the original budget.

The most significant budget reshuffle was reallocation of funds earmarked for risk-sharing with bus service operators to procurement of BMS under Outcome 1. This was internal budget reorganization within Outcome 1.

The table shows noticeably lower spending under Outcomes 5 and 6 (around 72% of the planned amounts). This reflects the reality when there was no delivery on one output and cancellation of another output under Outcome 5. The higher expenditures for PMU in comparison with the original budget reflect the extended implementation period of the Project.

Overall, the two tables above demonstrate sound financial management of the Project.

STP was designed to attract substantive amounts of co-funding from various levels of the government as well as from private sector. Table 7 below compares the planned co-funding at STP inception with the actually achieved co-funding at STP completion.

**Table 7:** Comparison of planned and actual co-financing by source

Planned Co-funding (at STP inception)		Actual Co-funding (at STP closure)	
Amount (US\$)	Source	Amount (US\$)	Source
11,000,000	GoE		
10,800,000	EEAA	10,000,000	MoHUD
1,200,000	MoT	17,000,000	NUCA
		3,000,000	NUCA (in-kind)
4,930,000	Cairo Governorate	30,000,000	Cairo Governorate
1,040,000	Menofia and Fayoum Gov.	2,600,000	Governorate of Menofia
9,000,000	Private bus operators	8,000,000	Private bus operators
		1,300,000	ADF/FFEM
		2,900,000	UN Habitat
		340,000	Social Fund for Development
100,000		100,000	UNDP
<b>37,070,000</b>	<b>All Sources</b>	<b>75,240,000</b>	<b>All Sources</b>

The figures in Table 7 demonstrate that the actual co-financing has been about two times higher than the amounts pledged for co-financing at STP inception.

Almost half of the actual co-financing was provided by the Cairo Governorate through the 30 million US\$ investment for installation of the integrated traffic control and monitoring system in downtown Cairo coupled with the operation of the VMS system provided by STP. NUCA provided 17 million US\$ in co-financing for procurement of total 150 buses and mini-buses for the bus lines NUCA operates in the new cities. Moreover, NUCA has provided 3 million US\$ in-kind contribution in the form of 18,000 m<sup>2</sup> of land allocated for the bus terminals and garage depots in the Sheikh Zayed and 6<sup>th</sup> October cities.

Ministry of Housing provided 10 million US\$ for completion of a third lane in the 26<sup>th</sup> October Corridor that was added for both directions as a dedicated bus lane. The private bus operator contributed with 8 million US\$ for procurement of 40 buses, furnishing and equipping the bus stops and terminals, recruitment of drivers, additional constructions in the facilities, investment in the commercial areas, etc.

AFD/FFEM provided 1,3 million US\$ for the parallel project *Supporting the Improvement in Cairo's Urban Transport* that was managed by the STP PMU and financed complementary activities to STP such as elaboration of the study on determination of emission factors for diesel engine vehicles (buses, minibuses and microbuses) in Greater Cairo, and supported financing of the premium for scrapping polluting two-wheel vehicles for a replacement with less polluting vehicles as well as implementation of a "Green Garage" pilot project in the Cairo Transport Authority's main bus depot. It also supported awareness raising on issues of sustainable mobility.

The Government of Menofia provided 2.6 million US\$ for sidewalks upgrades and establishing of cycling tracks in Shebin El-Kom City. The Social Fund for Development contributed with 340,000 US\$ for the same purpose in Fayoum City. The GEF Small Grants Programme has awarded grants worth of 300,000 US\$ to NGOs in the two cities for procurement of bicycles racks, establishment of the revolving fund for purchase of bicycles as well as for awareness campaigns. SGP has also pledged further support to the development of the bike-share scheme at the Fayoum University (not included in the table as this has not yet materialized).

### Monitoring and evaluation: design at entry and implementation

#### M&E design at project entry

The Monitoring & Evaluation (M&E) Framework is in details described in the Project Document. The Framework consisted of the Project Inception Workshop, meetings of the Project Steering Committee, quarterly and annual Project Implementation Reports as well as a Mid-Term Review and a Terminal Evaluation.

Responsibility for day-to-day monitoring of was given to PMU based on the project's Annual Workplan and its indicators. Periodic monitoring of implementation progress was the responsibility of the the UNDP-CO through meetings with PMU would allow the two parties to take stock and troubleshoot any problems pertaining to the project in a timely fashion and ensure smooth implementation of project activities.

Annual monitoring was planned through a tripartite review conducted by PMU, UNDP-CO and UNDP-GEF RTA.

The evaluators found the M&E plan in the Project Document was well articulated and sufficient to monitor results and track the progress toward achieving the objectives, except for some issues with the logframe discussed above. Also, the budgetary allocations for the M&E activities were found adequate.

The evaluators concluded that design of STP M&E Framework followed the standard M&E frameworks for projects of this size and complexity and therefore rate it **Highly Satisfactory (HS)**.

#### M&E at implementation

The main subject of the discussion here is the implementation of the originally planned parts of the M&E plan.

*Project Inception Workshop:* A meeting for STP inception took place on 28 July 2009. The meeting was chaired by the Minister of State for Environmental Affairs with participation of senior officials of EEAA and DRTPC transportation experts. The main point on the meeting agenda was a presentation of STP to the Minister and the EEAA officials conducted by DRTPC followed by questions and answers on the main components of STP. The presentation included also a draft 5-year work plan and a detailed work plan for the 1<sup>st</sup> year. The meeting participants approved management arrangements for STP based on a MoU between EEAA and DRTPC



Transportation Programme in order to ensure provision of the long-standing expertise of DRTPC for assistance to EEAA in implementation of STP activities. Also, the meeting participants requested the AFD/FFEM Transportation Project to be implemented in full coordination with STP.

The STP Project Document provided the following outline of the Project Inception Workshop:

*The Project Inception Workshop would be conducted with the full project team, relevant government counterparts, co-financing partners, the UNDP-CO and representation from the UNDP-GEF Regional Coordinating Unit, as well as UNDP-GEF (HQs) as appropriate.*

*A fundamental objective of this Inception Workshop will be to assist the project team to understand and take ownership of the project's goals and objectives, as well as finalize preparation of the project's first annual workplan on the basis of the project's logframe matrix. This will include reviewing the logframe (indicators, means of verification, assumptions), imparting additional detail as needed, and on the basis of this exercise finalize the Annual Work Plan (AWP) with precise and measurable performance indicators, and in a manner consistent with the expected outcomes for the project.*

While the meeting for STP inception fulfilled the objectives stipulated in the Project Document regarding the finalization and review of the first annual workplan for STP, the participation of relevant project stakeholders in the meeting did not match the expectations laid down in the PD. Project Inception Workshops organized under GEF projects usually involve a wider audience including members of the future Project Steering Committee. Here the meeting was organized mainly to establish the organizational structure for STP management and establish an agreement of EEAA with DRTPC as the Responsible Party, to assist in successfully delivering project outputs.

Project Steering Committee: PSC met totally eight times during the project implementation period. The first meeting of PSC was in February 2010 and another meeting took place in June 2010. Further meetings were held in January 2011, March 2013, May 2015, December 2016, December 2017 and September 2018. Progress reports from the previous period as well as an outline of annual work plans for the forthcoming period were presented for PSC consideration and approval. PMU prepared written minutes of the PSC meetings in Arabic with translation of some of them into English.

The low frequency of PSC meetings between 2011 and 2015 reflects the instability period in the country.

Project Implementation Reviews (PIRs): PIRs were compiled annually for each of the years 2010-2018 with inputs provided by the Project Executing Agency (PMU), the GEF Implementing Agency (UNDP-CO) as the GEF RTA.

Having reviewed all nine PIRs, the evaluators found them in compliance with the basic GEF project cycle reporting tools. PIRs contained large section on development progress and respective summaries on implementation progress as well as discussion of management of critical risks, adjustments to project implementation plans and of several cross-cutting issues.

Since the inception of STP, PIRs included information on delivery status for each reporting period as well as cumulative progress since the project start. The delivery status and cumulative progress information was given at the level of Outcomes with no information about delivery of the Outputs. Ratings and overall assessments were given by the three parties of the PIR reporting (PMU, UNDP-CO and UNDP\_GEF RTA).

The evaluators found the content of PIRs very informative and particularly detailed in the development progress section. Although the summary text under the ratings and overall assessment section given by the individual reporting parties was found sometimes repetitive, there were also instances where different parties provided more dimensional point of view and

therefore this reporting practice was found useful. As to the ratings, the evaluators took note of systematically lower ratings given by UNDP-GEF RTA in comparison with the ratings given by the two other parties to the PIR reporting.

*Mid-Term Review (MTR):* An independent MTR was planned to be undertaken at the end of the second year of implementation in order to determine progress towards the achievement of outcomes and identify course corrections if needed. MTR planned focus was on the effectiveness, efficiency and timeliness of project implementation, on identification of issues requiring decisions and actions, and on compilation of initial lessons learned about project design, implementation and management.

The planned date of MTR was March 2012 but actually it took place later with the MTR evaluation mission in September 2012. The MTR Report was finalized in February 2013. Findings of MTR were incorporated as recommendations for enhanced implementation during the final period of the project's implementation.

MTR took note of the slow progress and delays directly resulting from political instability and frequent changes of senior officials and other important personnel at the three levels of the Government. Furthermore, MTR concluded that implementation of STP was complicated due to a wide spectrum of Government and non-governmental stakeholders involved and the difficulties in reaching agreements with all of them. It also noted improvements of the changed political climate at the time of MTR that appeared supportive to the Project and implementation of sustainable transport pilots that had been recognized by the new Government as a high priority and as alternatives to mitigate the impact of reduced fuel subsidies as well as to improve urban mobility and environmental quality. MTR also concluded that although STP had adequate fiscal resources to achieve its targets, it was impossible to achieve all planned targets within the original project period, i.e. before December 31, 2013.

MTR made seven recommendations and introduced a number of changes into the STP results framework. They are discussed in the following section on feedback from M&E activities.

*Terminal Evaluation:* The planned date of TE was March 2019, and the activity actually started in April 2019 with the aim to be completed by the project completion date 30 June 2019.

#### **Feedback from M&E activities used for adaptive management**

The discussion under this section is based on observations whether the logical framework was used during implementation as a management and M&E tool and the extent to which follow-up actions, and/or adaptive management were taken in response to monitoring reports (APR/PIRs).

As discussed above, MTR highlighted challenges for implementation of the Project and provided total of 7 recommendations summarized in Table 8 below.

**Table 8:** List of MTR recommendations

<b>MTR Recommendations</b>	
<b>No.</b>	<b>Text</b>
1	The Project should retain its plans to demonstrate segregated bus lanes as a means of facilitating modal shifts from private cars to public transit
2	Improve the design of Output 3.2 by providing segregated lanes and increasing the length of the corridor with transit signal priority (TSP)
3	Continue with work to determine the emission factors for motor vehicles in terms of unit emissions per unit passenger-kilometer traveled
4	Approaches to estimating GHG reductions should align with GEF methods for calculating GHG reductions
5	The Project will require an extension of its terminal date to late-2015 to allow the project sufficient time to achieve its objectives
6	With the aforementioned recommendations, the Project should revise its log-frame targets as its monitoring towards completion of the Project in 2015
7	Improve the dissemination and awareness of Project results

The most important effect of MTR was the request for extension of the Project by two years until the end of 2015 (Recommendation 5) and suggestion to revise the Project logframe targets (Recommendation 6). The Project results framework revision suggested by MTR is provided as Annex 7a to this report.

While the Outputs under Components 1 and 2 remained unchanged, MTR suggested adjustments of the design of Output 3.2 and substantive changes in several Outputs under Components 4 and 5.

MTR suggested to delete the original Output 4.1 that required policy and regulatory changes as well as the original Output 4.4 that envisaged construction and use of intermodal terminal facilities. The MTR Report did not provide justification for the deletion of the two outputs. It appears that MTR found Output 4.1 not achievable since the introduction and approval of legal and regulatory changes for energy efficiency of freight transport would require concurrence with numerous other stakeholders not directly involved in the implementation and therefore would be a lengthy process reaching far beyond the project implementation period. Output 4.4 was found outdated as there was no need for construction and use of two new intermodal terminals (substantive details provided in the section Effectiveness and Efficiency below). MTR suggested to introduce two new outputs, namely a comprehensive review and analysis of national freight transport studies for the last 15 years (new Output 4.1) and reporting on importance of inter-modality in freight transport (new Output 4.4).

MTR also proposed substantive changes under Outcome 5. The results framework for Outcome 5 at the inception phase project inception stage contained total five outputs. Four of them (5.1 and 5.3-5.5) addressed the capacity building for ST while Output (5.2) focused on preparation of a national cross-sectoral ST policy document. The original results framework under Outcome 5 was partially inconsistent with the Outcome 5 definition and the MTR review even increased the level of inconsistency. A new Output 5.1 was introduced for elaboration of emission factors for selected motor vehicles. The definition of the original Output 5.1 that focused on training of key professional groups in sustainable transport was rephrased and the output was re-numbered to 5.2. The original Output 5.2 was re-numbered to 5.3. The original output 5.4 on capacity building of the Greater Cairo Metropolitan Transport Bureau was taken out and replaced with the original Output 5.5. A completely new Output 5.5 was introduced for preparation of the final report on the project. Again, the suggested changes are not substantiated in the MTR Report.

MTR appeared to be a reality check for the Project particularly in the area of freight transport efficiency (Outcome 4) and ST policy formulation and enforcement (Outcome 5). In both areas several original outputs appeared to be unrealistic and new outputs were proposed so that their delivery was fully under control of the Project implementation teams.

It is not clear to what extent the STP results framework was used as a management and M&E tool. The PIRs provided reporting focussed on the outcome level that remained unchanged after MTR hence the delivery of outputs was not fully monitored according to changes proposed by the MTR report.

In summary, the evaluation of STP was carried out in a timely manner according to the original M&E plan. However, the changes suggested at MTR were not properly justified and introduced into the project monitoring report.

Based on the above, the M&E at implementation is rated **Satisfactory (S)**.

#### UNDP and implementing partner implementation / execution

STP had followed the management arrangements presented in the Project Document that were based on a common scheme for project management arrangements under the UNDP National Implementation Modality (NIM).

The National Implementing Partner role had been assigned to EEAA that later signed a MoU with DRTPC to become the Responsible Party assisting the National Implementing Partner with delivery of project results. UNDP Country Office had provided overall programme, administrative, and financial oversight of the project progress in accordance with the common UNDP procedures and tracking tools. The STP management arrangements had been properly established and ensured UNDP's accountability for results and the use of GEF resources, while at the same time they had fostered national ownership of the Project and its alignment to national need and priorities.

The EEAA had duly fulfilled its role of the National Implementing Partner and had provided overall guidance and leadership for soliciting support of key officials at various levels of the Governments as well as raising the STP profile in the country. PMU under the auspices of EEAA in close collaboration with UNDP CO had applied adaptive management approaches during the period 2011-2013 when the project was affected by the unstable political situation in the country.

In addition to assuming the role of the Responsible Party assisting PMU in management of technical issues of STP, DRTPC had also been acting as the principal contractor for numerous assignments under the project such as routing studies and passenger surveys, determination of CO2 emission factors for taxis and personal cars as well as design and organization of training courses. Some of the assignments were quite sizeable.

The selection of DRTPC to oversee the technical issues of STP was quite logical given the prominent role this group had played in the PPG and formulation phases of STP as well as the fact that there had been no such groups in Egypt at the time of STP inception. However, the dual role of DRTPC as the Responsible Party for overall technical quality assurance of the entire STP and at the same time the contractor for several key deliverables of the Project is a potential situation when the interest of the Responsible Party for STP could be unduly influenced by the interest of the contractor to the Project.

## OVERALL RESULTS (ATTAINMENT OF OBJECTIVES)

The information presented in this section has been sourced from numerous project implementation reports and verified with information collected through interviews of key informants during the evaluation field missions to Egypt and various reports of national technical consultants to the project. The list of documents consulted is provided as Annex 5 to this report.

### Relevance

The questions to be discussed under this section are to what extent is the Project linked to national development priorities and how is it in line with GEF and UNDP operational programs and strategic priorities under which the project has been funded?

STP is closely linked to several studies undertaken by the Government of Egypt related to sustainable transport. *The Greater Cairo Urban Transport Master Plan (CREATS)*, funded by JICA, has articulated its vision of sustainable urban transport. The plan elaborates approaches to implementing a safe and environment-friendly transport system that would significantly reduce carbon emissions, offer an economically effective urban transport system, and provide equitable mobility for all transit users. CREATS had provided several recommendations that were elaborated in subsequent studies.

In 2008, the Government has followed-up with preparation of *the Strategic Urban Development Master Plan Study for Sustainable Development of the Greater Cairo Region*, funded by JICA. The study was prepared for the Ministry of Housing and Urban Development (MoHUD) with the aim to formulate a master plan for comprehensive urban development in the GC metropolitan area and develop infrastructure for public transportation while considering impacts on land use and involuntary resettlement.

In 2010, the World Bank funded *the Proposed Cairo Urban Transport Strategy & Priority Program*, prepared for the Ministry of Housing and the World Bank in 2010. This document provided short- and medium-term priorities that included development of public transport systems, traffic management, sustained funding for transport improvements and institutional strengthening.

Since 2015, Egypt is trying to encourage cycling culture in streets and is introducing bike lanes as an attempt to develop a cycling infrastructure. Egypt's President Abdel Fattah Al-Sisi has participated in several cycling marathons in an attempt to encourage Egyptians to use bicycles instead of vehicles.

EEAA has developed a five-year programme for reduction of vehicle emissions and fuel consumption that was updated in 2016. The programme identifies the various dimensions of transport problems, enlists the relevant ongoing programs, and presents three key areas for interventions, namely i) vehicle emission testing and inspection, ii) vehicle scrapping and replacement (targeting old taxis, and to a lesser extent, old minibuses and two-stroke motorcycles, and iii) demonstrational activities in sustainable transport projects.

The National Environmental Action Plan for Egypt (2002-2017) identifies the transport sector as the second most energy-intensive economic sector with a significant and direct impact on the environment and calls for raising efficiency of existing transport networks to attain optimum use and expanding the networks by adding suitable connections to new urban and development areas, thereby bringing about an integrated transport system that can be competitive at regional and global levels under current international agreements.

The importance of the transport sector was further emphasized in the 6<sup>th</sup> Five-Year Plan (2007–2012) that focused on sustainable growth and infrastructure development and called for 15% of total investments in the periods into transportation.

STP also aligns with the National Strategic Plan for Egypt 2052 which has been prepared in response to the global call for states to develop a coordinated approach to urban development with clear national policy directions and frameworks. Accordingly, the National Strategic Plan for Egypt 2052 aims to integrate and align all urban development plans and projects in Egypt towards achieving national urban development objectives.

At the time of STP inception, the Project responded to the priorities of the GEF-3 (2002-2006) Operational Programme No. 11 titled: “Promoting Environmentally Sustainable Transport”. STP addressed the following two out of the total six measures for ground transport emphasized and promoted in OP 11:

- (a) Modal shifts to more efficient and less polluting forms of public and freight transport through measures such as traffic management and avoidance and increased use of cleaner fuels;
- (b) Non-motorized transport

STP also responded to OP 11 call for implementation of activities such as demonstration projects and dissemination of learning and experience for wider application of sustainable transport measures.

STP continued its relevance in the subsequent GEF periods as follows:

Under the Climate Change Focal Area of GEF 4 (2007-2010), STP was linked to Strategic Objective 7 “Facilitate market transformation for sustainable mobility in urban areas leading to reduced GHG emissions”.

Under the Climate Change Focal Area of GEF-5 (2011-2014), STP was associated with Objective 4: “Promote energy efficient low carbon transport and urban systems”.

Under the Climate Change Mitigation Focal Area of GEF-6 (2015-2018), STP was aligned to Programme 3: “Promote integrated low-emission urban systems”.

Furthermore, the Project was in line with the UNDP Country Programme for Egypt 2007-2011, namely with its Outcome 6 that focused on sustainable management of environment and natural resources incorporated into poverty reduction strategies and key national development frameworks and sector strategies.

STP also makes a direct as well as indirect contribution towards achievement of the following Sustainable Development Goals (SDGs):

- a) Ending poverty, hunger and achieving food security (SDG 1 and 2);
- b) Improving road safety (SDG 3);
- c) Improving energy efficiency in the transport sector (SDG 7);
- d) Development of quality, reliable, sustainable and resilient transport infrastructure (SDG 9);
- e) Improvement of urban public transportation system (SDG 11);
- f) Climate impacts on transport and mitigation and adaptation measures (SDG 13);
- g) Collaboration and partnership to develop sustainable transport system (SDG17).

Last but not least, STP aligns with the Ashgabat Statement on Commitments and Policy Recommendations of the Global Sustainable Transport Conference, convened by the UN

Secretary General in Ashgabat, Turkmenistan on 26-27, November, 2016. The Conference called for transport systems to fully fulfil their multiple enabling functions in advancing sustainable development and ensuring availability of safe, universally accessible, reliable, secure, affordable, fuel-efficient, environmentally friendly, low-carbon, and climate-resilient transport services, systems, infrastructure and operations, with due attention to local, national and regional circumstances.

**Based on the above, the relevance of STP is rated Relevant (R).**

### **Effectiveness & Efficiency**

The principal questions to be discussed in this section are whether and how the project outcomes as well as its objective have been achieved and whether the project results have been delivered with the least costly resources possible. The further text will also highlight positive and negative, foreseen and unforeseen changes and effects produced by the project intervention.

In the series of tables below, the project results and achievements have been summarized and compared against the target indicators listed in the project's logical framework. The initial information about the project results/achievements was extracted from the project's PIRs and verified and updated through interviews and meetings held during the evaluation mission to Egypt. Additional information was supplemented from the project-related documentation provided by the project team.

Each table below contains an overview of the actually achieved project results in bullet points followed by a short narrative with additional insight and details on how and how the results have been achieved. At the end, the narrative also explains the basis for rating of each project outcomes. The text following each table summarizes some important facts related to the project results that could not be captured in the tables but were considered important for the argumentation of the rating of the outcomes.

Table 9 lists the indicator targets for the individual outputs, summarizes the delivery status at the Terminal Evaluation and provides rating for the outputs delivery.

**Table 9: Deliverables for Outcome 1**

<b>Outcome 1: The concept for new, integrated high quality public transport services (to exert shift from private cars) for Cairo and its satellite cities successfully introduced and replicated on the basis of public-private partnerships.</b>			
<b>Output</b>	<b>Indicator Targets</b>	<b>Delivery Status at TE</b>	<b>Rating</b>
1.1: The public bidding and negotiations for the new service finalized	Concluded tender and signed contracts	Two international and two local tenders completed for the new service	HS
1.2: New, high quality public transport service for connecting Cairo and the city of 6 <sup>th</sup> October, Sheikh Zaid and Dreamland City successfully in operation attracting current or potential future private car users, together with the improvement of the internal public transport service within the 6 <sup>th</sup> of October.	More than 6,000 passengers per day using the new services between Cairo and the city of 6 <sup>th</sup> October More than 2,500 passengers per day using the new service within the city of 6 <sup>th</sup> October The new services continue to operate on a financially sustainable basis.	Routing studies for seven new high-quality bus service lines conducted and approved by local authorities Allocation and conceptual and functional design of bus stops along the bus lines routes Functional design of bus end stations and garage depots Training programme on BMS operators developed Preparation of tender documents Despite this progress, the high-quality bus service was not in operation at the time of the evaluation mission (see details in the text below the table)	MS
1.3: The feeder bus lines serving two metro stations in Cairo successfully in operation with integrated fare policy and ticketing, attracting current or potential future private car users.	More than 5,000 passengers per day using the new services. The new services continue to operate on a financially sustainable basis.	Study on feeder bus lines serving Saraya El Koba and Maadi Metro stations completed and presented to Cairo Governorate. Despite this progress, the feeder bus lines were not in operation at the time of the evaluation mission (see details in the text below the table)	MU
1.4: The results and experiences of the first-year operation of the new services documented disseminated and discussed with the key decision makers (including the achieved GHG emission reductions).	Report finalized, presented to and discussed with the key stakeholders.	No results and experiences available as the new services have not been operational yet.	U
1.5: Subject to the success with the first pilot projects, the supporting studies and stakeholder consultations for the replication of the concepts including, if feasible, Bus Rapid Transit (BRT)	Supporting studies for selected replications of the concepts for additional satellite cities around Cairo, including the consideration of a BRT scheme, if feasible (for Output 1.2), and for selected existing and new metro stations in Cairo (for Output 1.3)	Network of high-quality bus lines operated by Mwasalat Misr (see details in the text below)	HS

**Output 1.1:** A protocol for implementing the pilot project for connecting Greater Cairo with its satellite cities (6<sup>th</sup> October, Sheikh Zayed, and Dreamland Cities) with integrated, high-quality public transportation was signed between the Ministry of Transport, Ministry of Housing and New Urban Communities, Ministry of Environment, and Giza Governorate in April 2013. The contract of the Delegation of Authority from Giza Governorate to the New Urban Communities Authority (NUCA) under the Ministry of Housing for bidding, operating and monitoring the new bus lines was signed by both parties in July 2014.

International tender for implementing the pilot project was launched by NUCA in December 2014. Although seven companies purchased the tender documents, no proposals were received. After intensive consultations between the key project stakeholders, the NUCA's Board of Directors, chaired by the Minister of Housing and including six other Ministers approved pilot and incentive packages to private sector that were integrated into the tendering documents. The tender was re-launched in August 2015 by NUCA. One proposal was received from Mwasalat Misr, an Egyptian-Emirates joint-venture company. After technical and commercial evaluation conducted by the project experts in cooperation with NUCA, the proposal was accepted.



NUCA issued an Assignment Order for the Joint Venture in June 2016 and signed a contract with them in May 2017. The contract duration is 15 years plus one year for test operation.

The project Technical Consultant (DRTPC) in cooperation with Mwsalat Misr prepared the specifications and tender documents for an integrated intelligent transportation system for the new bus lines that included three sub-systems, 1) Automatic Fare Collection System, 2) Bus Management System, and 3) Depot Management Systems.

An international tender was launched for the supply, installation, operation and maintenance of that system. Three proposals were received and EEAA established a technical committee with the membership of NUCA, PMU and DRTPC for conducting technical and commercial evaluation. The technical committee selected the bid submitted by the consortium between Ayahtech (UAE) and Amco (Greece) as the best offer and PMU signed a contract with the winner in October 2017. At the time of the evaluation mission, the system was already delivered, inspected by the technical committee and handed over to NUCA. Moreover, DRTPC elaborated a 5-day training programme for BMS operators. The implementation of the training programme is scheduled shortly before the commissioning of the new lines in order to maximize the impact of the training.

The STP technical committee also reviewed technical specifications for the new buses that had been proposed by the Bus Operator and approved selection of the type of the new buses (Mercedes). The Bus Operator placed an order for procuring 40 buses.

DRTPC prepared the design, specifications and tender documents for the construction of total 76 bus stops along the new bus routes. PMU issued a local tender for manufacturing and installation of the metallic body of the bus stops and conducted technical and commercial evaluation of offers. The winner was contracted in November 2017. At the time of the evaluation mission, manufacturing and supply of the bus stops were already completed and delivered to the 6<sup>th</sup> October City and Sheikh Zayed City authorities. At the time of the evaluation mission, the parts for construction of all bus stops were stored in NUCA warehouses. In parallel, NUCA launched a local tender for construction of concrete foundations for the bus stops and subsequently contracted the winner of the tender. Under supervision of DRTPC, the contractor later completed construction of all bus stop foundations. Some stop foundations in the Sheikh Zayed City were inspected by the evaluation team during the evaluation mission. The erection of the bus stops is scheduled shortly before the start of the new lines' operation.

DRTPC prepared the design, technical specifications as well as tender documents for the construction of one bus terminal and one garage depot in both the 6<sup>th</sup> October and Sheikh Zayed Cities. NUCA issued a local tender for construction of the two bus terminals and two garage depots and contracted a local company as the winner of the tender. The local authorities leased the necessary land for the terminals and garage depots. The evaluation team inspected the on-going construction of the terminal and the garage depot in the Skeikh Zayed City.

**Output 1.2:** In 2012-2013, DRTPC conducted routing studies and bus ridership surveys for a total of seven new bus lines in the 6<sup>th</sup> October, Sheikh Zayed and Dreamland cities taking into consideration all necessary features of a high-quality bus service and targeting upper-middle and high-income population segments of the new cities. The suggested transit designs of the new lines link selected residential areas of the target beneficiaries with major attractions (e.g. shopping malls) and university facilities in order to ensure sufficient bus ridership for the new lines. The transit designs were discussed with and approved by the relevant local authorities in the new cities. Following the successful conduct of public tendering under the previous output the new lines in the 6<sup>th</sup> October and Sheikh Zayed cities are prepared for commissioning pending completion of the construction works on the bus terminals, garage depots and bus stops.

**Output 1.3:** In 2012, DRTPC completed a study on five feeder bus line designs serving Saraya El Koba and Maadi Metro stations and presented the designs to the Traffic Engineering and Planning Department of the Cairo Governorate. The Governorate delayed the decision about the progress towards commissioning was hampered by an unresolved question of regulatory mandate and authority between the central and local governments and was put on hold by the Cairo Governorate until the new Agency for Regulating Urban Transport in Greater Cairo, established under the Ministry of Transport, becomes operational. The core of the regulatory question is that the mandate of the new agency in relation to the mandate of the Cairo Transit Authority (CTA) has not yet been specified and announced. This situation was persisting for a number of years and was unchanged at the time of the evaluation mission.

**Output 1.4:** Since none of the bus services envisaged under the Outputs 1.2 and 1.3 did not materialize, the work towards delivery of this output has not started yet. As to the actual GHG emission reductions, no work has been conducted as there are no data of bus ridership related to the new bus lines.

**Output 1.5:** Since STP inception, Ministries of Local Development, Transport, and Housing have reportedly been very supportive of the concept and objectives of the pilot project for connecting the new cities with Greater Cairo via high-quality public transportation bus services integrated with the metro lines, and were included plans for replication of this approach on a larger scale, potentially in 8 new cities around Greater Cairo and total of 34 new cities across Egypt.

The replication of the high-quality bus service was actually initialized independently from STP by the company Mwasalat Misr that had been created during the tendering process for the STP pilot on high-quality bus service. In 2016, the company participated in another tender with the Cairo Transportation Authority (CTA). Mwasalat Misr handed the tendering documents of the bus services of the STP pilot to Cairo Transport Authority General Director and to Cairo Governor as proper example of how tendering buses should be done. CTA issued a contract for Mwasalt Misr to operate a network of bus lines in Cairo. In 2018, Mwasalat Misr won another tender and was awarded a contract with the New Urban Communities Authority (NUCA) to operate feeder bus lines in 6 new cities around Cairo.

**Outcome Assessment:** Outcome 1 has been undisputedly the most complicated of the five substantive STP components for a number of reasons.

Through the pilot projects, STP aimed at fundamental change in transport culture and key transport behaviour of the population. This can't be accomplished overnight considering the long-term habitual tradition of car use for transport between major points of occupation, residence and interest.

The nature of planned activities under this project component effectively made it an investment sub-project but with a number of challenges that had to be overcome during its implementation and collectively contributed to slow progress and/or insufficient delivery under its outputs.

Although DRTPC as the national technical consulting body had previous working experience with more than 100 transport-related projects, due to departures of some specialized advisors DRTPC did not have sufficient capacities in transport engineering and planning.

The international procurement (tendering) events under Outcome 1 were new to the participating national implementing partners and several legal and/or regulatory issues had to be resolved. This was particularly valid for the tendering of the bus service operation that required provision of legal advice to NUCA regarding compliance with the national Public Contracts Law 89/1998 on several aspects of this tendering. The legal advice on this tender was necessary in relation to issues such as public service contracting in contrast with the traditional

contracting of construction works (including clarification on exit scenario for the service providers), awarding long-term public service contracts (15 years in this case to ensure the contractor gets acceptable rate of return on the investment), contract award criteria based on e.g. bus ticket price bidding instead of total contract value, and avoidance of bid bonds in public service contracts<sup>11</sup>.

Last but not least, numerous changes at the senior level of the participating ministries forced DRTPC to re-negotiate previously agreed parts of the Outcome with newly appointed senior officials of the central and local governments. According to the DRTPC records, they had to interact with 26 ministries, 36 governors and 161 other senior officials in order to explain the project concept and philosophy and secure commitment and support of the representatives of various kinds of governments. The unusually high number of state and self-government officials to be consulted was to some extent resulting from the high turnover of senior government officials during the politically instable situation in the years 2011-2013.

Despite the above challenges and slow progress in delivery, the elaboration of the pilot projects has had several unique features and achievements worth of mentioning.

Component 1 of STP addresses the issue of Shift/Maintain of the ASI framework through a) providing accessibility, b) providing connectivity, and c) providing comfort (both during travel as well as while waiting for the bus). For the first time in Egypt, STP proposed a decent transport alternative to the current unsustainable transport patterns through delivery of a high-quality public urban transport service by a private operator under supervision of the city government.

The service to be delivered is based on a smart bus equipped with a modern bus management system and an incentive parking (“park-and-ride”) facilities to allow commuters and other people heading to the city centre to leave their vehicles and transfer to the bus lines for the remainder of the journey, making thus the new bus service attractive to current car users. As part of the system, an integrated smart electronic transportation management system for the new bus lines, that includes three sub-systems: Automatic Fare Collection System, Bus Management System, and Depot Management Systems. The incorporation of these modern systems to improve the services is another incentive to make it attractive for high income citizens to opt for travelling in the high-quality buses instead of using their private cars.

In order to ensure generation of enough revenue for the private transport service operator and avoid public subsidies, the project elaborated a mechanism of affordable fare increase and additional “out-of-the-box” revenue generation e.g. through bus terminal concession agreements and bus stops advertisement.

Through implementation of this component, the project has built capacities of the local technical consultants as all the technical work of DRTPC had in the end been verified by international technical experts recruited and paid by the project. The success of preparation of the tendering documents was proven when by the bus operator awarded with the contract for the 6<sup>th</sup> October city won another contract with the Cairo Governorate to replicate the same service considered as a spin-off effect of the GEF project.

Beyond any doubt, STP has had a catalytic effect on development and expansion of the high-quality bus networks operated by Mwasalat Misr. As a matter of fact, the endeavors of the latter bus operator are true replications of the STP pilot project that have actually started while the

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<sup>11</sup> Bid bond in traditional construction contracts means requires certain percentage of the contract value to be deposited by the contractor until the end of the contract period.

pilot is not yet operational due to the slow progress of construction works of bus terminals and garage depots in Sheikh Zayed and 6<sup>th</sup> October cities.

**Based on the above, the overall achievement of Outcome 1 is rated Satisfactory (S).**

**Table 10:** Deliverables for Outcome 2

<b>Outcome 2: The modal share of non-motorized transport in middle size provincial cities increased or sustained.</b>			
<b>Output</b>	<b>Indicator Targets</b>	<b>Delivery Status at TE</b>	<b>Rating</b>
2.1: Final design of new NMT corridors in Fayoum and Shebin El-Kom	The final design reports approved by the key stakeholders for implementation and financing.	Urban survey studies in Shebin El-Kom and Fayoum cities completed Protocols for implementing the pilot projects for constructing non-motorized transport corridors for walking and cycling in Shebin El-Kom and Fayoum cities signed Designs and tender documents prepared and approved by the respective local authorities	HS
2.2: Construction of a new 13,6 km NMT corridor in Fayoum City	Construction of 11 km new bicycle lanes and improvement of the sidewalks in Fayoum finalized	Construction of about 14 km sidewalks and bicycle lanes in Fayoum City completed About 118 bicycle parking racks fixed at various locations in Fayoum	HS
2.3: Construction of a new 6,5 km NMT corridor in Shebin El-Kom	Construction of 12 km new bicycle lanes and improvement of the sidewalks in Shebin El-Kom finalized	Construction of about 14 km sidewalks and bicycle lanes in Shebin El-Kom completed About 271 bicycle parking racks fixed at various locations in Shebin El-Kom	HS
2.4: In co-operation with the local stakeholders, facilitate the establishment and training of the staff of local bicycle manufacturing, selling and repair shops,	Fayoum and Shebin El-Kom implemented and established bicycle rental, sale and repair services with trained staff, which continue to work on a commercial basis	Revolving funds for bicycle purchase established Participants trained in bicycle maintenance and repair Awareness seminars, workshops organized Local cycling groups established and promotional events A protocol for implementation of a bike-sharing scheme in Fayoum City signed Contract for supply, installation, operation and maintenance of the bike-share system awarded	HS
2.5: The use of the new NMT corridors monitored and the results and experiences documented and disseminated (including the achieved GHG emission reductions)	Report finalized		U
2.6: Subject to the success with the first pilot NMT corridors, the supporting studies and stakeholder consultations for the replication of NMT corridors in other middle-size cities finalized.	Subject to the success with the first pilot corridors, finalized stakeholder consultations and agreements with the local governments for extension and/or replication of the NMT corridors in 27 cities finalized		U

**Output 2.1:** DRTPC conducted urban surveys including detailed sidewalk inventories in Shebin El-Kom and Fayoum cities during fall 2010. Based on the inventories, DRTPC prepared three sidewalk upgrade scenarios including cost estimates for consideration of the local authorities. The scenario of only upgrading damaged sidewalks to the level of adjacent good sections was finally chosen with the cost estimated at around 8 million EGP in each of the two cities.

Protocols for implementing two pilot projects for constructing non-motorized transport corridors for walking and cycling in the two cities were signed between the Ministry of Environment and the Menofia and Fayoum Governorates in April 2014 and September 2014, respectively. In order to ensure local ownership, there was a condition of 50% contribution of each of the two Governorates.

For developing and upgrading the infrastructure and the utilities in the network of roads in the pilot project, Menofia Governorate agreed to contribute with more than 20 million EGP against

4.5 million provided from the project budget and exceeded the 50% requested cost-sharing condition.

As the Fayoum Governorate could not make the cost-sharing contribution, the project made considerable efforts to mobilize co-funding for the pilot implementation through approaching the Social Fund for Development (SFD) and leveraged financial assistance of 2.6 million EGP from SFD against 4.75 million EGP from STP.

**Outputs 2.2 and 2.3:** DRTPC prepared all designs and tender documents as well as local tenders for sidewalk upgrades and bicycle lane construction works were launched by the two respective Housing Departments. The winning company was contracted in late 2014. Moreover, DRTPC prepared design and tendering documents for bicycle parking racks and local tenders were also completed. Construction activities contracted under the two tenders were completed, and total 271 bicycle parking racks for up to 2,015 bicycles were fixed in various locations in Shebin El-Kom City and the Menofia University and total 118 bicycle racks for up to 350 bicycles in various locations in Fayoum City and its university.

**Output 2.4:** In order to make purchase of bicycles more affordable to the target beneficiaries in the two cities (secondary school and university students, workers), the project liaised with the GEF Small Grants Programme (SGP) in Egypt and local NGOs (two NGOs from Menofia and two from Fayoum). The four NGOs signed Memorandums of Agreement with GEF SGP for a total of approximately 200,000 US\$ in SGP grants on implementation of awareness campaigns, establishment of amateur cycling groups and organization of occasional bike rides. The partner NGOs in Shebin El-Kom and Fayoum, through the GEF-SGP grants and the full support of STP, have established a new financial service through which they offered local youth a simple installment scheme, allowing them to own bicycles right away and pay in monthly installments at a zero percent interest rate. According to the latest report, about 514 persons bought bicycles from the NGOs in Shebin El-Kom and 494 persons bought bicycles from Fayoum's NGOs.

Public awareness (information dissemination, awareness-raising workshops, on-line advertising, etc.) was also part of STP promotional campaign and a variety of media (video, print media, internet and social media print/internet) were used to reach the target audiences, in particular students in secondary schools and universities. Students have the highest potential to instigate the behavioral change in favor of cycling through the personal example and capability to convince the adults in their families and their local environments.

The project organized 15 awareness seminars and workshops in Shebin El-Kom and 12 awareness seminars in Fayoum and thus addressed about 2,000 secondary school and university students in Monofeya and about 1,000 students in Fayoum and encouraged them to transfer into cycling. Furthermore, more than 1,000 riders participated in about 20 cycling rides organized in Shebin El-Kom and about 600 riders in Fayoum in cooperation with the partner NGOs. In order to build the students' confidence in cycling, the awareness seminars included bicycle maintenance and repair sessions, where students were given the opportunity to learn from cycling experts how to fix their bikes, allowing them to expand their capabilities and become more comfortable with cycling in general.

One public awareness tool worth of special attention was the info-graphic video that the project produced in order to help encourage people to shift from cars to bicycles to reduce congestion, air pollution and CO2 emissions as well as improve their health. The video was screened in all awareness seminars and posted on the project and the EEAA facebook pages. It is also embedded on the STP website. It was also played on a street advertising screen in Shebin El-Kom from June 2016 to March 2017.

More recently, the project in coordination with UN Habitat initiated a study for a pilot bike sharing scheme in the 2 cities. The study determined the potential locations at the entrances of the cities to serve as parking areas for the outsiders, where they could park their vehicles and take other means of transport for reaching their destination in city center. The 1st phase of this pilot is mainly to serve the university students coming from outside city center and moving between the different university faculties but ultimately is expected to serve also in-coming car riders as they will be able to park their vehicles and take the NMT means of transport for continuation of their travel to destinations in city center.

**Outputs 2.5 and 2.6:** No work was conducted under these outputs.

**Not in the STP logframe:** In August 2017, a Protocol for implementation of a new bike-sharing pilot project was signed between EEAA, the Fayoum Governorate and the Fayoum University and STP launched a local tender for a bike-sharing scheme in Fayoum City. The best bidder (the Baddel Company) was awarded a contract for supply, installation, operation and maintenance of the bike-sharing scheme.

The scheme will include 100 bicycles and 12 terminal points (6 in the University, 4 in the city and 2 near the bus stations). The scheme was not yet operational at the time of the evaluation mission. Due to the shortage of project funds and upcoming completion of STP, the duration of the contract had to be reduced from 12 to 6 months initial period and after STP closure it will be handed over to the Fayoum University. STP negotiated assistance of GEF/SGP Programme in Egypt in order to continue support of participation of local NGOs the initiative once STP is completed. Although many warrants are still requested by the University, it will be an example to follow, and the University should be urged to make the effort to encourage other Universities to replicate.

**Outcome Assessment:** The Project has been instrumental in shifting the transport behavior in the two cities in favor of non-motorized transport. The STP overarching message in the two universities of Fayoum and Menofia was to create a cycling culture among students. The establishment of the pilot NMT corridors has proven to be an urban development initiative that supports the required behavioral change that was confirmed by interviews to several beneficiaries. This can be illustrated by the responses of one of the beneficiaries who had been using a motorcycle until the Project intervened. He completely switched to using the bicycle that he had obtained through the revolving fund scheme since he considers it as a desirable physical activity reducing the traffic congestions and being environmentally friendly at the same time.

STP also assisted the Menofia and Fayoum governates to reduce traffic in centre of city by identifying potential parking sites in the entrance of the cities where they can park their cars and use NMT to reach their destinations within the cities.

The active and dynamic involvement and participation of local NGOs played a vital role in the successful projection of NMT as a health and sustainable transport alternative.

NGOs Involved in Menofia

- The “Takwa” Association
- The Egyptian Association for the Advancement of Women and Children

NGOs Involved in Fayoum

- The Arab Association for Human Development and Community Services.
- The Environment Protection Association

The role of the NGOs was crucial to contravene the public perception about the status of walking and cycling being a transportation mode suitable only for the poor. Additionally, the

encouraging participation of women in these programs helped in reducing the gender bias in the usage of bicycles as a mode of transport.

Furthermore, the evaluator's visit to Fayoum confirmed that there is a very good chance that the NMT pilot initiative will be sustained well beyond STP completion and potentially even expanded. The NGO that operates the revolving fund reported that it has established a bicycle exhibition room in the city and currently has a waiting list of about 30 individuals interested to participate in the scheme. During the meeting with the NGO one beneficiary came to pay his monthly installment payment and reported that the bicycle he had obtained through the revolving fund scheme has been used not only by him but also by other members of his family.

The meeting at the Fayoum University proved not only the continued interest of the University management in the bike-sharing system, but also revealed an important gender aspect of this component that was probably not fully anticipated at the project inception stage. Female students of the University requested one docking station for the bicycles to be installed next to the dormitory for female students. The vice-dean of the University expressed his expectation that the bike-sharing scheme will reduce hardship female students experience when they suffer from longer waiting times to find a suitable free seat on the public minibuses.

The visit of Fayoum also confirmed that while the sidewalks remain in a good shape three years after the upgrade works, the marked and segregated bicycle lanes will require repainting.

**Based on the above, the overall achievement of the Outcome 2 is rated Highly Satisfactory (HS).**

**Table 10: Deliverables for Outcome 3**

<b>Outcome 3: Successful introduction of the Transport Demand Management (TDM) concept with an objective to expand it towards more aggressive measures over time to effectively discourage the use of private cars, when good quality public transport services are available.</b>			
<b>Output</b>	<b>Indicator Targets</b>	<b>Delivery Status at TE</b>	<b>Rating</b>
3.1: Finalized design and implementation arrangements for all the planned TDM measures	The final design reports approved by the key stakeholders for implementation and financing	See details below	N.A.
3.2: Supporting TDM measures such as parking measures and, if applicable, segregated bus lanes implemented for increasing the attractiveness of the public transport components under outcome 1	<p>With component 1 corresponding parking policy and other measures to encourage the current or expected future private car users to use the new public transport services</p> <p>Whenever physically feasible, introducing the right of way (separate bus lines) for the busses and more controlled passenger pick up and release by the shared taxis, if using the same bus line, to improve the traffic flow and attractiveness of the public transport in terms of its speed.</p> <p>Successful implementation of the mobile phone pilot involving two alternative corridors in Nasr City (Moustafa El Nahas corridor on which the TSP pilot of output 3.3 will be applied and Zaker Hossein corridor) and two alternative corridors that link 6th Oct., Dreamland and/or Sheikh Zayed new cities with Giza in which the new bus lines of output 1.2 will be running.</p> <p>Proposals for implementing of five pairs of alternative corridors in Greater Cairo, five in Alexandria and on along 14 traffic corridors (36 strategic street segments) in Greater Cairo, completed, presented and negotiated with the stakeholders by the end of the Project</p> <p>Reported and confirmed satisfaction of the key decision makers on the effectiveness of the measures promoted.</p>	“Park-and-ride” business model elaborated and prepared for implementation under Output 1.2	MS
3.3: A comprehensive transport management approach for one pilot corridor introduced, including a public transportation priority system at traffic signals and pedestrianization of selected sections of the corridor.	<p>Successful finalization and effective enforcement of the suggested pilot initiative.</p> <p>Reported and confirmed satisfaction of the key decision makers on the effectiveness of the measures promoted</p>	<p>Survey works and preliminary design for a bus priority system at traffic signals in Moustafa El Nahas Corridor</p> <p>RFP for international companies to provide design, supply, installation and maintenance of the system</p>	MU
3.4: Establishing of at least one new pilot micro-pedestrian area in Greater Cairo area and initiating 10 new micro-pedestrian areas in other strategic locations of Cairo, Giza and Alexandria	<p>The construction of the pilot micro-pedestrian area finalized and the area taken into use</p> <p>Proposals for the establishment of at least 10 new pedestrian areas in strategic locations of Cairo, Giza and Alexandria completed, presented and negotiated with the local authorities by the end of the Project</p> <p>On the basis of the above, agreement of the local government to replicate at least 10 new micro-pedestrian areas</p>	<p>Proposal of two sites suitable for establishment of the micro-pedestrian zones in down town Cairo</p> <p>Preliminary design and implementation plan elaborated and presented to Cairo Governor</p>	N.A.
3.5: Improve the service provided by parking garages surrounding Cairo city centre with Variable Message (Parking) Signs (VMS) and free shuttle service to the city centre and/or closest metro station	<p>8 Variable Message Signs guiding parking outside the city center and the free shuttle service in operation.</p> <p>Reported and confirmed satisfaction of the key decision makers on the effectiveness of the measures promoted</p>		HS
3.6: The results and experiences of the first-year operation of the TDM measures documented, disseminated and discussed with the key stakeholders (including the achieved GHG emission reductions)	Report finalized, presented to and discussed with the key stakeholders	No documents of the results	U
3.7: Subject to the success with the first pilot TDM measures, the supporting studies and stakeholder consultations for the replication finalized	The policy dialogue for the expansion of the tested TDM approaches initiated with a gradual movement towards more comprehensive TDM approach for Greater Cairo area and, as applicable, Alexandria	No studies conducted	U

**Output 3.1:** Formulation of this output is too general and inconsistent with the project logframe.



**Output 3.2:** DRTPC elaborated a “park-and-ride” business model and prepared for implementation at the newly constructed bus terminals in Sheikh Zayed and 6<sup>th</sup> October cities. The pilots on alternative corridors in different cities could not be implemented due to lack of interest of the respective local regulatory activities.

**Output 3.3:** The aim of this pilot was to complement modernizing the existing tram service on segregated lines with a bus priority system at Moustafa El-Nahas major arterial line in Cairo. STP conducted survey works and prepared a design outline for the bus priority system at traffic signals in Moustafa El Nahas corridor as well as RFP for international companies to provide detailed design, supply, installation and maintenance of the system. Although the Cairo Governorate was initially supportive to this pilot, later they changed their mind as they abandoned the tram service and wanted to use the tram segregated line for buses. Therefore, the Cairo Governorate did not provide an official approval to the Egyptian Environmental Affairs Agency (EEAA) to proceed with tendering for this pilot project.

**Output 3.4:** Under this sub-component, DRTPC identified two sites suitable for establishment of the micro-pedestrian zones in down town Cairo. In order to convince the authorities, residents and local business owners, a preliminary design and implementation plan were elaborated and presented to the Cairo Governor. Despite the initial support by the latter, this pilot did not go through due to lack of agreement on the implementation plan from the side of the Transport Department of CG and therefore work had to be cancelled.

**Output 3.5:** DRTPC conducted survey of available parking garages in Cairo. A Protocol for implementing the TDM pilot project for introducing Variable Message Parking Signs (VMS) to guide cars to the appropriate parking facilities around the City Centre in Cairo was signed between Ministry of Environment and Cairo Governorate in January 2014. (14 signs connected with 10 parking areas).

All designs and tender documents have been prepared by the project and approved by the local authorities. The project issued an international tender for implementing the pilot, several proposals were received and evaluated. A consortium of Italian / Egyptian companies won the tender and has been contracted. VMS components have been manufactured in Italy. Factory Acceptance Test (FAT) of the different components of the VMS system was conducted in Italy in December 2014 and the Site Acceptance Test (SAT) was conducted in Cairo after installation of the system in May 2015.

The Variable Message Signs (VMS) were positioned at 14 carefully selected key location points on entry routes to the Cairo Central Business District directing to 10 major off-street parking facilities (mainly underground and multistory facilities and two large parking lots). Each VMS is linked to three or four parking facilities that are in the close vicinity of the sign location post. The entry and exit points of each parking facility are fitted with vehicle sensors that transmit timely information on parking space availability in the facility to the Operation Control Center (OCC), which will in turn transmit this data to the VMS to provide drivers with information about parking availability in the parking facilities in the close domain ahead.

Cairo Governorate has provided and furnished a room for OCC in order to ensure operational monitoring and surveillance of the VMS system. The pilot implementation was completed and soft opening / commissioning of the VMS system by the Prime Minister, Ministry of Environment, Cairo Governor and UNDP took place on 23 May 2015. The inauguration of the system was followed by a 5-months fine tuning and testing period.

Cairo Governorate has provided technicians for the operation of the VMS system, and they have been trained by the consortium of the Italian / Egyptian companies. The training was performed on operating VMS in the period 15 to 18 February 2016 for five engineers of the

OCC room and other five from the Cairo Traffic Engineering Bureau. The system was handed over by the Ministry of Environment to Cairo Governorate, and it has been operated by the Governorate since then. The VMS has been integrated with the traffic monitoring and control system in Cairo City Center.

The consortium of the companies that implemented this pilot continues to provide the technical support requested by the Cairo Governorate for the operation of the VMS system, and conduct the repairs and preventative maintenance for 5 years after installation.

**Outputs 3.6 and 3.7:** No reports were produced.

The VMS system of the current Pilot is designed to allow expansion to serve other parking facilities in Cairo and any other city in the country upon installation of sensors and electrical cabinets are installed in the new parking facilities and of VMS sign posts in the related new locations. The current system also allows operation and control of the new VMSs from the existing OCC room without the need to have separate additional OCC rooms.

After the success of the STP pilot, similar VMSs for off-street parking facilities were installed at the entrances to the premises of the Egyptian Shooting Sports Club (owner of 4 parking lots) and another replication of the same VMS has been implemented to display traffic information on one of the major freeways in Egypt. Moreover, VMS sign posts have been installed and operated after the STP pilot to inform about parking space availability at the entrances of the Dream Pegasus Club and the Mall of Egypt shopping center. However, the latter two applications are less sophisticated than the STP pilot because they inform only about free parking spaces in the parking garages but not about directions how to reach them.

No reports planned under these two outputs were produced.

**Summary assessment:** Several outputs under this Component could not be implemented due to lack of interest of the responsible local authorities. The only tangible result is the successful design and operation of the VMS parking system that was introduced for the first time in Egypt. The system could be easily expanded to accommodate new signs and new applications.

Through implementation of this pilot, STP raised awareness of the Cairo Governorate stakeholders of its importance and following the successful operation it enabled the Governorate to issue a ban of on-street parking in the Central Business District for the first time ever. Therefore, this STP pilot achieved the goal of the original Output 3.5 that had called for design of a parking policy in Cairo CBD that allows full utilization of the off-street parking facilities and imposing gradual ban of on-street parking in the CBD.

The on-street parking ban in CBD would not be possible without this STP pilot. The successive Governors after 2009 were reluctant to go for such aggressive policy measure out of concerns related to many reasons, particularly problems of metered on-street parking facilities that had failed many times before due to insufficient maintenance and lack of spare parts.

The success of the STP pilot is an example of another public-private partnership since the pilot was implemented in cooperation of the Governorate with private owners of the parking facilities. Following the commissioning and operation of the VMS pilot, the participating private parking garage owners reported increased revenues. Therefore, further extensions and/or replications of the STP pilot can be achieved by dissemination of information not only about the pilot VMS system and its merits but also about how it helped to increase revenues from the off-street parking facilities in the CBD in order to use the leveraging power of the private operators.

**Based on the above findings, the overall achievement of the Outcome 3 is rated Moderately Satisfactory (MS).**

**Table 11: Deliverables for Outcome 4**

<b>Outcome 4: Improved energy efficiency of freight transport</b>			
<b>Output</b>	<b>OVI Targets</b>	<b>Delivery Status at TE</b>	<b>Rating</b>
4.1. Extracted recommendations related to truck freight transport improvements based on comprehensive review of national transport studies in the past 15 years and estimation of urban fuel energy	The recommended legal and regulatory changes and incentives for improving the urban freight transport are approved by the local authorities Extracted recommendations related to truck freight transport from the national studies from the past 15 years Report on classification of recommendations on truck freight transport in previous studies submitted to MoT Report on the estimation of the truck energy consumption and GHG emissions and air pollution in urban areas of Egypt	Study "Updating the Situation Analysis and Policy Recommendations for Energy Efficient Urban Transport Freight Transport (2012) Report on the Spotted Recommendations on National Freight Transport in Previous Transport Studies' Reports in 2000-2012 (2012) Report on the estimation of the truck energy consumption and GHG emissions and air pollution in urban areas of Egypt completed (2018)	S
4.2. A new integrated environmental and technical inspection station for vehicles in operation with trained staff to address also the energy efficiency aspects	A new integrated environmental and technical inspection station for vehicles in operation with trained staff to address also the energy efficiency aspects	Preparatory work for solicitation of international expertise in design of tender documents for construction and operation of the inspection centers	N.A.
4.3. Improved energy efficiency of trucks and reduced number of driven kilometers as a result of improved logistics of truck operations in urban areas	Efficient truck freight transport management improved and related pilot successfully implemented	No delivery	U
4.4. Report on importance of inter-modality in freight transport	Report on the importance of intermodal freight transport completed	General Literature Review on the Freight Transport Inter-Modal Terminals (2012)	MS

The logical framework for Outcome 4 was substantially modified at the MTR stage when changes had been made to its all four Outputs. The reason for such broad revision was not explained in the MTR report. Most probably, MTR realized that the original sub-components of the Outcome 4 were overambitious and thus not attainable, so the revision aimed at making the delivery under this outcome more realistic. As a result, two of the modified outputs (4.1 and 4.4) required only preparation of studies related to the freight transport topic. Moreover, the revision of the outputs was not consistent with the logframe structure as identical text was inserted for description of the new outputs as well as for the target indicators (Outputs 4.2 and 4.4).

**Output 4.1:** As pointed out above, the overambitious original output on adoption of legal and regulatory changes and incentives was replaced by a more realistic new output. DRTPC prepared a report on recommendations (excluding those relating to infrastructure) in previous transport studies from 2000-2012 to improve national freight transport on road, rail and river and submitted to the Minister of Transport for further discussion on sustainable transport priority measures that can be supported by EEAA. The essence of the report was a typological analysis of recommendations from 16 different studies on freight transport produced during the focus period. It was for the first time such analysis was conducted and submitted to the Ministry of Transport with the aim to raise awareness on the importance of the previous studies' full use. There was no response from the Ministry hence it can't be concluded whether any positive change was achieved as a result of this effort.

Another group of national experts from the Cairo University conducted a study on estimation of the truck energy consumption, GHG emissions and air pollution in urban areas of Egypt and submitted a concise report in October 2018.

**Output 4.2:** STP with support of EEAA liaised with the Ministry of Interior for implementation of a pilot project for licenses to specialized private sector companies to establish integrated centers for vehicles' technical and environmental inspection and issuing / renewing licenses of these vehicles. A committee from the two parties and conducted preparatory work for solicitation of international expertise in design of tender documents for construction and operation of the inspection centers. Reportedly, the Ministry decided to implement this pilot independently from STP with its own resources.

**Output 4.3:** There was no delivery under this output.

**Output 4.4:** As explained above, the original output for enhancing the capacity of the management and envisaged users of the planned two new intermodal terminal facilities was replaced by a more modest output. In 2012, DRTPC completed a study "Investigation of Truck Inter-modal Terminal Candidate for Improvement in Selected Urban Areas" with the aim to verify the existing situation of truck inter-modal terminals and propose suitable locations for a freight inter-modal terminal facility equipped with modern information technologies. The reason for this work was the existence of an informal inter-modal terminal on vacant land in a residential area in Nasr City and the frequent loading/unloading caused daily street congestions and delays in the area. Since the Government solved the problem through construction of a new inter-modal freight terminal in Badr City, no further work was conducted on this output. However, the fact that the Government almost in parallel with the study on the informal inter-modal terminal solved this problem independently from STP suggests that there could have been insufficient coordination on the subject topic between EEAA and other relevant branches of the Government.

**Not in the STP logframe:** In fall 2018, STP finalized a Policy Note supported by a feasibility study for introducing electric vehicles in the public transport in Egypt. The Policy Note includes the most important topics in the field of supporting policies, regulations and activities. STP has presented the results in the international Conference "Cleaner Mobility and the Advent of Electric Vehicles " organized by the Ministry of Environment in cooperation with the Center for Environment and Development for the Arab Region and Europe (CEDARE) and the German Foundation Friedrich Ebert Foundation in Cairo on 24-25 October 2018. This work was conducted outside of the planned results framework as a reaction to recent developments and importance of this new topic.

**Summary Assessment:** At the MTR stage, all sub-components of the original Outcome 4 were found overambitious and unrealistic. This is well understood as MTR was conducted during the period of political instability in the country that was not conducive to normal project implementation. However, the changes proposed by the MTR evaluator were not fully consistent with the STP results framework.

The freight transport sector appears to have attracted comparatively lower attention of relevant authorities. The original intention of STP to trigger improvements in energy efficiency of freight transport proved to be too ambitious. Only small improvements happened in this sector during STP implementation (without direct contribution of STP). STP put in place a decent effort to conduct studies and produce related reports on the freight transport and created thus solid technical base that could serve as a foundation for further work on freight transport.

STP Component 4 was designed to promote the energy efficiency of freight transport and thereby complementing the efforts of the local authorities to reduce local air pollution caused by the trucks operating in and entering into the urban areas. By not implementing the interventions for improvement of energy efficiency of freight transport STP did not contribute

to addressing the air pollution problem and did not generate the local benefits expected at the project inception.

**Based on the above findings, the overall achievement of the Outcome 4 is rated Moderately Unsatisfactory (MU).**

**Table 12: Deliverables for Outcome 5**

<b>Outcome 5: Strengthened institutional capacity to promote sustainable transport sector development during and after the project</b>			
<b>Output</b>	<b>OVI Targets</b>	<b>Delivery Status at TE</b>	<b>Rating</b>
5.1: Emission factors for selected motor vehicles under typical urban driving conditions in Cairo	Emission factors for 6 vehicle types expressed as kg unit emissions per passenger-km	Report on determination of emission factors of gasoline driven cars and taxis in Greater Cairo (2012) Report on real-world driving cycle for light duty gasoline vehicles in Greater Cairo and activity-based emission factors" (2013) Report on activity (distance)-based emission factors for light duty gasoline vehicles in Greater Cairo (2014) Training of 44 EEAA and Central Laboratory engineers and chemists on measuring and modelling emission factors Study on determination of emission factors for freight transport in Greater Cairo using on-board measuring equipment (2018)	HS
5.2: Enhanced capacity of personnel from the central government and governorates on integrated urban land use and sustainable passenger and freight transport in provincial cities, and effective coordination in the development of the public transport systems in Cairo and other major urban centers in Egypt	Up to 100 key professionals in different areas trained on different aspects of sustainable transport	Training programme for young Urban Planning Engineers from the governorates' capitals and new cities (17 cities) (2016)	HS
5.3: A national, cross- sectoral sustainable transport policy document setting concrete short, medium and long term targets in different key areas based on early results from the Project.	Adoption of an integrated urban planning and sustainable transport policy document setting concrete short, medium and long term targets in different key areas the project is addressing (to be developed in close consultation between the different transport sector related authorities)	No results	U
5.4: Enhanced capacity of the Ministry of Transport and its underlying agencies in the area of sustainable transport The Greater Cairo Metropolitan Transport Bureau (GCMTB) to effectively co-ordinate the development of the public transport systems in the Greater Cairo area established and its capacity built in Cairo and other major urban centers in Egypt	Enhanced awareness and capacity of the river and rail authorities and GARBLT to effectively adopt sustainable transport principles	No results	N.A.
5.5: Final project report consolidating the results and lesson learnt from the implementation of the different project component and recommendations for the required next steps.	Final project report consolidating the results and lesson learnt from the implementation of the different project component and recommendations for the required next steps.	A final list of achievements and lessons learned under the individual STP Components was completed at the time of the TE mission	HS

**Output 5.1:** For implementation of this output, DRTPC conducted a comprehensive survey and analysis of the existing cars in Greater Cairo in order to identify representative samples in terms of vehicle age, engine capacity, etc., and selected ten loops on the road network that represented various local driving conditions. An on-board measurement equipment was purchased for EEAA and the Central Laboratories and measurements were conducted on about 100 cars of several types. The obtained data were subject to quality-assurance and analysis and three reports were produced as a result of the survey.

In 2014, after ADF/FFEM representatives visited the DRTPC Transport Programme at Cairo University, they decided to allocate part of the budget of their project to finance a new study for on-board measurement and modelling to determine emission factors of buses, minibuses

(informal shared taxis) and goods vehicles in Greater Cairo, driven by diesel engines. The ADF/FFEM project also provided an on-board measuring equipment suitable for diesel engines for EEAA and the Central Laboratories. It was the first time ever EEAA and the Central Laboratories had acquired the two types of measuring equipment.

In 2018, another study on determination of emission factors from urban freight transport was completed under funding from the STP budget. All three studies used the same methodology for measurement and calculation. The calculated emission factors were integrated in the Egypt's Third National Communication Report to UNFCCC.

Determination of emission factors of CO<sub>2</sub> and pollution emissions CO, HC and NO<sub>x</sub> for cars and taxis in GC was conducted for the first time ever in Egypt. This allows EEAA not to depend on imported models of emission estimation calibrated in other countries where vehicle conditions, driving behavior and traffic flow characteristics are different than those prevailing in GC. Hence, this provides EEAA with robust information base for proper assessment of pollutant emissions as foundation for development of countermeasures and mitigation policies.

DRTPC trained 44 EEAA and Central Laboratory engineers and chemists on measuring and modelling emission factors. EEAA continues financing of the regular maintenance of the on-board measuring device and periodic updating of emission factors utilizing the training provided in the present component.

**Output 5.2:** In the period January – March 2016, DRTPC conducted four training sessions on theoretical principles and practical examples on sustainable transport and requirements of ST infrastructure. The total of 50 young urban planning engineers from 17 cities (governorates' capitals and new cities) participated in the training programme. It was the first training of its type and topic organized for young urban planning engineers in Egypt. As a result of the trainings, networking had been established amongst urban planning engineers from different cities. Such networking had not been possible before due to lack of contacts between young urban planning engineers. As a follow-up to the training programme, DRTPC invited 9 engineers who had proven top of their training classes to two workshops organized by international organizations in Cairo.

**Output 5.3:** No activities reported.

**Outputs 5.4:** Due to the political uncertainty in the country in the aftermath of the 2011 Revolution, STP found extremely difficult to set up new institutional and regulatory frameworks for parking policies in Cairo's Central Business District (CBD). That was discussed with the Evaluator in the Mid-Term Review and it was agreed to cancel this output.

**Output 5.5:** A comprehensive list of achievements and lessons learned was completed by the time of the TE field mission and handed over to the evaluators.

**Outcome assessment:** Implementation of Outcome 5 was instrumental for preparation of the theoretical elements on the principles of suitable transport and development and enabled DRTPC to visit 17 provincial cities in Egypt to assess the existing practices of transport/land use integration and use them in the training programme for your engineers from the cities' urban planning departments. The case studies related to terminal stations of formal and informal transport modes in the cities as well as to freight transportation intermodal facilities.

The training curricula also included practical examples from the NMT demonstration pilot in the Fayoum and Shebin El-Kom cities and thus paved a way towards replication elsewhere in the country.

**Based on the above findings, the overall achievement of the Outcome 5 is rated Satisfactory(S).**

### Achievement of the Project Objective:

The Project development goal was to reduce the growth of the energy consumption and the related greenhouse gas emissions of the transport sector in Egypt, while simultaneously mitigating the local environmental and other problems of increasing traffic such as deteriorating urban air quality and congestion.

The STP immediate objective was to create an enabling policy and institutional environment and to leverage resources for sustainable transport sector development, including an increased or sustained modal share of public and non-motorized transportation, reduced use of private cars and more energy efficient freight transportation by:

- Demonstrating a concept for new, integrated, high-quality public transport services (to exert a shift from private cars) for Cairo and its satellite cities that is successfully introduced and replicated on the basis of concessions to private operators under city authority supervision;
- Increasing and sustaining the modal share of non-motorized transport in middle-size provincial cities;
- Successfully introducing Transport Demand Management (TDM) concepts with an objective to expand more aggressive TDM measures over time to effectively discourage the use of private cars, when good-quality public transport services are available;
- Improving energy efficiency of freight transport; and
- Strengthened institutional capacity to promote sustainable transport sector development during and after the project.

It is clear from the discussion in the Effectiveness section above that with the exception of the energy efficiency improvements in freight transport the other parts of the STP immediate objective have been achieved to a great extent.

### Efficiency

The main issues examined in relation to efficiency were the length of the project implementation period and the use of GEF and other financial resources for project implementation.

The Project was originally scheduled for a period of 4 years (from 2009 to December 2013). There were 3 no-cost extensions that were requested and approved.

Cumulative disbursement at mid-2013 was about 1.6 million US\$, i.e. less than quarter of the total GEF grant. The low level of disbursement was reflection of the political instability period 2011-2013 when only limited work had been conducted that did not require decisions of the Government (design studies, passenger surveys, preparation of training curricula). As per the recommendation of MTR, a two-year extension was requested until end of 2015.

Cumulative disbursement at mid-2015 was about 3.3 million US\$ and remained thus at less than 50% of the total GEF budget. However, on a year-to-year basis the spending increased significantly in aggregate with more than double spent by mid-2015 compared to disbursements in the entire year 2014. The still low cumulative disbursement was reflection of the unsuccessful first tendering for the bus management system caused by poor response of bidders and need for readjustment the NUCA Council (composed of eight Ministers) decision to replace diesel engine by CNG buses. Therefore, a further extension by 1.5 years until mid-2017 was requested. However, due to the fact that STP was approved within the GEF-3 funding envelope, the UNDP-GEF Secretariat only approved the extension until the end of 2016.

Although the tendering process for the bus operator was successfully concluded in the 1<sup>st</sup> quarter of 2016, there were further delays caused by slow progress in resolving legal issues related to the nature of the contract. Therefore, the Project was extended until 30 June 2017 and then further extended until 30 June 2019.

In summary, the total extension period of the Project was 5.5 years. The reason for the first 2-year extension (the political instability) was beyond control of the project team. Various technical as well as legal challenges for the procurement of BMS coupled together with the need for approval of NUCA Council (composed of 8 Ministers and other top financial and legal officers) had caused multiple further extensions of the Project by the total 3.5 years.

Despite the fact that the total implementation period of the Project has been 10.5 years, i.e. about 100% increase compared with the original plan, the cost increase for running PMU for the total project period was only 111.4%. Moreover, the evaluators noted that the STP implementation had relied upon local expertise (DRTPC team) that was very cost-efficient.

Hence, the efficiency in terms of the Project timeline and use of resources is rated as **Moderately Satisfactory (MS)**.

### Country ownership

As discussed above, STP is fully aligned with the national development priorities and plans of the Government of Egypt for the transport sector. Despite numerous changes of senior officials during the project timeframe, sustainable transport development remains high amongst priorities of the central and regional Governments as well as the municipalities.

Regarding the ownership of the project by the key project stakeholders, there are issues largely originating from the implementation of the Project. EEAA assumed a key role in implementation of the entire project in line with the National Implementation Modality and consequently developed a very strong ownership of STP not only by the Agency itself but also by the Ministry of Environment.

On the other hand, there was only a limited role for other key stakeholders, namely MoT and MOHUD and the Governorates. Their respective roles in the STP implementation were limited to the participation in the Project Steering Committee and to conclusion of individual MoUs with EEAA for implementation of specific project activities. The latter operational agreements were instrumental for securing commitment to Outputs under the Components 1 and 2 that had been fully taken on board by the Ministries and Governorates.

However, although the key project stakeholders had agreed with all STP Outputs and Outcomes at the project inception stage, later some of them changed their position and were no longer fully committed to implementation of some Outputs under Components 3 and 4. This was the case of the HQ bus feeder lines, micro-pedestrian zones and bus priority lines in Greater Cairo under Outcome 3 and the legal and regulatory changes related to freight transport policy measures and freight transport intermodal terminal facilities under Outcome 4.

Regarding the capacity building for strengthening national institutional capacities for ST sector development, there were also reported challenges in getting response from some cities to the invitation to the training and reluctance of senior engineers and staff to approve participation of young engineers to attend the training.

### Mainstreaming

The focus of this section is to discuss to what extent was the project mainstreaming UNDP priorities such as poverty alleviation, improved governance, and women's empowerment, i.e. whether it is possible to identify and define positive or negative effects of the project on local



populations, whether gender issues had been taken into account in project design and implementation and in what way has the project contributed to greater consideration of gender aspects.

There was a direct focus of the Project on poverty alleviation under the Component 2, particularly the design and implementation of the construction of bike lanes, upgrading of sidewalks as well as operationalization of the revolving fund for bike purchases in the Shebin El-Kom and Fayoum cities.

Components 1, 3 and 4 made contribution to the improvement of lives of local communities in Cairo and the Sheikh Zayed, 6<sup>th</sup> October and Dreamland cities. Although the design of the new high-quality bus lines targeted middle-and high-income segment of the population in the three cities, the project can claim indirect contribution to improvement of lives of the poorest. The modal shift from personal cars to public transport will make less congestions on the roads and improve air quality for all inhabitants including the low-income segment. Also, the establishment of CO2 emission factors and other pollutant emissions have established a factual base for future adoption of sustainable transport measures that will improve permeability of roads and improve the air quality in Greater Cairo.

Regarding gender mainstreaming, it has to be emphasized that STP was designed before the issuance of the GEF Policy on Gender Mainstreaming<sup>12</sup> that expresses GEF's commitment to enhancing the degree to which the GEF and its implementing agencies promote the goal of gender equality through GEF-funded projects. Therefore, the project results framework did not include gender-responsive indicators. Later STP was marked with gender rating 1 that is assigned to activities that contribute in some way but not significantly to gender equality<sup>13</sup>.

The evaluation found that gender-related information had not been systematically collected throughout the project implementation. For example, during the evaluation mission the evaluators were given the list of participants in the training programmes under Outcome 5 but the trainees were not classified by gender. Similarly, during the visit of the Fayoum City the evaluators received rough estimates that up to 25% of the beneficiaries of the revolving fund for bike purchases could have been females but no accurate data had been collected. Furthermore, the PIRs describe the gender aspects of the project only in general terms without providing any concrete data and similarly general in description of gender impact were also documents produced by DRTPC.

Strong participation of women in the campaigns for the promotion of NMT was very encouraging and their participation lent strong support to highlight the importance of NMT as a sustainable alternative to cars or other forms of motorized transport such as shared taxis and three wheelers. It is also planned to establish a female cycling team in the Fayoum City. This demonstrates the positive effect of STP on active and encouraging involvement of women.

During the evaluation mission the evaluators also learned about important gender issues that had not been noted during the design and implementation of the project. The recent partnership of STP with the Fayoum University on the bike sharing scheme appears to be very important for female students that requested location of one of the bike docking station within the dormitory compound for female students. Access to non-motorized transport modalities

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<sup>12</sup> Policy on Gender Mainstreaming, Global Environmental Facility, May 2012

<sup>13</sup> Gender Mainstreaming Made Easy: Handbook for Programme Staff, UNDP, 2013

appears to be very important for young females in terms of reduction of time and more suitable modalities for transport between the dormitory and the lecture rooms.

### Sustainability

Institutional framework and governance: The institutional sustainability of the project activities is judged by the commitment of key project stakeholders to replicate the project activities after completion of the project. STP activities under Outcome 5 has created core group of young professionals from 17 cities committed to implementation of sustainable transport principles. In addition to building of capacities of this group, STP had also provided limited support to networking between the trainees. Through training of engineers and chemists on measuring and modelling emission factors and provision of two sets of on-board measuring equipment the Project has established a sound institutional base at EEAA and the Central Laboratory for future periodic updating of the measurements and calculations of traffic emission factors.

Rating of institutional framework and governance sustainability: **Likely (L)**

Financial sustainability: STP was successful in demonstrating financial sustainability of the operation of new high-quality bus lines for the Sheikh Zayed, 6<sup>th</sup> October and Dreamland cities. Although the activities of the project under Component 1 have not been fully completed, the concept and proposed business model has already been replicated and running in Greater Cairo by the same bus operator (Mwasalat Misr).

Moreover, the establishment of VMS for parking in Cairo (under Outcome 3) has also been successfully operated due to public-private partnership of the Governorate with the private owners of the participating garages. These two examples clearly demonstrate the importance of public-private partnerships for financial sustainability.

There is also fair prospect of continuation and replication of activities on non-motorized transport (Component 2), determination of emission factors and pollutants and capacity building for sustainable transport (Component 5) will continue beyond the STP time boundaries. This is due to the existing national institutional capacities and commitment of the various levels of the Government and the transport engineering groups in the academia. However, financial sustainability for the new bus lines and NMT activities will to a great extent depend on ability to maintain the high-quality of the services and related facilities.

Rating of financial sustainability: **Likely (L)**

Political and environmental sustainability: Due to the strong commitment of the public sector to sustainable transport there is little or no risk to the political and environmental sustainability.

Rating of the political and environmental sustainability is **Likely (L)**.

Based on the above facts and assumptions, there is no or very little risk to sustainability of STP activities, hence the overall rating for sustainability is **Likely (L)**.

### Progress to impact

According to the Project Document, STP was expected to produce cumulative, direct GHG reduction resulting from the implementation of the proposed sustainable transport concepts as several well as national and local benefits in terms of reduced local air pollution and congestion, improved public transport services, economic costs savings at the national level, and improved and safer facilities for NMT.

Replications of the high-quality bus service have been the most tangible national and local benefits of STP. The replications have been achieved owing to the private bus operator

participating in the STP pilot (Mwasalat Misr) and public sector authorities, namely the New Urban Communities Authority (NUCA) and the Sheikh Zayed City municipal government.

Mwasalat Misr has already achieved the following replications of the STP concept of high-quality bus lines:

- Two new bus lines in Cairo that connect two main squares in Cairo with the Cairo International Airport;
- Bus lines in New Cairo under a new contract with NUCA that operate as direct line to Cairo with a park & ride facility in the newly constructed bus station in New Cairo;
- New bus line in Giza along the same principle of the direct line of the present Pilot.

Furthermore, Mwasalat Misr is considering linking the new city Al-Obour with a direct bus line to Cairo and also have plans to connect the new cities Badr and 15 May (outside Greater Cairo) by direct bus lines.

On 1 January 2018, Mwasalat Misr launched an intelligent headway-based bus network service system for all its buses operated in Cairo and the 6 new cities. The service is based on the same intelligent transportation system that had been designed and later procured by STP and has been upgraded with real-time information technologies such as automatic vehicle location and automatic passenger count. Such arrangements enable adoption of operation control strategies for monitoring and control of bus operations.

Currently, Mwasalat Misr operates 288 buses on lines in Cairo and 65 buses in the new cities and has plans further expansion. Thanks to cooperation with Google, passengers using this high-quality bus network are able to obtain real-time updates of bus location on interactive Google maps. In order to integrate its bus network with Cairo Metro lines, Mwasalat Misr has concluded MoU with Cairo Metro for a common Google-based passenger information platform. In October 2018, the company launched an e-payment Mwasalti Card for cashless payments of bus fare and currently they prepare for commissioning of “park-and-ride” facilities later in 2019.

NUCA has bought 150 buses to operate in the new cities in Egypt based on the concept and specifications of the high-quality bus service introduced by the Project. NUCA intends further expansion of the service in the 6<sup>th</sup> October City, in addition to the service that has been designed under STP. Some of the 150 buses have already started operation in the new cities.

The Sheikh Zayed municipality has started operation of 10 of new buses with the same high-quality specification as additional internal feeders to the direct bus line of the STP pilot. The municipality has also assigned additional parking lot beside the terminal bus station of the STP pilot to increase the area of the park& ride facility in that station.

Two new private bus operators are established in Cairo based on the concept promoted by STP. Recently, a new enterprise started preparations for establishment of a new private bus company at the intercity level based on the same methodology developed in the STP pilot.

The above is sufficient evidence that STP was successful in demonstration of the integrated high-quality bus service in Egypt. The Project has introduced the concept of this service for the first time in Egypt and has catalyzed several replications implemented by public private partnerships.

However, to introduce the concept of the high-quality bus service is only the first step to encourage car users to shift to public transport. The slow progress in commissioning of the new bus lines under the project suggests that there is still need for a fundamental paradigm shift in the mind set of politicians and city managers towards public transport.

The fact that replications of the high-quality bus service have outpaced the actual completion of this STP pilot demonstrate the relative slow motion of the public sector towards the new service. This was caused by the complexity of the decision-making process. The NUCA Council, composed of 8 Ministers and other top legal and financial officials, although all welcomed the new concept promoted by the STP pilot, they slowed down the process of procurement of buses for the new high-quality service due to lack of experience with procurement of services and their request for CNG buses instead of diesel fuel buses. Also, there was a direct effect on the implementation of the STP pilot in the Dreamland City as the Council did not approve construction of the proposed terminal bus station inside the Dreamland housing estate due to a legal dispute with the estate developer.

The above facts demonstrate the value of public-private partnerships for promotion and replication of ST concepts. There is no doubt that private sector is much more flexible and can make decisions about introduction of new public transport services and extension of the existing ones quickly. The STP pilot was instrumental in designing incentives for private bus operators in terms of out-of-fare-box revenue generation. There is a specific role for public entities in the partnerships, namely monitoring of the new services since the quality of the services will be the decisive factor upon which will depend the retention of the services.

Successful operation of the VMS parking system in the Cairo Central Business District is another result of STP that has already produced a tangible impact. Introduction of the on-street parking ban in Cairo CBD is directly related to the success of the STP pilot. The ban was a long-awaited TDM measure that reduced traffic congestion in the central area of Cairo.

The STP VMS pilot demonstrated that introduction of such uncompromising parking policy measure was possible due to the professional design and implementation of the complementary parking management. Further impact will depend on efforts of the Cairo Governorate top officials and chief engineers for replication of the STP pilot by simply encouraging owners and operators of major off-street parking facilities located out of the CBD to join the current VMS system.

There was also impact of the training programme for young Urban Planning Engineers that learned principles of sustainable transport as a follow-up to the training programme, DRTPC invited 9 engineers who had proven top of their training classes to two workshops organized by international organizations in Cairo. Four of the participants of the STP training reportedly applied some of the acquired knowledge on sustainable transport and contributed to ST measures in their respective cities.

One example of the indirect impact of the STP training was the initiative of the Director of Urban Planning in Kafr El-Shaikh, the capital of Kafr El-Shaikh Governorate, for relocation of the old bus terminal station from the inner city to its peripheries in order to avoid traffic congestions and reduce noise. Also, a bicycle lane was established on a main street on the same city. This initiative is being replicated in other cities of the Kafr El-Shaikh Governorate, e.g. Baltim.

Other examples of the indirect impact of the ST training component are as follows:

- Moving old transport terminal station from inner city to city periphery in El Mahalla Al Kobra; a major city in the middle of Delta.
- Moving old transport terminal station from inner city to city periphery in Tanta, the capital city of El Gharbia Governorate.
- Moving old transport terminal station from the inner city to the periphery in Luxor city (in upper Egypt).

The Project had a strong impact of raising awareness of senior officials of the MoE and other national ministries about benefits of sustainable transport. STP successfully demonstrated the need to assign the planning and design of specific urban transport measures to specialised civil engineers in the field of Transport Engineering and Planning as was the case in all STP pilots instead of engaging traditional non-specialised stakeholders as, for instance, architects, road engineers, urban planners, vehicle engineers. etc. STP has proven to the relevant authorities that Transport Engineering and Planning is an established branch of civil engineering and must be engaged for proper introduction of new public transport modes, measures and systems.

#### Global benefits:

The expected CO<sub>2</sub> reductions at STP inception are summarized in Table 13 below.

**Table 13:** Summary of expected global benefits of STP (as in the original Project Document)

<b>Components</b>	<b>Global Benefits (GHG Reductions)</b>
<u>Component 1</u> The concept for new, integrated high-quality public transport services (to exert shift from private cars) for Cairo and its satellite cities successfully introduced and replicated on the basis of public-private partnerships.	290,000 tons of CO <sub>2</sub> emissions reduced over the next 20 years as a direct result of successful implementation of proposed pilot projects and an estimated 600,000 tons of reduced CO <sub>2</sub> through successful replication in Cairo, Alexandria and their satellite cities.
<u>Component 2</u> The modal share of non-motorized transport (NMT) in middle size provincial cities increased or sustained.	262,000 tons of reduced CO <sub>2</sub> over the next 20 years as a direct result of successful implementation of the proposed pilot projects and a potential for over 4 million tons of CO <sub>2</sub> through successful replication in all the identified 27 middle size cities.
<u>Component 3</u> Successful introduction of the Transport Demand Management (TDM) concept with an objective to expand it towards more aggressive measures over time to effectively discourage the use of private cars, when good quality public transport services are available.	81,000 tons of reduced CO <sub>2</sub> over the next 20 years as a direct result of successful implementation of the proposed pilot projects and a potential for over 18 million tons of CO <sub>2</sub> through successful replication and introduction of more aggressive transport demand management measures
<u>Component 4</u> Improved Energy Efficiency of Freight Transport	The main global benefits of this component are arising from the gradual, incremental improvement of the fuel economy of the trucks and improved logistics reducing the trips with empty or partial load with the estimated GHG reduction of 850,000 tons of CO <sub>2</sub> as a direct result of the project and a potential for over 5 million tons of CO <sub>2</sub> through successful replication. In addition, the project is expected to result in additional GHG reduction by promoting modal shift from road to rail and river-based freight transport options.
<u>Component 5</u> Enhanced awareness, capacity and strengthened institutional basis to promote sustainable transport sector development during and after the project.	Indirect. Global benefits achieved by successful replication of the sustainable transport sector measures discussed under components 1-4, for which the overall institutional strengthening and capacity building of local stakeholders is essential.
<b>Cumulative GHG Reduction Targets →</b>	Cumulative 1,48 million tons of CO <sub>2</sub> reduction compared to the baseline over the next 20 years: Cumulative, indirect post project GHG reduction: over 20 million tons of CO <sub>2</sub> by 2025.

Actual CO<sub>2</sub> emission reductions were calculated using the GEF approved methodology<sup>14</sup>.

Direct emission reductions are calculated by assessing the expected change in CO<sub>2</sub> emissions attributable to the GEF (and co-financed) investments. Table 14 below summarizes direct CO<sub>2</sub> savings resulting from the investments within the boundaries of the project as well as reductions projected for the lifetime of the investments both during and post implementation.

**Table 14:** Direct CO<sub>2</sub> emission reductions from STP (tons of CO<sub>2</sub>)

CO <sub>2</sub> emission reductions	Outcome 1	Outcome 2	Outcome 3	Outcome 4	Total STP
Project Document (project lifetime)	290,000	262,000	81,000	850,000	1,483,000
Implementation years 1- 4	0	21,816	15,442	0	37,258
Life time of the investments	266,059	311,524	83,000	0	660,583

It follows from Table 14 that during the project implementation period real reductions of CO<sub>2</sub> emissions have been achieved under Components 2 and 3. No actual reductions have been achieved during the project implementation under Component 1 and 4<sup>15</sup>. The introduction of new high-quality buses under Component 1 has not been completed and the new bus lines have not been operationalized by the time of the terminal evaluation hence no actual reductions have been achieved during the project implementation. The interventions under Components 2 and 3 were operational in early 2015 hence the period of four years was considered for the actual reductions.

Direct CO<sub>2</sub> emission reductions projected for the 20 years lifetime of the STP investments exceeded the expectations for Components 1,2 and 3, but in total STP fell short of the cumulative direct emission reductions that were expected at STP inception. The shortage is mainly due to the fact that no interventions for emission reductions were implemented under Component 4 of STP and no direct emission reductions were achieved due to delay in the implementation of Component 1.

Instead of the previously used term “indirect emissions”, the GEF Guidelines recommend the use of “consequential emissions” defined as those projected emissions that could result from a broader adoption of the outcomes of a GEF project plus longer-term emission reductions from behavioral change. Broader adoption of a GEF project proceeds through several processes including sustaining, mainstreaming, replication, scaling-up and market change. Consequential emission reductions are typically achieved after GEF project closure and must be counted separately from the direct emission reductions as they occur outside of the project logical framework. Top-down and bottom-up approaches are recommended to estimate consequential emission reductions.

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<sup>14</sup> Manual for Calculating Greenhouse Gas Benefits of Global Environment Facility Transportation Projects

<sup>15</sup> Components 4 and 5 not considered as no interventions leading to CO<sub>2</sub> emission reduction were carried out under these two components

Summary of the consequential CO<sub>2</sub> emission reductions is in Table 15 below.

**Table 15:** Consequential CO<sub>2</sub> emission reductions under STP components 1-3

	<b>Outcome 1</b>	<b>Outcome 2</b>	<b>Outcome 3</b>	<b>Outcome 4</b>	<b>Total STP</b>
Project Document	600,000	4,000,000	18,000,000	5,000,000	27,600,000
Min Replications	1,344,906	4,049,807	207,501	0	5,602,215
Max Replications	2,155,965	5,607,425	415,002	0	8,178,393

The consequential CO<sub>2</sub> emission reductions of the interventions introduced under Components 1 and 2 exceed the expectations at STP inception. However, the expected replications of Component 3 were much higher than the reality. The difference is that only one of the planned three TDM interventions was implemented under Component 3.

### Key factors that affected implementation and outcomes

#### Project design

A thorough preparation process provided STP with a solid technical base. The GEF PDF-B grant together with decisions and assessments undertaken by the Government constituted the basis for the project. With involvement of DRTPC in the preparatory phase, STP had a local champion that was able to provide high quality technical input into the preparation and implementation phases.

STP had been approved in the first batch of GEF-financed sustainable transport projects. Therefore, at the time of the STP design, there was not much experience available from previous similar projects on urban transport in other countries. Although the project design team had anticipated that for successful reorganization of the urban transport service it was necessary to promote several legislative, institutional, and management changes at the national, regional and municipal levels, the implementation reality showed that such legislative and institutional changes were either not possible or were too slow, and STP implementation was affected by the fragmented institutional framework for urban transport in the country.

#### Implementation

Shortly after the start of implementation, STP was affected by the period of political instability. Although the situation improved after 2013, the Project was implemented under multiple national and regional government administrations and experienced implementation delays due to the necessity to repeatedly seek support of yet new political leaders.

Relatively long implementation delays were caused by lack of flexible legal mechanisms for contracting services. The tendering laws valid throughout the STP implementation were suitable for tendering construction works but not for commissioning public transport services.

The project attempted to introduce innovative elements of modern urban transport systems while there was only slow progress on the urban transport sector reform in Egypt. The development of a new urban transport system needs clear and agreed division of roles and responsibilities among institutions involved in handling the new urban transport system's components.

Although assumptions and implicitly also related risks were identified in the Project Document, the latter did not provide risk management plan with adequate risk mitigation measures. Moreover, vague formulation of assumptions for few outputs under the Components 4 and 5

did not lead to elaboration of meaningful corrective actions other than cancellation of some outputs (e.g. outputs 4.3, 4.4 and 5.3).

### Outcomes

STP succeeded to demonstrate and promote three important elements of sustainable urban transport systems, namely the bus management system, non-motorized transport and the variable message parking system. However, slow progress in the BMS and NMT pilots proved that there is still need for a fundamental paradigm shift in the mind sets of political leaders and city managers towards public transport. Moreover, there was insufficient support through appropriate legislation from the central government.

Municipalities in Egypt did not consider bus public transport as one of the many other local services they provide to their residents. As they never contemplated provision of formal bus public transport, the municipalities caused rapid expansion of low quality and unsafe informal urban transport modes. Implementation of Component 1 showed that municipalities must understand that they are not qualified to operate public bus services and should leave it to private bus operators. Municipal governments should conduct close monitoring and supervision of the operation as well as construct bus stations and garage depots and rent them to private operators for nominal fees.

### Sustainability

Cooperation with private bus operators was one of the key factors that contributed to progress in the BMS demonstration pilot and accelerated replication of BMS before the STP pilot has been completed. This success was facilitated by promotion of a new business model permitting the private operators to introduce revenue generation sources out of the traditional fare revenues. In order to sustain the successful replication of the new bus services, city governments should protect private bus operators from interference from drivers of informal transport modes encroachment of bus stops/stations and illegal competing on the same routes.

The summary of ratings of the selected evaluation criteria is in the Table 16 below.

**Table 16:** Overall Project Rating

<b>Evaluation Criteria</b>	<b>Evaluator's Rating</b>
Monitoring and evaluation: design at entry	Highly Satisfactory (S)
Monitoring and evaluation: plan implementation	Satisfactory (S)
<b>Overall quality of monitoring and evaluation</b>	<b>Satisfactory (SS)</b>
Quality of UNDP Implementation	Satisfactory (S)
Quality of Execution - Executing Agency	Satisfactory (S)
<b>Overall quality implementation / execution</b>	<b>Satisfactory (S)</b>
<b>Relevance</b>	<b>Relevant (R)</b>
<b>Effectiveness</b>	<b>Satisfactory (S)</b>
Outcome 1	Satisfactory (S)
Outcome 2	Highly Satisfactory (HS)
Outcome 3	Moderately Satisfactory (MS)
Outcome 4	Moderately Unsatisfactory (MU)
Outcome 5	Satisfactory (S)
<b>Efficiency</b>	<b>Moderately Satisfactory (MS)</b>
<b>Overall Project Objective Rating</b>	<b>Satisfactory (S)</b>
Institutional framework and governance	Likely (L)
Financial	Likely (L)
Sociopolitical	Likely (L)
Environmental	Likely (L)
<b>Overall likelihood of sustainability</b>	<b>Likely (L)</b>



## CONCLUSIONS AND RECOMMENDATIONS

Based on the facts collected and analysed in the previous section, this section transposes the empirical findings into conclusions that make judgments supported by the findings. Recommendations are then corrective actions proposed to be taken by various project stakeholders to address the insufficiencies and imperfections identified in the findings and conclusions.

This Terminal Evaluation makes two types of recommendations. Recommendations on STP substantive matters are provided for consideration of the project partners in order to ensure the project results are fully consolidated with the key project stakeholders. These recommendations are suggested for implementation as soon as possible using the existing institutional capacities and frameworks that had been created by the current project.

The implementation experience from STP allows that some conclusions could be generalized for all UNDP programming areas. Recommendations of the second type are provided for consideration of UNDP in order to improve programming and project preparation in general.

Recommendations to follow-up and/or reinforce initial benefits from the project:

Finding 1: The freight transport sector appears to have attracted comparatively lower attention of relevant authorities. The original intention of STP to trigger improvements in energy efficiency of freight transport proved to be too ambitious.

Conclusion 1: STP put in place a decent effort to conduct studies and produce related reports on freight transport and created thus solid technical base that could serve as a foundation for further work in the area of freight transport.

*Recommendation 1: UNDP and EEAA should find ways to further support technical and capacity building support for improvements in the freight transport sector. Studies and reports on the freight transport produced by STP should be presented to relevant donors such as the Green Climate Fund (GCF) and to private sector associations in order to mobilize necessary funding.*

Finding 2: Although STP planned for collection of results and experiences from the demonstration pilots, these outputs were not implemented due to slow progress with and late completion of the pilots.

Conclusion 2: Good practices and lessons learnt from the demonstration projects have to be disseminated in order to fully realize the benefits and the potential of the pilots.

*Recommendation 2: GoE and UNDP should find financial support for wider dissemination of experience and results from the demonstration pilots.*

Finding 3: STP demonstration pilots produced only modest GHG emission reductions during the project lifetime but created a substantive emission reduction potential in replication of the pilots throughout the country.

Conclusion 3: Multiplication of demonstration pilots for large scale modal shift in transport and related GHG emission reductions are beyond the scope of the single project and may only be realized well after a project closes. Such results need to be monitored over an extended period.

*Recommendation 3: UNDP in cooperation with the GoE should support extended monitoring of parameters needed for calculation of CO<sub>2</sub> emission reductions originating from STP.*

Finding 4: STP produced a number of valuable studies, training programmes and public awareness materials capturing principles of sustainable transport.

Conclusion 4: Numerous national stakeholders (agencies of the central and regional government, municipalities, educational institutions, private sector transport operators, NGOs) will benefit if the project-related technical and informational documentation is accessible to them beyond the project implementation period.

*Recommendation 4: UNDP in cooperation with EEAA should ensure that the technical and informational materials prepared by the project, are posted on the website of a relevant agency of the Government and eventually create a dedicated part of the website related to sustainable transport.*

Finding 5: STP has initiated a bike-sharing scheme in Fayoum City and negotiated assistance of GEF/SGP Programme in Egypt in order to continue support of participation of local NGOs in the initiative once STP is completed.

Conclusion 5: The bike-sharing scheme in Fayoum City is an important initiative that can reinforce the local and global NMT benefits achieved under STP and should be replicated elsewhere.

*Recommendation 5: UNDP in cooperation with GEF/SGP and the Fayoum University should collect experience from the initial phase of the bike-sharing scheme in Fayoum City and find a mechanism for sharing the experience with other universities in Egypt.*

#### Recommendations to improve programming and preparation of projects

Finding 6: A number of time-consuming sequential activities was required under STP Component 1, including passenger surveys, selection and detailing of new bus service routes, detailed engineering, procurement of buses equipped with BMS, acquisition of land and construction of bus stops and garage depots.

Conclusion 6: The assumption to complete and operationalize the demonstration pilot on high-quality bus service within the implementation period of STP was unrealistic. The nature of planned activities effectively made it an investment sub-project but with a number of challenges that had to be overcome and collectively contributed to slow progress delayed delivery of the outputs.

*Recommendation 6: For preparation of projects with components on infrastructure building, UNDP should consider less ambitious targets (e.g. completion of technical work and commitment of financing) that do not include actual completion of infrastructure works.*

Finding 7: Although the STP components had been agreed in principle at the project inception by the project stakeholders, several outputs under Components 3 and 4 were not implemented as relevant ministries and/or their affiliated agencies with substantive mandates in the transport infrastructure were no longer committed to implement the previously agreed outputs.

Furthermore, STP was designed to support a broad and ambitious national sustainable transport agenda and involved several ministries and agencies of the central government. The large number of governmental stakeholders caused delays in implementation of some activities.

Conclusion 7: The wide scope and inclusion of several outputs related to sustainable transport agenda made STP more complex and more difficult to implement.

*Recommendation 7: UNDP should carefully select concrete topics and areas for projects supporting broad national agendas and limit the support to a smaller number of topics/areas that are inter-related or reinforce each other and that have the strongest ownership and commitment by relevant stakeholders. Hence, in hindsight, it would have been preferable to limit the project scope to the parts of with the strongest ownership and commitment of relevant national stakeholders.*

Finding 8: EEAA was designated as a single National Implementing Partner for STP although the Agency and its line ministry do not have a direct mandate in the area of transport. Other entities from the government with strong substantive mandates in transport policy/ infrastructure and urban development had only a consulting function and did not have direct implementation responsibility under STP.

Conclusion 8: It might have been better to ensure more prominent and proactive roles to other respective line ministries give responsibility for delivery of some outcomes and/or outputs in order to sustain their initial commitment to implementation of previously agreed interventions.

*Recommendation 8: For implementation of complex projects, UNDP and Government of Egypt should consider a matrix project implementation structure with more national implementing partners and assign implementation responsibility according to substantive mandates of the national implementing partners.*

Finding 9: Tendering of the bus management system and bus operation services under Component 1 faced a number of technical, legislative and regulatory challenges that required re-tendering and changes in the national Public Contracts Law. Involvement of multiple governmental agencies in the procurement process slowed down the progress in implementation of this component.

Conclusion 9: Promoting of new technologies and/or conceptually new services has its implementation challenges and risks that must be considered during project preparation. For a GEF project of relatively short duration it is difficult to fully mitigate the risks of long implementation delays caused by prolonged procurement events.

*Recommendation 9: UNDP should not include under the future projects procurement events that depend on involvement of multiple decision makers and are not under full control of the project implementing teams.*

Finding 10: Although the original STP results framework did in general establish measurable targets, it did not specify timeframes for the achievement of targets. Moreover, although the project logframe identified assumptions for individual outputs and outcomes, the Project Document did not contain a risk management matrix and a risk mitigation strategy.

Conclusion 10: Careful planning and sequencing of outputs in the project logframe as well as preparation of a risk mitigation plan could have expedited implementation of STP components and ensured timely delivery of STP results.

*Recommendation 10: UNDP should ensure that target indicators in the results framework have timeframes for achievement and that a risk mitigation plan is included in all project documents.*

Finding 11: Gender-related information had not been systematically collected throughout the project implementation. For example, participants in the training programmes under Outcome 5 were not classified by gender and only rough estimates were provided about the share of female beneficiaries of the Fayoum city revolving fund for bike purchases without collection of accurate gender-classified data. Various monitoring and progress reports as well as documents produced by national consultants described the gender aspects of the project only in general terms without providing any concrete data.

Conclusion 11: Gender mainstreaming in M&E processes ensures a shift beyond pure tracking numbers of female beneficiaries or general description of activities that target women and lay foundations for sound gender analysis in the project context and demonstration of the longer-term gendered impacts.

*Recommendation 11: For future transport projects, UNDP should use the M&E and Reporting Guidelines to ensure that gender is properly monitored and reported on throughout the projects' implementation.*

### Lessons learned and best practices related to relevance, performance and success

Some outcomes, such as multiplication of demonstration pilots for large scale modal shift or GHG emission reductions, are beyond the scope of a single project and will be realized in the period of years after a project completion and therefore will have to be monitored over an extended period. Modal shift is a slow and gradual process. Accepting and adapting to a new system by operators and users requires some time. In the future, greater care should be taken if attempting to hold individual projects accountable for long-term outcomes that depend on multiple factors, some of them exogenous.

One of the best practices of STP was the assignment of responsibility for STP design and technical implementation to the national experts specialized and experienced in the field of transport engineering and planning. National experts with such specialization ensured superior quality of technical inputs as well as outputs in comparison with traditional experts with broad specialization such as architects, road engineers, urban planners, vehicle engineers. Moreover, involvement of national experts has also improved cost-efficiency in comparison with engagement of qualified international consultants.

The implementation of Components 1 - 3 demonstrated that creation of an enabling environment is necessary before sustainable measures can be implemented. Specifically, the involvement of private bus operators, the integrated structure of the bus fare and the park-and-ride concept represented success factors under Component 1. The adequate regulatory, institutional and technical frameworks under Component 3 led to successful introduction and operation of the Variable Parking Message system in CBD.

The scope of the project Components 1, 3 and 4 was very complex considering the fact that most of the interventions were new and there was little experience in the public institutions that has to make decisions for delivery of results. Also, the multiple nature of project components made it difficult to manage and in future, a staged approach should be adopted for such projects.

However, the implementation reality also proved that input from qualified technical experts was fundamental for the quality of the technical design, but not sufficient for smooth implementation of the project activities and delivery of results. Although emphasis of the project was on broad stakeholder participation, it did not ensure actual inclusion of some decision makers in the implementation process.

## Annex 1: Evaluation Terms of Reference

### INTRODUCTION

In accordance with UNDP and GEF M&E policies and procedures, all full and medium-sized UNDP support GEF financed projects are required to undergo a terminal evaluation upon completion of implementation. These terms of reference (TOR) sets out the expectations for a Terminal Evaluation (TE) of **Sustainable Transport in Egypt**

The essentials of the project to be evaluated are as follows:

### PROJECT SUMMARY TABLE

Project Title:	Sustainable Transport in Egypt			
GEF Project ID:	2776		<i>at endorsement (Million US\$)</i>	<i>at completion (est.) (Million US\$)</i>
UNDP Project Atlas Award ID: Atlas Output ID:	3523 (PIMS) 00045900 00054348	GEF financing:	6,900,000	6,900,000
Country:	Egypt	IA/EA own:	100,000	100,000
Region:	Arab States	Government:	17,000,000	17,000,000
Focal Area:	CC	Private Sector and Other:	20,000,000	20,000,000
FA Objectives, (OP/SP):	CC-SP5	Total co-financing:	37,000,000	37,000,000
Executing Agency:	Ministry of Environment	Total Project Cost:	44,000,000	44,000,000
Other Partners involved:		ProDoc Signature:		19 November 2008
		(Operational) Closing Date:	Proposed: December 2013	Actual: June 2019

### OBJECTIVE AND SCOPE

The objective of the project is to reduce the growth of the energy consumption and the related greenhouse gas emissions of the transport sector in Egypt, while simultaneously mitigating the local environmental and other problems of increasing traffic such as deteriorated urban air quality and congestion by 1) initiating the concept for the development of new, integrated transport services for Greater Cairo and its satellite cities on the basis of public-private partnerships; 2) promoting non-motorized transport in medium sized provincial cities; 3) introducing new traffic demand management measures; 4) improving the energy efficiency of freight transport; and 5) enhancing the awareness and capacity of local professionals on different aspect of sustainable transport and strengthening the institutional basis to promote sustainable transport during and after the project.

The TE will be conducted according to the guidance, rules and procedures established by UNDP and GEF as reflected in the UNDP Evaluation Guidance for GEF Financed Projects.

The objectives of the evaluation is to assess the achievement of project results, and to draw lessons that can both improve the sustainability of benefits from this project, and aid in the overall enhancement of UNDP programming.

## EVALUATION APPROACH AND METHOD

An overall approach and method<sup>16</sup> for conducting project terminal evaluations of UNDP supported GEF financed projects has developed over time. The evaluator is expected to frame the evaluation effort using the criteria of **relevance, effectiveness, efficiency, sustainability, and impact**, as defined and explained in the [UNDP Guidance for Conducting Terminal Evaluations of UNDP-supported, GEF-financed Projects](#). A set of indicative questions covering each of these criteria have been drafted and are included with this TOR (see [Annex C](#)). The evaluator is expected to amend, complete and submit this matrix as part of an evaluation inception report, and shall include it as an annex to the final report.

The evaluation must provide evidence-based information that is credible, reliable and useful. The evaluator is expected to follow a participatory and consultative approach ensuring close engagement with government counterparts, in particular the GEF operational focal point, UNDP Country Office, project team, UNDP GEF Technical Adviser based in the region and key stakeholders. The evaluator is expected to conduct a field mission to [Egypt](#) including the following project sites in [Greater Cairo, Fayoum and Menofia](#). Interviews will be held with the following organizations and individuals at a minimum:

Ministry of Environment

UNDP

Cairo University

New Urban Communities Authority (NUCA)

Cairo Governorate

Menofia Governate and University

Fayoum Governorate and University

GEF Small Grant Programme

Bus and Bicycles Service Providers

The evaluator will review all relevant sources of information, such as the project document, project reports – including Annual APR/PIR, project budget revisions, midterm review, progress reports, GEF focal area tracking tools, project files, national strategic and legal documents, and any other materials that the evaluator considers useful for this evidence-based assessment. A list of documents that the project team will provide to the evaluator for review is included in [Annex B](#) of this Terms of Reference.

## EVALUATION CRITERIA & RATINGS

An assessment of project performance will be carried out, based against expectations set out in the Project Logical Framework/Results Framework (see [Annex A](#)), which provides performance and impact indicators for project implementation along with their corresponding means of verification. The evaluation will at a minimum cover the criteria of: **relevance, effectiveness, efficiency, sustainability and impact**. Ratings must be provided on the following performance criteria. The completed table must be included in the evaluation executive summary. The obligatory rating scales are included in [Annex D](#).

Evaluation Ratings:			
1. Monitoring and Evaluation	rating	2. IA& EA Execution	rating
M&E design at entry		Quality of UNDP Implementation	
M&E Plan Implementation		Quality of Execution - Executing Agency	

<sup>16</sup> For additional information on methods, see the [Handbook on Planning, Monitoring and Evaluating for Development Results](#), Chapter 7, pg. 163

Overall quality of M&E		Overall quality of Implementation / Execution	
<b>3. Assessment of Outcomes</b>	<b>rating</b>	<b>4. Sustainability</b>	<b>rating</b>
Relevance		Financial resources:	
Effectiveness		Socio-political:	
Efficiency		Institutional framework and governance:	
Overall Project Outcome Rating		Environmental :	
		Overall likelihood of sustainability:	

## PROJECT FINANCE / COFINANCE

The Evaluation will assess the key financial aspects of the project, including the extent of co-financing planned and realized. Project cost and funding data will be required, including annual expenditures. Variances between planned and actual expenditures will need to be assessed and explained. Results from recent financial audits, as available, should be taken into consideration. The evaluator(s) will receive assistance from the Country Office (CO) and Project Team to obtain financial data in order to complete the co-financing table below, which will be included in the terminal evaluation report.

Co-financing (type/source)	UNDP own financing (mill. US\$)		Government (mill. US\$)		Partner Agency (mill. US\$)		Total (mill. US\$)	
	Planned	Actual	Planned	Actual	Planned	Actual	Actual	Actual
Grants								
Loans/Concessions								
• In-kind support								
• Other								
Totals								

## MAINSTREAMING

UNDP supported GEF financed projects are key components in UNDP country programming, as well as regional and global programmes. The evaluation will assess the extent to which the project was successfully mainstreamed with other UNDP priorities, including poverty alleviation, improved governance, the prevention and recovery from natural disasters, and gender.

## IMPACT

The evaluators will assess the extent to which the project is achieving impacts or progressing towards the achievement of impacts. Key findings that should be brought out in the evaluations include whether the project has demonstrated: a) verifiable improvements in ecological status, b) verifiable reductions in stress on ecological systems, and/or c) demonstrated progress towards these impact achievements.<sup>17</sup>

## CONCLUSIONS, RECOMMENDATIONS & LESSONS

<sup>17</sup> A useful tool for gauging progress to impact is the Review of Outcomes to Impacts (ROtI) method developed by the GEF Evaluation Office: [ROtI Handbook 2009](#)



The evaluation report must include a chapter providing a set of **conclusions, recommendations** and **lessons**.

## IMPLEMENTATION ARRANGEMENTS

The principal responsibility for managing this evaluation resides with the UNDP CO in Egypt. The UNDP CO will contract the evaluators and ensure the timely provision of Daily Subsistence Allowance and travel arrangements within the country for the evaluation team. The Project Team will be responsible for liaising with the Evaluators team to set up stakeholder interviews, arrange field visits, coordinate with the Government etc.

## EVALUATION TIMEFRAME

The total duration of the evaluation will be 24 days according to the following plan:

Activity	Timing	Completion Date	
<b>Preparation</b>	5 days	1 March 2019	
<b>Evaluation Mission</b>	7 days	1 April 2019	
<b>Draft Evaluation Report</b>	10days	30 April 2019	
<b>Final Report</b>	2 days	31 May 2019	

## EVALUATION DELIVERABLES

The evaluation team is expected to deliver the following:

Deliverable	Content	Timing	Responsibilities
<b>Inception Report</b>	Evaluator provides clarifications on timing and method	No later than 2 weeks before the evaluation mission. (15 April 2019)	Evaluator submits to UNDP CO
<b>Presentation</b>	Initial Findings	End of evaluation mission (7 April 2019)	To project management, UNDP CO
<b>Draft Final Report</b>	Full report, (per annexed template) with annexes	Within 3 weeks of the evaluation mission (30 April 2019)	Sent to CO, reviewed by RTA, PCU, GEF OFPs
<b>Final Report*</b>	Revised report	Within 1 week of receiving UNDP comments on draft (31 May 2019)	Sent to CO for uploading to UNDP ERC.

\*When submitting the final evaluation report, the evaluator is required also to provide an 'audit trail', detailing how all received comments have (and have not) been addressed in the final evaluation report.

## TEAM COMPOSITION

The evaluation team will be composed of one international evaluator. The consultant shall have prior experience in evaluating similar climate change mitigation or energy efficiency projects. Experience with GEF financed projects is an advantage. The evaluator selected should not have participated in the project preparation and/or implementation and should not have conflict of interest with project related activities.

The evaluator must present the following qualifications:

- Advanced university degree in transport planning and engineering, energy or related discipline (30%)
- Minimum 7 years of relevant professional experience in the area of climate change mitigation (10%)

- Familiar with UNDP, GEF and UNFCCC (5%)
- Previous experience with results-based monitoring and evaluation methodologies; (20%)
- Good communication and analytical skills (5%)
- Good command of English language, both written and spoken (20%)
- Previous work experience in the region is an asset (5%)
- Previous experience with gender-sensitive analysis (5%)

## EVALUATOR ETHICS

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Evaluation consultants will be held to the highest ethical standards and are required to sign a Code of Conduct (Annex E) upon acceptance of the assignment. UNDP evaluations are conducted in accordance with the principles outlined in the [UNEG 'Ethical Guidelines for Evaluations'](#)

## PAYMENT MODALITIES AND SPECIFICATIONS

%	Milestone
10%	Acceptance of Inception Report prior to the field visit
40%	Following submission and approval of the 1 <sup>ST</sup> draft terminal evaluation report
50%	Following submission and approval (UNDP-CO and UNDP RTA) of the final terminal evaluation report

## APPLICATION PROCESS

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Applicants are requested to apply by 7 February 2019. Individual consultants are invited to submit applications together with their CV for this position either online on UNDP website or by email to Ms Heba Helmy, Environment Programme Assistant, UNDP Egypt [heba.helmy@undp.org](mailto:heba.helmy@undp.org). The application should contain a current and complete C.V. in English including the e-mail and phone contact, together with a financial offer including a lumpsum for the fees excluding the travel costs that will be covered as per UNDP rules and regulations.

## Annex 2: Evaluation Matrix

Evaluation Questions	Indicators	Data Sources	Data Collection Methods
<b>Relevance and Project Formulation</b>			
<p>Is the initiative aligned to the national development strategy?</p> <p>How does the project align with national strategies in the affected sectors and specific development challenges in the country?</p> <p>Where is this project implemented?</p> <p>Who are the main beneficiaries of the project and how does the project address their human development needs?</p> <p>To what extent are the objectives of the project still valid?</p> <p>Are the activities and outputs of the project consistent with attainment of its objectives?</p>	<p>Number of development and sectoral plans/strategies relevant for the project</p> <p>Level of alignment between the project objectives/outcomes and national development and sectoral strategies</p>	<p>UNDP programme/pro- ject documents</p> <p>UNDP programme/pro- ject Annual Work Plans</p> <p>Programmes/projects/ thematic areas evaluation reports</p> <p>Government's national planning documents</p> <p>Human Development Reports</p> <p>MDG progress reports</p> <p>Government partners progress reports</p> <p>Interviews with beneficiaries</p>	<p>Desk reviews of secondary data</p> <p>Interviews with government partners</p> <p>Interviews with NGOs partners/service providers</p> <p>Interviews with funding agencies and other UNCT</p> <p>Interview with civil societies in the concerned sector</p> <p>Interviews with related parliamentary committees</p> <p>Related Constitutional bodies such as Human Rights, Women Rights, etc.</p> <p>Field visits to selected projects</p>
<p>Were the project's objectives and components clear, practicable and feasible within its time frame?</p> <p>Were the capacities of the executing institution(s) and its counterparts properly considered in the project design?</p> <p>Were lessons from other relevant projects properly incorporated in the project design?</p> <p>Were the partnership arrangements properly identified and roles and responsibilities negotiated prior to project approval?</p> <p>Were counterpart resources (funding, staff, and facilities), enabling legislation, and adequate project management arrangements in place at project entry?</p> <p>Were the project assumptions and risks well identified in the PIF and the Project Document?</p> <p>To what extent has UNDP adopted participatory approaches in planning and delivery of the initiative and what has been feasible in the country context?</p> <p>What analysis was done in designing the project?</p> <p>Are the resources allocated sufficient to achieve the objectives of the project?</p>	<p>Level of participation of key and tangential stakeholders in the project design and implementation</p> <p>Level of stakeholder analysis at the project design stage</p> <p>Level of allocation of resources to individual outcomes</p> <p>Level of alignment with the priorities mentioned in the UNDAF and UNDP Country Programme Document</p> <p>Appreciation from national stakeholders with respect to adequacy of project design and implementation to national realities and existing capacities</p>	<p>UNDP staff</p> <p>Development partners (UN agencies, bilateral development agencies)</p> <p>Government partners involved in specific results/thematic areas</p> <p>Concerned civil society partners</p> <p>Concerned associations and federations</p> <p>National policies and strategies</p> <p>UNDAF and CPD documents for Egypt</p>	<p>Interviews with UNDP staff, development partners and government partners, civil society partners, associations, and federations</p>

Evaluation Questions	Indicators	Data Sources	Data Collection Methods
<b>Project Implementation and Adaptive Management</b>			
<p>Did the project undergo significant changes as a result of MTR recommendations and/or of other review procedures?</p> <p>Did the changes materially change the expected project outcomes?</p> <p>Were there adequate provisions in the project design for consultation with stakeholder?</p> <p>To what extent were effective partnerships arrangements established for implementation of the project with relevant partners?</p> <p>To what extent were lessons from other relevant projects incorporated into project implementation?</p> <p>Whether feedback from M&amp;E activities was used for adaptive management?</p>	<p>Response to the MTR</p> <p>Level of solution of implementation issues solved by PMU/UNDP</p> <p>Quality and level of use of implementation monitoring tools</p>	<p>Minutes of the Project Steering Committee meetings</p> <p>MTR Report</p> <p>Annual Work Plans</p> <p>Annual Progress Reports</p> <p>Government partners</p> <p>Development partners</p> <p>UNDP staff (Programme Implementation Support Unit)</p>	<p>Interviews with UNDP staff</p> <p>Interviews with government partners</p> <p>Interviews with development partners</p> <p>Desk review of secondary data</p>
<p>—</p> <p>Was the M&amp;E plan well conceived at the design phase and sufficient to track progress toward achieving objectives?</p> <p>Was the M&amp;E plan sufficiently budgeted and funded during project preparation and implementation?</p> <p>Were the monitoring indicators from the project document effective for measuring progress and performance?</p> <p>Was the logical framework used during implementation as a management and M&amp;E tool?</p> <p>What has been the level of compliance with the progress and financial reporting requirements/ schedule, including quality and timeliness of reports?</p> <p>What was the extent to which follow-up actions, and/ or adaptive management, were taken in response to monitoring reports (APR/PIRs)?</p> <p>.</p>	<p>M&amp;E Plan design and implementation</p> <p>Quality and level of use of implementation monitoring tools</p> <p>Quality of existing information systems in place to identify emerging risks and other issues</p> <p>Quality of risk mitigations strategies developed and implemented</p> <p>Level of financial controls established and used to provide feedback on implementation</p> <p>Level of prioritization of activities for achievement of significant results</p> <p>Consistency of the APR/PIR self-evaluation ratings with the MTR findings</p>	<p>Minutes of the Inception Workshop</p> <p>Programme documents</p> <p>Annual Work Plans</p> <p>Annual Progress Reports</p> <p>Evaluation reports</p> <p>Government partners</p> <p>Development partners</p> <p>UNDP staff (Programme Implementation Support Unit)</p>	<p>Interviews with UNDP staff</p> <p>Interviews with government partners</p> <p>Interviews with development partners</p> <p>Desk review of secondary data</p>

Evaluation Questions	Indicators	Data Sources	Data Collection Methods
<b>Effectiveness</b>			
<p>Did the project or programme implementation contribute towards the stated outcomes? Did it at least set dynamic changes and processes that move towards the long-term outcomes?</p> <p>What outputs has the project achieved and what outcomes does the project intend to achieve?</p> <p>What changes and progress towards the outcomes can be observed as a result of the outputs?</p> <p>To what extent were the project objectives achieved?</p> <p>How does UNDP measure its progress towards expected results/outcomes?</p> <p>In addition to the project, what other factors may have affected the results?</p> <p>What were the unintended results (+ or -) of the project?</p>	<p>Target indicators in the project results framework</p> <p>Level of coherence between the project design and implementation approaches</p> <p>Level of coherence between activities and outputs/outcomes</p> <p>Level of management of assumptions and risks</p>	<p>Project/programme/thematic areas evaluation reports</p> <p>Data reported in project annual and quarterly reports by PMU and UNDP staff</p> <p>Development partners</p> <p>Government partners</p> <p>Beneficiaries</p>	<p>Interviews with UNDP staff</p> <p>Interviews with government partners</p> <p>Interviews with development partners</p> <p>Desk review of project annual and quarterly reports</p> <p>Field visits to selected sites</p>
<p>How broad are the outcomes (e.g., local community, district, regional, national)?</p> <p>What has been the results of the capacity building/training components of the project? Were qualified trainers available to conduct trainings?</p> <p>Are the results of the project intended to reach local community, district, regional or national level?</p>	<p>Level of outreach of the project to the ultimate beneficiaries</p> <p>Level of increase in capacity building resulting from the training components</p>	<p>Training evaluation reports</p> <p>Progress reports on projects</p>	<p>Desk review of secondary data</p>
<p>Who are the direct beneficiaries and how many of them were affected by the project?</p> <p>Who are the ultimate beneficiaries and to what extent have they been reached by the project?</p> <p>To what extent do the poor, indigenous groups, women, and other disadvantaged and marginalized groups benefit?</p> <p>How have the particular needs of disadvantaged groups been taken into account in the design and implementation, benefit sharing, monitoring and evaluation of the project/ programme?</p> <p>How far has the regional context been taken into consideration while selecting the project/ programme?</p> <p>Was there any partnership strategy in place for implementation of the project and if so how effective was it?</p>	<p>Level of outreach of the project to the ultimate beneficiaries</p> <p>Level of inclusion of marginal groups of beneficiaries</p> <p>Cooperation with partners on project implementation</p>	<p>Programme documents</p> <p>Annual Work Plans</p> <p>Annual Progress Reports</p> <p>Evaluation reports</p> <p>MDG progress reports</p> <p>Human Development Reports</p>	<p>Desk review of secondary data</p>

Evaluation Questions	Indicators	Data Sources	Data Collection Methods
<b>Efficiency</b>			
<p>Has the project or programme been implemented within the original timeframe and budget?</p> <p>Have UNDP and its partners taken prompt actions to solve implementation issues, if any?</p> <p>Have there been time extensions on the project? What were the circumstances giving rise to the need for time extension?</p> <p>Has there been over-expenditure or under-expenditure on the project?</p> <p>What mechanisms does UNDP have in place to monitor implementation? Are these effective?</p> <p>Have there been any outside factors (e.g. political instability) affecting on implementation effectiveness?</p>	<p>Level of adherence to the original timeframe and budget</p> <p>Quality of annual workplans <i>vis-à-vis</i> the project logframe</p> <p>Level of solution of implementation issues solved by PMU/UNDP</p> <p>Quality and level of use of implementation monitoring tools</p> <p>Timeliness and adequacy of reporting provided</p> <p>Level of discrepancy between planned and utilized financial expenditures</p> <p>Comparison of planned vs. actual funds leveraged</p>	<p>Programme documents</p> <p>Annual Work Plans</p> <p>Annual Progress Reports</p> <p>Evaluation reports</p> <p>Government partners</p> <p>Development partners</p> <p>UNDP staff (Programme Implementation Support Unit)</p>	<p>Interviews with government partners and development partners</p> <p>Desk review of secondary data</p>
<p>Were UNDP resources focused on the set of activities that were expected to produce significant results?</p> <p>Was there any identified synergy between UNDP initiatives that contributed to reducing costs while supporting results?</p> <p>Has there been a Project Implementation Support Unit and how it assisted the efficiency of implementation?</p> <p>Were the project resources concentrated on the most important initiatives or were they scattered/spread thinly across initiatives?</p> <p>Did the leveraging of funds (co financing) happen as planned?</p> <p>Were financial resources utilized efficiently? Could financial resources have been used more efficiently?</p> <p>Was procurement carried out in a manner making efficient use of project resources?</p> <p>Was an appropriate balance struck between utilization of international expertise as well as local capacity?</p> <p>Did the project take into account local capacity in design and implementation of the project?</p> <p>Was there an effective collaboration between institutions responsible for implementing the project?</p> <p>How efficient are partnership arrangements for the project?</p>	<p>Synergies with similar activities funded from other sources</p> <p>Level of financial controls established and used to provide feedback on implementation</p> <p>Level of prioritization of activities for achievement of significant results</p> <p>Proportion of expertise utilized from international experts compared to national experts</p> <p>Number/quality of analyses done to assess local capacity potential and absorptive capacity</p> <p>Specific activities conducted to support the development of cooperative arrangements between partners,</p> <p>Examples of supported partnerships</p> <p>Evidence that particular partnerships/linkages will be sustained</p> <p>Types/quality of partnership cooperation methods utilized</p>	<p>Programme documents</p> <p>Annual Work Plans</p> <p>Annual Progress Reports</p> <p>Evaluation reports</p> <p>Government partners</p> <p>Development partners</p> <p>UNDP staff (Programme Implementation Support Unit)</p>	<p>Interviews with government partners and development partners</p> <p>Desk review of secondary data</p>

Evaluation Questions	Indicators	Data Sources	Data Collection Methods
<b>Sustainability</b>			
<p>Does/did the project have an exit strategy?</p> <p>How does UNDP propose to exit from projects that have run for several years?</p> <p>To what extent does the exit strategy take into account the following:</p> <ul style="list-style-type: none"> <li>– Political factors (support from national authorities)</li> <li>– Financial factors (available budgets)</li> <li>– Technical factors (skills and expertise needed)</li> <li>– Environmental factors (environmental sustainability)</li> </ul> <p>Were initiatives designed to have sustainable results given the identifiable risks?</p>	<p>Quality and level of self-sufficiency of institutional frameworks for continuation of activities after project completion</p> <p>Availability of counterpart/stakeholder funding for the project outcomes</p>	<p>Programme documents</p> <p>Annual Work Plans</p> <p>Annual Progress Reports</p> <p>Evaluation reports</p>	<p>Desk review of secondary data</p>
<p>What issues emerged during implementation as a threat to sustainability?</p> <p>What corrective measures were adopted?</p> <p>How has UNDP addressed the challenge of building national capacity in the face of high turnover of government officials?</p> <p>What unanticipated sustainability threats emerged during implementation?</p> <p>What corrective measures did UNDP take?</p>	<p>Level and quality of identification of sustainability issues</p> <p>Nature and quality of corrective measures by the project management to address sustainability issues</p>	<p>Evaluation reports</p> <p>Progress reports</p> <p>UNDP programme staff</p>	<p>Interview with UNDP and PMU staff</p> <p>Desk review of secondary data</p>
<p>Do the various key stakeholders see that it is in their interest that project benefits continue to flow?</p> <p>Is there sufficient public/stakeholder awareness in support of the project's long-term objectives?</p>	<p>Level of stakeholder awareness and ownership of the project results</p>		<p>Interview with government representatives</p> <p>Interview with other stakeholders' representatives</p> <p>Desk review of secondary data</p>
<p>How has UNDP approached the scaling up of successful pilot initiatives and catalytic projects?</p> <p>Has the government taken on these initiatives?</p> <p>Have external donors stepped in to scale up and/or replicate the project activities?</p> <p>What actions have been taken to scale up the project if it is a pilot initiative?</p>	<p>Level of UNDP and government interest for scale-up and/or replication</p> <p>Level of external donor interest for scale-up and/or replication</p>	<p>Evaluation reports</p> <p>Progress reports</p> <p>UNDP and PMU staff</p>	<p>Interview with UNDP and PMU staff</p> <p>Review of external donor interventions</p> <p>Desk review of secondary data</p>

Evaluation Questions	Indicators	Data Sources	Data Collection Methods
<b>Progress towards impacts</b>			
<p>What difference has the project made to the direct and ultimate beneficiaries?</p> <p>Which are the intermediate states that lead to impacts, have they been achieved and how?</p> <p>Which (if any) are still missing gaps between the project outcomes and realization of the expected impacts?</p> <p>Are the necessary conditions in place for enabling scaling up of outcomes into impacts?</p>	<p>Level of coherence between the project outcomes and intended impacts</p> <p>Nature of conditions for conversion of outcomes into impacts</p>	<p>Programme documents</p> <p>Annual Work Plans</p> <p>Annual Progress Reports</p> <p>Evaluation reports</p> <p>Government partners</p> <p>Development partners</p> <p>UNDP staff (Programme Implementation Support Unit)</p>	<p>Interviews with government partners and development partners</p> <p>Desk review of secondary data</p>
<p>Have there been verifiable improvement in energy intensity</p> <p>Have there been changes in specified indicators that progress is being made towards achievement of project objectives</p> <p>Have there been regulatory and policy changes at regional, national and/or local levels</p>	<p>Actual positive and negative, foreseen and unforeseen changes to and effects produced/induced by the development intervention</p>	<p>Programme documents</p> <p>Annual Work Plans</p> <p>Annual Progress Reports</p> <p>Evaluation reports</p> <p>Government partners</p> <p>Development partners</p> <p>UNDP staff (Programme Implementation Support Unit)</p>	<p>Interviews with government partners and development partners</p> <p>Desk review of secondary data</p>
<p>Have indigenous institutions been established and or strengthened to provide leadership and technical support to the transfer of project outcomes into impacts?</p> <p>Have collaboration mechanisms between government agencies and their boundary partners established to implement the project-initiated measures?</p> <p>Have the relevant government agencies undertaken measures to support the adoption of the project's results and their inclusion as national priorities?</p>	<p>Level of key stakeholder awareness and ownership of the project results</p> <p>Quality and level of collaboration between the stakeholder institutions</p>	<p>Programme documents</p> <p>Annual Work Plans</p> <p>Annual Progress Reports</p> <p>Evaluation reports</p> <p>Government partners</p> <p>Development partners</p> <p>UNDP staff (Programme Implementation Support Unit)</p>	<p>Interviews with government partners and development partners</p> <p>Desk review of secondary data</p>
<p>Are there sufficient fundraising, investment and revenue-generating mechanisms and strategies to enable and support the outcome-impact pathways?</p> <p>Are government agencies encouraged/enabled to facilitate wider adoption of the project results?</p> <p>Have senior and influential government officials endorsed the project's innovative approaches and champion the development of a more enabling policies, mechanisms and strategies for wider adoption?</p>	<p>Level of key stakeholders' awareness and ownership of the project results</p> <p>Level of stakeholders' financial commitments</p>	<p>Programme documents</p> <p>Annual Work Plans</p> <p>Annual Progress Reports</p> <p>Evaluation reports</p> <p>Government partners</p> <p>Development partners</p> <p>UNDP staff (Programme Implementation Support Unit)</p>	<p>Interviews with government partners and development partners</p> <p>Desk review of secondary data</p>



**SAMPLE QUESTIONS RELATING TO THE PROMOTION OF UN VALUES FROM A HUMAN DEVELOPMENT PERSPECTIVE**

Evaluation Questions	Indicators	Data Sources	Data Collection Methods
<b>Supporting policy dialogue on human development issues</b>			
<p>To what extent did the initiative support the government in monitoring achievement of MDGs?</p> <p>What assistance has the initiative provided supported the government in promoting human development approach and monitoring MDGs?</p> <p>To what extent do the project objectives conform to agreed priorities in the UNDP country programme document (CPD) and UNDAF?</p>	<p>Level of contribution of the project to the achievement of MDGs</p> <p>Level of alignment of the project objectives with the CPD and UNDAF</p>	<p>Project documents</p> <p>Evaluation reports</p> <p>HDR reports</p> <p>MDG reports</p> <p>National Planning Commission</p> <p>Ministry of Finance</p>	<p>Interviews with government partners</p> <p>Desk review of secondary data</p>
<b>Contribution to gender equality</b>			
<p>To what extent was the UNDP initiative designed to appropriately incorporate in each outcome area contributions to attainment of gender equality?</p> <p>To what extent did UNDP support positive changes in terms of gender equality and were there any unintended effects?</p> <p>Provide example(s) of how the initiative contributes to gender equality.</p> <p>Can results of the programme be disaggregated by sex?</p>	<p>Level and quality of monitoring of gender related issues</p>	<p>Project documents</p> <p>Evaluation reports</p> <p>UNDP staff</p> <p>Government partners</p> <p>Beneficiaries</p>	<p>Interviews with UNDP staff and government partners</p> <p>Observations from field visits</p> <p>Desk review of secondary data</p>
<b>Addressing equity issues (social inclusion)</b>			
<p>How did the UNDP initiative take into account the plight and needs of vulnerable and disadvantaged to promote social equity, for example, women, youth, disabled persons?</p> <p>To what extent have indigenous peoples, women, conflict- displaced peoples, and other stakeholders been involved in project design?</p> <p>Provide example(s) of how the initiative takes into account the needs of vulnerable and dis- advantaged groups, for example, women, youth, disabled persons</p> <p>How has UNDP programmed social inclusion into the initiative?</p>	<p>Level and quality of monitoring of social inclusion related issues</p>	<p>Project documents</p> <p>Evaluation reports</p> <p>UNDP staff</p> <p>Government partners</p> <p>Beneficiaries</p>	<p>Interviews with UNDP staff and government partners</p> <p>Observations from field visits</p> <p>Desk review of secondary data</p>

### Annex 3: Itinerary of the Evaluation Mission

Date	Activity/Topic	Stakeholder institutions/Responsible
<b>Saturday 11 May</b>	Arrival to Cairo	Evaluation Consultant, Transport Advisor
<b>Sunday 12 May</b>	Briefing on the plan of mission	UNDP CO, PMU, Evaluation Consultant, Transport Advisor
	Project Presentation on Component # 1	DRTPC, PMU, Evaluation Consultant, Transport Advisor
<b>Monday 13 May</b>	Meeting with EEAA Top Officials	Director of Air Quality Department EEAA, National GEF Focal Point, PMU, Evaluation Consultant, Transport Advisor
	Meeting with NUCA Top Officials	PMU, DRTPC, NUCA, Evaluation Consultant, Transport Advisor
	Visit the newly constructed bus terminal and depot, Sheikh Zayed City	PMU, DRTPC, Evaluation Consultant, Transport Advisor
<b>Tuesday 14 May</b>	Presentation on NMT pilot projects in Fayoum and Monofia Governorates, Variable Message Parking Signs Pilot Project (VMS) in Cairo Governorate, and other project activities	DRTPC, PMU, Evaluation Consultant, Transport Advisor
	Meeting with UN Habitat	PMU, UN Habitat PO, Evaluation Consultant, Transport Advisor
	Visit the VMS control room, sign and garage	DRTPC, PMU, VMS Control Room staff
<b>Wednesday 15 May</b>	Meeting with the Fayoum University Administration and students	Head of DRTPC, Fayoum University administration and Students Union, Evaluation Consultant
	Meeting with NGOs in Fayoum City	Head of DRTPC, Head of NGO Association in Fayoum City, Evaluation Consultant
	Meeting with DRTPC team on GHG emissions	DRTPC Team, Transport Advisor
	Meeting with CEDARE	???, Transport Advisor
<b>Thursday 16 May</b>	Meeting with EEAA top officials	CEO EEAA, Head of PMU, Evaluation Consultant
	Meeting with Mowsalat Misr	MM Chairman&CEO, MM Deputy General Manager, DRTPC, PMU, Evaluation Consultant
	Debriefing meeting with UNDP	UNDP Deputy RR, RBM Analyst, Evaluation Consultant
<b>Friday 14 May</b>	Departure from Cairo	Evaluation Consultant, Transport Advisor

## **Annex 4: List of People Interviewed**

### **United Nations Development Programme (UNDP):**

Sylvain Merlen , Deputy Resident Representative,  
Mohamed Bayoumi, Assistant Resident Representative  
Ma Amira Abdel Latif, Results Based Management Analyst

### **STP Programme Management Unit (PMU):**

Mohamed Fathy, Project Manager  
Suzan El Meniawy, Administration and Financial Manager

### **Egyptian Environmental Affairs Agency (EEAA), Implementing Agency:**

Mohamed Salah, Chief Executive Officer  
Mona Kamal, Project National Coordinator  
Dr. Mostafa Morad, Acting Head of Sector for Environment Quality.  
Eng. Mohamed Saad, Head of the General Department for Vehicles Exhausts, and Director of EEAA Technical Center for Vehicles Exhausts

### **Transportation Programme, Development Research and Technological Planning Center (DRTPC), Cairo University, Project Technical Arm:**

Ali Huzayyin, Project Technical Team Leader / National Advisor  
Tarek El Reedi, Project Component # 1 Leader  
Hindawi Salem, Senior Energy / Environment Expert  
Mohamed Anwar, Architect & Site Planning Expert  
Alaa El Mokadem, Energy/Environment & Engineering Industry Expert  
Magda Reyad, Senior Expert

### **Cairo Governorate:**

Fifi Abd Elghani, Head of Traffic Engineering and Planning Office  
Nashaat Nooh, responsible for operating the VMS control room

### **Ministry of Housing, Utilities and Urban development:**

Abd El Moteleb Mamdouh Omara, Deputy Chairman, New Urban Communities Authority  
Alaa Abd Elaziz, Assistant Deputy Chairman, New Urban Communities Authority.

### **Fayoum University**

Ashraf Abd Elhafeez, President  
Hesham Ragab, Director for Youth Activities General Department

### **UN Habitat Egypt**

Rania Hedeya, Director.  
Salma Mousallem, Programme Officer

### **Mowasalat Misr Company**

Hesham Taha, Chairman of Board of Directors  
Mohsen Sabra, Chief Executive Officer

## **Annex 5: List of Documents Consulted**

1. Guidelines for GEF Agencies in Conducting Terminal Evaluation for Full-sized Projects, GEF, April 2017
2. The GEF Monitoring and Evaluation Policy, GEF Evaluation Office, 2010
3. Outcome-Level Evaluations, A Companion Guide, UNDP, 2011
4. Glossary of Key Terms in Evaluation and Results Based Management, OECD, 2010
5. Ethical Guidelines for Evaluations, UNEG, 2008
6. Integrating Human Rights and Gender Equality in Evaluations, UNEG, 2014
7. Manual for Calculating Greenhouse Gas Benefits of Global Environment Facility Transportation Projects, GEF, 2015
8. Sustainable Transport in Egypt, Project Document, UNDP/GEF, 2008
9. Minutes of STP Inception Meeting, UNDP, 2009
10. Mid-Term Evaluation Report on UNDP/GEF Project: Egypt Sustainable Transport, UNDP/GEF, 2013
11. STP Implementation Reports, UNDP, 2010-2018
12. STP Combined Delivery Reports, UNDP, 2010-2018

## Annex 6: Project Stakeholder Map from the Project Document

<b>Institution</b>	<b>Role in Sustainable Transport</b>
Egyptian Environmental Affairs Agency (EEAA)	Policymaking for emission standards and carbon emissions for road transport vehicles
General Authority for Roads, Bridges and Land Transport (GARBLT) under the Ministry of Transport (MoT)	In charge of intercity freight transport and infrastructure. Development and implementation of sustainable transport policies and actions in the field of freight transport Head of the Higher Committee for Greater Cairo Transportation Planning
New Urban Communities Authority (NUCA) under the Ministry of Housing Utilities and Urban Development (MoHUD)	In charge of the development and management of new cities, including the satellite cities around Cairo Integration of land use and sustainable transport planning Technical and logistical support and allocation of land for the new bus terminal facilities in new satellite cities
Governorate of Cairo (GC) and its underlying agencies: Cairo Transport Authority (CTA) Greater Cairo Bus Company (GCBC)	In charge of the management of Cairo transport, including the road based public transport modes Coordination of development of the different public transport modes in the Greater Cairo Area in general Issuing the licenses for the new private bus operators in the area of Cairo
Cairo Traffic Engineering Bureau (CTEB)	Engineering type of work (e.g. design of intersections, parking schemes)
Governorates of Fayoum and Monofia	In charge of the management of the cities of Fayoum and Shebin El-Kom Approval of Sustainable Transport (ST) concepts for their respective jurisdiction
Development Research and Technological Planning Center at Cairo University (DRTPC)	Management of technical issues for the project
Fayoum and Shebin El Kom Universities	Supporting public awareness raising and marketing for NMV modes of travel
Local Traffic Police working under the Ministry of Interior	Oversight of all traffic control measures in Cairo and other major cities in Egypt
Ministry of Investment	Leveraging capital financing for infrastructure investments

## Annex 7: Project Results Framework (at the Project Inception)

	Indicator	Baseline	Target	Sources of Verification	Assumptions
<b>Project Objective:</b> To create an enabling policy and institutional environment and leverage resources for sustainable transport sector development, including the increasing or sustained modal share of public and non-motorized transportation, reduced use of private cars and more energy efficient freight transportation.	<p>The status and impact of the pilot projects.</p> <p>Level of replication and/or expansion of the sustainable transport schemes promoted by the project</p> <p>Level of adoption and implementation of the required policy and institutional changes.</p>	<p>The need for the proposed activities recognized, but the implementation suffering from different barriers.</p>	<p>The proposed pilot activities successfully concluded with the associated reduction of CO<sub>2</sub> emissions by 1,48 million tons of CO<sub>2</sub> equivalent (calculated for the pilot projects over 20 years from the project start) as a direct result of the project activities.</p> <p>The replication of the projects initiated as per the stated replication targets, including the leveraging of financial resources for that at the amount of at least USD 100 million for their future implementation.</p> <p>The required policy and institutional development needs recognized and implemented by the Government.</p>	<p>Impact studies conducted during project implementation (incl. an updated baseline study to be conducted at the outset of project operations)</p> <p>Final project evaluation.</p> <p>Official government documents + final evaluation.</p>	<p>Real political will of the key public authorities to effectively support and facilitate the implementation of the first pilot projects, their effective replication or expansion and the overall institutional development needs of the transport sector.</p>

<p><b>Outcome 1:</b> The concept for new, integrated high quality public transport services (to exert shift from private cars) for Cairo and its satellite cities successfully introduced and replicated on the basis of public-private partnerships.</p>	<p>The new public transport services continue to operate on a self sustaining basis at the end of the project</p> <p>Proposals and agreements for replication are submitted and negotiated with the relevant authorities.</p> <p>The estimated amount of reduced GHG emissions by the pilot projects compared to the baseline.</p>	<p>No adequate public transport services that can attract car users for the satellite cities available.</p> <p>No feeder system that can attract car users for metro in place.</p> <p>Lack of experience with more advanced, road based public transport systems such as BRT.</p>	<p>The new public transport services introduced during the project continue to operate on a self sustaining basis.</p> <p>Agreements for the replication of the concept of new, high quality and with cities' internal public transport system integrated inter-city bus services between Cairo and its 6 satellite cities formulated and discussed with the authorities.</p> <p>Successful demonstration and agreement of the Government for replication of an integrated feeder bus and ticketing system for 9 existing and for 5 new metro stations in Cairo.</p> <p>Depending on the final feasibility assessment, the construction of a pilot BRT system initiated for one location.</p> <p>Reduced CO<sub>2</sub> emissions of 0,29 million tons of CO<sub>2</sub> equivalent (calculated for the pilot projects over 20 years from the project start) as a direct result of the project activities.</p>	<p>Impact and detailed baseline studies conducted during the project implementation (project intermediate reports)</p> <p>Final evaluation</p>	<p>Commercial feasibility of the proposed service high enough to attract private bus operators.</p> <p>A supportive policy framework for public-private partnerships facilitating adequate fare box revenues and income from complementary activities such as advertising.</p>
<p><b>Output 1.1</b> The public bidding and negotiations for the new service finalized</p>	<p>Status of the tender.</p>	<p>n/a</p>	<p>Concluded tender and signed contracts</p>	<p>Project reports</p>	<p>The terms of tender attract private sector interest</p>
<p><b>Output 1.2</b> New, high quality public transport service for connecting Cairo and the city of 6<sup>th</sup> of October, Sheikh Zaid and Media Production City successfully in operation attracting current or potential future private car users, together with the improvement of the internal public transport service within the 6<sup>th</sup> of October.</p>	<p>The amount of passengers using the new services</p> <p>The financial performance of the service provided.</p>	<p>No fast, accurate and comfortable public transportation available between the old and their "new" satellite cities.</p>	<p>More than 6,000 passengers per day using the new services between Cairo and the city of 6<sup>th</sup> of October</p> <p>More than 2,500 passengers per day using the new service within the city of 6<sup>th</sup> of October</p> <p>The new services continue to operate on a financially sustainable basis.</p>	<p>Ticket sale + on-board surveys</p> <p>Project intermediate reports and the final evaluation.</p>	<p>See above</p>
<p><b>Output 1.3</b> The feeder bus lines serving two metro stations in Cairo successfully in operation with integrated fare policy and ticketing, attracting current or potential future private car users.</p>	<p>The amount of passengers using the new feeder services</p> <p>The financial indicators of the service provided.</p>	<p>No coordinated feeder system in place for the metro.</p> <p>No integrated fare policy and ticketing between the bus and rail based systems.</p>	<p>More than 5,000 passengers per day using the new services.</p> <p>The new services continue to operate on a financially sustainable basis.</p>	<p>Ticket sale + on-board surveys</p> <p>Project intermediate reports and the final evaluation.</p>	<p>See above</p>

<b>Output 1.4</b> The results and experiences of the first year operation of the new services documented disseminated and discussed with the key decision makers (including the achieved GHG emission reductions).	The status of the report	The results and experiences not documented and disseminated	Report finalized, presented to and discussed with the key stakeholders.	Project reports	The pilot systems in operation.
<b>Output 1.5</b> Subject to the success with the first pilot projects, the supporting studies and stakeholder consultations for the replication of the concepts including, if feasible, Bus Rapid Transit (BRT)	The number of locations and corridors, for which the studies and stakeholder consultations have been successfully finalized.	No follow up to facilitate replication	Supporting studies for selected replications of the concepts for additional satellite cities around Cairo, including the consideration of a BRT scheme, if feasible (for Output 1.1), and for selected existing and new metro stations in Cairo (for Output 1.2) finalized. (For prerequisites to enter this activity, see assumptions)	Project reports	Success with the first pilot systems  For the studies: Confirmed prior commitment of the key stakeholders and leveraged resources to follow up with actual implementation.
<b>Outcome 2:</b> The modal share of non-motorized transport in middle size provincial cities increased or sustained.	Modal share of NMT in the targeted cities.  Number of kilometers of new NMT corridors constructed and used.  The estimated amount of reduced GHG emissions by the selected pilot projects compared to the baseline.	52 % in Shebin El-Kom (down from 68% in 1988) and 31 % in Fayoum.  .	The estimated current NMT modal share in the targeted cities sustained or increased.  A total of 50km new NMT corridors constructed and used by the end of the project.  Reduced CO <sub>2</sub> emissions of 0,26 million tons of CO <sub>2</sub> equivalent (calculated for the pilot projects over 20 years from the project start) as a direct result of the project activities	Project intermediate reports, specific studies and the final evaluation.	The associated TA and marketing activities can successfully encourage NMT, if the infrastructure is in place.
<b>Output 2.1</b> Final design of new NMT corridors in Fayoum and Shebin El-Kom	The design reports approved by the key project stakeholders for implementation and financing.	Draft design of the two NMT corridors tentatively agreed by the key stakeholders for implementation and financing.	The final design reports approved by the key stakeholders for implementation and financing.	Project reports	Continuing commitment of the key stakeholders to support the construction of the two NMT corridors in accordance with the letters received.
<b>Output 2.2</b> Construction of a new 13,6 km NMT corridor in Fayoum.	The status of construction of the NMT corridor in Fayoum.	No specifically designed NMT corridor in Fayoum	Construction of at least 13,6 km new bicycle lanes and improvement of the sidewalks in Fayoum finalized.	Project reports	See above
<b>Output 2.3</b> Construction of a new 6,5 km NMT corridor in Shebin El-Kom	The status of construction of the NMT corridor in Shebin El-Kom	No specifically designed NMT corridor in Shebin-El Kom	Construction of at least 6,5 km new bicycle lanes and improvement of the sidewalks in Shebin El-Kom finalized.	Project reports	See above



<b>Output 2.4</b> In co-operation with the local stakeholders, facilitate the establishment and training of the staff of local bicycle manufacturing, selling and repair shops, conduct promotional campaign to raise the social acceptance of cycling and to lower the barriers to bicycle purchase and use.	The status of the promotional campaign and the establishment of supporting rental, sale and repair services for bicycles.	Limited capacity of the local stakeholders to support adequate promotional campaigns and to establish new bicycle rental, sale or repair services.	Promotional campaigns for NMT in Fayoum and Shebin El-Kom implemented and established bicycle rental, sale and repair services with trained staff, which continue to work on a commercial basis.	Project reports and mid-term and final evaluations	Co-operation with the local stakeholders such as the local universities in Fayoum and Shebin El-Kom, the SFD etc. to conduct the promotional campaign.
<b>Output 2.5</b> The use of the new NMT corridors monitored and the results and experiences documented and disseminated (including the achieved GHG emission reductions).	The status of the report	The results and experiences not documented and disseminated	Report finalized	Project reports	The two NMT corridors constructed as planned.
<b>Output 2.6</b> Subject to the success with the first pilot NMT corridors, the supporting studies and stakeholder consultations for the replication of NMT corridors in other middle-size cities finalized.	The number of studies and agreements finalized for the construction of NMT corridors in other middle size cities.	No follow up to facilitate replication	Subject to the success with the first pilot corridors, finalized stakeholder consultations and agreements with the local governments for extension and/or replication of the NMT corridors in the selected sites in other cities. (For prerequisites to enter this activity see assumptions).	Project reports	Confirmed success with the first NMT corridors  For the studies for replication: Confirmed prior commitment of the key stakeholders and leveraged resources to follow up with actual implementation.
<b>Outcome 3:</b> Successful introduction of the Transport demand Management (TDM) concept with an objective to expand it towards more aggressive measures over time to effectively discourage the use of private cars, when good quality public transport services are available.	The level of enforcement of the piloted TDM measures.  The level of satisfaction of the key stakeholders on the effectiveness of the TDM measures introduced.  The estimated amount of reduced GHG emissions by the selected pilot projects compared to the baseline.	No real strategy currently in place to effectively proceed with TDM in order to reduce the local air pollution and congestion in Greater Cairo area and Alexandria and simultaneously contribute to GHG reduction.	The pilot TDM measures effectively enforced and respected by the car users (for further details, see the component specific description)  High satisfaction of the key stakeholders on the effectiveness of the TDM measures introduced and on the quality of the alternative public transport services provided.  Agreement of the local governments to replicate and/or expand the pilot TDM measures in the Greater Cairo Area and, if applicable, Alexandria.  Reduced CO <sub>2</sub> emissions of 0,08 million tons of CO <sub>2</sub> equivalent (calculated for the pilot projects over 20 years from the project start) as a direct result of the project activities	Project intermediate reports and the final evaluation.  Separate surveys	Continuing commitment of the key stakeholders to support the suggested TDM measures in accordance with the letters received.  Full involvement and support secured from the local city administration and from the authorities (traffic police etc.), who will be responsible for the enforcement of the suggested TDM measures
<b>Output 3.1</b> Finalized design and implementation arrangements for all the planned TDM measures.	The design reports approved by the key project stakeholders for implementation and financing.	Conceptual design of the planned TDM measures agreed by the key stakeholder for implementation and financing.	The final design reports approved by the key stakeholders for implementation and financing.	Project reports	Continuing commitment of the key stakeholders to support the planned TDM measures.

<b>Output 3.2</b> Supporting TDM measures such as parking measures and, if applicable, segregated bus lanes implemented for increasing the attractiveness of the public transport components under outcome 1	The level of implementation and enforcement of the suggested TDM measures.	The public transport services improved under component 1 without complementary TDM measures to improve the chances for success.	With component 1 corresponding parking policy and other measures to encourage the current or expected future private car users to use the new public transport services  Whenever physically feasible, introducing the right of way (separate bus lanes) to improve the traffic flow and attractiveness of the public transport in terms of its speed.	Project reports and final evaluations	The physical environment allowing segregated bus lanes.  Commitment of the key local stakeholders to support and enforce the suggested TDM measures.  The “win-win” opportunities of increased speed recognized also by the shared taxis.
<b>Output 3.3:</b> A comprehensive transport management project for one pilot corridor finalized, including a public transportation priority system at traffic signals and, if applicable, pedestrianization of selected sections adjacent to/in the vicinity of the corridor.	The level of implementation and enforcement of the suggested TDM measures.	Lack of experience and concrete success stories to back up the more aggressive implementation of the required TDM measures to effectively address the current transport sector related problems.	Successful finalization and effective enforcement of the selected TDM measures in the selected pilot corridor.  Reported satisfaction of the key decision makers on the effectiveness of the measures promoted.	Project monitoring reports and visual check up by site visits.  Continued stakeholder consultations.	Continuing commitment of the key stakeholders to support the testing of the suggested TDM measures in accordance with the letters received.
<b>Output 3.4:</b> Establishing of at least one new pilot micro-pedestrian area in Greater Cairo area and initiating 10 new micro-pedestrian areas in other strategic locations of Cairo, Giza and Alexandria.	The level of implementation and enforcement of the suggested TDM measures.	Lack of experience and concrete success stories to back up the more aggressive implementation of the required TDM measures to effectively address the current transport sector related problems.	The construction of the pilot micro-pedestrian area finalized and the area taken into use.  Proposals for the establishment of at least 10 new pedestrian areas in strategic locations of Cairo, Giza and Alexandria completed, presented and negotiated with the local authorities by the end of the project.  On the basis of the above, agreement of the local government to replicate at least 10 new micropedestrian areas.	Project reports and visual check up by regular site visits.	Continuing commitment of the key stakeholders to support the testing of the suggested TDM measures in accordance with the letters received.
<b>Output 3.5</b> Introduction of staggered parking charges to discourage the private cars to enter the city centre and improve the service provided by parking garages surrounding the city centre with Variable Message (Parking) Signs (VMS) and free shuttle service to the city centre and/or closest metro station)	The level of implementation and enforcement of the suggested TDM measures.	Lack of experience and concrete success stories to back up the more aggressive implementation of the required TDM measures to effectively address the current transport sector related problems.	Staggered parking charges introduced and effectively enforced in Cairo city centre  3-4 Variable Message Signs guiding parking outside the city center and the free shuttle service in operation.  Reported and confirmed satisfaction of the key decision makers on the effectiveness of the measures promoted.	Project monitoring reports and visual check up by regular site visits.  Continued stakeholder consultations.	Continuing commitment of the key stakeholders to support the testing of the suggested TDM measures in accordance with the letters received.
<b>Output 3.6</b> The results and experiences of the first year operation of the TDM measures documented, disseminated and discussed with the key stakeholders (including the achieved GHG emission reductions).	The status of the report and stakeholder consultations.	The results and experiences not documented and disseminated	Report finalized, presented to and discussed with the key stakeholders	Project reports	The suggested TDM pilot measures implemented and enforced as planned

<b>Output 3.7</b> Subject to the success with the first pilot TDM measures, the supporting studies and stakeholder consultations for the replication finalized.	The number of studies and stakeholder consultations conducted.	No follow up to facilitate replication	The policy dialogue for the expansion of the tested TDM approaches initiated with a gradual movement towards more comprehensive TDM approach for Greater Cairo area and, if applicable, Alexandria.	Project reports	Confirmed success with the TDM pilot projects.
<b>Outcome 4:</b> Improved energy efficiency of freight transport	Fuel consumption and the associated GHG emissions per ton and km of goods transported	Inefficient operation of the existing truck fleet. Low utilization of the available rail and river based freight transport options.	Reduced CO <sub>2</sub> emissions of 0.85 million tons of CO <sub>2</sub> equivalent (calculated for the pilot projects over 20 years from the project start) as a direct result of the project activities	Monitoring of the fuel savings and the associated GHG emission reductions (compared to the baseline) of the freight operators benefiting from the project.	A regulatory framework to support vehicle inspection and tuning in place, with effective enforcement. The benefits offered by the new terminal facilities high enough to attract the users.
<b>Output 4.1</b> Adopted legal and regulatory changes and incentives for improving the energy efficiency of freight transport.	The level of adoption of the recommended policy and other measures to promote sustainable freight transport.	Non-enabling policy framework	The recommended regulatory changes for improving the urban freight transport are approved by the local authorities.	Project reports	Continuing commitment of the key stakeholders to support the project
<b>Output 4.2</b> The new inspection and tuning stations in operation with trained staff to address also the energy efficiency aspects.	Number of stations in operation.  Number of vehicles inspected and tuned	No stations in operation.	10 new truck inspection and tuning stations in operation with trained staff to address also the energy efficiency aspects.	Project reports	See above
<b>Output 4.3</b> Improved energy efficiency of trucks and reduced number of driven kilometers as a result of improved logistics of truck operations in urban areas	Fuel consumption, load data and revenue data of the truck operators co-operating with the project	Low efficiency of truck operations	Over 100,000 tons savings in fuel consumption as a result of improved energy efficiency of the truck operations by the end of the project.	Project monitoring reports	See above
<b>Output 4.4:</b> Enhanced capacity of the management and envisaged users of the planned two new intermodal terminal facilities to facilitate their effective use.	The rate of use and the associated fuel savings of the new intermodal terminal facilities	Low utilisation of rail and river based freight transport options. No intermodal terminals yet in operation in Egypt.  Lack of experience of opportunities provided by new information technology such as EDI to improve the efficiency of the operations of the planned new, terminal facilities	Effective operation of new intermodal terminals attracting cargo from road based transport options.	Project reports  Operational reports of the terminal	Construction of the new intermodal terminal facilities in schedule.

<p><b>Outcome 5</b> Strengthened institutional capacity to promote sustainable transport sector development during and after the project.</p>	<p>The progress with the institutional reforms and other improvements needed.</p>	<p>The level of awareness and capacity of the key stakeholders as well as the level of adoption and implementation of the required legal, regulatory and institutional changes to facilitate sustainable transport sector development still low.</p>	<p>For all components: Adoption of a national, sustainable transport policy addressing the key requirements and setting concrete short, medium and long term targets in different key areas the project is addressing.</p> <p>For component 1: Subject to the agreement with the local authorities, the Greater Cairo Transport Authority to effectively co-ordinate the development of the public transport systems in the Greater Cairo area, established by the end of the project and its capacity built.</p> <p>For component 3: Subject to the agreement with the local authorities, a semi-public parking authority to implement and, in close collaboration with other key authorities, to enforce parking policies (conducive to sustainable transport sector development principles), if possible, established by the end of the project and its capacity built.</p> <p>For component 4: Enhanced capacity of the Ministry of Transport and its underlying agencies to develop and implement sustainable transport policies and actions in the field of freight transport.</p>	<p>Project reports and final evaluation</p>	<p>The real political will to effectively address the transport sector related problems in Egypt exist.</p>
<p><b>Output 5.1</b> Key professional groups trained on different aspects of sustainable transport</p>	<p>The number institutions and staff trained.</p>	<p>Lack of awareness and capacity among the key</p>	<p>Up to 200 key professionals in different areas trained on different aspects of sustainable transport</p>	<p>Mid term and final evaluation.</p>	<p>The motivation to be trained among the targeted groups exists or it can be built up with prior awareness raising activities.</p>
<p><b>Output 5.2</b> By building on the early results of the project, preparing a national, cross sectoral sustainable transport policy document setting concrete short, medium and long term targets in different key areas the project is addressing.</p>	<p>The adoption of a national, integrated urban planning and sustainable transport policy</p>	<p>No integrated urban planning and sustainable transport policy document exist.</p>	<p>Authorities approval of an integrated urban planning and sustainable transport policy document and guidelines, setting concrete short, medium and long term targets in different key areas the project is addressing (to be developed in close consultation between the different transport sector related authorities)</p>	<p>Project reports</p>	<p>The political will to effectively address the transport sector related problems in Egypt exist.</p>

<b>Output 5.3</b> The Greater Cairo Metropolitan Transport Bureau (GCMTB) to effectively co-ordinate the development of the public transport systems in the Greater Cairo area established and its capacity built.	The status of Greater Cairo Metropolitan Transport Bureau (GCMTB)	No institutional arrangements in place to facilitate co-ordinated development of the public transport systems in Greater Cairo area.	Finalized background studies for the establishment of GCMTB Subject to the agreement with the local authorities, the GCMTB established and put into operation by the end of the project. As applicable, trained staff to effectively run the GCMTB.	Project intermediate reports and final evaluation.	The remaining barriers to the establishment of the GCMTB can be removed during the implementation of the project.
<b>Output 5.4</b> A semi public Greater Cairo Parking Authority (GCPA) to implement and, in close collaboration with other key authorities, to enforce parking policies (conducive to sustainable transport sector development principles) established by the end of the project and its capacity built.	The status of Greater Cairo Parking Authority (GCPA)	No institutional arrangements in place to facilitate co-ordinated parking policy and its effective implementation and enforcement.	Finalized background studies for the establishment of GCPA Subject to the agreement with the local authorities, the GCPA established and put into operation by the end of the project. As applicable, trained staff to effectively run the GCPA.	Project intermediate reports and final evaluation.	Political will to establish the GCPA exist
<b>Output 5.5</b> Enhanced capacity of the Ministry of Transport and its underlying agencies to develop and implement sustainable transport policies and actions in the field of freight transport.	Number of trained professionals	Need for awareness raisings and capacity building to effectively adopt sustainable transport principles in the field of freight transport.	Enhanced awareness and capacity of the river and rail authorities and GARBLT to effectively adopt sustainable transport principles	Project intermediate reports and final evaluation	The awareness raising and capacity building provided is addressing the mutually identified and agreed needs of the targeted staff.
<b>Outcome 6:</b> Monitoring, learning, adaptive feedback and evaluation	The required information available for adaptive management, for measuring the impact and for effective replication/ expansion of the project activities.	Inadequate information for adaptive management, for measuring the impact and for effective replication/ expansion of the project activities available.	The required information available for adaptive management, for measuring the impact of the project and for effective replication/ expansion of the project activities.	Project reports.	Adequate monitoring and periodical external reviews/ evaluations of the project activities when and as needed by using the right tools and methodologies. Effective and prompt use of the interim reviews and evaluations for adaptive management
<b>Output 6.1</b> An updated baseline study for all the project components, against which the impact of the project can be measured.	Status of the report	Inadequate or outdated baseline information.	Finalized, updated baseline study.	Project reports	Selection of the right tools and methodologies for the baseline study and for monitoring the project impact.
<b>Output 6.2</b> Project mid-term evaluation and other required reviews and external, component specific evaluations when and as needed.	Status of the reports	Inadequate information for adaptive management.	Finalized external reviews and evaluations guiding the implementation of the project, as agreed with UNDP and the project management (in addition to the obligatory mid-term evaluation).	Project reports	Adequate monitoring, reporting and filing of the key documents to facilitate external reviews and evaluations.

<b>Output 6.3</b> Final project report consolidating the results and lesson learnt from the implementation of the different project components and recommendations for the required next steps.	Status of the final report	No consolidation of the results and lessons learnt.	Final project report consolidating the results and lesson learnt from the implementation of the different project component and recommendations for the required next steps.	Project reports and final evaluation	Continuing monitoring and reporting of the impact of the pilot projects by using the rights tools and methodologies as well as the experiences and lessons learnt during their implementation.
<b>Output 6.4</b> Final project evaluation.	Status of the FE		Final evaluation finalized as per the specific UNDP and GEF requirements	Project reports	Adequate monitoring, reporting and filing of the key documents to facilitate external reviews and evaluations.

## Annex 7a: Project Results Framework (at the Mid-Term Review):

Project Strategy	Objectively Verifiable Indicators
Goal	To reduce the growth of the energy consumption and the related greenhouse gas emissions of the transport sector in Egypt, while simultaneously mitigating the local environmental and other problems of increasing traffic such as deteriorated urban air quality and congestion (Indicator: the growth rate of the transport sector energy consumption).

	Indicator	Baseline	Target	Sources of Verification	Assumptions
<b>Objective:</b> To create an enabling policy and institutional environment and leverage resources for sustainable transport sector development, including the increasing or sustained modal share of public and non-motorized transportation, reduced use of private cars and more energy efficient freight transportation.	Level of replication and/or expansion of the sustainable transport schemes promoted by the project  Level of adoption and implementation of the required policy and institutional changes.	The need for the proposed activities basically recognized, but the implementation suffering from different barriers.	The proposed pilot activities successfully concluded and their replication initiated as per the stated replication targets, including the leveraging of financial resources for that at the amount of at least USD 100 million by the end of the project.  The required policy and institutional changes recognized and implemented.	Final project evaluation.	The real political will to effectively address the transport sector related problems in Egypt exist.
<b>Outcome 1:</b> The concept for new, integrated high quality public transport services (to exert shift from private cars) for Cairo and its satellite cities successfully introduced and replicated on the basis of public-private partnerships.	The new public transport services continue to operate on a self sustaining basis at the end of the project  Signed agreements for replication.	No adequate public transport services for the satellite cities available. No feeder system for metro in place.  Lack of experience with more advanced, road based public transport systems such as BRT.	The new public transport services introduced during the project continue to operate on a self sustaining basis.  Agreements for the replication of the concept of new, high quality and with cities' internal public transport system integrated inter-city bus services between Cairo and its 5 satellite cities finalized.  The agreements for replication of an integrated feeder bus and ticketing system for 9 existing and for 5 new metro stations in Cairo and 4 rail stations in Alexandria finalized.  Depending on the final feasibility assessment, the construction of a pilot BRT system initiated (with structured financing) for one location.	Final evaluation	Commercial feasibility of the proposed service high enough to attract private bus operators.  A supportive policy framework for public-private partnerships facilitating adequate fare box revenues and income from complementary activities such as advertising.
<b>Output 1.1:</b> The public bidding and negotiations for the new service finalized	Status of the tender	n/a	Concluded tender and signed contracts	Project reports	The terms of tender attract private sector interest
<b>Output 1.2:</b> New, high quality public transport service for	The amount of passengers using the new	No fast, accurate and comfortable public	More than 6,000 passengers per day using the new service between Cairo	Ticket sale + on-board surveys	See above

	Indicator	Baseline	Target	Sources of Verification	Assumptions
connecting Cairo and the city of 6 <sup>th</sup> of October, <u>Sheikh Zayed City and Dreamland City</u> successfully in operation attracting current or potential future private car users, together with the improvement of the internal public transport service within the 6 <sup>th</sup> of October.	services  The financial performance of the service provided.	transportation available between the old and their “new” satellite cities.	and the city of 6 <sup>th</sup> of October  More than 2,500 passengers per day using the new service within the city of 6 <sup>th</sup> of October  The new services continue to operate on a financially sustainable basis.	Project intermediate reports and the final evaluation.	
<b>Output 1.3:</b> The feeder bus lines serving two metro stations in Cairo successfully in operation with integrated fare policy and ticketing, attracting current or potential future private car users.	The amount of passengers using the new feeder services  The financial indicators of the service provided.	No coordinated feeder system in place for the metro.  No integrated fare policy and ticketing between the bus and rail based systems.	More than 5,000 passengers per day using the new service.  The new services continue to operate on a financially sustainable basis.	Ticket sale + on-board surveys  Project intermediate reports and the final evaluation.	See above
<b>Output 1.4:</b> The results and experiences of the first year operation of the new services documented disseminated and discussed with the key decision makers (including the achieved GHG emission reductions).	The status of the report	The results and experiences not documented and disseminated	Report finalized, presented to and discussed with the key stakeholders.	Project reports	The pilot systems in operation.
<b>Output 1.5:</b> Subject to the success with the first pilot projects, the supporting studies and stakeholder consultations for the replication of the concepts including, as feasible, Bus Rapid Transit (BRT) and state of the art light rail systems.	The number of locations and corridors, for which the studies and stakeholder consultations have been successfully finalized.	No follow up to facilitate replication	Supporting studies for the replication of the concepts for 5 additional satellite cities around Cairo (for Output 1.2), including the consideration of a BRT scheme, and for 9 existing and 5 new metro stations in Cairo (for Output 1.3) finalized (For prerequisites to enter this activity, see assumptions)	Project reports	Success with the first pilot systems  For the studies: Confirmed prior commitment of the key stakeholders and leveraged resources to follow up with actual implementation.
<b>Outcome 2:</b> The modal share of non-motorized transport in middle size provincial cities increased or sustained.	The amount of pedestrians and bicycles using the new NMT corridors.  Number of kilometers of new NMT corridors constructed and used.	The NMT modal share in the targeted cities decreasing.	The estimated current NMT modal share in the targeted cities sustained or increased ( <del>52%</del> in Shebin El-Kom and <del>31%</del> in Fayoum)  A total of <u>30</u> km new NMT corridors constructed and used by the end of the project.	Project intermediate reports and the final evaluation.	The associated TA and marketing activities can successfully encourage NMT, if the infrastructure is in place.
<b>Output 2.1:</b> Final design of new NMT corridors in Fayoum and Shebin El-Kom	The design reports approved by the key project stakeholders for implementation and financing.	Draft design of the two NMT corridors tentatively agreed by the key stakeholder for implementation and financing.	The final design reports approved by the key stakeholders for implementation and financing.	Project reports	Continuing commitment of the key stakeholders to support the construction of the two NMT corridors in accordance with the letters received.
<b>Output 2.2:</b> Construction of a new 13,6 km NMT corridor in Fayoum.	The status of construction of the NMT corridor in Fayoum.	No specifically designed NMT corridor in Fayoum	Construction of <del>at least 13,6</del> <u>11.0</u> km new bicycle lanes and improvement of the sidewalks in Fayoum finalized.	Project reports	See above



	Indicator	Baseline	Target	Sources of Verification	Assumptions
<b>Output 2.3:</b> Construction of a new 6,5 km NMT corridor in Shebin El-Kom	The status of construction of the NMT corridor in Shebin El-Kom	No specifically designed NMT corridor in Shebin-El Kom	Construction of <del>at least 6,5</del> <b>12.0</b> km new bicycle lanes and improvement of the sidewalks in Shebin El-Kom finalized.	Project reports	See above
<b>Output 2.4:</b> In co-operation with the local stakeholders, facilitate the establishment and training of the staff of local bicycle manufacturing, selling and repair shops, <del>conduct promotional campaign to raise the social acceptance of cycling and to lower the barriers to bicycle purchase and use.</del>	<del>The status of the promotional campaign</del> and the Establishment of supporting rental, sale and repair services for bicycles.	Limited capacity of the local stakeholders to support adequate promotional campaigns and to establish new bicycle rental, sale or repair services.	<del>Promotional campaigns for NMT in</del> Fayoum and Shebin El-Kom <b>have</b> implemented and established bicycle rental, sale and repair services with trained staff, which continue to work on a commercial basis.	Project reports and mid-term and final evaluations	Co-operation with the local stakeholders such as the <b>Governorates of local universities</b> in Fayoum and Shebin El-Kom, <del>the SFD etc.</del> to conduct the promotional campaign.
<b>Output 2.5:</b> The use of the new NMT corridors monitored and the results and experiences documented and disseminated (including the achieved GHG emission reductions).	The status of the report	The results and experiences not documented and disseminated	Report finalized	Project reports	The two NMT corridors constructed as planned.
<b>Output 2.6:</b> Subject to the success with the first pilot NMT corridors, the supporting studies and stakeholder consultations for the replication of NMT corridors in other middle-size cities finalized.	The number of studies and agreements finalized for the construction of NMT corridors in other middle size cities.	No follow up to facilitate replication	Subject to the success with the first pilot corridors, the supporting studies and stakeholder consultations for the replication of new NMT corridors in 27 cities finalized. (For prerequisites to enter this activity see assumptions).	Project reports	Confirmed success with the first NMT corridors For the studies for replication: Confirmed prior commitment of the key stakeholders and leveraged resources to follow up with actual implementation.
<b>Outcome 3:</b> Successful introduction of the Transport demand Management (TDM) concept with an objective to expand it towards more aggressive measures over time to effectively discourage the use of private cars, when good quality public transport services are available.	The level of enforcement of the piloted TDM measures.  The level of satisfaction of the key stakeholders on the effectiveness of the TDM measures introduced. measured in	No real strategy currently in place to effectively proceed with TDM in order to reduce the local air pollution and congestion in Greater Cairo area and Alexandria and simultaneously contribute to GHG reduction.	The pilot TDM measures effectively enforced and respected by the car users.  High satisfaction of the key stakeholders on the effectiveness of the TDM measures introduced and on the quality of the alternative public transport services provided.  Agreements for the replication and/or expansion of the pilot TDM measures signed for the Greater Cairo Area and, as applicable, Alexandria.	Project intermediate reports and the final evaluation.  Separate surveys	Continuing commitment of the key stakeholders to support the suggested TDM measures in accordance with the letters received.  Full involvement and support secured from the local city administration and from the authorities (traffic police etc.), who will be responsible for the enforcement of the suggested TDM measures
<b>Output 3.1:</b> Finalized design and implementation arrangements for all the planned TDM measures	The design reports approved by the key project stakeholders for implementation and financing	Conceptual design of the planned TDM measures agreed by the key stakeholder for implementation and financing	The final design reports approved by the key stakeholders for implementation and financing	Project reports	Continuing commitment of the key stakeholders to support the planned TDM measures

	Indicator	Baseline	Target	Sources of Verification	Assumptions
<b>Output 3.2:</b> Supporting TDM measures such as parking measures, mobile phone traffic congestion applications and, as applicable, segregated bus lanes implemented for increasing the attractiveness of the public transport components under outcome 1	The level of implementation and enforcement of the suggested TDM measures.	<del>The public transport services improved under component 1 without complementary TDM measures to improve the chances for success.</del> <u>Lack of experience and concrete success stories to back up the more aggressive implementation of the required TDM measures to effectively address the current transport sector related problems</u>	With component 1 corresponding parking policy and other measures to encourage the current or expected future private car users to use the new public transport services Whenever physically feasible, introducing the right of way (separate bus lines) for the busses and more controlled passenger pick up and release by the shared taxis, if using the same bus line, to improve the traffic flow and attractiveness of the public transport in terms of its speed.  <u>Successful implementation of the mobile phone pilot involving two alternative corridors in Nasr City (Moustafa El Nahas corridor on which the TSP pilot of output 3.3 will be applied and Zaker Hossein corridor) and two alternative corridors that link 6th Oct., Dreamland and/or Sheikh Zayed new cities with Giza in which the new bus lines of output 1.2 will be running.</u>  <u>Proposals for implementing of five pairs of alternative corridors in Greater Cairo, five in Alexandria and on along 14 traffic corridors (36 strategic street segments) in Greater Cairo, completed, presented and negotiated with the stakeholders by the end of the Project</u>  <u>Reported and confirmed satisfaction of the key decision makers on the effectiveness of the measures promoted.</u>	Project reports and final evaluations  <u>Driver interviews</u>  <u>Continued stakeholder consultations</u>  <u>Monitoring reports from the system server on the number of users benefiting from mobile phone application</u>	The physical environment allowing separate bus lanes.  Commitment of the key local stakeholders to support and enforce the suggested TDM measures.  The “win-win” opportunities of increased speed recognized also by the shared taxis.
<b>Output 3.3:</b> A comprehensive transport management approach for one pilot corridor introduced, including a public transportation priority system at traffic signals and pedestrianization of selected sections of the corridor.	The level of implementation and enforcement of the suggested TDM <u>through public transport priority</u> measures.	Lack of experience and concrete success stories to back up the more aggressive implementation of the required TDM <u>through public transport priority</u> measures to effectively address the current transport sector related problems.	Successful finalization and effective enforcement of the suggested pilot initiative.  Reported and confirmed satisfaction of the key decision makers on the effectiveness of the measures promoted.	Project monitoring reports and visual check up by regular site visits.  Continued stakeholder consultations.	<b>Continuing commitment of the key stakeholders to support the testing of the suggested TDM <u>through public transport priority</u> measures in accordance with the letters received.</b>

	Indicator	Baseline	Target	Sources of Verification	Assumptions
<b>Output 3.4:</b> Establishing of at least one new pilot micro-pedestrian area in Greater Cairo area and initiating 10 new micro-pedestrian areas in other strategic locations of Cairo, Giza and Alexandria	The level of implementation and enforcement of the suggested TDM measures.	Lack of experience and concrete success stories to back up the more aggressive implementation of the required TDM measures to effectively address the current transport sector related problems.	The construction of the pilot micro-pedestrian area finalized and the area taken into use  Proposals for the establishment of at least 10 new pedestrian areas in strategic locations of Cairo, Giza and Alexandria completed, presented and negotiated with the local authorities by the end of the Project  On the basis of the above, agreement of the local government to replicate at least 10 new micro-pedestrian areas	Project reports and visual check up by regular site visits.	Continuing commitment of the key stakeholders to support the testing of the suggested TDM measures in accordance with the letters received.
<b>Output 3.5:</b> <del>Introduction of staggered parking charges to discourage the private cars to enter the city centre and</del> Improve the service provided by parking garages surrounding Cairo city centre with Variable Message (Parking) Signs (VMS) and free shuttle service to the city centre and/or closest metro station)	The level of implementation and enforcement of the suggested TDM measures.	Lack of experience and concrete success stories to back up the more aggressive implementation of the required TDM measures to effectively address the current transport sector related problems.	<del>Staggered parking charges introduced and effectively enforced in Cairo city centre</del>  25 8 Variable Message Signs guiding parking outside the city center and the free shuttle service in operation.  Reported and confirmed satisfaction of the key decision makers on the effectiveness of the measures promoted.	Project monitoring reports and visual check up by regular site visits.  Continued stakeholder consultations.	Continuing commitment of the key stakeholders to support the testing of the suggested TDM measures in accordance with the letters received.
<b>Output 3.6:</b> The results and experiences of the first year operation of the TDM measures documented, disseminated and discussed with the key stakeholders (including the achieved GHG emission reductions).	The status of the report and stakeholder consultations.	The results and experiences not documented and disseminated	Report finalized, presented to and discussed with the key stakeholders	Project reports	The TDM suggested pilot measures implemented and enforced as planned
<b>Output 3.7:</b> Subject to the success with the first pilot TDM measures, the supporting studies and stakeholder consultations for the replication finalized.	The number of studies and stakeholder consultations conducted.	No follow up to facilitate replication	The policy dialogue for the expansion of the tested TDM approaches initiated with a gradual movement towards more comprehensive TDM approach for Greater Cairo area and, as applicable, Alexandria.	Project reports	Confirmed success with the TDM pilot projects.
<b>Outcome 4:</b> Improved energy efficiency of freight transport	Fuel consumption per ton and km of goods transported	Inefficient operation of the existing truck fleet.  Low utilization of the available rail and river based freight transport options.	<del>Over 100,000 tons savings in fuel consumption as a result of the project activities by the end of the project.</del>  <u>Efficient truck freight transport management improved and related pilot successfully implemented</u>	Monitoring of the fuel savings of the freight operators benefiting from the project	<u>Stakeholders of truck freight transport agreeing on the pilots</u>  A regulatory framework to support vehicle inspection and tuning in place, with effective enforcement.  <del>The benefits offered by the new terminal facilities high enough to attract the users.</del>
<b>Output 4.1</b> <del>Adopted legal and</del>	The level of adoption of	Non-enabling policy	The recommended legal and	Project reports	Continuing commitment of the key

	Indicator	Baseline	Target	Sources of Verification	Assumptions
regulatory changes and incentives for improving the energy efficiency of freight transport. <u>Extracted recommendations related to truck freight transport improvements based on comprehensive review of national transport studies in the past 15 years and estimation of urban fuel energy</u>	the recommended policy and other measures to promote sustainable freight transport.	framework	regulatory changes and incentives for improving the urban freight transport are approved by the local authorities <u>Extracted recommendations related to truck freight transport from the national studies from the past 15 years</u> <u>Report on classification of recommendations on truck freight transport in previous studies submitted to MoT</u> <u>Report on the estimation of the truck energy consumption and GHG emissions and air pollution in urban areas of Egypt</u>		stakeholders to support the project
<b>Output 4.2:</b> The new inspection and tuning stations in operation with trained staff to address also the energy efficiency aspects. <u>A new integrated environmental and technical inspection station for vehicles in operation with trained staff to address also the energy efficiency aspects</u>	Number of stations in operation.  Number of vehicles inspected and tuned	No stations in operation.	10 new truck inspection and tuning stations in operation with trained staff to address also the energy efficiency aspects. <u>One new integrated environmental and technical inspection station for vehicles in operation with trained staff to address the energy efficiency aspects</u>	Project reports	See above
<b>Output 4.3:</b> Improved energy efficiency of trucks and reduced number of driven kilometers as a result of improved logistics of truck operations in urban areas	Fuel consumption, load data and revenue data of the truck operators co-operating with the project	Low efficiency of truck operations	Over 100,000 tons savings in fuel consumption as a result of improved energy efficiency of the truck operations by the end of the project. <u>Efficient truck freight transport management improved and related pilot successfully implemented.</u>	Project monitoring reports	See above
<b>Output 4.4:</b> Enhanced capacity of the management and envisaged users of the planned two new intermodal terminal facilities to facilitate their effective use. <u>Report on importance of inter-modality in freight transport</u>	The rate of use and the associated fuel savings of the new intermodal terminal facilities <u>The status of freight transport inter-modality</u>	Low utilization of rail and river based freight transport options. No intermodal terminals yet in operation in Egypt. Lack of experience of opportunities provided by new information technology such as EDI to improve the efficiency of the operations of the planned new terminal facilities <u>Inter modal freight transport</u>	Effective operation of new intermodal terminals attracting cargo from road based transport options. <u>Report on the importance of intermodal freight transport completed</u>	Project reports  Operational reports of the terminal	Construction of the new intermodal terminal facilities in schedule. <u>Commitments of the Ministry of transport to promote intermodal freight transport</u>

	Indicator	Baseline	Target	Sources of Verification	Assumptions
		<u>not well functioning</u>			
<b>Outcome 5:</b> Strengthened institutional capacity to promote sustainable transport sector development during and after the project.	The rate of progress with the institutional reforms and other improvements needed.	The level of awareness and capacity of the key stakeholders as well as the level of adoption and implementation of the required legal, regulatory and institutional changes to facilitate sustainable transport sector development still low.	For all components: Adoption of a national, sustainable transport policy addressing the key requirements and setting concrete short, medium and long term targets in different key areas the project is addressing. <del>For component 1: The Greater Cairo Transport Authority to effectively co-ordinate the development of the public transport systems in the Greater Cairo area established by the end of the project and its capacity built.</del> <del>For component 3: A semi public parking authority to implement and, in close collaboration with other key authorities, to enforce parking policies (conducive to sustainable transport sector development principles) established by the end of the project and its capacity built.</del> <del>For component 4: Enhanced capacity of the Ministry of Transport and its underlying agencies to develop and implement sustainable transport policies and actions in the field of freight transport.</del>	Project reports and final evaluation	The real political will to effectively address the transport sector related problems in Egypt exist.
<b>Output 5.1:</b> Key professional groups trained on different aspects of sustainable transport <u>Emission factors for selected motor vehicles under typical urban driving conditions in Cairo</u>	The number institutions and staff trained. <u>Emission factors for car and taxi models under normal driving conditions in Cairo</u>	Lack of awareness and capacity among the key <u>No emission factors for motor vehicles under urban operating conditions available</u>	Up to 200 key professionals in different areas trained on different aspects of sustainable transport <u>Emission factors for 6 vehicle types expressed as kg unit emissions per passenger-km</u>	Mid term and final evaluation. <u>Report on the determination of vehicle emission factors in Cairo</u>	The motivation to be trained among the targeted groups exists or it can be built up with prior awareness raising activities. <u>Sufficient sampling driving tests are available to boost confidence of the emission factors determined</u>

	Indicator	Baseline	Target	Sources of Verification	Assumptions
<b>Output 5.2:</b> <u>Enhanced capacity of personnel from the central government and governorates on integrated urban land use and sustainable passenger and freight transport in provincial cities, and effective coordination in the development of the public transport systems in Cairo and other major urban centers in Egypt</u>	<u>Status of integrated land use as well as public transport land use and freight transport in urban areas</u>	Lack of awareness and capacity among the key city authorities	Up to 100 key professionals in different areas trained on different aspects of sustainable transport	Mid term and final evaluation	The motivation to be trained among the targeted groups exists or it can be built up with prior awareness raising activities
<b>Output 5.3:</b> A national, cross-sectoral sustainable transport policy document setting concrete short, medium and long term targets in different key areas based on early results from the Project.	A national, integrated urban planning and sustainable transport policy	No integrated urban planning and sustainable transport policy document exist	Adoption of an integrated urban planning and sustainable transport policy document setting concrete short, medium and long term targets in different key areas the project is addressing (to be developed in close consultation between the different transport sector related authorities)	Project reports	The political will to effectively address the transport sector related problems in Egypt exist.
<b>Output 5.4:</b> <u>Enhanced capacity of the Ministry of Transport and its underlying agencies in the area of sustainable transport</u> The Greater Cairo Metropolitan Transport Bureau (GCMTB) to effectively co-ordinate the development of the public transport systems in the Greater Cairo area established and its capacity built <u>in Cairo and other major urban centers in Egypt</u>	The status of Greater Cairo Metropolitan Transport Bureau (GCMTB)  <u>Number of trained professionals</u>	No institutional arrangements in place to facilitate coordinated development of the public transport systems in Greater Cairo area.  <u>Lack of awareness and capacity among the key government stakeholders to effectively adopt sustainable transport principles in the field of freight transport.</u>	<del>Finalized background studies (supported by JICA) for the establishment of GCMTB</del>  The GCMTB established and put into operation by the end of the project. Trained staff to effectively run the GCMTB. <u>Enhanced awareness and capacity of the river and rail authorities and GARBLT to effectively adopt sustainable transport principles</u>	Project intermediate reports and final evaluation.	The remaining barriers to the establishment of the GCMTB can be removed during the implementation of the project.  <u>The awareness raising and capacity building provided is addressing the mutually identified and agreed needs of the targeted staff</u>
<b>Output 5.4:</b> A semi-public Greater Cairo Parking Authority (GCPA) to implement and, in close collaboration with other key authorities, to enforce parking policies (conducive to sustainable transport sector development principles) established by the end of the project and its capacity built.	The status of Greater Cairo Parking Authority (GCPA)	No institutional arrangements in place to facilitate coordinated parking policy and its effective implementation and enforcement.	Finalized background studies for the establishment of GCPA  The GCPA established and put into operation by the end of the project. Trained staff to effectively run the GCPA.	Project intermediate reports and final evaluation.	Political will to establish the GCPA exist
<b>Output 5.5</b> Final project report consolidating the results and lesson learnt from the implementation of the different project component and recommendations for the required next steps.	Status of the final report	No consolidations of the results and lessons learnt.	Final project report consolidating the results and lesson learnt from the implementation of the different project component and recommendations for the required next steps.	Project Terminal Report.	

## Annex 8: Performance Rating of GEF Projects

The main dimensions of project performance on which ratings are provided in terminal evaluation are outcomes, sustainability, quality of monitoring and evaluation, quality of implementation, and quality of execution.

### Outcome ratings

The overall ratings on the outcomes of the project will be based on performance of the criteria of relevance, effectiveness and efficiency. A six-point rating scale is used to assess overall outcomes.

Highly Satisfactory (HS)	Level of outcomes achieved clearly exceeds expectations and/or there were no short comings
Satisfactory (S)	Level of outcomes achieved was as expected and/or there were no or minor short comings
Moderately Satisfactory (MS)	Level of outcomes achieved more or less as expected and/or there were moderate short comings
Moderately Unsatisfactory (MU)	Level of outcomes achieved somewhat lower than expected and/or there were significant shortcomings
Unsatisfactory (U)	Level of outcomes achieved substantially lower than expected and/or there were major short comings
Highly Unsatisfactory (U)	Only a negligible level of outcomes achieved and/or there were severe short comings
Unable to Assess (UA)	The available information does not allow an assessment of the level of outcome achievements

### Sustainability Ratings

The sustainability will be assessed taking into account the risks related to financial, sociopolitical, institutional, and environmental sustainability of project outcomes. The evaluator may also take other risks into account that may affect sustainability. The overall sustainability will be assessed using a four-point scale.

Likely (L)	There is little or no risks to sustainability
Moderately Likely (ML)	There are moderate risks to sustainability
Moderately Unlikely (MU)	There are significant risks to sustainability
Unlikely (U)	There are severe risks to sustainability
Unable to Assess (UA)	Unable to assess the expected incidence and magnitude of risks to sustainability

### Monitoring and Evaluation Ratings

Quality of project M&E are assessed in terms of design and implementation on a six point scale:

Highly Satisfactory (HS)	There were no short comings and quality of M&E design / implementation exceeded expectations
Satisfactory (S)	There were no or minor short comings and quality of M&E design / implementation meets expectations
Moderately Satisfactory (MS)	There were some short comings and quality of M&E design/implementation more or less meets expectations
Moderately Unsatisfactory (MU)	There were significant shortcomings and quality of M&E design / implementation somewhat lower than expected
Unsatisfactory (U)	There were major short comings and quality of M&E design/implementation substantially lower than expected
Highly Unsatisfactory (U)	There were severe short comings in M&E design/ implementation
Unable to Assess (UA)	The available information does not allow an assessment of the quality of M&E design / implementation

### Implementation and Execution Rating

Quality of implementation and of execution will be rated separately. Quality of implementation pertains to the role and responsibilities discharged by the GEF Agencies that have direct access to GEF resources. Quality of Execution pertains to the roles and responsibilities discharged by the country or regional counterparts that received GEF funds from the GEF Agencies and executed the funded activities on ground. The performance will be rated on a six-point scale.

Highly Satisfactory (HS)	There were no short comings and quality of implementation / execution exceeded expectations
Satisfactory (S)	There were no or minor short comings and quality of implementation / execution meets expectations
Moderately Satisfactory (MS)	There were some short comings and quality of implementation / execution more or less meets expectations
Moderately Unsatisfactory (MU)	There were significant shortcomings and quality of implementation / execution somewhat lower than expected
Unsatisfactory (U)	There were major short comings and quality of implementation / execution substantially lower than expected
Highly Unsatisfactory (U)	There were severe short comings in quality of implementation / execution
Unable to Assess (UA)	The available information does not allow an assessment of the quality of implementation / execution



## Annex 9: Evaluation Report Outline

### i. Opening page:

- Title of UNDP supported GEF financed project
- UNDP and GEF project ID#s.
- Evaluation time frame and date of evaluation report
- Region and countries included in the project
- GEF Operational Program/Strategic Program
- Implementing Partner and other project partners
- Evaluation team members
- Acknowledgements

### ii. Executive Summary

- Project Summary Table
- Project Description (brief)
- Evaluation Rating Table
- Summary of conclusions, recommendations and lessons

### iii. Acronyms and Abbreviations

#### 1. Introduction

- Purpose of the evaluation
- Scope & Methodology
- Structure of the evaluation report

#### 2. Project description and development context

- Project start and duration
- Problems that the project sought to address
- Immediate and development objectives of the project
- Baseline Indicators established
- Main stakeholders
- Expected Results

#### 3. Findings

(In addition to a descriptive assessment, all criteria marked with (\*) must be rated)

##### 3.1 Project Design / Formulation

- Analysis of LFA/Results Framework (Project logic /strategy; Indicators)
- Assumptions and Risks
- Lessons from other relevant projects (e.g., same focal area) incorporated into project design
- Planned stakeholder participation
- Replication approach
- UNDP comparative advantage

- Linkages between project and other interventions within the sector
- Management arrangements

### 3.2 Project Implementation

- Adaptive management (changes to the project design and project outputs during implementation)
- Partnership arrangements (with relevant stakeholders involved in the country/region)
- Feedback from M&E activities used for adaptive management
- Project Finance:
- Monitoring and evaluation: design at entry and implementation (\*)
- UNDP and Implementing Partner implementation / execution (\*) coordination, and operational issues

### 3.3 Project Results

- Overall results (attainment of objectives) (\*)
- Relevance (\*)
- Effectiveness & Efficiency (\*)
- Country ownership
- Mainstreaming
- Sustainability (\*)
- Impact

### 4. Conclusions, Recommendations & Lessons

- Corrective actions for the design, implementation, monitoring and evaluation of the project
- Actions to follow up or reinforce initial benefits from the project
- Proposals for future directions underlining main objectives
- Best and worst practices in addressing issues relating to relevance, performance and success

### 5. Annexes

- ToR
- Itinerary
- List of persons interviewed
- Summary of field visits
- List of documents reviewed
- Evaluation Question Matrix
- Questionnaire used and summary of results
- Evaluation Consultant Agreement Form

## Annex 10: Evaluation Consultant Agreement Forms

### Evaluators:

1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.
2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and respect people's right not to engage. Evaluators must respect people's right to provide information in confidence and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals and must balance an evaluation of management functions with this general principle.
4. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.
5. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders' dignity and self-worth.
6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study imitations, findings and recommendations.
7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.

### Agreement to abide by the Code of Conduct for Evaluation in the UN System

**Name of Consultant:** DALIBOR KYSELA

**Name of Consultancy Organization (where relevant):** \_\_\_\_\_ N.A. \_\_\_\_\_

**I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.**

Signed at Vienna on 15.04.2019



Signature: \_\_\_\_\_

### Evaluators:

1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.
2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and respect people's right not to engage. Evaluators must respect people's right to provide information in confidence and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals and must balance an evaluation of management functions with this general principle.
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7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.

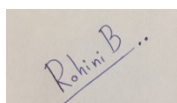
#### **Agreement to abide by the Code of Conduct for Evaluation in the UN System**

**Name of Consultant:** ROHINI BALASUBRAMANIAN

**Name of Consultancy Organization (where relevant):** \_\_\_\_\_ N.A.

**I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.**

Signed at Bangaluru on 17.04.2019



**Signature:** \_\_\_\_\_

**Annex 11: Audit Trail – annexed as separate file**