

United Nations Development Programme

Terminal Evaluation of UNDP/GEF Project: Slovakia – Sustainable Mobility for the City of Bratislava (Project ID: 4012)

Terminal Evaluation Report

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SYNOPSIS

Title of UNDP supported GEF financed project: Sustainable Mobility in the City of Bratislava

UNDP Project ID: PIMS 4012

GEF Project ID: 3256

Evaluation time frame: August 2010 to September 2014

Date of evaluation report: 30 September 2014

Region and Countries included in the project: Slovakia

GEF Focal Area Objective: CCM-4: Promote energy efficient low-carbon transport and urban systems

Implementing partner and other strategic partners:

- Implementing Partner: United Nations Development Programme (UNDP)
- Executing Agency: Ministry of Environment, Government of Slovakia (under NEX modality)
- National Implementing Agency: Energy Center Bratislava

Evaluation team members: Mr Roland Wong, International Consultant

Acknowledgements:

The Evaluator wish to acknowledge with gratitude the time and effort expended by all project participants and stakeholders during the course of terminal evaluation. In particular, the Evaluation Team wishes to thank Ms. Jana Panagracova from UNDP Europe and CIS and to Ms. Darina Dzurjaninova from ECB for arranging mission meetings and travel to the various sites around Bratislava. The Evaluator would also like to thank all stakeholders including the Ministry of Environment, the Hydrometeorological Institute, UNDP-GEF office in Bratislava, and the entire Project Team for their hospitality, informative and passionate discussions on their experiences in implementing the Sustainable Mobility for Bratislava Project; the passion, insights, and candid perspectives of all persons interviewed has added value to the evaluation process. I hope that this report will contribute towards further support for improved urban mobility and a higher quality of life for the people of Bratislava and the Slovakian Republic.

EXECUTIVE SUMMARY

This report summarizes the findings of the Terminal Evaluation Mission conducted during the periods of June 16 to 18 and September 15-16, 2014 for the UNDP-GEF Project entitled: Sustainable Mobility for the City of Bratislava (hereby referred to as SMB or the Project), that received a USD 930,000 grant from the Global Environmental Facility (GEF).

Project Description

The SMB Project was developed in 2007-08 by UNDP as a nationally executed (NEX) project to remove barriers to the reduction of urban transport related GHG emissions in the City of Bratislava in the Slovak Republic (SR). The ProDoc was signed in December 2009 with Project activities commencing in August 2010, the completion of an Inception workshop in October 2010, and an expected Project terminal date of September 30, 2014.

The SMB Project was designed specifically to reduce urban transport-related GHG emissions through various components to mitigate the traffic congestion problems of the City of Bratislava. This included components dedicated to reversing the trend of increased use of carbon intensive modes of transport in the City: 1) adoption of a parking strategy to restrict parking spaces in the residential areas of the City; 2) improved tram services as an alternative to individual car transport; 3) promotion of non-motorized transport (cycling); and 4) promotion of car sharing or pooling. Project duration was originally planned for 4 years.

Evaluation Ratings

The overall rating of the project is moderately satisfactory (MS). This is based on the following outcomes:

- A poor Project design that was based on a lack of information on stakeholder demand and reaction to sustainable transport measures proposed by this Project, and the setting of vague targets without knowing if the targets were achievable;
- The lack of action by the NIA during 2010 to 2012 to improve the monitoring of the Project through the addition or strengthening of indicators that would better reflect the impacts and GHG emission reductions from sustainable transport measures. In addition, the NIA did not make an effort to staff the PIU with personnel with experience in sustainable transport;
- Effectiveness of the current Project Manager from 2012 to date in developing a strong relationship with the City's Chief Traffic Engineer. With the Project providing assistance with implementation of sustainable transport development, the City has successfully raised funds for a) a Master Transport Plan for Bratislava, a study that is urgently required to justify all sustainable transport investments being made by the City, and slated for completion by mid-2015; b) capital projects such as tram system improvements, cycling infrastructure, and bus priority lanes; and c) modernizing the public transit fleet with new trams and buses;
- The lack of success in obtaining approval of a new city-wide parking strategy. These efforts were possibly weakened by the lack of promotion of park-and-ride facilities (currently being designed by the City) that would have raised the visibility of the need for parking restrictions in the residential areas;
- The successful demonstration in August 2014 of tram priority signaling at three intersections along the Raciarska and Vajnorska corridors that has resulted in the City's

commitment to replicate this demonstration along the entire length of these corridors, potentially reducing journey times by more than 25%;

- Technical assistance by the Project to provide technical guidelines to new cycling infrastructure that provided the Municipality with the knowledge and confidence to prepare a long-term strategy for NMT development and to receive budgetary allocations for additional cycling infrastructure funds;
- A growing car pooling scheme initiated by the Project and supported by the Municipality and large employers of Bratislava;
- The absence of a model to calculate direct CO₂ transport-related emissions resulting from sustainable transport measures such as parking, modal switches to public transit, NMT and car pooling; and
- Failure to meet GHG emission reduction target by a substantial margin.

The overall Project sustainability rating is likely (L). This is primarily due to:

- The overwhelmingly positive views of the Project activities by the City of Bratislava as well as their ongoing and strong engagement of the various sustainable transport activities of the Project;
- The eventual acceptance of the new parking policy notwithstanding the failure of the City to obtain City-wide adoption of the new parking policy. With surveys indicating strong public approval of the new parking policies, the Evaluator is of the opinion that City Councilors currently opposed to the new parking policies will reverse these views; this will be based on the confirmed financing of proposed sustainable transport infrastructure and the subsequent development of new sustainable transport infrastructure (i.e. park-and-ride lots, improved public transit services, etc.) that will mitigate the impacts of the new parking policy;
- Confirmed City financing to extend tram priority signaling to the entire Vajnorska and Raciarska corridors based on the successful demonstrations of tram priority signaling during the Project;
- Increases in the cycling budget of the City for new cycling infrastructure;
- Popularity of the car pooling scheme and the drivenness of the passengers to save money on commuting costs and the employers to reduce operational costs by reducing parking spaces.

Table A provides a summary of the terminal evaluation of SMB.

Conclusions

- Stakeholder engagement during the Project preparations of SMB was weak to the extent that there was not a thorough understanding of the institutional risks involved in decision making of the important parking policy. This included the assessment of the decision making ability of the Bratislava Mayor on the parking statutes that was overestimated, resulting in much effort required to inform the mayors and City councilors of the 17 boroughs on implementing the new parking policy throughout the City. In addition to the lack of knowledge of sustainable transport in the Municipality during the PDF-B phase, there was also no information prior to Project commencement on stakeholder opinions of sustainable transport options being proposed under SMB;
- City Hall's understanding of the concepts of sustainable transport at the commencement of the Project was very low. With the exception of the Mayor and the new Chief Traffic Engineer, the Project expended significant resources in 2011 and 2012 to overcome the

institutional difficulties in convincing various City officials on sustainable transport measures, most notably the parking strategy;

Table A: Evaluation Ratings¹

1. Monitoring and Evaluation	Rating	2. IA & EA Execution	Rating
M&E design at entry	3	Quality of UNDP Implementation	3
M&E Plan Implementation	3	Quality of Execution - Executing Agency	3
Overall quality of M&E	3	Overall quality of Implementation / Execution (Implementing agency)	4
3. Assessment of Outcomes	Rating	4. Sustainability²	Rating
Relevance	4	Financial resources	4
Effectiveness	4	Socio-political	4
Efficiency	3	Institutional framework and governance	4
Overall Project Outcome Rating	3.5	Environmental	4
		Overall likelihood of sustainability	4

- The Project was placed into a difficult situation with the City not being an active implementing partner early in the Project, and the reluctance of MoE to appoint a National Project Director. This had two adverse impacts on the Project:
 - The lack of an NPD limited the profile of the Project amongst other decision makers in the Government of Slovakia and amongst other transport institutes and government agencies of other countries; and
 - The unwillingness of the City to become an implementing partner forced UNDP to delay the start of the Project to select an independent agency to serve as the national implementing agency;
- The Project suffered from a lack of urban transport expertise in its leadership. The Energy Centre Bratislava is an agency with expertise in energy-efficiency that was selected to lead the implementation of the SMB Project dealing with sustainable transport. Their selection was made despite a bid from another organization that had international sustainable transport experience. The lack of transport expertise was evident in:
 - the execution of the Project, and its activities in Years 1 and 2 where unrealistic targets were set and accepted by the Project;
 - their failure to staff the PIU with persons knowledgeable on sustainable transport;
 - the inability of ECB to adaptively manage various technical issues on the Project such as the tram priority design, NMT promotion, and the M&E component. This led

¹ Evaluation rating indices (except sustainability – see footnote 2): 6=*Highly Satisfactory (HS)*: The project has no shortcomings in the achievement of its objectives; 5=*Satisfactory (S)*: The project has minor shortcomings in the achievement of its objectives; 4=*Moderately Satisfactory (MS)*: The project has moderate shortcomings in the achievement of its objectives; 3=*Moderately Unsatisfactory (MU)*: The project has significant shortcomings in the achievement of its objectives; 2=*Unsatisfactory (U)*: The project has major shortcomings in the achievement of its objectives; 1=*Highly Unsatisfactory (HU)*: The project has severe shortcomings in the achievement of its objectives.

² Sustainability Dimension Indices: 4 = *Likely (L)*: negligible risks to sustainability; 3 = *Moderately Likely (ML)*: moderate risks to sustainability; 2 = *Moderately Unlikely (MU)*: significant risks to sustainability; and 1 = *Unlikely (U)*: severe risks to sustainability. Overall rating is equivalent to the lowest sustainability ranking score of the 4 dimensions.

to the Municipality assuming the technical lead on the Project by Year 2 (2012). As such, ECB and the Project were reduced to a supportive and facilitative role in sustainable transport development in Bratislava.

- The positive aspect of the Project has been the successful engagement of the City that has catalyzed its interest in sustainable transport measures. Moreover, during the Project, the Municipality became increasingly confident on issues regarding development of sustainable transport measures including the parking strategy, tram priority, NMT and car pooling components of the Project. This also allowed the City to make key decisions on how Project resources should be utilized, and to successfully apply for additional funding for an urgently needed Master Transport Plan for Bratislava, capital projects for sustainable transport infrastructure, and procurement of modernized trams and buses. This is an outstanding outcome of the Project demonstrating effective and successful efforts on stakeholder engagement.

Recommendations

Recommendation 1: Future sustainable transport investments in Bratislava should be aligned with the Master Transport Plan for the Municipality of Bratislava to be completed in 2015. While this may already be occurring, master transport plans provide a holistic view of a sustainable transport measure that is integrated with land use planning, travel demand along a particular corridor and environmental impacts. A sustainable transport investment aligned with the Master Transport Plan will provide optimal and sustained returns on a public investment while minimizing risks of redundancy and overuse.

Recommendation 2: With the substantial investment commitments being made by the Municipality of Bratislava into sustainable transport, the Municipality should setup systems to conduct the appropriate surveys and monitoring systems that will provide further validation of GHG emission estimates from the SHMU model. This would include surveys for data related directly to GHG reductions from parking and modal switches to public transport, NMT and car pooling. There are a number of examples of surveys and monitoring systems that can be found in various CDM methodologies such as approved CDM Methodology AM0031³. The City should seek technical assistance for the design and conducting of surveys necessary to find: a) the number of passengers who have switched from private car trips to public transit, cycling or walking; b) the average distances and fuel consumption avoided by private car; c) the size of the survey or the number of respondents necessary for a reasonable confidence level of the survey that will account for the seasonal variations of public transit, NMT or car pooling usage; and d) the calculation of GHG reductions based on an approved and robust methodology.

Recommendation 3: Future GEF project preparations either need more oversight by the implementing agency or more investment from GEF. The SMB Project has a design where there was an inherent high risk of failure to meet its targets and objectives. The Project either needs to have adequate baseline information at the commencement of the Project or have

³ Specifically, Section 6.3 (pg 50-51 or Para 128-134) provide details of the required survey: http://cdm.unfccc.int/filestorage/e/h/P3RA2GQMBV490J75IWYXSFLUZ1KECO.pdf/EB70_repan14_AM0031_ver05.0.pdf?t=OUV8bjh6Z25nfDD5GxJggW5iJ617hQyFmZCk. While this provides a high degree of detail and rigor for obtaining carbon credits, reference to this methodology is only intended to provide a framework and guidance on how the survey should be setup.

sufficient resources and identified activities during its implementation to collect this information during its commencement phase. This would reduce the risk of an approved project with poorly designed activities that are weakly linked with outcomes to be achieved and output targets.

Recommendation 4: GEF should re-consider investment of its resources for sustainable transport projects under USD 1.5 million and less than 5 years in duration, especially where sustainable transport awareness is low. Transport projects inherently have long gestation periods due to the long stakeholder consultation process and the larger sums of financing required from the public purse. The SMB Project struggled for its first two years to raise the awareness of sustainable transport with its primary stakeholder, the policy makers of the City. This left SMB with only 2 years to implement sustainable transport measures. If this Project had another year remaining, direct GHG reductions could have been achieved. With more funds, a well qualified full time Project Manager with related transport expertise could have been hired and provided the required leadership in terms of strategy and target setting of the indicators.

Lessons Learned

Key lessons from the SMB Project include:

- Thorough project preparations are essential for the setup of a successful sustainable transport project design. This would include:
 - thorough stakeholder engagement, and most importantly, an understanding of the institutions to be involved with the project;
 - soliciting stakeholder perspectives of urban transport, and determining their travel needs and patterns. This should include disaggregation where appropriate of the various social groups whose travel patterns and needs may be distinct from other groups;
 - the collection of baseline information on traffic patterns and passenger volumes as well as vehicle energy consumption and usage patterns; and
 - enabling project designers to setup meaningful and achievable targets to effectively measure project impacts.
- Staffing of UNDP-GEF projects requires a full time Project Manager who has a background related to the technical discipline of the project. In the case of sustainable transport projects, the absence of a person familiar with sustainable transport issues would result in project progress stagnating due to the challenges of not being familiar with transport issues, a period of familiarization with the technical discipline of the unqualified person and a high risk of a diminishing role on the project. In contrast, a person with a transport background would be able to:
 - more effectively and efficiently engage the host government for support to advance sustainable transport development;
 - more efficiently identify and prepare terms of reference for consulting inputs to meet various milestones in the development of certain sustainable transport measures such as a parking strategy or planning of improved tram services;
 - manage outputs from consultants into a form that would be useful for the host municipality;
 - monitor the project to ensure that there is some transformation of travel patterns resulting from sustainable transport measures undertaken.

ABBREVIATIONS

Acronym	Meaning
APR	Annual Progress Report
BRA	Bratislava Regional Administration
BID	Bratislava Integrated Transport
CCC	Central control center
CDM	Clean Development Mechanism
CDR	Combined Delivery Report
CER	Certified emission reduction
CO	Country Office
CTE	Chief Transport Engineer of the City
DPB	Bratislava Municipality Public Transport Company
EA	Executing Agency
EBRD	European Bank for Reconstruction and Development
ECB	Energy Center Bratislava
EOP	End of project
EU	European Union
FIT	Feed-in-Tariff
GDP	Gross domestic product
GEF	Global Environment Facility
GHG	Greenhouse gas
GoS	Government of Slovakia
GWh	Gigawatt-hour
HPP	Hydropower plant
IEA	International Energy Agency
kWh	Kilowatt-hour
log-frame	Project logical framework matrix
LTC	Local Technical Coordinator
M&E	Monitoring and evaluation
MoE	Ministry of Environment
MoTCRD	Ministry of Transport, Construction and Regional Development
MoU	Memorandum of Understanding
MTE	Mid-term evaluation
MW	Megawatt
MWh	Megawatt-hour
NEX	National Execution
NGOs	Non-governmental organizations
NIA	National Implementing Agency
NMT	Non-motorized transport
NPD	National Project Director
OPT	Operational Programme Transport
PHSR	Transport Section of the Plan for Socio-Economic Development for Bratislava
ProDoc	UNDP Project Document for “Sustainable Mobility for Bratislava”
PIR	Project Implementation Reports
PM	Project Manager
PMU	Project Management Unit

Acronym	Meaning
PPM	Project Planning Matrix
PSC	Project Steering Committee
SHMU	Slovak Hydrometeorological Institute
SGP	GEF Small Grants Programme
SMB	Sustainable Mobility for Bratislava
SR	Slovak Republic
TE	Terminal Evaluation
ToR	Terms of Reference
UNDP	United Nations Development Programme
WG	Working Group

1. INTRODUCTION

This report summarizes the findings of the Terminal Evaluation Mission conducted during the periods of June 16-18 and September 15-16, 2014 for the UNDP-GEF Project entitled: Sustainable Mobility for the City of Bratislava (hereby referred to as SMB or the Project), that received a USD 930,000 grant from the Global Environmental Facility (GEF).

The Project was developed in 2007-08 by UNDP as a nationally executed (NEX) project. The Project Document (ProDoc) provides details to remove barriers to the reduction of urban transport related GHG emissions in the City of Bratislava in the Slovak Republic (SR). Project activities include the parking strategy development, development of tram priority, promotion of non-motorized transport (NMT), and the promotion of car-pooling and car-sharing. The ProDoc was signed in December 2009 with Project activities commencing in August 2010 with an Inception Phase that concluded with an Inception workshop in October 2010, and an expected Project terminal date of September 30, 2014.

1.1 Background

Bratislava is the capital city of the SR, with a population of 431,000 (2010) and an estimated 200,000 from surrounding suburbs who commute into Bratislava each day. With an improving socio-economic situation in the SR, traffic growth in Bratislava has reached unsustainable proportions prompting placing additional stress on the urban transport systems. This has resulted in sharp changes in the modal split of public and individual transport from 75:25 in 1993 to 59:41 in 2007; this is visible as Bratislava is experiencing increasing congestion and pollution problems.

The SMB Project was formulated with the objective of reducing CO₂ emissions from road transport sector in the capital city of the Slovak Republic, Bratislava. In line with GEF's OP11 and SP5 for Promoting Sustainable Innovative Systems for Urban Transport, the City of Bratislava indicated during the Project design phase of its strategy to meet these objectives through:

- Promoting the use of sustainable urban transport modes by making these modes more attractive while in parallel making car use less attractive; and
- Decreasing congestion, especially in city centre by imposing restrictions and increasing delays for car trips.

Specific SMB Project activities to implement this strategy included development of a parking strategy; developing public transit priority through the city's tram system; promoting non-motorized transport (NMT); and developing schemes for car sharing and car pooling. Project duration was originally planned for 4 years.

1.2 Terminal Evaluation

1.2.1 Purpose of the Evaluation

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 (TE) upon completion of implementation of a project to provide a

comprehensive and systematic account of the performance of the completed project by evaluating its design, process of implementation and achievements vis-à-vis GEF project objectives and any agreed changes during project implementation. As such, the TE for this Project will serve to:

- promote accountability and transparency, and to assess and disclose levels of project accomplishments;
- synthesize lessons that may help improve the selection, design and implementation of future GEF activities;
- provide feedback on recurrent issues across the portfolio, attention needed, and on improvements regarding previously identified issues;
- contribute to the GEF Evaluation Office databases for aggregation, analysis and reporting on effectiveness of GEF operations in achieving global environmental benefits and on the quality of monitoring and evaluation across the GEF system.

This TE was prepared to:

- ⇒ be undertaken independent of Project management to ensure independent quality assurance;
- ⇒ apply UNDP-GEF norms and standards for evaluations;
- ⇒ assess achievements of outputs and outcomes, likelihood of the sustainability of outcomes; and if the project met the minimum M&E requirements;
- ⇒ report basic data of the evaluation and the Project, as well as provide lessons from the Project on broader applicability.

Two TE mission were fielded to Bratislava, Slovak Republic between the 16th and 18th of June 2014, and 10th to 12th of September 2014. The Terms of Reference (ToRs) for the TE are contained in Appendix A. Key issues addressed on this TE include:

- Assessing the impact of the Project in the context of GHG reductions that have been measured by the Slovak Ministry of Environment (MoE);
- The changes in the Project design after the mid-term evaluation in 2012; and
- Sustainability of the Project given the nature of the outputs at the time of this Terminal Evaluation.

Outputs from this TE will provide an outlook and guidance in charting future directions on sustaining current efforts by the City of Bratislava to reduce its urban transport-related GHG emissions.

1.2.2 Evaluation Scope and Methodology

The methodology adopted for this evaluation includes:

- Review of project documentation (i.e. APR/PIRs, meeting minutes of PSC) and pertinent background information;

- Interviews with key project personnel including the Project Manager, technical advisors (domestic and international), Project developers, potential investors and relevant UNDP staff;
- Interview with relevant stakeholders from Government; and
- Field visits to selected project sites and interviews with beneficiaries.

A full list of documents reviewed and people interviewed is given in Annex B (with the list of questions prepared for various government and private stakeholders). A detailed itinerary of the Mission is shown in Appendix C. The Evaluation Mission for the UNDP-GEF project was comprised of one international expert.

1.2.3 Structure of the Evaluation

This evaluation report is presented as follows:

- An overview of project achievements from the commencement of operations in August 2010;
- An assessment of Project results based on Project objectives and outcomes through relevance, effectiveness and efficiency criteria;
- Assessment of sustainability of Project outcomes;
- Assessment of monitoring and evaluation systems;
- Assessment of progress that affected Project outcomes and sustainability; and
- Lessons learned and recommendations.

This evaluation report is designed to meet GEF's "Guidelines for GEF Agencies in Conducting Terminal Evaluations, Evaluation Document No. 3" of 2008:

<http://www.thegef.org/gef/sites/thegef.org/files/documents/Policies-TEguidelines7-31.pdf>

The Evaluation also meets conditions set by the UNDP Document entitled "UNDP GEF – Terminal Evaluation Guideline" (<http://erc.undp.org/resources/docs/UNDP-GEF-TE-Guide.pdf>) and the UNDP Document entitled "Handbook on Planning, Monitoring and Evaluating for Development Results", 2009:

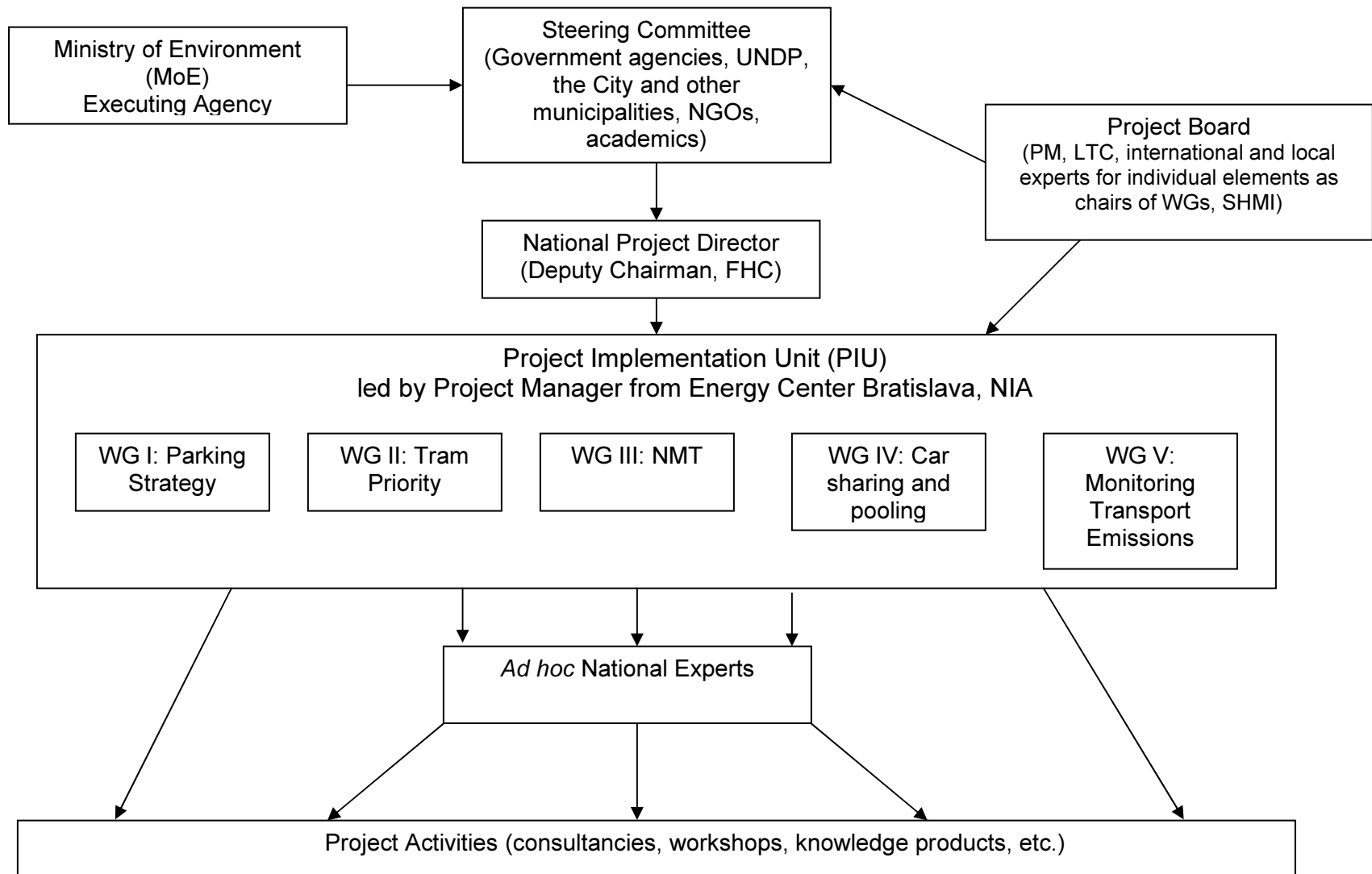
(<http://www.undp.org/evaluation/handbook/documents/english/pme-handbook.pdf>)

and the "Addendum June 2011 Evaluation":

<http://www.undp.org/evaluation/documents/HandBook/addendum/Evaluation-Addendum-June-2011.pdf>

1.2.4 Project Implementation Arrangements

Original implementation arrangements involved UNDP Europe and CIS as the Implementing Agency and the Slovak Ministry of Environment as the Executing Agency. However, as detailed in Section 2.1 of this report, the logical choice for Implementing Partner, the Municipality of Bratislava, did not accept this role. As a result, the Energy Centre Bratislava (ECB) was selected as the National Implementing Agency (NIA) and served to assist UNDP in implementing the SMB Project under national execution (NEX) modality. An organogram of SMB implementation arrangements is provide on Figure 1.

Figure 1: Updated SMB Project Implementation Arrangements

2. SMB DESCRIPTION AND DEVELOPMENT CONTEXT

2.1 SMB Start and Duration

The SMB project document (ProDoc) was signed on 21st December 2009 with formal Project operations commencing on 10th August 2010. The ProDoc indicated that SMB was a 4-year project. The current termination date of the SMB is 30th September 2014.

After the signing of the ProDoc in December 2009, the Project experienced problems during its commencement period with the reluctance of the Municipality of Bratislava to serve as an Implementing Partner for the Project. After the May 2010 decision of the Mayor of Bratislava to not accept this role, UNDP undertook the process of open tendering to source an organization to serve as the NIA for the SMB. The Energy Center Bratislava (ECB) was selected as the NIA in July 2010, and organized an Inception Workshop that was held on October 21, 2010.

2.2 Problems that SMB Sought to Address

The SMB Project was designed specifically to reduce urban transport-related GHG emissions through various actions to mitigate the traffic congestion problems of the City of Bratislava. This included actions designed to reverse the trend of increased use of carbon intensive modes of transport in the City. These actions included the restriction of parking spaces in the residential areas of the City, improved alternatives to individual car transport through improved tram services, promotion of non-motorized transport and car sharing or pooling.

2.3 Objectives of SMB

Based on the new logical framework matrix approved by the PSC in May 2013, the objective of the SMB Project is to *reduce CO₂ emissions from road transport in Bratislava*. The revised objective of the SMB Project is to, *“by the end of the Project, 30,800 tons of CO₂ will be saved, and further savings of 360,000 tons of CO₂ during additional 10 years after the end of the project are expected”*.

The revised SMB log-frame is contained in Annex A.

2.4 Main Stakeholders

The following is a list of the main stakeholders of the SMB Project that were interviewed during the TE mission (unless noted otherwise):

- Ministry of the Environment (MoE): In addition to being the national GEF focal point and the Executing Agency for SMB, the MoE has the oversight mandate on national environmental strategies and policies, provision of information on national and local emission and environmental data, and serving as the focal point for national strategies in climate change, air pollution, environmental global and international conventions;
- The Slovak Hydrometeorological Institute (SHMU): As a subordinate agency under MoE, SHMU have the mandate for the preparation of environmental reports and databases for MoE and providing supporting documentation for draft strategies,

- concepts, programs and legal regulations. SHMU was designated to have a significant role on SMB by leading the activities for monitoring of transport-related CO₂ emissions in Bratislava;
- Ministry of Transport, Construction and Regional Development (MoTCRD): MoTCRD sets national transport policies and strategies in transport, provides guidance and oversight to the development of different operational programmes including the development of transport projects, and coordinates and manages EU structural funds;
 - The City of Bratislava: The City is responsible for its urban and transport planning, and defines its problems and priorities for improvements. It is also responsible for local public transport through its 100% ownership of the Municipal Public Transport Company (DPB);
 - Bratislava Regional Administration: BRA are responsible for regional transport, and major local transport buildings. BRA was not interviewed during the TE missions;
 - Bratislava Integrated Transport (BID): BID was jointly founded by BRA and the City of Bratislava to oversee issues related to integrating transport systems between the BRA and the City. BID was not interviewed during the TE missions;
 - Municipality Public Transport Company (DPB): DPB provide transport services to Bratislava city including trams, trolley buses and buses;
 - Energy Centre Bratislava (ECB): ECB served as the National Implementing Agency for the Project; and
 - UNDP who served as the Implementing Partner of the SMB Project.

2.5 Expected Results

To achieve this overall goal and objective of reducing urban-transport related GHG emissions of 30,800 tonnes by the EOP, SMB was designed for the removal of barriers with the following expected **project outcomes** (based on the revised May 2013 log-frame):

Outcome 1: Municipality of Bratislava adopts and implements new on-street parking policy through a revised parking strategy that makes parking spaces available during regulated hours, and where on-street parking duration for each car is reduced during the Project.

Outcome 2: Bratislava public transport operator implements priority system for trams in Vajnorska and Racianska corridors by installing new modern dynamic traffic control tools to reduce average waiting time at the intersections.

Outcome 3: Increased number of people uses bicycles for daily trips to be achieved through:

- A long-term NMT strategy prepared in participatory process to support daily use of NMT by the second project year;
- Key strategic investment projects identified according to the NMT strategy, including parking places for bikes;

Outcome 4: Municipality of Bratislava adopts a policy to promote car share and car pool programs to divert drivers from driving alone to sharing options. This was to be achieved through the following outputs:

- Operational and active car pool and car share programs with 1,000 registered users of the car-pooling scheme; and
- Cars in service by car sharing program

Outcome 5: The country is enabled to determine more accurate estimates of emissions from transport in Bratislava through a monitoring scheme that enables more accurate calculations of transport emissions in Bratislava as well as 2013 (ex ante) and 2014 (ex post) emission estimates

The expected **objective** for the Project from the 2013 revised ProDoc log-frame is 30,800 tons of CO₂ will be saved by the end of the project, and further savings of 360,000 tons of CO₂ during additional 10 years after the end of the project are expected. Section 3 will provide details on the actual SMB Project outcomes and outputs.

3. FINDINGS

3.1 Project Design and Formulation

This section evaluates design of the Project. An important aspect of the Project design that was noticeable to the Evaluator was the absence of a strategic transport planning component without which there would be a higher risk of not successfully implementing sustainable mobility measures on the Project. The Project designers recognized this omission during the PDF-B phase and importantly stated in their responses to GEF (during the Endorsement stage) that the *“successful implementation of proposed pilot activities will raise awareness of the high-level decision makers about the benefits of sustainable transport and trigger the revision of Bratislava Master Transport Plans that were last revised in 1995”*. Moreover, the SMB mid-term evaluation (MTE) supports this observation that the Project design seems intent in *“launching a virtuous process, putting sustainable transport policies in the political agenda of the city, facilitating institutional cooperation across and within government levels, and building technical capacity and removing barriers within technical services”*.

On this basis, the design of the Project does not recognize this constraint, the details of which are provided in this section. The main Project strategy consists of inducing modal shifts to lower carbon modes of transport by making the use of single occupancy of private cars less attractive, accompanied by the promotion and piloting of lower carbon modes of transport. However, there are inherent weaknesses of the SMB Project design as identified in the MTE report including the following issues:

- The absence of sufficient baseline information and data from Bratislava on which to determine targets for modal changes in transport. Instead, the Project made references to studies from other countries such as the UNDP-GEF Project in Gdansk, Poland on possible modal shifts to cycling and Washington State, USA on public transport and parking. Both of these studies are difficult to apply in the circumstances of Bratislava, hence leading to a less confident and likely overestimation of modal shifts that could be expected on this Project;
- With the absence of a recent master transport plan and any past references to sustainable transport in Bratislava, there was a paucity of urban transport related baseline information including any surveys of urban transport, city parking, use of NMT modes of transport, and average car occupancy of transport in Bratislava. More importantly, the Project did not have the benefit of any surveys of public opinion of sustainable transport needs in Bratislava;
- While most urban mobility projects globally employ “push and pull” strategies to meet supply and demand of sustainable transport projects, the absence of baseline information results in the SMB Project only addressing the “push side” of this strategy. The lack of “pull side” is a result of the Project design not being based on any surveys of public opinions from various social groups in Bratislava who are affected by increasingly poor urban mobility in Bratislava;

The net result of these issues on Project design is its inherent weakness of setting robust targets, and more importantly the details of how the Project would achieve these targets. As such, monitoring efforts of SMB were weakened due to the lack of baseline information on stakeholder reactions to sustainable transport measures undertaken by the Project and the vague targets set by the Project which may not reflect the real conditions in Bratislava.

3.1.1 Analysis of Project Planning Matrix

The design of the Project Planning Matrix (PPM) prepared in 2009 is consistent with the Project objectives and reflective of the effort required to decrease the carbon intensity of urban journeys within Bratislava. In 2013, the PPM was changed with the intention of providing more realistic targets based on what had been achieved up to 2013. The activities contain the necessary elements to facilitate modal transfers and less carbon intensive modes of urban journeys: parking availability in strategic boroughs, improved public transit services, and promoting alternatives to single occupancy vehicles including car sharing, car pooling and non-motorized transport modes. One aspect of all the indicators on the 2013 PPM is that some of them do not have any time-boundary on which the target is to be achieved. One would assume that with the remaining period of the Project as of 2013, all the targets are aimed for completion by the end of Project (EOP).

For indicators of the Project Objective, the CO₂ reduction indicator is closely related to Component 5, which provides the measures for determining the emissions from the urban transport sector of Bratislava. The challenge for the implementers of the Project was the paucity of specific baseline information on GHG emissions in the transport sector for Bratislava on which to set Project targets. In this regard, the Project preparations in 2008 included the estimation of these GHG emissions from available statistical information of passenger cars from the police databases, expert estimation of urban trip characteristics (i.e. speed, distance, temperatures and number of passengers per vehicle), and results from the use of COPERT III software for determining baseline emissions for urban transport in Bratislava; these baseline emissions were cross-checked against fuel sales on all fuel stations in Bratislava district who have an obligation to report volumes and types of fuels sold annually. This was accepted as an estimation of transport-related GHG emissions in Bratislava; however, this method has weak linkages with Project interventions, thus weakening the ability of the Project to measure its impact (e.g. how can one be sure that a reduction in transport GHG emissions is related to an adopted parking strategy?). An appropriate response for the Project implementers would have been to collect specific baseline information of traffic volumes and passenger surveys along corridors where Project interventions would have occurred. This would have been useful in the calculation of direct GHG emission reductions from Project activities.

For Component 1, targets for the parking policies were based on the average hours of each parked car in the 2010 PPM, a target that could only be measured if a private parking scheme were to be successfully implemented. The indicator of the “number of vacant parking places available during regulated hours” was added in the 2013 PPM as a more practical means of monitoring the effectiveness of the parking policy. The indicators are weak in that the parking strategy appears to only target the restriction of car parking in all boroughs without the promotion of an alternative such as a park-and-ride⁴. In 2012 after the new parking strategy was unveiled with an International Parking Expert (that appears to only focus on the regulation of street parking), the City and the PIU agreed that the development of park-and-ride would fall under the City’s responsibility. As such, the planning and implementation of park-and-ride facilities does not appear on the PPM.

⁴ The City is currently managing the development of park-and-ride lots; however, the Evaluator feels the park-and-ride should have appeared on the PPM to indicate that the City or the Project was at least considering this as a more visible means to meet the parking demand of all cars from outside Bratislava.

For Component 2, the targets for measuring time saved on trams along selected corridors is could be easily sourced from Bratislava's tram operating company, Dopravny Podnik Bratislava (DPB) and their operation records from these corridors.

For Component 3, the indicator on the increased share of cycling does not have any relevance to the key strategic investments for NMT infrastructure. It is the understanding of the Evaluator that only a small NMT investment was made by the City during the Project; thus, the indicator for increased share of cycling would only be relevant to the increased awareness of the long-term NMT strategy being adopted by the City through participatory processes. Furthermore, the cycling usage survey to be done by Cyklokoalicia will need to acknowledge this constraint in its survey, and the distinct possibility that their survey may only serve as a baseline of cycling usage in Bratislava.

For Component 4, the indicators appear to be measurable based on surveys to be conducted by the operating entities of the car pooling and car-sharing schemes.

For Component 5, more specific indicators were provided to the original M&E activities through the addition of the monitoring by SHMU of the transport emissions from Bratislava transport. The intent of this component was not direct to calculating GHG reductions resulting from the efforts made by the SMB Project. Moreover, such a calculation does not have the benefit of traffic modeling or specific urban transport data (i.e. traffic counts, vehicle types, vehicle emission data, kilometre-passenger data) on which any CO₂ reductions from the Project should be based upon. The indicator "monitoring scheme enabling more accurate calculation of emissions from transport in Bratislava" covers the activities for the complex calculation for GHG reductions by SHMU.

3.1.2 Risks and Assumptions

The risks and assumptions identified in the log-frame are related to public acceptance of policies and interventions or the political risks related the City's reluctance to adopt new policies. Unfortunately, given the current outcomes of the Project, some of the risks identified have occurred, mainly for political reasons⁵. The risk management strategies identified in the log-frame may have been too general. This would lead one to believe the activities related to the on-street parking policy may have too large in scale increasing the risk of failure to obtain a parking policy to be approved by 17 boroughs that is adopted throughout the city. An example of this is the original parking policy that was to be piloted in Novo Mesto, but was recently changed to include all 17 boroughs of Bratislava raising the risk of resistance to new on-street parking policies.

Given the governance structure of the City where 17 boroughs have final approval on the adoption of an on-street parking policy, the risks should have been rated higher, with a risk management strategy of piloting on-street parking policies for specific boroughs. Through such a design, more realistic targets of the parking policy could have been set as well as achieved.

Another risk not been mentioned in the log-frame is the difficulty of obtaining of baseline data that has resulted in the identification of indicators that are weakly linked to Project

⁵ In the recent City Council meeting on the parking strategy in April 2014, approval of the parking strategy was lost by a margin of 2 votes out of 25 City councillors. See Section 3.3.2 for more detailed assessment of the parking strategy developments.

activities. Examples include the 2010 PPM targets for the cycling component where the original target was to increase the number of cycle trips from 500,000 to 3 million through a pilot NMT project. This has since been removed with the delay of the pilot project and strategic investments in cycle parking places until after the EOP and replaced with an indicator on the share of cycle trips in Bratislava⁶.

3.1.3 Lessons from Other Relevant Projects Incorporated into SMB Design

The UNDP-GEF Gdansk cycling project in Poland (completed in 2006) was referenced for SMB Project design in 2008. The lessons learned from the Gdansk project were mainly from the perspective of time and effort required to interest a wide range of stakeholders in NMT modes for daily commuting. One recommendation from the Gdansk project, however, was the need for collecting baseline data if any GHG emission reduction benefits were to be quantified for future projects.

3.1.4 Planned Stakeholder Participation

The SMB Project design included the most relevant stakeholders as members of the Project Steering Committee (PSC) in 2010 including the MoE, the MoTCRD, the City of Bratislava, the Bratislava Public Transport Company, Bratislava Regional Government, the Faculty of Construction in the Slovak Technical University, and a cycling NGO, BiCyBa.

While these primary Project beneficiaries have considerable influence over who constitutes the PSC, noted stakeholders that were omitted from the PSC included a parking company in Bratislava who would have provided their perspectives on approaching parking strategies with the various boroughs in Bratislava.

3.1.5 Replication Approach

The SMB replication approach was to implement the parking strategy, tram priorities, NMT infrastructure and car sharing and pooling programmes, and then promote their benefits and subsequent replication along other corridors in Bratislava as well as with other stakeholders from other countries in the region. PMU personnel from SMB have attended 5 regional conferences and conducted a meeting with regional transport managers to share the experiences of this Project with other similar projects in the EU or the CIS Region.

With the change in the PPM in 2013, one of the components, M&E (Component 5) now involves SHMU and the development of a more accurate monitoring of scheme for transport-related GHG emissions in Bratislava. While the design did not have any specific replication approach, this activity has excellent potential for replication in other cities in Slovakia. The methodology consisting of the use of strategically located vehicle detectors, estimation of their emission factors based on their model type, and use of an emissions model can be presented at a regional conference on sustainable transport.

⁶ This indicator would also require additional specific details that link the increase in the share of trips with the Municipality's investments into cycling infrastructure.

3.1.6 UNDP Comparative Advantage

The strength of UNDP's involvement on SMB is its long-term involvement in providing technical assistance for energy efficiency and sustainable transport development to developing countries with a focus on poverty alleviation and energy security. UNDP has implemented several energy efficiency and sustainable transport projects globally over the past 15 years; UNDP has a strong track record of developing local capacity, and effectively working with multiple stakeholders from public and private sectors, technical experts, civil society, and grassroots level organizations. In the context of sustainable transport development in urban areas, UNDPs approaches to these Projects are also its strength including a multi-dimensional development perspective, and the ability to address cross-sectoral issues and inclusiveness in constituency building.

3.1.7 Linkages between SMB and Other Interventions within the Sector

The SMB Project design is linked with the following local government initiatives:

- City Plan for Socio-Economic Development until 2020 and other relevant municipal strategies and plans where the Municipal authorities will integrate recommendations on the development of car pool/share scheme with the Plan;
- The Transport Section of the Plan for Socio-Economic Development (PHSR) for Bratislava for years 2010-2020 where SMB Project experience will be integrated;
- The Bratislava Master Transport Plan which is now being updated, that will integrate the results and best practices from pilot sustainable transport activities (Components 1-4) from the SMB Project;
- The Operational Programme Transport (OPT) that has been approved as a basic strategic document of the Slovak Republic for the use of European Union funds to support sustainable mobility through development of transport infrastructure and development of public passenger transport in the transport sector for the 2007 - 2013 period;
- The GEF Small Grants Programme (SGP) where Slovakia had decided to promote sustainable innovative systems for urban transport using SGP resources.

3.1.8 Management Arrangements

The original management arrangements of the SMB Project consisted of the Ministry of Environment being the Executing Agency (EA) under the NEX (National Execution) modality. MoE were then to appoint a National Project Director (NPD) to guide the establishment of a Project Implementation Unit (PIU) that would have included a Project manager, the Local Technical Advisor, and four working groups with international and local experts. The PIU would have been responsible for the day-to-day management and implementation of SMB Project activities and a close working relationship with the PSC, and be accountable to the EA for the planning, management, quality, timeliness and effectiveness of the activities carried out. Working groups were to implement specific tasks related to the four project components through a close consultation process with the Municipality and other relevant institutions to achieve a consensus and to produce an output acceptable for the beneficiary and the stakeholders.

From a Project design perspective, this arrangement is similar to other projects globally under GEF, and was deemed appropriate. Unfortunately, these arrangements did not function as planned and further detailed in Section 3.2.

3.2 Project Implementation

As briefly mentioned in Section 2.1, the implementation of the SMB Project had experienced problems from its commencement phase. The following events and issues were significant in the context of how the SMB Project was implemented:

- The lack of a National Project Director (NPD) from MoE since the start of Project operations in 2009. This has resulted in the Project having poor supervision and a lack of direction from the designated EA of the Project as well as limited efforts to increase cooperation and networking with other local and national institutions that would have brought wider exposure to and accelerated the efforts of the Project;
- The City not accepting a role as an implementing partner as of May 2010, forcing the Project (without strong direction from the EA) to select an independent agency to fulfil the role of National Implementing Agency (NIA). This, in fact, delayed the start of the Project from December 2009 (when the ProDoc was signed) to June 2010 whilst UNDP undertook a tendering process to select a NIA;
- The selection of Energy Center of Bratislava (ECB) in July 2010 despite not having any transport-related experience in comparison with one of the other organizations that had experience with a sustainable city transport project⁷;
- ECB commenced operations in August 2010, one year after signing of the ProDoc. At this time, they also setup a team of one full-time and two part-time persons from ECB: a Project Manager (PM), Financial Manager, and a Local Technical Coordinator (LTC) who was chosen through a separate competitive process. Despite having the opportunity to place a person with transport-related experience on the ECB team, ECB chose to have the PM and LTC, key personnel on the SMB Project, without any transport experience despite their experience on managing projects involving different institutions and stakeholders in the energy and environmental sectors;
- The start of the Project in August 2010 coincided with the run-up to the November 2010 municipal elections in Bratislava. This created an environment of uncertainty for the Project resulting in the reluctance of the City to accept Project activities such as the parking strategy and the tram priority until there was certainty over the outcome of the mayoral elections;
- Delays of 3 months to March 2011 by the new mayor to appoint a City-based transport officer and transport engineer to liaise with the Project; and
- National elections in March 2012 that contributed to the Project being implemented at a slower pace;
- In June 2013, ECB requested a one-year extension of SMB from September 2013 to September 2014 citing the delays in SMB start-up from July 2009 (ProDoc signing date) to July 2010 necessitating the extension, and to maintain the development momentum SMB was experiencing in 2013.

3.2.1 Adaptive Management

In addition to these aforementioned external issues, there were a number of changes made in how SMB was implemented, forcing adaptive changes in how ECB and UNDP managed the Project:

⁷ ECB won this tender despite the other qualified bid from REC Slovakia, having an international sustainable transport project as part of their experience; and ECB not having any sustainable transport experience and a lack of mention on their proposal on their methodology to achieve the objectives of the Project.

- At the commencement of the Project, the Project Board⁸ was replaced by quarterly meetings of ECB with the Ministry of Environment and UNDP for administrative and financial issues; and b) on-demand meetings of ECB with the city's key officials, where the relevant Project decisions were adopted. With its lack of transport experience, ECB struggled to ensure SMB activities were consistent with Project objectives and targets, and later assumed a less prominent role regarding technical issues to adaptively manage the Project. The absence of an NPD only exacerbated this issue;
- With a reduced prominence of ECB as the NIA for this Project, the MTE report stated that "ECB lacked adequate supervision from the City, and was not able to put in place the management framework initially designed. However, the leadership of the City has limited the ambition of the ECB to fully play its role as implementing agency in full charge of Project management, leaving to the City the responsibility of making key decisions modifying the contents of some parts of the project". As such, the role of technical lead on SMB was filled in by the City, reducing ECB to a supporting and facilitating role which was also a role provided by UNDP, which did not appear to add much overall value to the Project. The need for technical expertise was identified by the City with ECB acting as the facilitation agent to source international and local experts within each of the 4 technical components of the Project (parking policy, public transport, non-motorized transport, car sharing);
- After the MTE in late 2012, ECB made minor changes to its staffing by re-naming the LTC position as the Project Manager (who is still full time) and changing the previous PM's position to a part-time Chief Technical Advisor (CTA). The current PM of the Project still provides the required coordination functions of the consultants (both international and national) involved with the four components of the Project as well as contributing to the reporting of Project results and ensuring lessons learnt are captured and mainstreamed;
- As of 2013, ECB performance improved with the development of a stronger partnership with the City through two key local officials closely linked to the mayor, the Chief Traffic Engineer and the Advisor to the Mayor of Bratislava. Both of these officials were able to make all the key Project decisions at the request of the City with no in-depth discussion with other stakeholders. The impact of this relationship resulted in stronger progress being achieved by the Project in 2013 and 2014.

The individual components also experienced delays and changes, forcing adaptive management on the Project team including:

- Component 1 for the parking strategy. After a number of delays over the course of 3 years and in an effort to scale up the parking strategy over wider areas of the city, a new plan was developed in September 2013 to develop and implementing general parking rules for all 17 boroughs of Bratislava. Initially, the boroughs were to be responsible for implementing the new parking strategy. The major change of the new plan was proposed in September 2013 by shifting of responsibility for implementing the parking strategy from the boroughs to the City government. Despite the completion of a parking survey in April 2013 indicating strong public approval of the parking strategies, implementation of this plan was postponed by City

⁸ Consisted of the Municipality, SHMU, local consultants and the Project Manager/CTA

Council⁹ in December 2013. In March 2014, the proposed parking statute was not approved by a margin of 2 votes (out of 45 City Councillors) in part due to the upcoming municipal elections, and the reluctance of the boroughs to release their responsibilities for parking to the municipal government. The Project conducted a parking survey in the spring of 2013 as a baseline with the intention of conducting another survey in 2014 to measure the effectiveness of the new parking policies. However, the 2014 survey was not conducted since the parking statute was not approved. In addition, the 2013 survey was not conducted in a manner where the modal switches of passengers in the parked cars to public transit could be linked; this would have provided a good measure of Project activities impacting travel behaviour;

- Component 2 for tram priority. At the commencement of the SMB Project in October 2010, the City was reluctant to implement a tram priority activity, partly due to the City's application for a €70,000 grant from the EU to strengthen their resources for feasibility study and engineering preparations. In addition, there was an initial lack of clarity in the design of a tram priority system for two corridors and the improvements required to upgrade the existing traffic control systems. With the unsuccessful application of the EU grant, the ECB changed the component design in consultation with the City by focusing on establishing a demonstration of tram priority signalling and traffic control at two intersections, subject to the procurement of the necessary on-board devices by the municipality. The necessary equipment was procured within the 2014 Project budget and its installation was financed by the city. With tram priority signalling now at three intersections, direct GHG reductions from the tram priority component were generated by the Project, although the volume is not significant. The poor estimation of the Project target could have been avoided with more technical inputs during Project preparation. In addition, there were no efforts to add indicators to measure modal switches from parked private cars to public trams, which would have provided an excellent measure of the effectiveness of the new parking policies and improved tram services;
- Component 3 for NMT promotion. The original NMT component included awareness raising, construction of a pilot project for NMT, and promotion and replication of cycle paths. Since the City did not have any technical guidelines for the construction of bicycle paths, they determined that the completion of two pilot biking infrastructure projects during the Project would need to be delayed until these guidelines were developed. The Project assisted with the development of the technical guidelines that were based on the Project's Balancia report issued in December 2012. To pilot the new guidelines, a 1.0 km cycling path along Viendenska Cesta (east of the SNP Bridge) was constructed by the City in early 2014. In September 2014, the guidelines were fully adopted by the City;
- Component 4 for car pooling and car sharing. Car-sharing will not be developed in depth due to lack of interest, and issues related to shared car ownership. Car pooling, however, generated interest amongst large employers in Bratislava with the PMU adaptively managing activities to sustain the interest and growth of car pooling schemes;
- Component 5 for M&E of the Project. The planned involvement of SHMU in the M&E of transport GHG emissions from Bratislava has been adaptively managed given the lack of a clear and detailed plan in the Project design. With ECB's lack of transport related experience, the Project struggled to define specific activities for the collection

⁹ City Council consists of representatives from all 17 boroughs.

of baseline information to be used for estimating GHG reductions from Project interventions. In the end, the Project contributed to a new GHG monitoring methodology, as detailed in Section 3.1.5; this methodology, however, does not address the estimation of direct GHG reductions from Project activities for which standard GEF methodologies are available¹⁰.

3.2.2 Partnership Arrangements

According to the Inception Report, the partnership arrangements were to be developed through Project work to be conducted by 4 working groups, each group tasked with advancing the 4 Project components. The working groups were to be led by the international or local consultant with the remaining members of the group being from City from its relevant departments, and the specific institutions including the parking companies, public transport company, BiCyBa, experts for public awareness raising, and SHMU. The working groups were to be flexible and communicating mainly by electronic means to provide inputs as directed by other experts within the working group. These four working groups were to form the basis for the main partnership arrangement with the stakeholders.

This evolved into an informal arrangement where the international experts, with the support of the ECB's Project Manager, Local Coordinator and local experts, have interacted with the Chief Transport Engineer of the City (CTE) and with the Chief Advisor to the Mayor within each component. Several of the technical presentations have been made through workshops within the City's committees on parking, public transport and cycling with the City controlling the partners in the Project to a large extent. This has been beneficial for the City and demonstrates the larger role undertaken by the City in developing sustainable transport in Bratislava. However, the opportunities for developing stronger partnerships between international and local experts within the various 4 technical components have been somewhat limited through this informal partnership arrangement.

Component 5 with SHMU for developing the system for monitoring transport GHG emissions has not fallen under this informal arrangement. In fact, the SHMU has mainly interacted with the PM, LTC and international experts, as well as Municipality, Police, local parking experts, MoTCRD, Regional administrative body and local experts within the Working Group on Monitoring. Their development work has spawned partnerships with other institutions in the supply of information and the sharing of outputs from the monitoring system. This includes the Transport Institute within the MoTCRD, the traffic police (with regards to spot emissions data), and developers of COPERT software in Greece. A three-way Memorandum of Understanding (MoU) has been drafted between the MoE, MoTCRD and the City of Bratislava to share all information pertaining to vehicle emissions towards the determination of GHG and other vehicle emissions from transport in the City of Bratislava; as of September 30, 2014, this MOU has not yet been signed.

In conclusion, the informal partnership arrangements were effective due to strong leadership from the City of Bratislava, the chief beneficiary of the SMB Project. The greater involvement of the City has catalyzed the formation of key partnership arrangements amongst all the technical components of the Project, and to the benefit of sustainable transport in Bratislava. These partnerships could have been strengthened at

¹⁰ <http://www.thegef.org/gef/node/4638>

an earlier period of the Project if the PIU was located in the City of Bratislava as opposed to within ECB. Unfortunately, this was not possible despite the efforts of the Project to proceed with this arrangement at the start.

3.2.3 Feedback from M&E Activities Used for Adaptive Management

Feedback for M&E activities has been provided through:

- QPRs that were regularly issued during the Project;
- PIRs and APRs from 2011 to 2013; and
- PSC and Project Board meetings. The Evaluator has minutes from the PSC meetings held in 2012, 2013 and 2014. However, these meeting notes were in Slovak without translation.

The QPRs provide a good resource for the analysis of implementation issues during the Project, and the follow-up actions required. Given the start-up problems experienced during the 2010 to 2012 period, the QPRs identified delays in Project implementation during 2010 to 2012, particularly the implementation of key technical recommendations for parking and the tram priority. However, the deficiency in the QPR reports as well as the PIRs and APRs has been the provision of only qualitative descriptions of what has occurred, and a lack of in-depth analysis of achieving the GHG reduction targets. This is due to the fact that there was no progress on many of the Project components. For example, the 2013 PIR reports 252 million passengers taking public transport during 2012 and linking the increase from a weak baseline number of 250 million to increased awareness of public transport from Project activities (EOP target is 265 million). For the indicator “CO₂ emission reductions over the Project duration”, no discussion is made on how to achieve the target of 65,000 tonnes CO₂ by the EOP.

On the Component 5 activities with SHMU, almost all the activities discussed in the QPRs were related to the contents of the meetings to discuss what actions would be required to setup the monitoring system. In fact, the in-kind contribution of the SHMU to the Project has been significant in establishing an acceptable model for estimating CO₂ transport emissions in Bratislava based on vehicle detection stations strategically located at traffic entry points into Bratislava. However, there is no mention made of the use of GEF methodology for determining transport-related GHG emission reductions generated from the GEF-supported activities.

3.2.4 Project Finance

SHPD had a GEF budget of USD 930,000 that was utilized over its 48-month duration, managed by ECB under NEX modality and approval by the PSC for various technical assistance activities, workshops, and conducting technical studies for the pilot sustainable urban transport projects.

Table 1 provides an overview of expenditures of the GEF Project budget of USD 930,000 from August 2010 to August 2014. The cost effectiveness of the Project has been moderately unsatisfactory considering the Project achievements to date vis a vis PPM targets. One reason for this may be the ambitiousness of the overall Project budget of USD 930,000 to generate 30,800 tonnes CO₂ (in the 2011 PPM) that was incorrectly

doubled to 65,000 tonnes CO₂ in the 2013 PPM¹¹. The target of 30,800 tonnes CO₂ was already ambitious considering the obstacles of the Project design that included a lack of baseline knowledge of stakeholder opinions to the various sustainable transport measures being implemented on this Project (as mentioned in Section 3.1). Project management costs incurred by ECB to implement the Project were in the order of 8.5% of the overall budget, a number that was slightly on the high side of normal project management expenditures for GEF projects at 5%. Though their lack of transport expertise was a significant factor in the Project not achieving the GHG reduction target by a significant margin, their coordination activities during 2013 and 2014 were important in the engagement of the City in sustainable transport and the City's ability to raise significant financing for future sustainable transport activities.

The planned Project co-financing amounts of USD 4.47 million were estimated to be generated from in-kind contributions from various institutions and the grants committed by the municipality and by the borough of Petržalka. Though records show that Petržalka did not provide co-financing¹², the actual co-financing amount realized in the amount of USD 214.53 million in comparison to the planned co-financing, represents a significant and positive Project outcome to the future of sustainable transport in Bratislava. Based on personal communications with Bratislava's Chief Traffic Engineer and Advisor to the Mayor as well as the National Cycling Officer of MoTCRD, the SMB Project should take credit for catalyzing the interest of the City on sustainable transport.

The Project activities also increased the confidence of the City of Bratislava to successfully apply and obtain confirmed and substantial investments into sustainable transport. Most important of the items being financed is the Bratislava Master Transport Plan which was successfully obtained by the City from the EU and the State Budget; a key to obtaining these funds were the ongoing Project activities on the parking strategy as well as plans for improved tram service, NMT infrastructure and monitoring of transport-related emissions in Bratislava. Details of these investments are provided on Table 2, which indicates large amounts of co-financing committed to increasing the number of trams and expanding the tram network to other areas of the Municipality. The March 2014 rejection of the city-wide parking strategy would have further increased co-financing levels from a number of the boroughs investing in the administrative setup, the personnel, and the hardware.

¹¹ The increase to 65,000 tonnes CO₂ was to include indirect emission reductions of 34,200 tonnes CO₂. This was not clearly indicated on the PPM causing some confusion over the reasons for the increase in the emission reduction target.

¹² Their contribution was withheld due to the Municipality's decision to coordinate these activities centrally from City Hall via the Mayor's advisory body established under the name of Cyklokomisia, where all relevant stakeholders had regular monthly meetings. It dealt with the NMT projects planned all over the City, not only in Petržalka.

Table 1: GEF Project Budget and Expenditures for 2001-2012 (in USD as of September 30, 2013)

Component	Budget (revision F)	2010	2011	2012	2013	2014	Total	Reserve
1. Parking strategy	224,045.00	5,131.66	100,618.32	39,790.76	43,813.37	34,450.01	223,804	241
2. Tram priority	254,000.00	1,954.98	49,456.87	50,261.81	26,241.44	124,839.87	252,755	1,245
3. Non-motorized transport	149,312.00	0.00	1,276.33	45,494.96	58,550.70	43,989.73	149,311	1
4. Car sharing/car pooling	89,503.00	0.00	1,275.34	21,025.43	38,791.91	28,410.07	89,503	0
5. M&E	134,348.00	3,419.69	18,768.95	12,808.69	39,817.94	61,019.76	135,835	-1,487
Project management	78,792.00	4,967.74	22,230.68	19,224.50	6,977.74	25,391.34	78,792	0
	930,000.00	15,474	193,625	188,606	214,193	318,101	930,000	0

Table 2: Co-Financing for SMB project (as of September 30, 2014)

Co-financing (type/source)	UNDP own financing (million USD)		Government (million USD)		Partner Agency (million USD)		Private Sector (million USD)		Total (million USD)	
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual
Grants				1.69 ²⁵	-	-				1.69
Loans/Concessions					-	-				
• In-kind support			0.45 ²⁶	0.29 ²⁷	0.02	0.02 ²⁸			0.47	0.31
• Other			4.00	212.53 ²⁹					4.00	212.53
Totals			4.45	214.51	0.02	0.02			4.47	214.53

²⁵ €1.3 million for development of the Bratislava Traffic Master Plan (5% from City budget, 10% from State budget and 85% from EU)

²⁶ USD 300,000 from Municipality of Bratislava, USD 100,000 from Bratislava - Petržalka town district, and USD 50,000 from SHMU

²⁷ USD 177,847 from Municipality of Bratislava, USD 53,978 from Bratislava - Nove Mesto borough, USD 4,368 from DPB, and USD 50,000 from SHMU

²⁸ USD 24,310 from BiCyBa

²⁹ Includes a) Adaptation of PT stops under SNP bridge for disabled citizens (approved on 26 June 2014 by the City Council) for €38,000; b) Safety improvement at the tram stop in Raciarska corridor (Figaro) for € 12,000; c) Cycle racks for €6,000; d) Construction of new cycling lanes of 4.2 km + new cycling routes by means of traffic reorganization for €400,000; e) Construction of new tram track for €75,000,000; f) Purchase of new tram vehicles for €60,000,000; g) Purchase of new trolleybus vehicles for €19,000,000; h) Implementation of Bike sharing (1-phase) for €300,000; i) Purchase and installation of new detectors for traffic intensity monitoring for €60,000; j) Refurbishment of remaining tram corridors in 2014 for €100,000; k) allocation for 20 new tram intersections with dynamic control tools in 2016-2017 for €2,000,000; l) cycling lanes for €533,530; m) cycle racks and stands for €15,927; n) tram priority installations from City hall for €10,000; o) park-and-ride facilities for 1,500 vehicles at Vrakuna, Zlaté piesky, Dubravka for €6 million.

3.2.5 M&E Design at Entry and Implementation

Ratings of the Project's Monitoring and Evaluation system³⁰ are as follows:

- M&E design at entry – 3;
- M&E plan implementation – 3.

As mentioned in Section 3.1, the Project design lacked baseline information on stakeholder opinions to sustainable transport measures to be undertaken from this Project that would result in vague targets being setup. As such, the M&E design at the entry point of the Project has been rated moderately unsatisfactory.

The progress reports of ECB provided qualitative descriptions of the issues confronting the Project including progress, risks and follow-up actions. However, with the issues of the M&E design, ECB did not make any effective attempts at addressing the shortcomings of the M&E plan which included the collection of more baseline data (i.e. traffic surveys, passenger volumes along selected corridors for investment, public opinions on various strategies including parking, tram usage and NMT), and adding indicators that would provide improved measurements of the impact of Project activities. This would have included the deployment of a person on their team with knowledge of sustainable transport. As such, the M&E plan implementation was been rated moderately unsatisfactory.

3.2.6 Performance of Implementing and Executing Agencies

The performance of MoE as the EA on this Project is rated moderately unsatisfactory.

The role of MoE as the EA on this Project was to provide the guidance and provide Government support and profile for implementing SMB. However, MoE did not assign a NPD for this Project for its entire duration. This adversely has impacted the Project in its ability to achieve its objectives.

The performance of ECB as the NIA is ranked as moderately satisfactory. Due to the lack of ECB's transport background, it did not make efforts to improve the baseline information of the Project and was unable to influence changes to activities that would focus Project activities to generate information on quantitative indicators that would improve measurements of the impact of the Project. Moreover, it did not make any efforts to staff the PIU with experienced transport personnel. This resulted in the Project making poor progress during the 2010-2012 period, and ECB losing the technical lead on the Project.

However, after the MTE, the efforts of the current PM in 2013 and 2014 have resulted in good progress accompanied by a strong relationship with the City. The impact of this progress has resulted in the City becoming strongly engaged in sustainable transport development and its increased confidence to raise confirmed financing to improve mobility within Bratislava. This includes €1.3 million from the EU for a master transport plan for Bratislava, an urgently required study that will justify future investments in sustainable transport. This is an excellent outcome.

³⁰ 6 = HS or Highly Satisfactory: There were no shortcomings;
 5 = S or Satisfactory: There were minor shortcomings;
 4 = MS or Moderately Satisfactory: There were moderate shortcomings;
 3 = MU or Moderately Unsatisfactory: There were significant shortcomings;
 2 = U or Unsatisfactory: There were major shortcomings;
 1 = HU or Highly Unsatisfactory.

The performance of the implementing partner, UNDP, is ranked as moderately unsatisfactory. The primary reasons for this rating are:

- the poor design of the Project (as outlined in Section 3.1);
- the selection by UNDP of ECB, an agency *without sustainable transport experience* to manage a sustainable transport project, and the availability of an agency in the NIA tender, REC Slovakia that *did have sustainable transport experience*; and
- no insistence on the part of UNDP to recruit someone with transport experience during the 2010-2012 period of the Project.

UNDP support, however, for the Project during 2013 and 2014 strengthened with the increasing engagement of the City in a number of other sustainable transport initiatives including:

- The recruitment and organization of a communications team for increasing awareness of sustainable transport;
- Organizing workshops on ideas and support for increasing access of public transit to the elderly and disable persons;
- Design of a mobile app designed to increase access of people with restricted mobility to public transport; and
- Funding the re-construction of the SNP Bridge tram and bus stops as a pilot project to improve tram and bus access.

Notwithstanding the excellent support provided by UNDP to the Project during 2013 and 2014, the resulting lack of transport experience within the PIU was a major factor contributing to the Project being unable to achieve more progress, notably in the areas of the parking strategy, tram priority and direct GHG emission reductions. Moreover, when a new Regional Technical Advisor and Country Office Programme Officer had taken over the Project in 2013, there was insufficient time and resources to bring in a transport professional to manage the Project. This was a major factor in the performance rating of the implementing partner.

Ratings of the Project's Implementing and Executing agencies are as follows:

- National Executing agency – 3;
- National Implementing agency - 4; and
- Implementing partner - 3

3.3 Project Results

Assessment of SMB achievements and shortcomings are provided in this section against the revised 2013 Project log-frame. Each outcome was evaluated against individual criterion of:

- *Relevance* – the extent to which the outcome is suited to local and national development priorities and organizational policies, including changes over time;
- *Effectiveness* – the extent to which an objective was achieved or how likely it is to be achieved;

- *Efficiency* – the extent to which results were delivered with the least costly resources possible.

The Project outcomes were rated based on the following scale:

- *6: Highly Satisfactory (HS)*: The project has no shortcomings in the achievement of its objectives;
- *5: Satisfactory (S)*: The project has minor shortcomings in the achievement of its objectives;
- *4: Moderately Satisfactory (MS)*: The project has moderate shortcomings in the achievement of its objectives;
- *3: Moderately Unsatisfactory (MU)*: The project has significant shortcomings in the achievement of its objectives;
- *2: Unsatisfactory (U)*: The project has major shortcomings in the achievement of its objectives;
- *1: Highly Unsatisfactory (HU)*: The project has severe shortcomings in the achievement of its objectives.

3.3.1 Overall Results

Project Goal: Reduce GHG emissions from road transport in Bratislava, Slovakia

Project Objective: By the end of the Project, 65,000 tons of CO₂ will be saved, and further savings of 360,000 tons of CO₂ during additional 10 years after the end of the Project are expected.

Intended EOP Outcome:

- ⇒ Total CO_{2eq} emission reductions of 65,000 tonnes (of which 30,800 tonnes is direct) over the Project duration;
- ⇒ 263 million passengers in public transport modes in Bratislava in last project year;
- ⇒ Average car occupancy for cars of 1.5 entering the city centre by the EOP.

Actual EOP Outcome:

- ⇒ An unsatisfactory outcome has been achieved since there are no direct CO₂ emission reductions due to late implementation of several of the components.
- ⇒ An unsatisfactory outcome has been achieved on a projected increase in public transport modes. The 2012 survey by DPB on the increased number of passengers using public transport (from a baseline of 150 million to 152 million in 2012 and a EOP target of 265 million) cannot be strongly linked with Project interventions (reportedly awareness raising campaigns on the benefits of public transport use), and should not yet be considered an achievement of the Project.
- ⇒ A moderately unsatisfactory outcome has been achieved in the increase in average car occupancy. While the recent car pooling scheme which now has 2,000 registered users contributes towards the outcome, the target of 1.5 occupants for cars entering the City is a difficult target to achieve within the time frame of this Project. The moderately unsatisfactory outcome is a reflection of the unrealistic target set by the Project's designers and the PSC (in the re-setting of the PPM targets in May 2013).

Rating: relevance: 3
 effectiveness: 3
 efficiency: 2
 overall rating: 2.3

Table 3 summarizes the GHG reduction estimates (using GEF guidelines) that are estimated from SMB outcomes. Direct GHG emissions from the SMB Project were generated as follows:

- Tram efficiencies resulting from the installation of the tram priority signaling at 3

3.3.2 Outcome 1: Municipality of Bratislava adopts and implements new on-street parking policy

Intended Outcome 1:

- ⇒ New policy with stricter regulation on parking adopted
- ⇒ 30% of parking spaces available during regulated hours
- ⇒ Average on-street parking reduced to 2 hrs duration per car in regulated spaces

Actual Outcome 1:

- ⇒ A moderately unsatisfactory outcome has been achieved in that new parking policies were not adopted in selected boroughs. However, despite much work and lobbying for the support for a new parking policy at a city-wide level, the new parking strategy was not approved by a margin of 2 votes from 45 City Councilors in the March 2014 vote;
- ⇒ An unsatisfactory outcome has been achieved in the 30% availability of parking spaces during regulated hours. The parking surveys conducted during 2014 do not indicate this rate of availability;
- ⇒ A unsatisfactory outcome has been achieved with no reduction of the average on-street parking to an average of 2 hrs per car in regulated spaces in Stave Mesto Borough (Old City).

Rating: relevance: 3
 effectiveness: 3
 efficiency: 2
 overall rating: 2.7

This Component experienced a number of delays over the first 3 years in an effort to inform other boroughs of the benefits of the new parking strategy over wider areas of the city. These delays were related to consultations with various boroughs on how a parking strategy was to be implemented. Furthermore, the outcomes from this component are considerably different from the original intent. Initial plans were to implement a pilot parking scheme in the downtown borough of Staré Mesto under a single concessionaire, BPS (under Output 1.2), changing the old system of parking from an allocated free parking space for residents to a paid regulated system with limited allocated parking spaces with a number of parking spaces that are only available for a shorter period of time³⁵.

Parking experts from the Project, both international and national, provided technical assistance to Bratislava in 2011 and 2012 on assessment of the current parking situation in Bratislava, how best practices from other cities could be adopted in Bratislava, the provision of recommendations on technical devices and solutions to manage on-street parking, and the provision of guidelines for implementing a city-wide parking strategy. Two workshops were conducted to disseminate the findings of the reports that included follow-up at the City's request for additional details of the technical devices presented in the original 2012 report. Comments from most stakeholders rated the inputs of these experts as highly satisfactory. The strengths of the parking study were the information collected from the extensive and wide range of stakeholder consultations³⁶ and design of the new parking schemes using experiences from other cities. The mayors of several boroughs, however, were not in agreement with the findings of the international technical assistance.

³⁵ The original parking scheme in the borough of Staré Mesto was a space allocated to a local resident for the entire day which did not allow parked cars from outside the borough.

³⁶ Includes a private parking operator (BPS), the Slovak parking association, several decision makers at the boroughs and the national police

The new parking strategy proposed for the City in 2012 was a €20 to €30 charge per month for the right of residents to park within 100 m of their residence, a 50% discount for parking in other lots around the City, prohibiting cars from outside the resident's area from parking their car for no charge, and the elimination of reserved company parking. Piloting of this new parking strategy in Staré Mesto in 2012 and 2013 was not successful due to the inability of the City to change the conditions of an ongoing concession with an existing concessionaire, BPS, that would have resulted in them receiving less revenue. The City found a willing partner to pilot the new strategy in Nové Mesto borough where several of Bratislava's sporting complexes are located, and where the impacts of uncontrolled parking were most severe. However, the City in September 2013, proposed the new parking strategy over the entire city with the shifting of responsibility for implementation from the boroughs to the municipally-operated company MEPASYS.

A Facebook campaign prior to the March 14, 2014 City Council vote was prepared by the Project's communication advisor that found strong public support for the proposed parking statutes³⁷. Despite the strong support for the parking strategy in four of the largest boroughs in Bratislava³⁸, City Council did not approve the proposed parking statute in March 2014 despite the best efforts of the Project and the City's transport experts to promote it. The reasons for not approving the proposed parking statute were likely due in part to the upcoming municipal elections in late 2014, and the reluctance of the boroughs to release their responsibilities for parking to the municipal government. The Evaluator also questions if there was sufficient effort by the Project to promote the City's plans for 3 park-and-ride lots near tram stations to facilitate modal switches from cars to trams; this would have demonstrated to those opposed to the new parking strategies that good alternative options for parking were going to be available near public transit, thus providing an viable alternative to private car trips in the City.

3.3.3 Outcome 2: Bratislava public transport operator implements priority system for trams in Vajnorska and Racianska corridors

Intended Outcome 2:

⇒ Average waiting time for trams at the intersections with newly equipped dynamic traffic control tools is reduced by 50%

Actual Outcome 2:

⇒ A moderately satisfactory outcome has been achieved with the installation in August 2014 of new dynamic traffic control tools at two intersections along the Racianska corridor and one along the Vajnorska corridor. The equipment results in the reduction of 95 seconds of time off a 22-minute trip along the Racianska corridor and 55 sec off a 25-minute trip along the Vajnorska corridor. The City already has a confirmed budget for installing tram priority signaling at all intersections along these corridors; this will reduce the potential journey time along the Racianska corridor from 22 to 14 minutes and the Vajnorska corridor from 25 to 19 minutes;

⇒ With the approximately USD 35,000 remaining in Component 2 as of late 2013, the PSC determined that these funds could not be spent on tram priority due to the tender for the equipment for tram signal priority. UNDP suggested that the funds be used to

³⁷ From 4-6 March 2014, 20 posts appeared catalyzing an active public discussion, and generating 2,000 likes within 3 days. The video developed by the Project's communication advisor was viewed more than 110 thousand times with 572 direct clicks on the Facebook page.

³⁸ Nove Mesto, Staré Mesto, Petržalka and Ruzinov

design and pilot the upgrading of tram and bus stops that would increase public transit access to disabled and elderly persons. After approval from the Chief Traffic Engineer, UNDP supported preparation of the designs of an upgraded tram and bus stop located at the Most SNP tram stop. Construction of these facilities consisting of elevated platforms to eliminate the climbing of stairs into the trams and buses, will be conducted in October and November 2014.

Rating: relevance: 5
 effectiveness: 6
 efficiency: 3
 overall rating: 4.7

This component was originally designed to increase the attractiveness of public transport in Bratislava. With trams being the key mode of public transport in Bratislava, the City made a commitment to improve the efficiency of two corridors, Vajnorska and Raciarska, through the installation of new traffic control systems that would give priority to trams, and reduce the waiting time at the numerous intersections along these corridors.

In 2011, the Project provided an international expert to assess the existing systems for the management of public transport analysis along these two corridors, and to assess where the demonstrations for tram priority could be located. The report from Hamburg Consult provided the City and its public transport company, DPB, with a simulation of a tram priority system, guidelines for the modernization of a tram control system that would give priority to trams to reduce journey times, and improvements to the attractiveness of public transport in Bratislava. The successful demonstration of such a system at high profile intersections along these high volume corridors could be replicated by the Municipality at other intersections along these corridors and in other parts of Bratislava.

In late 2012, the EU grant was cancelled forcing the City to reconsider the timeframe of public transit improvements with tram priority along two corridors; improvements along the entire corridors would not seem possible without sufficient funds. As such, this component was re-scoped to provide a dynamic control system for public transport priority at three intersections.

Funds for new equipment at the two intersections were provided Project (for the hardware for three intersections) and the City's municipal budget (for installation). There were delays in the installation of the new equipment were due to problems with tender documentation, a problematic tender process in early 2013³⁹, and the floating of another tender for dynamic control equipment in June 2013 with a contract winner being declared in October 2013. The delivery and installation dates of all equipment were carefully coordinated between the Project, the City and DPB.

From May to July 2014, the system was installed consisting of an on-board wireless device on the tram that would send a radio signal to the central control center (CCC) of DPB of a tram approaching a traffic signal; the CCC would then send a radio signal to the DPB's central transmission tower to change the traffic signal in advance of the tram, thereby reducing journey times for tram passengers along these corridors. The Project provided technical support including the modeling of the new tram system along the two

³⁹ One of the companies that had tendered an offer had objected to the results claiming it had exclusive equipment supply rights to the Municipality. This nullified the tender in early 2013, forcing the Project to re-tender in June 2013.

corridors. The cost of new dynamic control systems at each intersection was in the order of USD 27,000 per junction. Figures 2 and 3 show the tram intersection at the Pekna Cesta tram stop along the Racianska corridor as well as the tram priority equipment installed.

Figure 2: Pekna Cesta Tram stop along the Racianska Corridor



The success of the pilot installations has also catalyzed the Municipality's interest in increasing their investments into further improvements for tram efficiency and developing some of the trams stops into a more passenger friendly area. Pipeline investments under consideration with secured funding include:

- a pedestrian bridge at Razanska along the Racianska corridor where a level pedestrian crossing causes delays to tram traffic;
- an integrated tram and bus stop at Radianskeno-Sankova to facilitate easy transfers between buses and trams;
- a pedestrian bridge at a shopping mall near the terminus of the Vajnorska corridor⁴⁰;
- a park-and-ride facility with 500 spaces at Lamac;
- installation of new on-board devices on other trams and rolling stock; and
- development of a new central control centre.

⁴⁰ 33% of the business owners in the mall did not want the pedestrian bridge

Figure 3: Tram signal priority equipment installed at the Pekna Cesta intersection along the Racianska Corridor



With the availability of funds in this Component, the Steering Committee in consultation with stakeholders at a November 2013 workshop made a decision to finance an additional activity to improve the accessibility to public transport for the people with disabilities. Using information from consultations with the ECB, City Hall, DPB and NGOs dealing with disabled citizens, bus stops for pilot modifications were identified including the bus stop area under the Most SNP. The Project has provided documentation with recommendations for the improvement of this bus stop.

3.3.4 Outcome 3: Increased number of people use bicycles for daily trips

Intended Outcome 3:

- ⇒ Long-term NMT strategy prepared in participatory process to support daily use of NMT by the second project year
- ⇒ 20 key strategic investment projects identified according to the NMT strategy by Year 2;
- ⇒ 200 parking places for bikes in operation by Year 2;
- ⇒ Share of daily bicycle trips has doubled from 0.4% to at least 0.8%

Actual Outcome 3:

- ⇒ An satisfactory outcome has been achieved with the formulation of a long term strategy for NMT that has been prepared through a participatory process;
- ⇒ An satisfactory outcome has been achieved identification of investments from a NMT strategy that was prepared. The Project's inputs consisting of the cycling infrastructure technical guidelines have been crucial to the City's preparation of a number of cycling

investment projects;

- ⇒ *A satisfactory outcome has been achieved with the setup of 200 cycling rentals in Bratislava (10 stations);*
- ⇒ *A satisfactory outcome has been achieved with MoTCRD survey results of 2014 indicating that daily cycling trips have increased to 1.5%. The Project awareness raising activities have contributed to this outcome.*

Rating: *relevance: 5*
 effectiveness: 5
 efficiency: 5
 overall rating: 5

This Component was designed to bring cycling into the mainstream of urban transport in Bratislava, by increasing the awareness of cycling not only for recreation but as a means of commuting in an effort to reduce the use of the more carbon intensive private car usage. The initial activities of this Component focused on awareness raising, technical capacity building within the municipality and the implementation of two pilot cycle corridors located in Petržalka and Comenius University. Based on feedback from the City on how to best utilize the resources of this Component, the Project modified its technical assistance by focusing on the provision of general design guidelines and international best practices, and strengthening awareness raising of cycling. The activities to support the construction of pilot cycling corridors were dropped due to the lack of technical guidelines using best international practices for constructing cycling infrastructure, especially for corridors that have multi-modal uses with motor vehicles.

In October 2012, the Project provided a team of experts (one international from Balancia, two local experts for design issues from the local firm DIC, and two local experts for public awareness-raising from the PONTIS Foundation). The Balancia report provides information and guidance for the development of NMT infrastructure that has been instrumental in raising confirmed co-financing support from the City for the preparation of future cycling infrastructure projects. The technical guidelines for designing NMT corridors have been signed off by the Mayor of Bratislava and City Council on September 25, 2014.

Moreover, the City is planning large NMT investments, attributed in part to the Project efforts on raising awareness on cycling as an alternative low carbon mode of urban transport⁴¹. In 2014, the first cycling budget in the country's history was in place with funds from the EU, the National State budget, municipal budget and private sources. During the Project, the specific cycling budget allocations have increased from €30,000 in 2010 to €0.5 million in 2014. A Cycling Commission has now been formed in Bratislava with various NGOs, the Traffic Police, MoTCRD, the National Cycling coordinator, cycling NGOs, NGOs representing disabled people and planning organizations to discuss plans for the expansion and upgrading of the current cycling network. One of the major initial cycling investments is being provided by the City of Bratislava and the borough of Petržalka in the order of USD 920,000. The City is also planning to train City staff to implement these programmes for new cycling infrastructure as well as to monitor cycling usage as a part of the future traffic surveys.

The Project Board has also agreed to provide a cycling navigation tool to the City for use by smart phones and computers. The aim of this action is to motivate people to use bikes

⁴¹ Personal communication with Mr. Peter Klucka, National Cycling Officer for MoTCRD

for their daily trips round the City. City Hall had already ordered development of a navigation tool for pedestrians and cyclists (inhabitants of Bratislava and tourists), including information about points of interests, hotels, restaurants, and proposed routes; the cycling part is less developed in comparison to the pedestrian one. A list of requirements for the cycling part for upgrade of the ordered navigation has been developed by the project team in cooperation with the advisor to the Mayor for NMT, as well as cycling NGOs.

3.3.5 Outcome 4: Municipality of Bratislava adopts a policy to promote car share and car pool programs to divert drivers from driving alone to sharing options

<p>Intended Outcome 4:</p> <ul style="list-style-type: none"> ⇒ One car pool program and one car share program active by EOP; ⇒ 1,000 registered users of the car-pooling scheme by EOP; ⇒ 25% of the car-pooling scheme usage by registered users; ⇒ 20 cars in service in car sharing program.
<p>Actual Outcome 4:</p> <ul style="list-style-type: none"> ⇒ A moderately satisfactory outcome has been achieved with one car pooling program being operational. The car sharing program was cancelled due to lack of interest and investment; ⇒ A satisfactory outcome has been achieved with over 2,000 registered car pool users; ⇒ A satisfactory outcome has been achieved with over 25% of the car pooling scheme being used by registered users; ⇒ An unsatisfactory outcome has been achieved in the cancellation of the car sharing program.

Rating: relevance: 5
 effectiveness: 4
 efficiency: 4
 overall rating: 4.3

Similar to the NMT component was mainly conceived in an effort to provide lower carbon intensive modes of transport to the carbon intensive private car. Moreover, Slovakia has had no tradition of car pooling or sharing, and as such, the Project sought inputs from an international expert in 2012 to assess the baseline situation in Bratislava for car-sharing and car pooling, and to setup a business case for car-sharing in Bratislava by the end of the project, complete with an operator and awareness raising products for the City and potential users. Car pooling was not to be addressed in-depth under the original approach, and no specific actions would be taken concerning car pool during the life of the project. Project targets for these actions were overly optimistic with increased car occupancy rising from 1.2 persons per car to 1.5.

The technical expertise for car sharing was provided from the city of Bremen, a city that leads in the development of car sharing. Through awareness raising efforts (mainly the Project's website, a workshop and a press conference with the Mayor), car sharing and car pooling appeared to be gaining support, notably taxis. The City also set aside USD 100,000 in co-financing to subsidize the launch of a small car-sharing operator. There was an interested investor and provider who was ready to start immediately; however, the City had no interest in implementing a car-sharing program, as reflected in the Mayor cancelling the scheme until 2015 with no explanation after it was prepared.

Despite the setbacks in the promotion of a car-sharing scheme, car pooling has taken on its own life with interest extending to a several large companies in Bratislava. These companies have been proactive in their encouragement to their employees to use more sustainable modes of transport to commute to work. A part of their motivation has been to reduce the need of parking places near their premises. With the support of the City, a car pooling scheme has been setup (www.jazdomat.sk and www.stopar.sk) to guide potential users of the scheme and to register and monitor car pooling usage. As to 31 March 2014, 2,000 users are registered with over 300 executed journeys in Bratislava.

3.3.6 Outcome 5: Improved capacity of Government to monitor GHG emissions from the transport sector in Bratislava

Intended Outcome 5:	
⇒	Coordinated regular monitoring scheme established for more accurate calculation of emissions from transport in Bratislava based on COPERT model by EOP;
⇒	2013 ex ante and 2014 ex post estimation of all transport-related indicators by EOP.
Actual Outcome 5:	
⇒	A moderately satisfactory outcome has been achieved with the agreement for the setup of the monitoring scheme for more accurate calculation of transport-related emissions in Bratislava based on the data from strategically located vehicle detectors at the entrances to Bratislava and the COPERT model. While this is an outcome that has been delivered as per the 2013 PPM, the model has limited use in determining direct GHG emission reductions from specific Project interventions;
⇒	A moderately unsatisfactory outcome has been achieved in the lack of ex ante and ex post estimation of transport-related emissions in Bratislava.

Rating: relevance: 4
 effectiveness: 4
 efficiency: 3
 overall rating: 3.7

While Component 5 covers all Project M&E activities, this section only describes the efforts to "monitor of CO₂ emissions" under the leadership of the Slovak Hydrometeorological Institute (SHMU) as *the main institution responsible for monitoring activities*. Other M&E activities of the Project are covered in Sections 3.2.3 and 3.2.5 of this TE report.

The objective of this Component was to monitor transport-related CO₂ reductions in Bratislava. Moreover, it was implied from the documents that these monitored emission reductions could be traced to sustainable transport measures undertaken during the SMB Project. The activities of SHMU, however, to setup a mechanism for more accurate determination of CO₂ emissions from transport are not strongly linked to specific sustainable transport measures that have been undertaken by the Project or for future sustainable transport measures by the City.

At the commencement of the Project, there were no plans for implementing this Component. Moreover, during 2011 and 2012 (Years 1 and 2 of the Project), the Project was still trying to establish a plan for estimation of these GHG emissions including actions over:

- identification of and negotiation with partners on various related data collection and required surveys (September 2011);
- a draft methodology for regular data collection for transport emissions monitoring during the Project, and the need for more precise information (June 2012);
- use of traffic car counts and 2010-12 data from Slovak bus lines for inputs into the COPERT model (September 2012);
- identification of a need for a traffic survey (December 2012);
- conducting of a traffic survey in May and June 2013;
- the first draft of the CO₂ monitoring methodology, and the need for obtaining data relevant to the average kilometres travelled each year by a car (September 2013);
- the specification of 18 detectors for permanent traffic monitoring at 2 of 4 non-highway entries to the Municipality (Halova and Lamacska). The detectors will monitor and detect the traffic intensity, purpose of vehicle usage, and time of usage. This data collected could then be used to determine and regularly monitor emissions from the traffic, which could then be extrapolated to the entire city (December 2013); and
- purchase and installation of these detector with the tender in April 2014 and actual installation in September 2014.

With the assistance of Project resources, SHMU developed a monitoring system that improves the calculations for emissions from transport in Bratislava through a series of vehicle detectors strategically located at the entrances to the City and computer modeling. This work is useful from a general perspective for the MoE as it should provide the City, the Bratislava Region and other municipalities of Slovakia with a comprehensive emissions monitoring tool for its transport system. SHMU states that the quality of the emission calculations of the monitoring system relies on the inputs from traffic detectors (i.e. speed, vehicle type, fuel used and number of passengers) which are not readily available in Bratislava as well as most European cities. The absence of this data would then be supplanted by expert opinions and estimates.

This approach, however, does not supplant the need for building the capacity to determine GHG reductions from Project activities similar to the standard CDM methodologies that are available. There has been a lack of attention to monitor GHG reductions from implemented sustainable transport measures, and future sustainable transport investments by the City may not be reliably tied to the benefits of GHG reductions and other environmental parameters without having to redefine the baseline. Examples of the types of calculations for direct and direct post-project CO₂ emission reductions include the following:

- GHG emission reductions generated from the use of new park-and-ride lots, avoided use of private cars and fossil fuel consumption, and modal switches to public transport or NMT. SHMU are planning to locate vehicle detectors after the proposed park-and-ride lots in the direction into the city. This location would enable an estimation of the impact of the park-and-ride lots and modal switches to public transit;
- GHG emission reductions from improved energy efficiency from decreased journey times of the trams from the priority scheme being implemented over the entire 6.5 km of the Vajnorska corridor, and the entire 8 km of the Racianska corridor. This effort will encourage modal switches from private cars to trams;

- Small GHG emission reductions from a percentage of car trips (i.e. 1 million to 1.2 million trips) that will do a modal switch to NMT (biking) due to the biking promotion measures, and the increase in the City's budget for biking infrastructure improvements;
- GHG emission reductions from car pooling and avoided single occupancy car trips starting in 2012.

There are CDM methodologies (such as AM0031⁴²) to monitor the emission reductions of these aforementioned sustainable transport activities. Most of these methodologies will consist of traffic and passenger surveys of the various transport modes to a confidence level of 90%. However, given the high degree of rigor of these methodologies, these methodologies could be adopted in a scaled-down manner and according to the needs of the City.

3.3.7 Overall Evaluation of Project

The overall rating of the Project is moderately satisfactory (MS). This is based on the following outcomes:

- Poor Project design that was based on a lack of information on stakeholder demand and reaction to sustainable transport measures proposed by this Project, and the setting of vague targets without knowing if the targets were achievable;
- The lack of action by the NIA during 2010 to 2012 to improve the monitoring of the Project through the addition or strengthening of indicators that would better reflect the impacts and GHG emission reductions generated by sustainable transport measures. In addition, the NIA did not make an effort to staff the PIU with personnel with experience in sustainable transport;
- Effectiveness of the current Project Manager from 2012 to date in developing a strong relationship with the City's Chief Traffic Engineer. With the Project providing assistance with implementation of sustainable transport development, the City has successfully raised funds for a) a Master Transport Plan for Bratislava, a study that is urgently required to justify all sustainable transport investments being made by the City, and slated for completion by mid-2015; b) capital projects such as tram system improvements, cycling infrastructure, and bus priority lanes; and c) modernizing the public transit fleet with new trams and buses;
- The lack of success in obtaining approval of a new city-wide parking strategy. These efforts were possibly weakened by the lack of promotion of park-and-ride facilities (currently being designed by the City) that would have raised the visibility of the need for parking restrictions in the residential areas;
- The successful demonstration in August 2014 of tram priority signaling at three intersections along the Racianska and Vajnorska corridors that has resulted in the City's commitment to replicate this demonstration along the entire length of these corridors, potentially reducing journey times by more than 25%;
- Technical assistance by the Project to provide technical guidelines to new cycling infrastructure that provided the Municipality with the knowledge and confidence to

⁴² Specifically, Section 6.3 (pg 50-51 or Para 128-134) provide details of the required survey: http://cdm.unfccc.int/filestorage/e/h/P3RA2GQMBV490J75IWYXSFLUZ1KECO.pdf/EB70_repan14_AM0031_ver05.0.pdf?t=OUV8bjh6Z25nfDD5GxJggW5iJ617hQyFmZCk. While this provides a high degree of detail and rigor for obtaining carbon credits, reference to this methodology is only intended to provide a framework and guidance on how the survey should be setup.

- prepare a long-term strategy for NMT development and to receive budgetary allocations for additional cycling infrastructure funds;
- A growing car pooling scheme initiated by the Project and supported by the Municipality and large employers of Bratislava;
 - The absence of a model to calculate direct CO₂ transport-related emissions resulting from sustainable transport measures such as parking, modal switches to public transit, NMT and car pooling; and
 - Failure to meet GHG emission reduction target by a substantial margin.

Overall project ratings are provided on Table 4.

Table 4: Ratings for Each Project Outcome⁴³

	Relevance	Effective-ness	Efficiency	Overall Rating
Monitoring and Evaluation:				
M&E design at entry	-	-	-	3
M&E plan implementation	-	-	-	3
Overall quality of M&E	-	-	-	3
UNDP and Executing Partner Performance:				
Quality of Implementation	-	-	-	3
Quality of Execution	-	-	-	3
Overall quality of implementation/execution	-	-	-	4
Overall Results	3	3	2	2.7
Outcomes:				
Outcome 1: Municipality of Bratislava adopts and implements new on-street parking policy	3	3	2	2.7
Outcome 2: Bratislava public transport operator implements priority system for trams in Vajnorska and Racianska corridors	5	6	3	4.7
Outcome 3: Increased number of people use bicycles for daily trips	5	5	5	5
Outcome 4: Municipality of Bratislava adopts a policy to promote car share and car pool programs to divert drivers from driving alone to sharing options	5	4	4	4.3
Outcome 5: Improved capacity of Government to monitor GHG emissions from the transport sector in Bratislava	4	4	3	3.7
Overall Rating:	4.2	4.0	3.2	3.5

⁴³ 6 = HS or Highly Satisfactory: There were no shortcomings;
 5 = S or Satisfactory: There were minor shortcomings;
 4 = MS or Moderately Satisfactory: There were moderate shortcomings;
 3 = MU or Moderately Unsatisfactory: There were significant shortcomings;
 2 = U or Unsatisfactory: There were major shortcomings;
 1 = HU or Highly Unsatisfactory.

3.3.8 Country Ownership and Drivenness

Sustainable transport remains an objective of the Slovak Government with the following strategic documents for environmental protection and transport development that are still in effect:

- Strategy, Principles and Priorities of the State Environmental Policy (approved by the Slovak Government by the Resolution No. 616/1993 and by the National Council of the Slovak Republic by the Resolution No. 339 from 18 November 1993) to extend the use of sustainable fuels and modes of transport is one of the medium-term objectives in the area of protecting the atmosphere;
- Action Plan for Sustainable Development, (adopted by the Government Resolution 574/2005) that specifies objectives in the area of sustainable development with a focus on external incentives and internal needs that will ensure orientation of transport development in accordance with sustainability principles and to strengthen the linkages between the environment and transport sectors;
- Transport Policy till 2015 (adopted by the Government Resolution 445/2005) - document defines basic orientation of transport development in connection to challenges resulting from growing transport demands while reducing negative impacts on the environment. The framework objective is to ensure sustainable development respecting economic development, social and regional solidarity and acceptance from the point of view of the environment. Policy also includes the specific goal of “decreasing the negative effects of the transport sector on the environment” and a priority for “development of public transport”;
- Concept of Passenger Bus and Railway Transport (adopted by the Government Resolution 377/2005) that supports public passenger transport and to create conditions to carry out effective public services financed from the public resources to ensure all transport needs of the population; and
- Act 43/2007, amending the act 168/1996 on road transport that encourages development of human settlements in Slovakia. From the point of view of development of human settlements, the Act deals with transport services with regular bus transport, lays down arrangements in transport services through intermodal connections between public bus transport and public passenger transport on railways. In this context, municipalities are obliged to work out plans of transport services.

3.3.9 Sustainability of Project Outcomes

In assessing Project sustainability, we asked “how likely will the Project outcomes be sustained beyond Project termination?” Sustainability of these objectives was evaluated in the dimensions of financial resources, socio-political risks, institutional framework and governance, and environmental factors, using a simple ranking scheme:

- 4 = *Likely (L)*: negligible risks to sustainability;
- 3 = *Moderately Likely (ML)*: moderate risks to sustainability;
- 2 = *Moderately Unlikely (MU)*: significant risks to sustainability; and
- 1 = *Unlikely (U)*: severe risks to sustainability.
- *Overall rating is equivalent to the lowest sustainability ranking score of the 4 dimensions.*

The overall Project sustainability rating is likely (L). This is primarily due to:

- The overwhelmingly positive views of the Project activities by the Municipality of Bratislava as well as their ongoing and strong engagement of the various sustainable transport activities of the Project;
- The eventual acceptance of the new parking policy notwithstanding the failure of the City to obtain City-wide adoption of the new parking policy. With surveys indicating strong public approval of the new parking policies, the Evaluator is of the opinion that City Councilors currently opposed to the new parking policies will reverse these views; this will be based on the confirmed financing of proposed sustainable transport infrastructure and the subsequent development of new sustainable transport infrastructure (i.e. park-and-ride lots, improved public transit services, etc.) that will mitigate the impacts of the new parking policy;
- Confirmed City financing to extend tram priority to the entire Vajnorska and Racianska corridors based on the successful demonstrations of tram priority;
- Increases in the cycling budget of the Municipality for new cycling infrastructure;
- Popularity of the car pooling scheme and the drivenness of the users to save money on commuting costs and the employers to reduce operational costs by reducing parking spaces.

Details of sustainability ratings for SMB are provided on Table 5.

3.3.10 Impacts

The Project has raised awareness in City Hall and a wider cross section of Bratislava residents on the benefits of sustainable transport modes in Bratislava. Moreover, the impact of the Project has catalyzed the interest of the Municipality to the extent that the City has successfully raised financing for a Master traffic plan for Bratislava and capital projects for sustainable transport to improve urban mobility and generate GHG reductions that were unable to be achieved during the Project. Moreover, given Bratislava's allocations for EU funding based on its GDP, there is a strong likelihood of these investments being realized. This is a satisfactory outcome of the Project.

The targeted impacts of the Project, namely the quantitative reduction of 30,800 tons of CO₂ by 2014, as well as the targets for the parking strategy and car pooling were not achievable given the lack of baseline information on urban transport at the commencement of the Project, the setting of vague targets and the relatively short 4-year timeframe to implement the Project. The Project's impact, however, of raising the City's awareness of sustainable transport is enabling the City to approach sustainable transport and GHG reduction targets during preparation of the EU-supported Bratislava Master Traffic Plan that is scheduled for completion by August 2015.

The impact of the Project for the modeling tool for calculating CO₂ transport emissions at the city level, is also significant, notwithstanding its weak relevance to monitoring GHG reductions from sustainable transport measures undertaken. The modeling tool developed with SMB resources for CO₂ calculations can empower transport and other government decision makers, and civil society in Bratislava citizens on public discussions on further improvements to sustainable mobility options. Furthermore, this tool will help focus data collection efforts by MoE and extend the model to other municipalities of Slovakia for the monitoring of other urban transport systems by the Ministry of Environment. This would include improving institutional cooperation with other transport sector authorities and companies that operate locally, regionally or nationally.

Table 5: Assessment of Sustainability of Outcomes

Actual Outcomes (as of September 2014)	Assessment of Sustainability	Dimensions of Sustainability
Actual Outcome 1: Parking policy has been adopted by 4 boroughs in Bratislava but not the other 13 boroughs	<ul style="list-style-type: none"> • <u>Financial Resources:</u> Financing for parking schemes is available since the revenue generated by the new parking policy assists in cost recovery • <u>Socio-Political Risks:</u> Even though the parking policy has not been accepted by most boroughs, sufficient time is needed to demonstrate the benefits of the new parking policy that will be eventually accepted by the entire city; • <u>Institutional Framework and Governance:</u> The new parking policy was setup to shift the responsibility of the implementation of the parking policy from the boroughs to the City's concessionaire for parking, METAPSYS. With time, this arrangement will be accepted by all boroughs once the benefits can be demonstrated in the four pilot boroughs; • <u>Environmental Factors:</u> The new parking policy will actually benefit the City's air quality and quality of life. <p style="text-align: right;">Overall Rating</p>	4 4
Actual Outcome 2: Bratislava public transport operator, DPB successfully implements tram priority system at 3 intersections as a pilot	<ul style="list-style-type: none"> • <u>Financial Resources:</u> Tram priority improvements for the entire Vajnorska and Racienska corridors are confirmed; • <u>Socio-Political Risks:</u> No opposition to tram priority is expected. • <u>Institutional Framework and Governance:</u> DPB are fully managing the tram priority improvements with full support by the City's Chief Traffic Engineer; • <u>Environmental Factors:</u> Tram priority will actually benefit the City's air quality and quality of life by encouraging low carbon intensive public transit usage <p style="text-align: right;">Overall Rating</p>	4 4
Actual Outcome 3: Increasing number of bicycle trips are being made as daily trips	<ul style="list-style-type: none"> • <u>Financial Resources:</u> Budgetary allocations for cycling have been recently made by MoTCRD; • <u>Socio-Political Risks:</u> There is strong Government support for cycling development and strong cycling NGOs to support its increased use as a viable mode of urban transport; • <u>Institutional Framework and Governance:</u> MoTCRD have a dedicated advisor for cycling and NMT to assist in raising awareness of cycling 	4 4

Table 5: Assessment of Sustainability of Outcomes

Actual Outcomes (as of September 2014)	Assessment of Sustainability	Dimensions of Sustainability
	and to provide inputs into action plans to improve cycling infrastructure; <ul style="list-style-type: none"> • <u>Environmental Factors</u>: There are no GHG emission or environmental issues with the promotion of cycling in Bratislava <p style="text-align: right;"><u>Overall Rating</u></p>	4 4
Actual Outcome 4: Bratislava City is supporting a car pooling scheme with large company employers	<ul style="list-style-type: none"> • <u>Financial Resources</u>: Fiscal resources are available from the City for support for car pooling; 	4
	<ul style="list-style-type: none"> • <u>Socio-Political Risks</u>: Low socio-political risk as the registered number of car poolers is increasing; 	4
	<ul style="list-style-type: none"> • <u>Institutional Framework and Governance</u>: City supports a website for the registration of car poolers in partnership with large company employers; 	4
	<ul style="list-style-type: none"> • <u>Environmental Factors</u>: Car pooling will result in less cars using the road network in Bratislava and improvements in air quality <p style="text-align: right;"><u>Overall Rating</u></p>	4 4
Actual Outcome 5 Capacity of SHMU improved to monitor GHG emissions from the transport sector in Bratislava	<ul style="list-style-type: none"> • <u>Financial Resources</u>: MoE has sufficient funds to expand the GHG monitoring scheme to include monitoring more directly linked to sustainable transport measures being undertaken in Bratislava 	4
	<ul style="list-style-type: none"> • <u>Socio-Political Risks</u>: Low socio-political risk from the surveys required for monitoring more directly linked indicators to sustainable transport measures; 	4
	<ul style="list-style-type: none"> • <u>Institutional Framework and Governance</u>: City, MoE and MoTCRD have an MOU for an institutional arrangement to share all transport emissions related data; 	4
	<ul style="list-style-type: none"> • <u>Environmental Factors</u>: No environmental issues related to monitoring of GHG reductions from sustainable transport measures <p style="text-align: right;"><u>Overall Rating</u></p>	4 4
	<u>Overall Rating of Project Sustainability:</u>	4

4. CONCLUSIONS, RECOMMENDATIONS AND LESSONS

4.1 Conclusions

- Stakeholder engagement during the Project preparations of SMB was weak to the extent that there was not a thorough understanding of the institutional risks involved in decision making of the important parking policy. Notwithstanding the lack of knowledge of sustainable transport in the City during the PDF-B phase and the early stages of the Project, there was no information on stakeholder opinions of sustainable transport options being proposed under SMB. Moreover, the assessment of the decision making ability of the Bratislava Mayor on the parking statutes was overestimated, resulting in much effort required to inform the 17 boroughs on implementing the new parking policy throughout the City;
- City Hall's understanding of the concepts of sustainable transport at the commencement of the Project was very low. With the exception of the Mayor and the new Chief Traffic Engineer, the Project expended significant resources in 2011 and 2012 to overcome the institutional difficulties in convincing various City officials on sustainable transport measures, most notably the parking strategy;
- The Project was placed into a difficult situation with the City not being an active implementing partner early in the Project, and the reluctance of MoE to appoint a National Project Director. This had two adverse impacts on the Project:
 - The lack of an NPD limited the profile of the Project amongst other decision makers in the Government of Slovakia and amongst other transport institutes and government agencies of other countries; and
 - The unwillingness of the City to become an implementing partner forced UNDP to delay the start of the Project to select an independent agency to serve as the national implementing agency;
- The Project suffered from a lack of urban transport expertise in its leadership. The Energy Centre Bratislava is an NGO with expertise in energy-efficiency that was selected to lead the implementation of the SMB Project dealing with sustainable transport. Their selection was made despite a bid from another organization that had international sustainable transport experience. Their lack of transport expertise was evident in:
 - the execution of the Project, and its activities in Years 1 and 2 where unrealistic targets were set and accepted by the Project;
 - their failure to staff the PIU with persons knowledgeable on sustainable transport;
 - the inability of ECB to adaptively manage various technical issues on the Project such as the tram priority design, NMT promotion, and the M&E component. This led to the Municipality assuming the technical lead on the Project by Year 2 (2012). As such, ECB and the Project were reduced to a supportive and facilitative role in sustainable transport development in Bratislava.
- The positive aspect of the Project has been the successful engagement of the City that has catalyzed City interest in sustainable transport measures. Moreover, during

the Project, the City became increasingly confident on issues regarding development of sustainable transport measures including the parking strategy, tram priority, NMT and car pooling components of the Project. This also allowed the City to make key decisions on how Project resources should be utilized, which extended into its successful application for additional funding for an urgently needed Master Transport Plan for Bratislava, capital projects for sustainable transport infrastructure, and procurement of modernized trams and buses. This is an outstanding outcome of the Project demonstrating effective and successful efforts on stakeholder engagement.

4.2 Recommendations

Recommendation 1: Future sustainable transport investments in Bratislava should be aligned with the Master Transport Plan for the Municipality of Bratislava to be completed in 2015. While this may already be occurring, master transport plans provide a holistic view of a sustainable transport measure that is integrated with land use planning, travel demand along a particular corridor and environmental impacts. A sustainable transport investment aligned with the Master Transport Plan will provide optimal and sustained returns on a public investment while minimizing risks of redundancy and overuse.

Recommendation 2: With the substantial investment commitments being made by the Municipality of Bratislava into sustainable transport, the Municipality should setup systems to conduct the appropriate surveys and monitoring systems that will provide further validation of GHG emission estimates generated from the SHMU model. This would include surveys for data related directly to GHG reductions from parking and modal switches to public transport, NMT and car pooling. There are a number of examples of surveys and monitoring systems that can be found in various CDM methodologies such as approved CDM Methodology AM0031³². The City should seek technical assistance for the design and conducting of surveys necessary to find: a) the number of passengers who have switched from private car trips to public transit, cycling or walking; b) the average distances and fuel consumption avoided by private car; c) the size of the survey or the number of respondents necessary for a reasonable confidence level of the survey that will account for the seasonal variations of public transit, NMT or car pooling usage; and d) the calculation of GHG reductions based on an approved methodology.

Recommendation 3: Future GEF project preparations either need more oversight by the implementing agency or more investment from GEF. The SMB Project has a design where there was an inherent high risk of failure to meet its targets and objectives. The Project either needs to have adequate baseline information at the commencement of the Project or have sufficient resources and identified activities during its implementation to collect this information during its commencement phase. This would reduce the risk of a project with poorly designed activities that are weakly linked with achieving outcomes and output targets.

³² Specifically, Section 6.3 (pg 50-51 or Para 128-134) provide details of the required survey: http://cdm.unfccc.int/filestorage/e/h/P3RA2GQMBV490J75IWYXSFLUZ1KECO.pdf/EB70_repan14_AM0031_ver05.0.pdf?t=OUV8bjh6Z25nfDD5GxJggW5iJ617hQyFmZCk. While this provides a high degree of detail and rigor for obtaining carbon credits, reference to this methodology is only intended to provide a framework and guidance on how the survey should be setup.

Recommendation 4: GEF should re-consider investment of its resources for sustainable transport projects under USD 1.5 million and less than 5 years in duration, especially where sustainable transport awareness is low.

Transport projects inherently have long gestation periods due to the long stakeholder consultation process and the larger sums of financing required from the public purse. The SMB Project struggled for its first two years to raise the awareness of sustainable transport with its primary stakeholder, the policy makers of the City. This left SMB with only 2 years to implement sustainable transport measures. If this Project had another year remaining, direct GHG reductions could have been achieved. With more funds, a well qualified full time Project Manager with related transport expertise could have been hired and provided the required leadership in terms of strategy and target setting of the indicators.

4.3 Lessons Learned

Key lessons from the SMB Project include:

- Thorough project preparations are essential for the setup of a successful sustainable transport project design. This would include:
 - thorough stakeholder engagement, and most importantly, an understanding of the institutions to be involved with the project;
 - soliciting stakeholder perspectives of urban transport, and determining their needs. This should include disaggregation where appropriate of the various social groups whose travel patterns and needs may be distinct from other groups;
 - the collection of baseline information on traffic patterns and passenger volumes as well as vehicle energy consumption and usage patterns; and
 - enabling project designers to setup meaningful and achievable targets to effectively measure project impacts.
- Staffing of UNDP-GEF projects requires a full time Project Manager who has a background related to the technical discipline of the project. In the case of sustainable transport projects, the absence of a person familiar with sustainable transport issues would result in project progress stagnating due to the challenges of not being familiar with transport issues, a period of familiarization with the technical discipline of the unqualified person and a high risk of a diminishing role on the project. In contrast, a person with a transport background would be able to:
 - more effectively and efficiently engage the host government for support to advance sustainable transport development;
 - more efficiently identify and prepare terms of reference for consulting inputs to meet various milestones in the development of certain sustainable transport measures such as a parking strategy or planning of improved tram services;
 - manage outputs from consultants into a form that would be useful for the host municipality;
 - monitor the project to ensure that there is some transformation of travel patterns resulting from sustainable transport measures undertaken.

APPENDIX A – MISSION TERMS OF REFERENCE FOR PROJECT FINAL EVALUATION

Type of Contract: Individual Contract (Consultant)
Languages Required: English
Duration: estimated June 2014 – September 2014 (estimated 20 working days)
Location: Home based (15 days) + 2 missions to Bratislava, Slovakia (One mission of 3 working days and one mission of 2 working days)

1. INTRODUCTION / BACKGROUND

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) set out the expectations for a Terminal Evaluation (TE) of the project “Sustainable Mobility in the City of Bratislava” (PIMS #4012, Atlas # 63903).

The Project Document was signed between the Ministry of the Environment of the Slovak Republic and UNDP/GEF Regional Center for Europe and CIS on 21st December 2009 and it will end on 30 September 2014.

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

PROJECT SUMMARY TABLE

Project title:	Sustainable Mobility in the City of Bratislava			
GEF Project ID:	4012		at endorsement (Million US\$)	at completion (Million US\$)
UNDP Project ID:	51351 /63903	GEF financing:	0.93	0.93
Country:	Slovakia	IA/EA own:	0	0
Region:	Europe and CIS	Local Government:	4.45	1
Focal Area:	Climate Change	Other:	0.02	0.025
FA Objectives, (OP/SP):	CC-SP 5 Promoting sustainable innovative systems for urban transport	Total co-financing:	4.47	1.025
Executing Agency:	Ministry of Environment of the Slovak Republic	Total Project Cost:	5.4	1.96
Other Partners involved:	National Implementing Partner – Energy Center Bratislava (ECB)	Pro Doc Signature (date project began):		21 December 2009
		(Operational) Closing Date:	Proposed: 30 June 2014	Actual: 30 September 2014

This Terminal Evaluation (TE) is initiated by the UNDP Regional Center for Europe and CIS (Bratislava) as the GEF Implementation Agency responsible for this project and it aims to provide managers (at the Ministry of the Environment, UNDP/GEF and project levels, and the GEF Secretariat) with assessment of the extent to which the project has met its overall objectives and outcomes and to help provide lessons learned for future similar projects.

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
<http://web.undp.org/evaluation/documents/guidance/GEF/UNDP-GEF-TE-Guide.pdf>.

Project description

The long term objective of this project has been to facilitate market transformation for sustainable mobility in Bratislava urban area leading to reduced GHG emissions, thus supporting the Slovak Republic efforts in meeting its commitment under UNFCCC and the Kyoto Protocol agreements. The project has consisted of five elements, which have been focused to reduce car traffic use and to divert personal trips from private cars to less polluting modes like walking, bicycles, trams and buses. This has been done by imposing restrictions on private car movements, while making non-motorized transport and public transport more attractive.

The 5 project components/outcomes have been:

- I. Defining a new parking strategy for the City of Bratislava
- II. Priority for tram transportation on Vajnorska and Racianska corridors
- III. Support of non-motorized transportation modes
- IV. Scheme for car sharing/car pooling
- V. Monitoring of CO2 emissions

Associated with these outcomes there are a number of Outputs (please see Attachment A for the Revised Logical Framework of the project).

A Working Group has been established for each of the above-mentioned project component. The WG is led by the international expert hired for the specific components, supported by the local expert and the project manager, with representation of key stakeholders, incl. City Hall with its transport department, municipality and companies, NGOs.

The Project started by Inception Workshop in November 2010. Early 2011, after creating the function of the Chief Transport Engineer at the City Hall, very intensive work began focusing on the first two Project components, i.e. development of the New Parking Strategy for on-street parking to be used at the entire area of the City, as well as the Methodology for a tram priority on Vajnorská and Račianska corridors. This component has been extended to an overall operation optimization of trams operation on both corridors and priority of all public transport vehicles (not only trams) at the regulated intersections. A simulation of 3 selected regulated intersections confirmed that the priority provided to public transport vehicles will not negatively impact the individual car transport. This will be confirmed by an implemented pilot project, where 3 selected intersections will be equipped with dynamic traffic control tools enabling a wireless communication between a tram vehicle and the intersection signaling system.

In 2012, the Project provided support to the City of Bratislava in implementation of components 1 and 2, work on components 3 and 4 (Support of Non-motorized Transport Modes and Car pooling/Car sharing schemes) has started. Final reports for the component 3 and 4 were submitted in 2013, pilot implementations of the proposed Car-pooling measures started in 2013. Implementations of the most of project recommendations and proposals for the NMT support have also started. The monitoring is done in cooperation with the Slovak Hydrometeorological Institute, which has developed an introductory inventory report on CO2 emissions from traffic sector at the territory of Bratislava, based on the data as to end of 2010.

2. DESCRIPTION OF RESPONSIBILITIES

The scope of the evaluation will cover all activities undertaken in the framework of the project. The evaluator will compare planned outputs of the project to actual outputs and assess the actual results to determine their contribution to the attainment of the project objectives. It will also attempt to evaluate the efficiency of project management, including the delivery of outputs and activities in terms of quality,

quantity, timeliness and cost efficiency as well as features related to the process involved in achieving those outputs and the impacts of the project. The evaluation will also address the underlying causes and issues contribution to targets not adequately achieved.

The key product expected from the terminal evaluation is a comprehensive analytical report written in English that should, follow requirements as indicated in [Annex F](#).

The terminal evaluation report will be a stand-alone document that substantiates its recommendations and conclusions. The report will have to provide convincing evidence to support its findings/ratings.

Special attention shall be paid to the Lessons Learned section. The Terminal Evaluation Report will include a separate chapter on Lessons Learned, providing recommendations for replication and transfer of the experience related mainly to:

- post-project sustainability of the efforts both in terms of governance and in terms of environmental benefits;
- capacity building;
- successes and challenges.

The report together with its annexes shall be presented in electronic form in MS Word and pdf format.

The review will take place in consultant's home office with two missions to Bratislava, Slovakia with approx. 5 days in-country mission in total (1st mission dates: 1st or 3rd week of June 2014 (3 working days); 2nd mission dates: September 2014 (2 working days). The consultant is expected to follow a participatory and consultative approach ensuring engagement with the project team, project partners and all key stakeholders. The consultant should request all meetings during the mission at least 3 working days prior to undertaking the mission.

The consultant is expected to use interviews as a means of collecting data on the performance and success of the project. Questionnaires prepared by the consultant can be distributed to national project partners, facilitated by participating implementing agencies.

Evaluation approach and method

An overall approach and method³³ 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 questions covering each of these criteria have been drafted and are included with this TOR in [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 RC for Europe and the CIS, project team, UNDP GEF Technical Adviser based in the region and key stakeholders. The evaluator is expected to conduct a field mission to Bratislava (Slovakia) which is also the project site. Interviews will be held with the following organizations and individuals at a minimum: UNDP Regional Centre Bratislava, Ministry of Environment of the SR, City of Bratislava; Steering Committee members; Project Team, key stakeholders.

The Evaluator is also expected to visit some of the project sites in Bratislava as part of the two missions to Slovakia.

³³ For additional information on methods, see the [Handbook on Planning, Monitoring and Evaluating for Development Results](#), Chapter 7, pg. 163

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	<i>rating</i>	2. IA& EA Execution	<i>rating</i>
M&E design at entry		Quality of UNDP Implementation	
M&E Plan Implementation		Quality of Execution - Executing Agency	
Overall quality of M&E		Overall quality of Implementation / Execution	
3. Assessment of Outcomes	<i>rating</i>	4. Sustainability	<i>rating</i>
Relevance		Financial resources:	
Effectiveness		Socio-political:	
Efficiency		Institutional framework and governance:	
Overall Project Outcome Rating		Environmental :	
		Overall likelihood of sustainability:	

Project finance / co-finance

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 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	Planned	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/vulnerable groups.

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.³⁴

Conclusions, recommendations & lessons

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 RC (Regional Center) for Europe and the CIS. The UNDP RC will contract the evaluator and ensure provision of payment installments. The Project Team will be responsible for liaising with the Evaluator to set up stakeholder interviews, arrange field visits, coordinate with the Government etc.

Although the consultants of the evaluation team should feel free to discuss with the authorities concerned, all matters relevant to its assignment, they are not authorized to make any commitment or statement on behalf of UNDP or GEF or the project management.

Evaluation timeframe

The total duration of the evaluation will be up to 20 days according to the following plan:

Activity	Timing	Completion Date
Preparation	recommended: 3-5 days	2nd half of May 2014
1st Evaluation Mission	recommended: 3 days	1st or 3rd week of June 2014
Draft Evaluation Report	recommended: 5-8 days	15 July 2014
2nd Evaluation Mission	recommended: 2 days	3rd week of September 2014
Final Report	recommended: 1-2 days	23rd September 2014

Evaluation deliverables

The evaluator is expected to deliver the following:

Deliverable	Content	Timing	Responsibilities
Inception Report	Evaluator provides clarifications on timing and method, presents the agreed mission plan	No later than 1 week before the evaluation mission.	Evaluator submits to UNDP RC
Mission debriefing	Initial Findings	End of evaluation mission	To project management, UNDP RC
Draft Evaluation Report	Full report, (per annexed template) with annexes	Within 3 weeks of the evaluation mission, latest by 15 July 2014	Sent to UNDP RC, reviewed by RTA, PCU, GEF OFPs to submit comments and suggestions by end of August 2014
2nd Mission debriefing	Findings as drafted in the Report	End of 2 nd mission	To project management, UNDP RC
Final Report*	Revised report	By 23 rd September 2014	Sent to UNDP RC for uploading to UNDP ERC.

³⁴ 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](#)

*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.

The report shall be submitted and all further communication with UNDP regarding the implementation of this assignment should be addressed to:

Ms. Jana Pangracova
UNDP Regional Centre for Europe and the CIS
Grosslingova 35, 811 09 Bratislava
e-mail: jana.pangracova@undp.org

Responsibility for Expenses and their Reimbursement

The Consultant will be responsible for all personal administrative and travel expenses associated with undertaking this assignment including office accommodation, printing, stationary, telephone and electronic communications, and report copies incurred in this assignment. For this reason, the contract is prepared as a lump sum contract.

The remuneration of work performed will be conducted as follows:

- **First payment:** 10% of the total contract upon submission of the first field visit workplan (by 26 May or 9 June 2014, depending on the date of the 1st evaluation mission) and its acceptance by UNDP Project Manager;
- **Second payment:** 40% of the total contract upon submission of the draft Evaluation Report by 15 July 2014 and its acceptance by UNDP Project Manager;
- **Third/Final payment:** 50% of the total contract upon submission of the final Evaluation Report by 23 September 2014 and its acceptance by UNDP Project Manager;

3. COMPETENCIES

Required competencies:

- Strong interpersonal skills, communication and diplomatic skills, ability to work in a team
- Ability to plan and organize his/her work, efficient in meeting commitments, observing deadlines and achieving results
- Openness to change and ability to receive/integrate feedback
- Ability to work under pressure and stressful situations
- Strong analytical, reporting and writing abilities

4. QUALIFICATIONS

The Evaluator **must be independent** from both the policy-making process and the delivery and management of activities in question, i.e. he/she must not have participated in the preparation and/or implementation of the assessed project and must not be in a conflict of interest with project-related activities.

Academic Qualifications/Education:

- Master degree in economics, engineering, environmental science or equivalent experience.

Experience:

- At least 7 years of professional experience in the field of sustainable urban transport;
- Familiarity with urban transport policies in CEE;
- Recent knowledge of the GEF Monitoring and Evaluation Policy;
- Recent knowledge of UNDP's results-based evaluation policies and procedures;
- Recent experience in evaluation of international donor driven development projects;
- Knowledge of MS Word, Excel and email communication software;

Language skills:

- Excellent English writing and communication skills

APPENDIX B – MISSION ITINERARIES (FOR JUNE AND SEPTEMBER 2014)

#	Activity	Stakeholder involved	Place
June 15, 2014 (Sunday)			
	Arrival of Mr Roland Wong		
June 16, 2014 (Monday)			
1	Meeting with Ms. Jana Pangracova, UNDP, Ms. Darina Psenakova, Energy Center Bratislava (ECB), financial project officer, Mr. Marcel Lauko, ECB, Chief Technical Advisor, Ms. Darina Dzurjaninova, ECB, Project Manager for UNDP and ECB	UNDP, ECB	Bratislava
2	Meeting with Mr. Igor Dula, local parking expert	SMB Consultant	Bratislava
3	Meeting with Dr. Janka Szemesová, NIS Coordinator, SHMU	SMHU	Bratislava
June 17, 2014 (Tuesday)			
4	Meeting with Mr. Peter Klučka, National Cycling Officer, Ministry of Transport, Construction and Regional Development	MoTCRD	Bratislava
5	Meeting with Ms. Gabriela Fischerová, Technical Coordinator, SMB	SMB Consultant	Bratislava
6	Meeting with Mr. Michal Kissa, Pontis, local awareness expert	SMB Consultant	Bratislava
7	Meeting with Mr. Fedor Zverko and Mr. Andrej Vachaja, local NMT expert	SMB Consultant	Bratislava
June 18, 2014 (Wednesday)			
8	Meeting with Mr. Tibor Schlosser, Chief Transport Engineer, City of Bratislava	City of Bratislava	Bratislava
9	Meeting with Ms. Helena Princová, Director, Climate Change Policy Dept, MoE, and Mr. Peter Jány, GEF Focal Point, MoE	MoE	Bratislava
10	Meeting with Mr. Michael Feik, NMT advisor to the Mayor, City of Bratislava	City of Bratislava	Bratislava
11	Meeting with Mr. Rudolf Karafiát, Communication Advisor for SMB	SMB Consultant	Bratislava
12	Meeting with Mr. Bronislav Weigl and Mr. František Topol'ský, DPB	DPB	Bratislava
13	De-briefing meeting with Ms. Jana Pangracova, UNDP and Ms. Darina Dzurjaninova, ECB	UNDP, ECB	Bratislava
June 19, 2014 (Thursday)			
	Departure of Roland Wong from Bratislava		

#	Activity	Stakeholder involved	Place
July 21, 2014 (Monday)			
14	Skype meeting with Ms. Klara Tothova, GEF Small Grants Programme	SMB Project Consultant	Vancouver
September 14, 2014 (Sunday)			
	Arrival of Mr Roland Wong		
September 15, 2014 (Monday)			
15	Meeting with Ms. Jana Pangracova, UNDP	UNDP	Bratislava
16	Meeting with Ms. Darina Dzurjaninova, ECB, Project Manager for UNDP and ECB and Mr. Marcel Lauko, ECB, Chief Technical Advisor	ECB	Bratislava
September 16, 2014 (Tuesday)			
17	Meeting with Mr. Tibor Schlosser, Chief Transport Engineer, and Mr. Peter Banovec, City of Bratislava and Mr. Igor Dula, local parking expert	City of Bratislava	Bratislava
18	Meeting with Mr. František Topoľský, DPB	DPB	Bratislava
19	Meeting with Mr. Michael Feik, NMT advisor to the Mayor, City of Bratislava	City of Bratislava	Bratislava
20	Meeting with Ms. Janka Szemesová, SHMU	SHMU	Bratislava
21	De-briefing meeting with Ms. Helena Princová, Director, Climate Change Policy Dept, MoE, and Mr. Peter Jány, GEF Focal Point, MoE	MoE	Bratislava
September 17, 2014 (Wednesday)			
	Departure of Roland Wong from Bratislava		

Total number of meetings conducted: 21

APPENDIX C – LIST OF PERSONS INTERVIEWED

This is a listing of persons contacted in Bratislava (unless otherwise noted) during the Final Evaluation Period only. The Evaluators regret any omissions to this list.

1. Ms. Jana Pangracova, UNDP, Bratislava
2. Mr. Marcel Lauko, Chief Technical Advisor, ECB
3. Ms. Darina Dzurjaninova, Project Manager, ECB
4. Ms. Darina Psenakova, Financial Project Officer, ECB
5. Ms. Helena Princová, Director, Climate Change Policy Dept, MoE
6. Mr. Peter Jány, GEF Focal Point, MoE
7. Dr. Janka Szemesová, SHMU
8. Mr. Tibor Schlosser, Chief Transport Engineer, City of Bratislava
9. Mr. Peter Klučka, National Cycling Officer, Ministry of Transport, Construction and Regional Development
10. Mr. Michael Feik, NMT advisor to the Mayor, City of Bratislava
11. Mr. Peter Banovec, City of Bratislava
12. Mr. Bronislav Weigl, DPB
13. Mr. František Topol'ský, DPB
14. Ms. Klara Tothova, GEF Small Grants Programme, Slovakia
15. Mr. Igor Dula, local parking expert, SMB
16. Ms. Gabriela Fischerová, Technical Coordinator, SMB
17. Mr. Michal Kissa, Pontis, local awareness expert, SMB
18. Mr. Fedor Zverko, local NMT expert, SMB
19. Mr. Andrej Vachaja, local NMT expert, SMB
20. Mr. Rudolf Karafiát, Communication Advisor for SMB

APPENDIX D – LIST OF DOCUMENTS REVIEWED

1. Project Document
2. PSC minutes
3. UNDP reports
 - a) CDRs
 - b) AWP
 - c) PIRs
4. SMB Project Reports on:
 - a) Inception Report, October 2010
 - b) Mid term evaluation report, February 2013
 - c) Replication Strategy Report, December 2013
 - d) Report on proposed New Parking Management Strategy 046012191, December 2011
 - e) Bratislava Tram Priority Report b y Hamburg Consult GmbH, February 2012
 - f) Support for NMT Modes in Bratislava, Balancia, December 2012
 - g) Recommendations for car sharing development in Bratislava, November 2012
 - h) Recommendations for carpooling development in Bratislava, March 2013

APPENDIX E – COMPLETED TRACKING TOOL



Tracking Tool for Climate Change Mitigation Projects (For Terminal Evaluation)

Special Notes: reporting on lifetime emissions avoided

Lifetime direct GHG emissions avoided: Lifetime direct GHG emissions avoided are the emissions reductions attributable to the investments made during the project's supervised implementation period, totaled over the respective lifetime of the investments.

Lifetime direct post-project emissions avoided: Lifetime direct post-project emissions avoided are the emissions reductions attributable to the investments made outside the project's supervised implementation period, but supported by financial facilities put in place by the GEF project, totaled over the respective lifetime of the investments. These financial facilities will still be operational after the project ends, such as partial credit guarantee facilities, risk mitigation facilities, or revolving funds.

Lifetime indirect GHG emissions avoided (top-down and bottom-up): indirect emissions reductions are those attributable to the long-term outcomes of the GEF activities that remove barriers, such as capacity building, innovation, catalytic action for replication.

Please refer to the Manual for Calculating GHG Benefits of GEF Projects.

[Manual for Energy Efficiency and Renewable Energy Projects](#)

[Manual for Transportation Projects](#)

For LULUCF projects, the definitions of "lifetime direct and indirect" apply. Lifetime length is defined to be 20 years, unless a different number of years is deemed appropriate. For emission or removal factors (tonnes of CO₂eq per hectare per year), use IPCC defaults or country specific factors.

General Data	Results at Terminal Evaluation	Notes
Project Title	Sustainable Mobility in the City of Bratislava	
GEF ID	3256	
Agency Project ID	4012	
Country	Slovakia	
Region	ECA	
GEF Agency	UNDP	
Date of Council/CEO Approval	December 21, 2009	Month DD, YYYY (e.g., May 12, 2010)
GEF Grant (US\$)	930,000	
Date of submission of the tracking tool	September 30, 2014	Month DD, YYYY (e.g., May 12, 2010)
Is the project consistent with the priorities identified in National Communications, Technology Needs Assessment, or other Enabling Activities under the UNFCCC?	1	Yes = 1, No = 0
Is the project linked to carbon finance?	0	Yes = 1, No = 0
Cumulative cofinancing realized (US\$)	4,225,000	
Cumulative additional resources mobilized (US\$)	210,275,000	additional resources means beyond the cofinancing committed at CEO endorsement

Objective 4: Transport and Urban Systems		
Please specify if the project targets any of the following areas		
Bus rapid transit	0	Yes = 1, No = 0
Other mass transit (e.g., light rail, heavy rail, water or other mass transit; excluding regular bus or minibus)	1	Yes = 1, No = 0
Logistics management	0	Yes = 1, No = 0
Transport efficiency (e.g., vehicle, fuel, network efficiency)	0	Yes = 1, No = 0
Non-motorized transport (NMT)	1	Yes = 1, No = 0
Travel demand management	1	Yes = 1, No = 0
Comprehensive transport initiatives (Involving the coordination of multiple strategies from different transportation sub-sectors)	0	Yes = 1, No = 0
Sustainable urban initiatives	1	Yes = 1, No = 0
Policy and regulatory framework	0	0: not an objective/component 1: no policy/regulation/strategy in place 2: policy/regulation/strategy discussed and proposed 3: policy/regulation/strategy proposed but not adopted 4: policy/regulation/strategy adopted but not enforced 5: policy/regulation/strategy enforced
Establishment of financial facilities (e.g., credit lines, risk guarantees, revolving funds)	0	0: not an objective/component 1: no facility in place 2: facilities discussed and proposed 3: facilities proposed but not operationalized/funded 4: facilities operationalized/funded but have no demand 5: facilities operationalized/funded and have sufficient demand
Capacity building	4	0: not an objective/component 1: no capacity built 2: information disseminated/awareness raised 3: training delivered 4: institutional/human capacity strengthened 5: institutional/human capacity utilized and sustained
Length of public rapid transit (PRT)	-	km
Length of non-motorized transport (NMT)	1	km
Number of lower GHG emission vehicles	-	
Number of people benefiting from the improved transport and urban systems		
Lifetime direct GHG emissions avoided	661	tonnes CO2eq (see Special Notes above)
Lifetime direct post-project GHG emissions avoided	6,610	tonnes CO2eq (see Special Notes above)
Lifetime indirect GHG emissions avoided (bottom-up)	-	tonnes CO2eq (see Special Notes above)
Lifetime indirect GHG emissions avoided (top-down)	143,800	tonnes CO2eq (see Special Notes above)

APPENDIX F – LOGICAL FRAMEWORK MATRIX (FROM MAY 2013)

Project Strategy	Objectively verifiable indicators				
Goal	Reduce GHG emissions from road transport in Bratislava, Slovakia				
Objectives and outcomes	Indicator	Baseline	Target	Sources of verification	Risks and Assumptions
Objective: By the end of the project, 65,000 tons of CO ₂ will be saved, and further savings of 360,000 tons of CO ₂ during additional 10 years after the end of the Project are expected.	Total direct CO ₂ emission reduction over the Project duration	0	30,800 tons of CO ₂	Annual report on air quality of the SHMU Annual reports of the municipality and the PT operator	Municipality is willing to adopt the three urban transport policies prepared by the project
	Number of passengers in public transport modes in Bratislava in last project year	250 million (original baseline of 215 million)	265 million (original target of 230 million)	Annual reports of the Bratislava public transport operator	Public accepts and is willing to participate in the introduced options
	Average car occupancy for cars entering the city centre by the end of the project	1.2	1.5	Survey of the municipality	
Outcome 1: Municipality of Bratislava adopts and implements new on-street parking policy	New policy with stricter regulation on parking	Parking management schemes with no duration limit and low hourly fares	Policy adopted	Official decision of the City Council	City Council may not approve the legal changes that are required to introduce the new parking policy.
	Available parking spaces during regulated hours (new indicator)	5% of disposable parking places	30% of disposable parking places	Survey in spring 2013 (before implementation of the new parking policy) and spring 2014.	The new on-street parking policy might be cancelled in the future due to pressure of interest groups.
	Average on-street parking duration per car in regulated spaces	5 hours	2 hours	Survey in spring 2013 (before implementation of the new parking policy) and spring 2014.	City Council and boroughs may not agree on changes that introduce the new parking policy
Outcome 2: Bratislava public transport operator implements priority system for trams in Vajnorska and Racianska corridors	Average waiting time at the intersections newly equipped with the dynamic traffic control tools (original indicator was only for reduction in average journey time for Vajnorska corridor)	Vajnorska- 21 sec Racianska -9 sec (originally 15 min along Vajnorska corridor)	50% saving in waiting time (original target of 11 min along Vajnorska corridor)	Measurements of the Bratislava public transport operator.	The municipality might cancel the tram priority due to pressure from drivers or traffic jams

Outcome 3: Increased number of people use bicycles for daily trips	Long-term NMT strategy prepared in participatory process to support daily use of NMT by the second project year	NMT infrastructure planned only for recreational reasons, weak cooperation of stakeholders	Strategy adopted	Official decision of the City Council	The City is not able to implement the necessary projects, for budgetary or legal reasons.
	Key strategic investment projects identified according to the NMT strategy, including parking places for bikes (original indicator of number of pilot projects set up/implemented to promote NMT by EOP)	Unclear priority of projects by the City (original baseline of 0)	- 20 key strategic projects identified - 200 bike parking places in operation (original target of 2 setup and 1 implemented)	Report of the municipality	In spite of the investments in the new bike lanes people might not divert to use NMT modes since the network is not completed.
	Share of daily bicycle trips on mobility (originally annual cycle trips by EOP)	0.4% (originally 500,000)	at least doubled (original target of 3 million)	Survey of the Cyklokoalicia.	
Outcome 4: Municipality of Bratislava adopts a policy to promote car share and car pool programs to divert drivers from driving alone to sharing options	Active car pool and car share programs by the end of the project	0	1+1	Report from the municipality	Potential users might not switch to the sharing program in spite the incentives and benefits
	Number of registered users of the car-pooling scheme (new indicator)	0	1000 registered users from Bratislava region	Report from the company operating the service	Lack of the necessary kick-off subsidies from the city for car-sharing.
	Percentage of the car-pooling scheme usage by registered users (original indicator was % of car users diverting to car share/car pool program by EOP).	0%	25% (original target was 2%)	Report from the company operating the service	
	Number of cars in service by car sharing program (new indicator).	0	20	Report of the Car-sharing operator.	
Outcome 5: M&E	Monitoring scheme enabling more accurate calculation of emissions from transport in Bratislava	Difficult estimation of transport emissions in Bratislava due to lack of data or non-coordinated collection and share of monitoring data among the institutions.	Coordinated, regular monitoring established, based on COPERT model needs.	Inception report Project annual reports	Lack of reliable data Lack of financing to conduct the surveys needed
	Ex ante and ex post estimation of all indicators	2013 (ex ante) (original baseline of 2007)	2014 (ex post) (original target of annual measurements from beginning of project to EOP)	2013 baseline report (by June 2013) and final report (by July 2014) (original source of information was Inception Report and APRs)	Lack of reliability of the CO2 transport emission modeling

APPENDIX G– EVALUATION CONSULTANT AGREEMENT FORM

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.

Evaluation Consultant Agreement Form⁴⁷

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

Name of Consultant: Roland Wong

Name of Consultancy Organization (where relevant): _____

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

Signed at Surrey, BC , Canada on September 28, 2014

Signature: _____

⁴⁷www.unevaluation.org/unegcodeofconduct