



EVALUATION OF THE UNDP/GEF PROJECT

INCORPORATING NON-MOTORIZED TRANSPORT FACILITIES IN THE CITY OF GABORONE

(PROJECT ID:PIMS 2841; ATLAS 00041288)

TERMINAL EVALUATION REPORT

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ABBREVIATIONS

CO ₂	:	Carbon dioxide
CPR	:	Country Portfolios Review Reports
DEA	:	Department of Environmental Affairs
DER	:	Draft Evaluation Report
DMS	:	Department of Meteorology
DoR	:	Department of Roads
DRTS	:	Department of Road Transport and Safety
DTRP	:	Department of Town and Regional Planning
GCC	:	Gaborone City Council
GCDP	:	Gaborone City Development Plan
GEF	:	Global Environmental Facility
GHG	:	Greenhouse Gases
gm	:	Gram
GOB	:	Government of Botswana
HC	:	Hydrocarbons
HS	:	Highly Satisfactory
HU	:	Highly Unsatisfactory
km	:	Kilo meter
km ²	:	Square Kilo meter
KPI	:	Key Performance Indicators
KT	:	Thousand Tons
NGO	:	Non-Governmental Organizations
NMT	:	Non-Motorized Transport
NPD	:	National Programme Director
MDG	:	Millennium Development Goals
MFDP	:	Ministry of Finance and Development Planning
MS	:	Moderately Satisfactory
MT	:	Motorized Transport
MU	:	Moderately Unsatisfactory
NO _x	:	Nitrogen Oxides
PAR	:	Project Appraisal Report
PCR	:	Project Completion Report
PM	:	Particulate Matter
PMU	:	Project Management unit
PSC	:	Project Steering Committee
QPR	:	Quarterly Progress Report
S	:	Satisfactory
SCF	:	Stakeholder Consultative Forum
SME	:	Small and Medium Enterprises
TAG	:	Technical advisory group
TEEMP	:	Transport Emissions Evaluation Models for Projects
U	:	Unsatisfactory
UNDP	:	United Nations Development Programme
US\$:	United States Dollar
%	:	Percentage

1 EXECUTIVE SUMMARY

1.1 Brief Description of Project

The transport sector is one of the fastest growing sectors of the economy in Botswana. The number of motorized vehicles has increased rapidly from 131,796 in 1999 to 318,400 in year 2010 in the country with an average growth rate of 8.34 % per year during the last 11 years. The capital city of Gaborone contributes 34.9% vehicles of the country being 111,060. This growth has brought fast mobility in men and materials transfer from one place to another and associated problems of traffic congestion, increase in road accidents, greenhouse gases (GHGs) emissions, air and noise pollution. Thus it has become imperative to facilitate Non-Motorized Transport (NMT) as an alternative mode to Motorized Transport (MT) to reduce growth in transport related GHGs. NMT especially cycling also provides an opportunity to invest in low cost mobility systems. In general, NMT contributes directly and indirectly to all the Millennium Development Goals (MDGs) and particularly to MDG 7 on Progress towards Environmental Sustainability/-Sustainable Use of Environmental Resources. The proposed NMT route in Gaborone is of 45 km (modification in 35 km existing and 10 km new development) in the project. The project “Incorporating Non-Motorized Transport Facilities in the city of Gaborone” was approved by UNDP/GEF on 25th January 2005 as a medium size project under GEF operation program: OP 11 Sustainable Transport. The four year project was launched by UNDP/GEF in collaboration with the Government of Botswana (GOB) through Gaborone City Council (GCC). The Global Environmental Facility (GEF) and The Government of Botswana have contributed US\$ 891,630 and US\$ 1,365,300 respectively to the NMT project cost of US\$ 2,256,930. The following are the main activities in the project:

- Improving NMT infrastructure through “Well Designed and Constructed Network with allied Facilities and replication in other cities”,
- Public awareness for increased uptake of NMT (cycling and walking) as means of transport,
- Addressing legal, regulatory, institutional and financial barriers by supporting the reviews of policies and law,

The estimated date of start was June 2005 however the implementation of the project commenced in September 2006 with the recruitment of Project Manager. The duration of the project was of 4 years (48 months). The inception phase was successfully completed in December 2006. The analysis of schedules has indicated an initial delay of 15 months. Gaborone City Council (GCC) set up the Project Management Unit (PMU) at Broadhurst. The PMU had a project manager and his assistant. There is no staff of GCC who has worked with PMU on a permanent basis.

1.2 Context and Purpose of the Evaluation

The purpose of the evaluation is primarily to assess the relevance, performance and success of the project. The evaluation is made in the light of policies, strategies, input and output indicators reviews and development programs for a modal shift to NMT. It looks at potential impact and sustainability of results including the contribution of capacity development and

the achievement of global environmental goals for reduction of Green House Gases (GHGs). The evaluation has covered Non-Motorized Transport (NMT) activities, such as walking and cycling as an alternative mode to Motorized Transport (MT) to reduce emissions of Carbon Mono-oxide, Nitrogen Oxides, Hydrocarbons and overall GHGs. This evaluation is not merely to identify negative consequences but also to ensure that reforms are designed and implemented with full awareness of their consequences both positive and negative.

1.3 Main Conclusions

This evaluation is an outcome of an evaluation mission undertaken in February 2012 to Gaborone in Botswana. During the mission, meetings were conducted with the stakeholders including UNDP, Ministries, Departments, GCC, Private Organizations and individuals, associated with the project directly or indirectly. The main conclusions drawn, outcome by outcome are:

Outcome 1: Well Designed and Constructed NMT Network and Other Facilities: The following activity has been completed in the project:

- About 20 km new cycle and pedestrian track has been designed and tender documents have been prepared.

The Government of Botswana has developed the following bi-cycle track and pedestrian pathways on NMT project.

- About 4.0 km bicycle track/ walkways with signage have been developed along Independence Avenue, Nelson Mandela Road and Lemmenyane Drive.
- 3.0 km cycle path along North Ring Road and Nyerere Drive; 3 km segregated pedestrian and cycling facility along with signage between Segoditshane and Ledumong have been developed.
- All roads of the Innovation Hub have cycle track and pedestrian walkways nicely designed and constructed cross-sections to facilitate the cyclist and pedestrians.

Outcome 2: Increased Uptake of NMT (Cycling & Walking) as means of Transport: The following activities have been completed to increase the uptake in NMT mode of transport:

- Demand surveys were undertaken in 2007, during baseline study on NMT infrastructure. Surveys were also undertaken during development of communication strategy. These reports have been adopted.
- Newsletters, posters, flyers, brochures, magazines/journals and articles have been produced to disseminate information for the promotion of NMT as means of transport. On number of occasions important person were involved in promotional events.

- Radio and Television advertisement and talks were undertaken at regular interval to advocate for cycling and walking.
- Family fun ride, social rides, kids cycling training, safe cycling campaign etc had been organized in association with Ministries, Departments, Cycle clubs and private institution such as Jonmol Cycles, Barclays Bank, etc.
- In 2007, a study tour was organized to Europe during June 10-20, 2007. His Worship the Mayor of Gaborone City, City Engineer, Senior Traffic Engineer and NMT Project Manager visited NMT friendly cities in Germany (Munster and Erlangen) and in Netherlands (Utrecht, Groningen and Amsterdam) attended a conference on “Making Cities and Towns NMT Friendly” at Velo-City.

Outcome 3: Institutional Framework for NMT: Institutional framework is an important component in the overall implementation of the project, the activities accomplished are:

- NMT unit in GCC with limited staff is in place.
- During the project PMU, Stakeholders Consultative Forum (SCF), Project steering committee (PSC) and Technical Advisory Group (TAG) were constituted. The SCF and TAG were practically non-functional. The PSC used to meet every third months.
- Capacity Building Training Workshops have been undertaken for GCC Planners and engineers.
- There is good co-ordination among stakeholders like Government Departments, City Authorities, NGOs, and Private Sector.

Outcome 4: Policy and Legal Framework: Policy and legal framework has been revised as per requirement of NMT. Some of the achievements are:

- In order to protect the right of NMT users, Road Traffic (Signs) Regulation have been reviewed to include a section on bicycles and pedestrians on public roads.
- The Government of Botswana has integrated NMT in Draft Integrated Transport policy (2011) by introducing Section 28 on Walking and Cycling.
- GCC in 2009 has revised Gaborone City Development Plan (GCDP) 1997-2021 and has incorporated under Goal 7, the NMT in the city with provisions of walkways and cycle routes.
- The financial provisions-/-funding of bicycle track and pedestrian walkways will be included along with roads, as all new city roads have to have NMT lanes along the roads.

Outcome 5: Improvement in Quality of Life is essential outcome to assess the impact of project, the findings are:

- There is evidence that NMT has generated employment through pathways and bicycle ways construction, bicycle supply, selling, renting and repair services.
- There is no indication that NMT would reduce traffic congestion, improved mobility and safety through reduction in accidents and pollution.

Based on summary of above activities, the following **conclusion** could be made:

- Progress has been made to sensitize the people through public awareness, information disseminations, media publication and workshop, promotional events and clubs about usage and benefits of NMT.
- Progress has been made in revision of policies through the revision of road Traffic Act (1975); Gaborone City Development Plan (2009) and Draft National Integrated Transport Policy (2011) to provide enabling environment for NMT activities.
- The project and its framework of activities, outputs, outcomes and objectives are well conceived for a successful NMT. The design of routes and pavements with allied infrastructure has been prepared but not constructed in the project.
- The institutional development of project management is important for the successful implementation of NMT project. The institutional framework (NMT unit in GCC), co-ordination among stakeholders and training have been implemented. The full time manpower deputation to NMT unit from GCC has not been done in-spite of the recommendations of mid-term evaluator. Hence, construction implementation of NMT infrastructure in this project has become non-existent.
- The major challenge remains the non-achievement of Global objective in the project. The development of NMT route has been extremely slow and only a few disjointed routes have been planned and designed. The establishment of safe, functional and integrated NMT route are the requirements to have a modal shift from MT to NMT in Gaborone. Despite the good progress in the awareness campaign, there is no evidence that NMT has reduced greenhouse gases in transport sector. Hence project failed to achieve global objectives.
- There is evidence that NMT has generated employment through pathways and bicycle ways construction, bicycle supply, selling, renting and repair services. However, there is no indication that NMT would reduce traffic congestion, improved mobility and safety through a reduction in road accidents and pollution.
- The Government of Botswana (GOB) as co-financer has implemented reforms in the transport sector to improve performance. The GOB has utilised the UNDP/GEF funds effectively and efficiently through appropriate procurement

procedures and prudent management. However, the GOB has not maintained their commitment to fund NMT infrastructure in the project. The GOB has co-ordinated the funding for the NMT project in the country with the other bilateral and international agencies.

- GCC and Department of Roads in association with private developers/SMEs and contractors have developed sound technical knowhow in design and maintenance of NMT systems. The NMT has been integrated in all new road constructions in urban areas.
- Most of GEF funds are utilized for awareness, support studies and study tours. These are essential for promotion of effective planning and use of NMT facilities in Gaborone. There is no financial input into the facilitation of required NMT infrastructure. This non-availability of funds for infrastructure development has not permitted NMT to achieve the objectives. Expenditure for promotion and communication for increased uptake towards NMT and monitoring has already exceeded the budget. The overall expenditure in NMT project has also crossed the total provision by 5.9%.
- The expenditure on various outcomes has not yielded any fruitful results. The project is highly uneconomical in terms of the cost of GHGs mitigation. Hence, the project failed to contribute towards Millennium Development Goals (MDGs) particularly to MDG 7 on Progress towards Environmental Sustainability/- Sustainable Use of Environmental Resources.

1.3.1 Summary of Ratings

Based on project findings, implementation, effectiveness and results, a summary of ratings has been prepared for NMT project under evaluation. Overall project is **Marginally Unsatisfactory** however project failed to achieve its objectives and rated **Unsatisfactory**. The summary of rating is presented in **Table 1.1**.

Table 1.1: Summary of Rating

S.No	Description	Rating
	Progress towards Achieving Project Objectives	Marginally Unsatisfactory
1	Sector Related goals	Marginally Unsatisfactory
2	Project development objectives	Marginally Unsatisfactory
3	Global Objectives	Unsatisfactory
4	Transport Based Green House Gases Emission Reduction	Unsatisfactory
5	A Well designed And constructed NMT network along with cycle repair, renting and parking facilities	Marginally Unsatisfactory
6	Increased Uptake of NMT	Marginally Unsatisfactory
7	Institutional Framework	Marginally Satisfactory
8	Conducive policy and legal framework	Satisfactory
9	Improved Quality of Life	Marginally Unsatisfactory
10	Sustainability	Marginally Satisfactory
11	Institutional Development	Marginally Satisfactory

Progress in Project Implementation		Marginally Unsatisfactory
12	Implementation Approach	Marginally Unsatisfactory
13	Management Arrangement	Unsatisfactory
14	Stakeholder Participation	Marginally Satisfactory
15	GEF Resources	Satisfactory
16	Co-financing	Un Satisfactory

1.4 Recommendations

- i) The appraisal document has indicated formulation of Project Steering Committee and a Technical Advisory Group for providing guidance and direction for the project. It would have been appropriate if more top level decision makers would have been involved in above committees.
- ii) City Master Plans shall be prepared for a period of 20 years integrating all components of urban development including NMT. Regional Plans and local Area Plans shall also be prepared and approved by the government for better utilities/- services on NMT infrastructure to the people. The village, town/- peri urban/- city criteria also need to be defined along with required NMT infrastructure.
- iii) The NMT project should have targeted its interventions on the pre well defined routes such as CBD and routes leading to schools. This would encourage children to cycle to school using the concept of catching them early.
- iv) The baseline data documentation of key performance indicators shall be done before the start of the project or during the feasibility study. Critical indicators for evaluation need to be identified both in quality and quantity at this stage. These need to be monitored on regular basis so that performance evaluation could be conducted and corrective action could be taken to achieve the objective and targets.
- v) Development of SMEs for local fabrication, manufacturing of cycle, instruments, equipments used in cycle repair and maintenance will develop capacity at the private sector level. This will also reduce dependence and availability problems with imported bicycle parts.
- vi) The Government of Botswana would need to provide continuous support for NMT infrastructure and its integration with mass rapid transit system (MRTS) to reduce GHGs and may lead to earn carbon credit through clean development mechanism (CDM).
- viii) The UNDP/GEF assistance is project based. In order to have an integrated development impact in the country/city, it should shift from the project approach to Sector Wide Approach (SWAp) in the city transport sectors.
- ix) There is a need for aid co-ordination between various agencies through a common framework at the GOB level. A coordinated approach for project implementation,

aid co-ordination and co-financing will bring international agencies on a common platform for better results.

1.5 Lessons Learned

The main lessons learned from the NMT intervention in Gaborone include:

- i) The NMT has to be integrated in overall Gaborone City planning and transport development strategy. The success of NMT is also dependent on Public Transport System such as Bus Transit System and Metro Rail Transit System, so that house to Transit system and transit system to work place could be covered by Bi-cycle or walking.
- ii) Requests for projects for financing are not always accompanied by feasibility studies / detailed project reports since such studies are generally prepared only after funding is secured. This practice has however adversely affected the project quality at entry due to non-availability of studies, the gaps in database, reliability of cost estimates and basic technical details. Such data gaps and lacunae have led to the setting up of unrealistic targets for project milestones at appraisal. For example, the design of NMT facility was completed at the end of project in June 2010 which would have been completed in the First year (by August 2007) of the project. On a few occasions, it has changed the project configuration, leading to project delays.
- iii) It is a general perception in the society that cycle users are poor. Educational events need to be organised for changing people's perception and mind set through behavioural change. Cycle parking and wash room infrastructure facilities need to be created near cycle track at suitable places based on traffic surveys.
- iv) The vehicle occupancy ratio is low. There is nothing to encourage modal shift from MT to NMT. Government is slow in implementing cycle initiative. Bicycle in schools could be used as sport and mode of transport. Organization may encourage use of bicycle by contributing half of the cycle cost. Botswana Government or cycle club may send cycling team to participate in International sports events.
- v) Appointment of staff, effective formulation of committees and sensitization of stakeholders on project procedures prior to commencement of project implementation is a pre-requisite to reduce-/- avoid delays observed at the start and during the implementation of NMT project.
- vi) The awareness campaigns, study tours and physical implementation of NMT project should have been taken simultaneously to achieve the objectives.
- vii) Road laws for cycling need to be more covered. Funds should be earmarked for NMT activities in the Government budget. The intersection at road crossing should be cycle friendly.

The transport sector is one of the fastest growing sectors of the economy in Botswana. The number of motorized vehicles has increased rapidly from 131,796 in 1999 to 318,400 in year 2010 in the country with an average growth rate of 8.34 % per year. This growth has brought fast mobility in men and materials transfer from one place to another and associated problems of traffic congestion, increase in road accidents, greenhouse gases (GHGs) emissions, air and noise pollution. Thus, it has become imperative to facilitate Non-Motorized Transport (NMT) as an alternative mode to Motorized Transport (MT) to reduce growth in transport related GHGs. NMT especially cycling also provides an opportunity to invest in low cost mobility systems. In general, NMT contributes directly and indirectly to all the Millennium Development Goals (MDGs) and particularly to MDG 7 on Progress towards Environmental Sustainability-/Sustainable Use of Environmental Resources. The proposed NMT route in Gaborone is of 45 km (modification in existing 35 km and new development of 10 km). The proposed NMT routes are documented in **Annexure-1**. The project “Incorporating Non-Motorized Transport Facilities in the city of Gaborone” was approved by UNDP/GEF on 25th January 2005 as a medium size project under GEF operation program: OP 11 Sustainable Transport. The four year project was launched by UNDP/GEF in collaboration with the Government of Botswana through Gaborone City Council (GCC). The Global Environmental Facility (GEF) and the Government of Botswana have contribution US\$ 891,630 and US\$ 1,365,300 respectively to the NMT project cost of US\$ 2,256,930¹.

2.1 Evaluation Objective

In accordance with United Nations Development Programme (UNDP)-/Global Environmental Facility (GEF), all regular and medium size projects supported by GEF should undergo a final evaluation upon completion of implementation. A terminal evaluation of a GEF funded project is also required before a concept proposal for additional funding can be considered for inclusion in a GEF work program. Terminal Evaluation Incorporating Non-Motorized Transport (NMT) Facilities in the City of Gaborone has been selected for this evaluation in line with the United Nations policy, norms, standards and guidelines². The project seeks to promote the significant use of substantially cheaper non-motorized modes of transport particularly walking and cycling in Gaborone and facilitate a modal shift from motorized transport (MT) to non-motorized transport modes for relatively short distances. It assesses the impact on overall development of the city and reviews crosscutting issues such as traffic congestion, accidents, integration, employment, private sector participation and institutional development, reduction in greenhouse gases emissions, air pollution and environment.

The objective of the evaluation is primarily to assess the relevance, performance and success of the project. The project also seeks to demonstrate and record the many benefits as well as efficacy of a modal shift to NMT. It looks at early signs of potential impact and sustainability of results including the contribution of capacity development and the achievement of global environmental goals. UNDP/GEF’s outcome and the results of its assistance in the Non-Motorized Transport Project from 2005 to 2010 in Gaborone draw the lessons of experience and come up with recommendations to guide future assistance in the

¹ Incorporating Non-Motorized Transport Facilities in the city of Gaborone, Government of Botswana and the United Nations Development Programme and Global Environmental facility: Project Documents and Reviews

² Terms of Reference-Terminal Evaluation Incorporating Non-Motorized Transport Facilities in the city of Gaborone: PIMS 2841, ATLAS 00041288

project and also to replication of the project across cities and towns of Botswana. The goal of this evaluation is not merely to identify negative consequences but also to ensure that reforms are designed and implemented with full awareness of their consequences both positive and negative. The evaluation will also inform stakeholders on the achievement of the NMT project in promoting the use of walking and cycling as a means of reducing carbon related emission in Botswana.

2.2 Approach and Methodology

The approach for evaluation is to follow the Terms of Reference (TOR), step-by-step. TOR for this evaluation is available in **Annexure-2**. The Evaluation procedure will comprise: preparation and planning; documents review and interviews; field visits and analysis. Based on the analysis of results, the Draft Evaluation Report (DER) was prepared and presented to the stakeholders for vetting. The observations, comments and advice received on the DER are incorporated while finalizing the Terminal Evaluation Report (TER) for the project.

2.2.1 Documentation Review

The evaluation approach is based on the relevant information available on input and output indicators of the project components. Relevant documents pertaining to the project were collected and reviewed to obtain detailed information and to develop a questionnaire for use in interviews with the project stakeholders during field visits to assess outputs. Some of the indicators are verified during the field visit. There are cases where indicators are neither quantified nor documented as baseline during appraisal. In such cases expectations are derived from UNDP/GEF guidelines and policies and project supervision reports. The evaluation methodology is based on a review of the available documents such as transport policy document, project appraisal report (PAR), project design reports, bidding / tender documents, project steering committee minutes, technical expert report, midterm evaluation, project implementation report (PIR) and awareness literature developed for the ongoing interventions in Botswana.

2.2.2 Interviews

The review has taken into account the UNDP/GEF's emphasis on the greenhouse gas emissions issue in the development agenda, the impact of policy documents introduced and procedures adopted over the years in managing the sector-/projects. Meetings are conducted with all project managers and representative of organizations associated with the project. The meeting schedule is placed in **Annexure-3** and the list of person contacted in **Annexure-4**. The target groups of the evaluation are from:

- The operations complex of the UNDP/GEF involved in transport sector / NMT projects in Botswana,
- The experts who are involved in programs or projects in the sector in Botswana; and the Government of Botswana and their associated groups.

2.2.3 Field Visits

Based on the documents review the questionnaire is developed and used during interviews in office and for discussion in the field. Summary of field visits is presented in **Annexure-5** while the documents reviewed are summarized in **Annexure-6**. A sample of questions that guided the evaluator is annexed in **Annexure-7**. During field visit the NMT infrastructure sections that has been planned and designed, has been visited. The NMT infrastructure that had been implemented as part of other project was also inspected to determine its quality and usage by public. A mission was undertaken to Botswana to assess results on the ground and share the views of the various stakeholders in the project and its components. During the mission in February 2012, field visits were undertaken to project sites in the capital city of Gaborone, to understand the issues, evaluate the performance of projects and learn lessons.

2.2.4 Analysis and Reporting

This Evaluation is guided by and has applied, the principles reported in **Annexure-8**. A checklist of Terminal Evaluation Tick Box is available in **Annexure-9**. The findings obtained from interviews, discussions and review of reports are compared against the anticipated outcomes. The NMT project seeks to induce a modal shift away from more GHGs intensive modes to towards bicycling and walking. The Transport Emissions Evaluation Models for Projects (TEEMP) are excel-based models for estimating GHG impact of transport projects, have been used.

2.2.5 Evaluation

The evaluation will help to assess the contribution of the UNDP/GEF and the executing agency/-local authorities to the reduction in greenhouses gas emissions resulting from the project. This report has also briefly discussed the issues related to the Millennium Development Goals (MDG)³ on environmental sustainability. The evaluation is carried out both for general and specific features. General features include country setting, environment, and sector reforms. While specific issues will include: UNDP/GEF project level assistance, initial and present levels of indicators, efficiency, institutional development, sustainability, and performance. The data used in the evaluation is from primary and secondary sources available in the reports, documents, through interviews/-discussions and field visits.

2.2.6 Key Performance Indicators

The KPIs were documented during the project appraisal stage with or without their baseline⁴. Outcomes wise the indicators are reported below:

- i) **Outcome 1: Transport Based Green House Gas Emission Reduction:** It was estimated that this project will offset CO₂ emission by 13,500 tons annually and 135,000 tons during the life (10 years) of the project. This was further revised

³ United Nations Millennium Development goals / targets (MGDs) for 2015 are poverty reduction, reverse spread of HIV/AIDS, Reduction in Hunger sufferer, access to primary education and basic services, Gender Equality, Reduce Child Mortality, Reduce Maternal Health, Malaria, and Environmental Protection.

⁴ Logical Framework: Table-10 of Project Proposal on Goals, Objectives, Indicators, and Outputs

during inception report of the project as “**Learning, Evaluation and Adaptive Management**”.

- ii) **Outcome 2: Well Designed and Constructed NMT Network and Other Facilities:** It was proposed to have:
- Newly constructed cycle and pedestrian paths of 10 km,
 - Existing cycle / pedestrian network of 35 km on improved design and standards as of new,
 - Auxiliary facilities in the form of bicycle supply and repair maintenance, bicycle renting and parks, and
 - Gaborone an exemplary NMT friendly city and attracting cycling tourism,
- iii) **Outcome 3: Increased Uptake of NMT (Cycling & Walking) as means of Transport:** The project document has anticipated:
- An increase in users of trips by NMT particularly cycling from 1% to a minimum of 15% and trips by walking increasing by a minimum of 5% to 30 %.
 - Increase in number of cycling and walking clubs,
 - Public awareness through information dissemination, media, publication and workshop, promotional events and clubs.
 - Botswana in International Cycling Events, and
 - Students and important persons involved in promotional events.
- iv) **Outcome 4: Institutional Framework for NMT** is established:
- with a dedicated NMT unit in GCC,
 - among stakeholders like Government Departments, City Authorities, NGOs, and Private Sector with full co-ordination, and
 - for replication and sustainability of such projects.
- v) **Outcome 5: Policy and Legal Framework** to allow NMT modes in the cities and towns of Botswana with budget allocations for NMT infrastructure.

vi) **Outcome 6: Improvement in Quality of Life** is anticipated in the sector through:

- Employment creation (pathways and bicycle parks; bicycle supply, selling, renting and manufacturing and repair services), and
- Reduce traffic congestion, improved mobility and safety through reduction in accidents and pollution.

Methodology adopted for data collection, verification, computation and analysis is presented in **Table 2.1**, outcome by outcome. As an outcome on the analysis of results, the Draft Evaluation Report (DER) was prepared and presented to the stakeholders for vetting on 24th February 2012 to stakeholders (**Refer Annexure-10**). The observations, comments and advice received on the DER are incorporated while finalizing the Terminal Evaluation Report (TER) for the project.

Table-2.1: Methodology for Data Collection, Verification, Computation and Analysis

S.NO	Outcomes	Indicators	Verification	Methodology
1	Outcome 1: Learning, Evaluation and Adaptive Management	It is a tool for all outputs and outcome hence could not be used as indicator. Hence has not been discussed further.	Not Required	Not Applicable
2	Outcome 2: Well Designed and Constructed NMT Network with Facilities Activity 1: NMT Facility Design and Construction	<ul style="list-style-type: none"> •Newly constructed cycle and pedestrian paths of 10 km, •Existing cycle / pedestrian network of 35 km on improved design and standards as of new 	Implementation of 45 km NMT network for cycle users / pedestrian	Review of Project Implementation Report (PIR) and Tender Documents and Project Design Report are reviewed that NMT routes and its network is well designed and constructed
		Auxiliary facilities in the form of bicycle supply and repair maintenance, bicycle renting and parks.	Increased bicycle dealers, bicycle parks, rest rooms, number of Bicycle on NMT route and Bicycle SMEs established	Review and comparison of Data before and after completion of NMT project on cycle dealers, users and SMEs involved in the NMT activities due to project.
	Activity 2: Promotion and Communication a) Information Dissemination	Public awareness through information dissemination, media, publication and workshops, promotional events and NMT clubs.	Workshops organized; Education Material, Newsletters, Pamphlets, Manuals prepared; Websites developed and Media advertisement released.	Review of material on Workshop, Sample of Newsletters, advertisement clips published and Web site developed.

S.NO	Outcomes	Indicators	Verification	Methodology
	b) Target Initiative Events and Groups	Study Tours for 5 NMT planners to 5 cities that have developed best practices on NMT and sponsored events on cycling	Report on Study Tour and Experience gained Information on Sponsored cycling events	Review of feedback forms and discussion with members who went on study tour.
	c) Bicycle SMEs-Enterprise Building	Establish NMT enterprise for supply, repair and renting of bicycling	Bicycle Business Establishment, Number of NMT clubs formed with activities	Review of data on SMEs before and after the project
	d) Dedicate NMT Unit in GCC	NMT unit with an office and staff	Evidence of establishment of NMT unit in GCC	Evidence of office establishment of NMT unit
	e) Training for school going children	Training to early age school students	School adopted for NMT training	Record of Training programs their nature, extent and benefits
	f) Develop Resource Manual	Development of Practicing Manual for planners	Copy of Manual	Review of content that it is good practicing manual for planners
3	Outcome 3: Increased Uptake of NMT (Cycling & Walking) as means of Transport	<p>Evaluation shows more users of trips by NMT particularly cycling from 1% to a minimum of 15% and trips by walking increasing by a minimum of 5% to 30 %.</p> <p>Increase in number of cycling and walking clubs,</p> <p>Botswana in International cycling events, Students and important persons involved in promotional events</p>	<p>Baseline Survey reports reflecting positive attitude towards use of NMT</p> <p>Registered NMT clubs under the Project</p> <p>Increase in Cycling Events and SMEs</p>	Review of Survey, monitoring and baseline data reports conducted from time to time on users of NMT

S.NO	Outcomes	Indicators	Verification	Methodology
4	Outcome 4: Institutional Framework for NMT through partnership of key stakeholders to implement NMT and dedicated unit in GCC	Stakeholder network for promoting NMT involving public private representation and dedicated NMT unit in GCC	Membership of club on NMT network and NMT office at GCC	Adequate stakeholder involvement
5	Outcome 5: Conducive Policy and Legal Framework for NMT	Allocation of resources and revised road traffic legal framework with NMT foci	Revised Road Traffic Legal Framework, norms and Standards	Review of revised policy plans and framework with reference to NMT
6	Outcome 6: Improved quality of life through employment creation and reduced pollution, accidents and improved transport mobility	NMT generated employment and Reduce traffic congestion, fewer pedestrian / cyclist accidents and pollution	Bicycling parks, renting, repair services, manufacturing cycle, NMT infrastructure, Traffic count reports, national statistics on accidents and pollution	The growth in bicycle related activities and employment; decrease in road accidents could be due to NMT

2.2.7 Performance

The performance indicators for outputs and outcomes are documented in project report. More indicators have been developed based on available data and utilized in evaluating the project. The performance or project effectiveness is assessed based on output objectives, indicators, outcomes and current achievements. The performance is evaluated following a six point rating scale: Highly Satisfactory (HS), Satisfactory (S), Marginally Satisfactory (MS), Marginally Unsatisfactory (MU), Unsatisfactory (U) and Highly Unsatisfactory (HU). The overall performance rating could be calculated by taking the average of each outcome ratings.

2.2.8 Sustainability

There are a number of national legal and policy instruments available in the country, more are likely to be developed under the head Conducive policy and legal framework for NMT. Private sector capacity building would strengthen sustainability of NMT projects. The outcome, sustainability is assessed using a four point scale: Likely (L), Moderately Likely (ML), Moderately Unlikely (MU) and Unlikely (L). The elements of sustainability are: financial resources, socio-political, institutional framework, private sector capacity building, conducive policy and legal framework, governance and environmental. The financial resources utilization for activities and outcomes could be reviewed with respect to provisions made at appraisal.

2.3 Structure of the Evaluation

The evaluation consists of a table of contents in lines with the guidelines given in UNDP Terms of Reference for the project. It has the following sections:

- An **Executive Summary** which has brief description of the project, scope, main conclusions, recommendations and lesson learned.
- **Introduction** includes objectives of evaluation, key performance indicators, methodology and structure of evaluation.
- The **project and its' development context** includes project start and completion dates, issues project seeks to address, main stakeholders and expected outcomes.
- The Section on **Findings and conclusions** include project formulation, implementation and results.
- The section on **Recommendations** includes corrective actions and future directions.
- Finally the evaluation provides the **lesson learned** for corrective and follow-up actions in similar projects to be replicated in future in the country.

At the end of report, the annexure are placed on which contains the information referred in the main body of the terminal evaluation report.

3 PROJECT AND ITS DEVELOPMENT CONTEXT

3.1 Country Socio – Economic Context

Botswana is a land locked country, bounded on the north and west by Namibia, on the northeast by Zambia and Zimbabwe, and on the southeast and south by South Africa. The total area of Botswana is 581,730 km² (224,607 sq miles). It shares its land boundaries of 4,013 km (with South Africa 1,840 km, with Namibia 1,360 km and with Zimbabwe 813 km). Botswana has ten political and administrative provinces namely: Chobe, Ngamiland, Ghanzi, Central, North-East, Kgalagadi, Kgatleng, Kweneng, Southern and South-East.

The population of Botswana is 2,038,228 (2011)⁵. Out of these, 1.14 million (56%) are living in urban areas and balance 0.90 million (44%) in rural areas. The population in 10 large urban settlements is 713,380; accounts 35% of total population and 63% of urban population. These 10 large towns / cities and their population are: Gaborone (228,256), Francistown (100,079), Molepolole (67,598), Selebi-Phikwe (49,849), Maun (55,784), Kanya (45,196), Serowe (47,444), Mahalapye (44,339), Mochudi (44,339), and Palapye (36,211)⁶. The capital of Botswana, Gaborone contributes 11.2% of country's population and 20.0% of urban population. The Gaborone, population density per sq km has increased from 790 in year 1991

⁵ www.cso.gov.bw (2011 Population and Housing Census- Preliminary Results Brief, Central Statistical Organization), Gaborone, Botswana

⁶ www.cso.gov.bw (2011 Population and Housing Census- Preliminary Results Brief, Population of Large Settlements, Central Statistical Organization), Gaborone, Botswana

to 1,101 in the year 2001 to 1,379 in the year 2011 compared to 2.3, 2.9 and 3.1 in respective years for the country.

The numbers of motorized transport have increased from 131,796 in year 1999 to 211,532 in 2006 to 318,400 in the year 2010⁷(**Annexure-11**). The growth rate of the motorized transport is estimated 8.34% per year in the country. The ownership of vehicles per 1,000 people has increased from 79 in 1999 to 123 in year 2006 to 156 in 2010. Motorized transport in Gaborone was reported 41,000 in 1999; 83,386 in 2006 and 111,060 in 2010⁸. The growth rate of motorized transport in Gaborone is about 9.48% per year. The ownership of vehicles per 1,000 people has increased from 220 in 1999 to 400 in year 2006 to 486 in 2010. This means that Gaborone has 35% of country's motorized vehicles. However the growth rate of vehicles during project period (2006 to 2010) is 7.4% which is lower than the past 11 years (9.48%) and before start of project (1999 to 2006) being 10.06%. It could be concluded that walking and cycling (NMT) had some positive impact on reduction of growth rate of MT vehicles in Gaborone during the project period.

3.2 Project Start and Completion Dates

The project under evaluation was approved by UNDP/GEF on 25th January 2005 as a medium size project under GEF operational program: OP 11 Sustainable Transport. The estimated start date was June 2005 however the implementation of project commenced in September 2006 with the recruitment of Project Manager. The duration of the project was of 4 years (48 months). The inception phase was successfully completed in December 2006⁹. The analysis of schedules has indicated an initial delay of 15 months. The original project completion date was 30th August 2009. This was revised to 30th November 2009.

3.3 Issues project Seeks to Address

The main issues project needs to address are to:

- reduce growth in transport based greenhouses gases (GHGs) emissions by developing a model infrastructure facility in Gaborone to help commuters to shift of their some trips to non-motorized transport modes (cycling and walking),
- promote and encourage NMT particularly walking and cycling in Gaborone, and
- create awareness, Institutional Development, Capacity Building, review legal framework and Design Capability on NMT.

3.4 Main Stakeholders

The project has three major components namely NMT Project Facility Design, Promotion and Communication and Policy and Legal Framework Review. The components implemented by the organisations are as follows¹⁰:

⁷ Refer Annexure-11 on Vehicles in Botswana And Gaborone.

⁸ www.cso.gov.bw (2010 Transport Statistics Unit, Ministry of Transport and communication, December 2010, Gaborone, Botswana

⁹ Inception Report (2006): Incorporating Non-Motorized Transport Facilities in the City of Gaborone, Botswana.

¹⁰ Terms of Reference-Terminal Evaluation: Incorporating Non-Motorized Transport Facilities in the City of Gaborone (PIMS 2841, ATLAS 00041288).

- i) NMT Project Facility Design
 - Gaborone City Council (GCC),
 - Department of Roads (DoR),
 - Department of Town and Regional Planning (DTRP), and
 - Contractors.

- ii) Promotion and Communication
 - Department of Road Transport and Safety (DRTS),
 - Non-Governmental Organizations (NGOs),
 - Media, and
 - Private sector Sponsors.

- iii) Policy and Legal Framework Reviews
 - Department of Road Transport and Safety (DRTS),
 - Police,
 - Ministry of Finance and Development Planning (MFDP)
 - Department of Environmental Affairs (DEA), and
 - Department of Meteorology (DMS).

The project is directed by a Project Steering Committee (PSC) chaired by the National Programme Director (NPD) with technical advice from a Technical Advisory Group (TAG). In order to ensure consultative and participatory approach for successful implementation of the project with required outcomes, the Stakeholders Consultative Forum (SCF) is in place¹¹.

3.5 Outcome Expected from the Project

The overall aim of the project is to reduce greenhouse gases emissions from motorized transportation system in Gaborone through the development and promotion of long-term modal shift to non-motorized transport system. The expected outcomes are:

- i) **Outcome 1:** This was revised during inception report of the project as “**Learning, Evaluation and Adaptive Management**”. This is a tool in outputs/outcomes. It is not considered as output in this report and hence dropped for further analysis.

- ii) **Outcome 2: Well Designed and Constructed NMT Network and Other Facilities:**
 - It was proposed to have: Newly constructed cycle and pedestrian paths of 10 km, Existing cycle / pedestrian network of 35 km on improved design and standards as of new, Auxiliary facilities in the form of bicycle supply and repair maintenance, bicycle renting, parks and rest rooms facilities;

 - Gaborone shall increased uptake of NMT and shall become NMT friendly city and attracting cycling tourism,

 - Public awareness through information dissemination, media, publication and workshop, promotional events and clubs.

¹¹ Technical Review report (2004) ‘Incorporating Non-Motorized Transport Facilities in the City of Gaborone’ Annex-B

- iii) **Outcome 3: Increased Uptake of NMT (cycling and walking) as means of Transport**

- iv) **Outcome 4: Institutional Framework for NMT** is established:
 - with a dedicated NMT unit in GCC,
 - with co-ordination among stakeholders like Government Departments, City Authorities, NGOs, and Private Sector,
 - for replication and sustainability of similar projects.

- v) **Outcome 5: Policy and Legal Framework** to allow NMT modes in the cities and towns of Botswana with budget allocations for NMT infrastructure.

- vi) **Outcome 6: Improvement in Quality of Life** is anticipated due to the project through:
 - Employment creation (pathways and bicycle parks; bicycle supply, selling, renting and manufacturing and repair services), and
 - Reduce traffic congestion, improved mobility and safety through reduction in accidents and pollution.

4 FINDING AND CONCLUSIONS

4.1 Project Formulation

The transport sector in Botswana is growing at the rate of 8.34 % per year. It is one of the fast growing sectors of economy, with motorized vehicles use rapidly increasing particularly in urban areas. The sector is a significant source of noise and air pollution and greenhouse gases emissions. It is envisaged that much greater use of NMT as a modal alternative to MT would reduce transport related GHGs emissions.

Request for projects for financing are not always accompanied by feasibility studies / detailed project reports since such studies are generally prepared only after funding is secured. This practice has however adversely affected the project quality at entry due to non-availability of studies, the gaps in database, reliability of cost estimates and basic technical details. Such data gaps and lacunae have led to the setting up unrealistic targets for project milestones at appraisal. For example in the case of Well Design NMT facility was completed at the end of project which would have been completed in the First year of the project. On a few occasions, it has changed the project configuration, leading to project delays.

4.1.1 Relevance and Country Drivenness

The main objective of the intervention is to reduce GHGs in transport sector of the country by transfer of trips from MT to NMT. This is in line with the Botswana commitment under the

United Nations Framework Convention on Climate Change (UNFCCC). The GoB is a signatory to Climate Change Convention and its ratification on 12th June 1992 and 27th January 1994 respectively¹². National endorsement by National GEF Focal point and commitment of Government of Botswana to co-finance the project has strengthened project relevance.

The GEF's assistance for the projects will help the country to meet the GHGs reduction. Further the project has contributed positively to awareness, promotion and communication, private sector development, well designed infrastructure, strengthening institutional, policy and legal framework. These objectives are aligned with the GEF funding priority. All these, indicate the project relevance and country drivenness for the project.

Vision 2016 which forms the basis of National Development Plan (NDP-10)¹³ of Botswana, support incorporation of road safety features in all road designs including pedestrian and cycle tracks. UNDP/GEF appraisals should have taken into account, the limited capacities of co-financing agency and available qualified / skilled manpower to work as counter parts. Delayed or Non-availability of such manpower has affected the project performance/schedules. The UNDP/GEF assistance in the project has helped Botswana to enhance its capacity and meet objectives hence the relevance is justified.

4.1.2 Conceptualization and Design

The motorized transport in Botswana has doubled since 1999. The increasing numbers of vehicles causes more fuel / energy consumption, congestion on roads, road accidents and air and noise pollution. It is reported that transport sector consumes all of the petrol and 65% of diesel and the road sub-sector consumes 99% of the petrol and 87% of diesel¹⁴. During a period of ten years from 1999 to 2010 the number of road accidents adopted a downward trend per 1,000 vehicles being 128/1,000 vehicle in 1999 to 88/1,000 in 2005 and 80/1,000 vehicles in 2008. However the total road accidents rose by 4.8 percent from 17,522 in 2005 to 20,415 in 2008¹⁵ to 26,400 in 2009¹⁶. In Gaborone, the fatalities have shown a decreasing trend in the year 2008¹⁷. This decrease may be anticipated due to awareness created on safe driving during the implementation of NMT project. The fatalities are summarized in **Annexure-12**.

The designed project interventions to address the root cause of above problems by partly shifting the modal trips from MT to NMT, is an innovative sustainable transport solution. The project is consistent with GEF Operational Programme 11: Sustainable Transport including NMT options¹⁸. Government of Botswana Ratification of UNFCCC in 1994 to reduce GHGs emission by applying mitigation measures in its economic sectors including transport and provision of NMT facilities in National Development Plan (NDP10) and Vision 2016. The

¹² United Nations Framework Convention on Climate Change: <http://unfccc.int/2860.php>

¹³ A long-Term Vision for Botswana: Towards Prosperity for All: Vision 2016

¹⁴ CSO 2010 Energy Statistics, Government of Botswana

¹⁵ Source: CSO, Transport Statistics Unit, Ministry of Transport and Communications, December 2009 Botswana Police Service (Road Traffic Accident Statistics Office)

¹⁶ Motor Vehicle Accident (MVA) fund, Road crash and claims Annual Report 2009

¹⁷ Fatalities by Districts by Botswana Police, 2010

¹⁸ Summary Guidelines for Project Development for global Environmental Facility Operation Phase -5 (GEF OP-5): 2010-14; <http://gefsgpl.org/formats/gef.doc.pdf>

project concept and designs have also been integrated in Draft National Integrated Transport Policy (2011) Section 28 on Walking and Cycling, National Conservation Strategy and Atmospheric Pollution Act. NMT is a cost effective and environmentally sound means of transport. The NMT facilities has been designed and classified in following three categories suiting the topography and availability of land:

Adjoining Cycle Track	Fit in with the road carriage way and adjacent to and on the same level with it
Raised Cycle Track	Adjoining the carriageway but at higher level
Free Cycle Track	Separated by a verge may be at the same level as the carriageway or at different level

The project is done through a vigorous public awareness campaign employing various information dissemination tools including, the media, publication and workshop, promotional events and clubs. However, no implementation of NMT infrastructure has been done.

4.2 Project Implementation

4.2.1 Implementation Approach

The project “Incorporating Non-Motorized Transport Facilities in the city of Gaborone” was approved by UNDP/GEF on 25th January 2005 as a medium size project under GEF operation program: OP 11 Sustainable Transport. The four years project was launched by UNDP/GEF in collaboration with the Government of Botswana through Gaborone City Council (GCC). There was initial delay in the appointment of Project Manager who joined the project on 1st September 2006. The second delay was faced by Ministry of Local Government (MLG) to understand and deliver according to NEX principle and procedures. The first disbursement was done on 11th December 2005. The first advance was realised on after joining of project manager. There was delay in following the GCC procurement rules and procedures. These have contributed about 15 months delay in effective date of commencement.

GCC, Project Management Unit and other associates have started working on all activities / outputs to speed up and to reduce further delays with support of UNDP office in Gaborone. A significant progress was made during the year 2007 and 2008 on activities related to awareness, study tours, review of institutional and legal framework and monitoring. The design of NMT infrastructure facilities was awarded in 2009 and design report was received after completion of the project in June 2010. Hence, no project has been constructed out of those designed as a part of NMT project.

However, GCC has implemented / established about 12 km of NMT (cycle and walkways) as a part of re-development road projects during the assessment period (2006-2010). The details are as follows:

- 6 km of cycle lanes with signage has been completed (4 km Independence Avenue and 2 km Hatsalatladi road),
- 3 km segregated cycle/pedestrian facilities completed with signage (Segoditshane road – Ledumang location),
- 3 km segregated NMT facilities constructed along North Ring Road and Nyerere Drive¹⁹.

The components of the project are implemented by organisations and stakeholders (**refer section 3.4**). The connectivity among the networks still remains a major challenge. The project progress, achievements and challenges faced are regularly reported in the quarterly meetings of steering committee and yearly project implementation reviews.

4.2.2 Management Arrangement

The GCC has established the NMT office in their premises. This office is headed by a Project Manager. Project manager is supported by an assistant for day to day jobs. The unit also has a traffic officer and economists on part time basis. The project manager used to report to City Engineer in GCC. The project steering committee Co-chaired by National Project Director and UNDP have directed the project. PSC is technically supported by Technical Advisory Group (TAG). There is no evidence of TAG existence and any technical role played during the operation of project. It would have been better if project manager would have been supported by regular officer for the long term sustainability of NMT initiatives.

On completion of the project, the project manager has gone back to the department. Moreover the NMT unit which used to report to City Engineer have started reporting to Principal Road Engineer. This puts a question mark on long term sustainability of institutional capability and mainstreaming of NMT in to its development process.

4.2.3 Stakeholder Participation

The stakeholders identified in the appraisal document are active participants in the Project Steering Committee. They have also participated in conducting events such as workshops, awareness campaign and writing articles related to NMT. In addition, project has also developed effective partnership with other partners from health, environmental watch, schools, cycle clubs and private cycle shop owners to increase awareness on NMT. The main stakeholders are reported in **Section 3.4**.

4.2.4 Financing Planning

a) GEF Resources

The financial plan for activities and outcomes were prepared during project appraisal. The provisions, yearly expenditures and % of total expenditure with respect to total budget are summarised in **Table 4.1**. It is clear from the table that most of GEF funds are utilized for awareness, support studies and study tours. These are essential for promotion of effective

¹⁹ Annual Performance report (APR)/ Project implementation Report (PIR), 2009

planning and use of NMT facilities in Gaborone. The NMT facility design and construction had a budget of US\$ 180,000.00. Out of this budget only 36% has been utilized for this activity. Non-availability of fund for facility design and construction due to over expenditure for other activities has not permitted NMT to achieve the objectives. Expenditure for promotion and communication for increased uptake towards NMT and monitoring have already exceeded the budget.

Table 4.1 : Outcome, Activities and GEF Budget Utilization²⁰

Outcome / Activity		Project Budget (PB) (US\$)	Jan-Dec 2006	Jan-Dec 2007	Jan-Dec 2008	Jan-Dec 2009	Total GEF Expenditure (TE) (US\$)	TE/PB (%)
Activity 1	NMT Facility Design and Construction	180,000	-	64,229	-		64,875	36.0
Activity 2	Increased Uptake Promotion and Communication	431,630	64,680	259,207	221,196	58,701	603,784	139.9
Activity 3	Strengthening Institutional, Policy and Legal Framework	120,000	-	5,485	76,943	2,795	85,224	70.0
	a) Institutional Framework	40,000		3,628	7,004	2,795	13,427	33.6
	b) Policy and Legal Framework	80,000		1,856	69,940	-	71,796	89.7
Activity 4	Monitoring (GEF)	60,000	-	2,325	38,624	43,649	84,599	140.1
	TOTAL	791,630 ²¹					838,483	105.9

The overall expenditure in NMT project has also crossed the total GEF provision by 5.9%. Financial progress observed in the 1st and 4th year was slow with 40% and 59% respectively of yearly provisions. The financial progress has improved in the 2nd and 3rd year of the project being 115% and 127% respectively.

b) Co-financing by Government of Botswana

The co-financing provisions are US\$ 1,365,300.00 in the NMT project. Out of this US\$ 1,101,300.00 are towards infrastructure construction and US\$ 264,000.00 are for establishment of NMT unit. The NMT unit provisions include planning, design, supervision, administration and monitoring. Ministry of Local Government has transferred the following provisions to departments²²:

- Design of NMT Infrastructure : Pula 1,778,491 : US\$ 233,815
- Review of Road Traffic Act,1975 : Pula 379,000 : US\$ 49,900
- Capacity Need Assessment : Pula 68,000 : US\$ 9,100

The total expenditure on design and other document development is about US\$ 292,815 which is 21.5% of total co-financing provisions by Government of Botswana. The Government of Botswana has also supported the NMT unit including the provision for administration, supervision and monitoring and facilitating the utilities such as office space,

²⁰ Project Budget balance, UNDP Botswana, Report on ID UNGM556

²¹ The difference in project budget at appraisal (US\$ 891,630) and in the table is due to non inclusion of Evaluation and replication provisions

²² Project Addendum, Ministry of Local government, reference no GCC/P/17(23) January 2009

water, electricity and telephone bills. The co-financing expenditure is summarized in **Table 4.2** which is about 50% of planned budget. There is no financial input into the facilitation of required NMT infrastructure. This non-availability of funds for infrastructure development has not permitted NMT to achieve the objectives.

Table 4.2: Co-Financing Expenditure²³

Outcome / Activity		Project Budget (PB) (US\$)	Total Expenditure (TE) Jan 2006 – June 2009	Total Balance (TB) (US\$)	TE/PB (%)
Activity 1	NMT Facility Design and Construction	1,101,300	500,000 ²⁴	601,300	45.0
Activity 2	Increased Uptake Promotion and Communication	264,000	198,000 ²⁵	66,000	75.0
TOTAL		1,365,300	698,000	667,300	49.0

The Government of Botswana has mobilized additional fund for the project through a Memorandum of Understanding (MOU) with I-Ce (Interface for Cycle Expertise) a Non-Governmental organization from Netherlands. The total budget in this MOU is US\$ 1.43 million (I-Ce: US\$ 0.07 million; GOM: US\$ 1.36 million)²⁶.

4.2.5 Country Ownership

The UNDP/GEF project was formulated to support the initiative focussing on interventions that had assisted in achieving the environmental objectives of reducing GHGs emissions through cycling and walking a sustainable transport solution for short distance travel. GCC has annual budget to engage local contractors to maintain road works in the city of Gaborone and this is being extended to maintain the pedestrian and cycle pathways. The project idea and conceptualization have been integrated in Gaborone City Development Plan (2009), Draft National Integrated Transport Policy (2011), Presidential Directive (2010) on climate change and Waste Management and Atmospheric Pollution Control Act (2005). All these are the testimony that Government has sincere interest in national environment and NMT development.

4.2.6 Procurement Management

The GCC has technical and human resources capacity for procurement management. The procurement of design consultancy, baseline studies, review of legal framework and project management has been carried out by following the GCC guidelines and tender document prepared for the project. The work programming, procurement planning and budgets are revised for meeting the disbursement requirements. These are finalized in the project steering committee for implementation. The co-financing fund requirements for procurement are communicated to Ministry of Local Government for onward transmission to Ministry of

²³ Annual Performance report (APR)/ Project implementation Report (PIR), 2009

²⁴ This includes the cost of NMT component of Roads developed by GCC (Nelson Mandela Flyover, Independence Avenue, Broadhurst expansion Segoditshane)

²⁵ The cost includes expenditure for Office Space, electricity, water, telephone, Fax and other services

²⁶ Mid Term Review of "incorporating Non-Motorized Transport Facilities in the City of Gaborone" Project ID PIMS 2841; ATLAS 000412881, January 2009

Finance. Still the co-financing funds were not available for developing NMT infrastructure in the project.

4.2.7 Project Effectiveness

The awareness creation and construction of NMT infrastructure are not synchronized. The funds for promotion of increased uptake for NMT have been exhausted before development of NMT infrastructure. This means that even if NMT infrastructure would have been in place, there would have been no funds to advocate for effective use of infrastructure. This gap has put the project at high risk of not achieving its objectives. The progress in project implementation against outputs / outcomes, indicators and current situation are rated using the GEF guidelines. The assessment of objectives and outcomes based on indicators as defined in logical framework for measuring achievements are shown in **Table 4.3** using GEF six point rating scale: Highly Satisfactory (HS), Satisfactory (S), Marginally Satisfactory (MS), Marginally Unsatisfactory (MU), Unsatisfactory (U), and Highly Unsatisfactory (HU).

Table-4.3: Key Tasks, Indicators, Achievement and Performance Rating

Goals/ Objectives/ Outcomes	Indicators Description	Indicator Current Achievement	Rating
Sector Related Goals			
To contribute to sustainable transport in urban cities of Botswana and the Region	Participation of Urban Authorities & Potential beneficiaries in adopting sustainable transport measures	Gaborone planned, designed and constructed functional NMT System.	Marginally Unsatisfactory
Project Development Objectives			
Promote incorporation of NMT modes in urban areas of Botswana	Plan, Policies & Legal Framework, NMT designs and standards for adoption for NMT modes of transport for Botswana. More departments shall involve in the initiative in Botswana.	Government incorporated NMT in Draft National Integrated Transport Policy (2011) ²⁷	Satisfactory
		Designed and developed 45 km of NMT Routes in Gaborone	Unsatisfactory
		Resources allocation for NMT Planning and development	Marginally Unsatisfactory
		NMT (walkways and bicycle routes) is incorporated in Gaborone City Development Plan (1997-2021) revised in 2009 ²⁸ and also incorporated in Greater Gaborone Multi-Modal Study.	Satisfactory

²⁷ Draft National Integrated Transport Policy (2011)

²⁸ Gaborone city development Plan (1997-2021), Ministry of Lands and Housing, Department of Town and Regional planning, Gaborone City Council, Revised Plan 2009 ; Plan Goal No 7.

Goals/ Objectives/ Outcomes	Indicators Description	Indicator Current Achievement	Rating
Global Objectives			
Reduce GHGs emission & Demonstrative environmental benefits & cost effectiveness of NMT	Baseline GHGs emissions & reduction Potential	The benefits have yet to start as project has not gone in construction and operation.	Unsatisfactory
Outputs			
Output 2: A well designed and constructed NMT network of cycle/ walkways and bicycle facilities including supply, repair, renting, and parking facilities	2.1 Under take Base line Demand Surveys and post project studies	Baseline Studies on NMT facilities in Gaborone Completed. However no study has been done for post project Scenario to validate the anticipated outcome.	Marginally Satisfactory
	2.1 Newly designed cycle and pedestrian paths of 10 km and improvement in 35 km Existing cycle / pedestrian network	Designed 20.1 km NMT infrastructure in the Project	Satisfactory
	2.3 Newly constructed cycle and pedestrian paths of 10 km and improvement in 35 km Existing cycle / pedestrian network	Design and Tender documents have been prepared for 20.1 km NMT routes. However 12 km of NMT infrastructure has been constructed as a part of re-development (improvement): 6 km of cycle lanes with signage has been completed (4 km Independence Avenue and 2 km Hatsalatladi road); 3 km segregated cycle / pedestrian facilities completed with signage (Segoditshane road – Ledumang location); 3 km segregated NMT facilities constructed along North Ring Road and Nyerere Drive ²⁹ . No new construction of NMT has been undertaken in this project.	Highly Unsatisfactory
Outcome 3: Increased Uptake of NMT (Cycling & Walking) as means of Transport Increase in number	3.1 Project report shows more users of trips by NMT particularly cycling from 1% to a minimum of 15% and trips by walking increasing by a minimum of 5% to 30 %.	No evidence on modal shift from MT to NMT as post project users survey were not conducted	Highly Un-Satisfactory

²⁹ Annual Performance report (APR)/ Project implementation Report (PIR), 2009

Goals/ Objectives/ Outcomes	Indicators Description	Indicator Current Achievement	Rating
of cycling and walking clubs	3.2 Develop a Communication / Media Event Strategy and Implement	Communication strategy has been developed and activities were undertaken to implement	Satisfactory
	3.3 Information Dissemination on NMT using print and electronic media	Newsletters, posters, wheel covers, reflector jackets, stickers, flyers, NMT articles in magazine (Lapologa Fashion Magazine, June 2008; Wena Industry and Environment Vol 16 No 25; NMT article in Hotel and Catering Vol.3 No 4 (2009); The Business Diary June 2009) are produced to disseminate information on the project; radio and television advertisement were undertaken; project web site was in operation during the project.	Satisfactory
	3.4 Promote the Formation of NMT Club	No Club was formed in the project however Gaborone cycle Club, Tselariders Cycle Club and Team Janmol Cycle Club are formed during last 5 years. The clubs have 30-60 members. The members are individuals and corporate	Unsatisfactory
	3.5 Organize / sponsor events and initiative targeting groups	Family fun ride were organized by public and institutions like Ministry of Education, Women Group, Mission Mag Youth Group, Jonmol cycles, Barclay banks for promotion of NMT	Satisfactory
	3.6 Study Tours of Planners to NMT system Cities	In 2007, a study tour was organized to Europe during June 10-20, 2007. His Worship the Mayor of Gaborone City, City Engineer, Senior Traffic Engineer and NMT Project Manager visited NMT friendly cities in Germany (Munster and Erlangen) and in Netherlands (Utrecht, Groningen and Amsterdam) attended a	Satisfactory

Goals/ Objectives/ Outcomes	Indicators Description	Indicator Current Achievement	Rating
		conference on “Making Cities and Towns NMT Friendly” at Velo-City.	
	3.7 Develop Resource Manual	Documentation on Best Practices in NMT Planning, Implementation and Maintenance.	Highly Satisfactory
	3.8 Training for school going children on NMT and safe use of Roads	There was a partnership between Driving school for children and project; Over 300 cycles received from Europe were donated for training to individuals. 17 people have been trained on safe cycling to improve their skills (7 Botswana Police, 5 Department of Roads Transport and Safety, 4 GCC and one Motor Vehicle Accident Fund).	Satisfactory
	3.9 Auxiliary facilities in the form of bicycle supply and repair maintenance, bicycle renting, parks and rest rooms facilities, Bicycle and Establishment of SMEs-Enterprise Building	Most of repair, supply and renting is by private operators and SME enterprises of their own	Marginally Satisfactory
Outcome 4: Institutional Framework for NMT through partnership of key stakeholders to implement NMT and dedicated unit in GCC	4.1) Dedicate NMT Unit in GCC	NMT unit with an office and staff were established as a part of Traffic and Road Department in GCC	Marginally Satisfactory
	4.2) Formulation of NMT Stakeholder Forum / Network involving public, law makers , legal and enforcement institutions	An e-NMT stakeholder group has been established during the project with different organizations	Marginally Satisfactory
Outcome 5: Conducive Policy and Legal Framework for NMT	5.1) Allocation of resources	Funds are allocated along with road projects, NMT has been integrated with all future road construction / development in Urban Areas	Satisfactory
	5.2) Revised road traffic legal framework defined with NMT focus	The Gaborone City Master Plan has been revised for inclusion of NMT in Roads 2009 The NMT has been	Satisfactory

Goals/ Objectives/ Outcomes	Indicators Description	Indicator Current Achievement	Rating
		included in Draft National Integrated Transport Policy (2011)	
Output 6: Improved quality of life through employment creation in transport sector and reduced pollution, accidents and improved transport mobility	6.1 New or upgrade SME bicycle suppliers, renting repair services, NMT infrastructure providers and local bicycle manufacturers	There are SME in Bicycle business such as Jonmol cycle Services, Gaborone Cycle & Garage, Poolco etc. They employ up to 10 people. There is no cycle manufacturer in the country.	Satisfactory
	6.2 Reduce Traffic Congestion accidents and pollution	There is no evidence that there is reduction in traffic congestion and pollution ³⁰	Unsatisfactory

4.3 Results

4.3.1 Achievement of Objective

There are activities which have significant success such as awareness creation for increased up take of NMT (walking and cycling) as means of transport. Positive progress has also been made in review of Acts and Policies to facilitate the enabling environment for development of NMT activities in the country. Gaborone City Development Plan has been modified to make provision for NMT. All new city roads will have walk/cycle ways and accordingly fund provisions would be made during the financial year. The walk / cycle ways would be maintained along the road. There are evidences that project is able to communicate the socio-economic, health, energy and environmental benefits of NMT system to the people.

The discussion with representative of bicycle owners have communicated that over 7,000 cycles are added every year in Gaborone. About 60 people are involved in bicycle repair and maintenance. The cycle shop owners are also involved in organizing cycle meets in association with Government Department, Private Organizations, bicycle clubs, etc. No attempt has been made by the Government to enhance the capacity of bicycle SMEs.

The institutional capacity of GCC, department of roads, police and estate developers is enhanced due to the project. These departments have initiated the concept of public hearing/consultation of users during road design and development. GCC road engineers are trained and would be able to identify the deficiencies for corrective action.

The project is over in November, 2009 and have limited achievement in meetings its objectives of reduction of GHGs. In such a situation it is difficult to determine the impact in absolute values. The project has failed to achieve its objective. However, the objectives are doable, with clear strategy to target the areas where modal shift is possible from MT to NMT.

³⁰ Ambient Air Quality Information, Department of Waste Management and Pollution Control, February 2012: Ambient air quality for sulfur di-oxides, nitrogen oxides and particulate matter (PM10) has shown increasing trend in Gaborone

4.3.2 Sustainability and Replicability

The NMT sub-sector got momentum in 1999 when it was presented by EECG consultant to Department of Meteorological Services, the National Focal Point for Climate Change, the Department of Environmental Affairs (the GEF National Focal point), Ministry of Finance and Development Planning and Department of Roads, endorsed Government Support to the Project. GCC has special interest in NMT intervention as it falls in Gaborone urban area. The officials of Francistown have shown interest to replicate the project. The analysis from the review indicates that the UNDP/GEF assistance is project based and co-ordinated assistance to the multi modal transit system has yet to be planned that would ensure the sustainability of NMT sub-sector. Sustainability is also a factor of efficient utilisation of NMT facilities. There are missing links such as discontinuations of NMT tracks on road. The short NMT width and not separated from the road, no wash rooms and parking facilities at destination and road cyclist safety hazardous are the issues which need to be taken care for long term sustainability.

Technical Soundness and Management Effectiveness

The NMT sub sector in Gaborone is under GCC. GCC has developed sound technical knowhow in association with designers, stakeholders and other departments. GCC, Road and Traffic Department in association with private developers and contractors have the capacity to develop, operate and maintain the systems. The schemes may be sustainable provided more awareness is created about the benefit of NMT with proper infrastructure on selected routes. The Government has integrated NMT funds for all new road construction projects. Hence project level sustainability of NMT in urban areas is assured.

Government Commitment

The GOB has demonstrated strong commitments to increase access to NMT and has implemented policy and institutional reforms in the sector. Further, more the GOB has contributed towards the UNDP/GEF's funded NMT projects. With the improving macro-economic environment, the private sector has started their involvement in the sub-sector. This was a commitment of the Government in the framework and should ensure sustainability of the NMT sector. However, long term sustainability of the NMT project depends on steady and adequate availability of funds, institutional development including private sector and capacity building. The overall sustainability is presented in **Table 4.4**

The NMT has got momentum in Botswana even being Marginally Unsatisfactory in achieving project objectives. The officials of Francistown have shown interest to replicate the project. There are indications that District Councils and Town councils are planning their NMT infrastructure. Lobatse Town council has developed a 7 km of segregated NMT facilities as a result of their participation in capacity building training and distribution of manual on NMT design and development. GCC and Department of Roads have developed sound technical knowhow in association with designers, stakeholders and other departments.

Table 4.4: Sustainability

Description	Project Level	Remarks
Technical Soundness	Satisfactory	GCC, Road and Traffic Department in association with private developers and contractors have the capacity to design develop, operate and maintain the systems
Management Effectiveness	Satisfactory	The Government has integrated NMT in all new road construction projects and there is a good co-ordination among NMT developers.
Co-financer Commitment	Marginally Unsatisfactory	Co-financer has not spent their share in the construction of project
Resilience to Exogenous Factors	Un-Satisfactory	The project impact and sustainability could be threatened by non-availability of cycle spare parts which are imported.

GCC, Road and Traffic Department in association with private developers and contractors have the capacity to develop, operate and maintain the systems. The schemes may be sustainable provided more awareness is created about the benefit of NMT with proper infrastructure on selected routes. The Government has not provided separate fund for NMT but has integrated NMT in all new road construction projects with funds. Hence project level sustainability in NMT sub-sector in urban areas is **moderately likely**.

4.3.3 Institutional Development

The UNDP/GEF's assistance is project based. In the project limited financial assistance is provided for institutional development and capacity building. The projects have provided employment to skilled and semi-skilled people. The Government contribution is used for design of NMT facilities and establishment of NMT unit in GCC. The project had organized workshops, study tours and campaign for use of NMT. Hence overall institutional development impact is **marginally satisfactory**. The overall institutional development in the projects is presented in **Table 4.5**

Table 4.5: Institutional Development

Description	Rating	Remarks
Institutional Framework	Marginally Satisfactory	Established NMT unit in GCC, NMT is included in Policy, Plan, Vision and Environmental framework
Co-ordination	Satisfactory	GCC co-ordinated the project with different stakeholders
Employment and training	Marginally Satisfactory	Organized Study Tours to Developing World with Excellent NMT facilities; Project provided direct and indirect / induced employment

4.3.4 Private Sector Capacity Building

Although, no specific targets were set for private sector development, over 6 small private cycle shops are now in operation in Gaborone for sale, rent, repair and maintenance of cycles. The capacity of bicycle SMEs need to be enhanced so that the services of repair and maintenance could be provided on route for the success of NMT. The parking and night garage facilities are essential along the potential identified NMT routes. Most of the capacity building by bicycle SMEs is on their own initiative. These SMEs have also organised cycle meets in Gaborone highlighting NMT benefits. These organisations have provided employment to about 60 people. Capacity building should have been done through training in functional areas such as crossing by cyclist at the intersection, fast methods of repair on road, use of safety jackets and reflectors on cycle to avoid accidents and road shows on safety while cycling.

The local private sector companies are involved in design of cycle tracks and formulation of tender document for the project. During construction of the facilities some of the activities would have been off loaded to private contractors which never took place in the project. There is no initiative by GCC or Central Government which would have encouraged the SMEs operators to promote NMT in the city or modal shift from MT to NMT.

4.3.5 Climate Change Mitigation

The Incorporating Non-motorized Transport Facilities in the City of Gaborone is a climate change mitigation project for reduction of GHGs. It is reported in PIR (2009) that a modal shift study will be carried out at the end of the project. Modal shift study is not even conducted till date. During discussion with cycle shop owners, it is communicated that the modal shift to NMT may be about 4% (1.6% at the start of the project). However there is no evidence for this shift. Based on this shift assumption GHGs reduction has been computed as 2,609 tons per year or 26,089 tons during life time (10 years)(Refer Annexure 13).

4.3.6 Cost Effectiveness

The calculation of GHGs saving is based on assumptions of trips of different mode of transport before and after the project. It is assumed that 1/3 of available cycles in Gaborone will be in use after 10 years. The GHGs mitigation is reported in section 4.3.5. The cost of mitigation at different stage is presented in **Table 4.6**. The analysis has indicated that the cost per ton of CO₂ mitigation is US\$ 55.0 for the project incorporating Non-Motorized Transport in the City of Gaborone. The cost of CO₂ mitigation is highly uneconomical in comparison to Certified Emission Reduction (CER) market value (About US\$ 15 per ton of CO₂ mitigated).

Table 4.6: Cost Effectiveness of CO₂ Mitigation

S. No	Stage	Expenditure (US\$ Million)	CO ₂ Mitigated (Ton)	Cost per Ton of CO ₂ (US\$)
1	Project Proposal	2.256	216,000	10.44
2	Project Review	2.256	137,500	16.40
3	Mid Term Evaluation	2.256	137,500	-
4	Terminal Evaluation			
	Project Budget Cost	2.256	26,089	86.4
	Project Actual Cost	1.536	26,089	55.0

4.3.7 Quality of Reports at Entry and during the Project

- a) The project concept is leading to reduction in GHGs and climate change issue. The **project document** has logical framework and is well written/ documented; still it has few basic missing links/ information. The document has neither identified the routes, NMT and allied infrastructure to be developed nor cost likely to be involved, based on realistic calculation. The project development approach is more generic in nature than specific. This is also responsible for delay of project implementation.
- b) **Baseline Study** on non-motorized transport facilities in Gaborone was prepared by Earthtec Consultancy (PTY) Ltd in December 2007. The study has covered about 0.7% of the total household in Gaborone. Origin –Destination survey of cyclist were conducted along major intersections. Interviews were conducted of pedestestrains on Segoditshane Way, Mabeleapodi road, New and old Lobatse road, Tlokweng and Queens Road. Similarly random surveys of school students were also conducted to assess the usage of walk/cycle ways. The study has compiled information on legislation and accidents. The factors limiting the use of NMT are unsafe roads, lack of NMT facilities, unfavourable weather, too far distance and too slow and lack of cycle ownership. The quality of Base line study is satisfactory.
- c) **Conceptual and Design Report: NMT Facilities in City of Gaborone:** The Arup (Pty) Ltd has prepared the conceptual and design report including tender document. Nine sections were identified by GCC for planning, design and construction of NMT facilities. The detailed designs have incorporated all features required for smooth functioning of walk/bicycle ways. These includes layout, design of payments, design of crossings, drainage works, speed hump, road marks and signage, ramp with indicators, handrails, etc. Based on design, bill of quantities and tender document, the project could be implemented. These reports are satisfactory and are good for construction and could be implemented.
- d) **Road Traffic Act (1975):** Joina Consultants (Pty) Ltd has reviewed the road Traffic Act (1975). This Act is silent on the protection of rights of non-motorist road users. The revised road traffic act is in the process of adoption by the Government of Botswana.

- e) **Project Implementation Report:** The report summarizes the activities which have been completed. The report has not compared the planned and implemented activities and the reason for not implementation. The final baseline survey has also not been conducted.
- f) **Mid Term Review Report** has made recommendations for the project. Many of these recommendations have not been implemented.
- g) During the project for awareness, number of activities has been taken up such as publicity material, leaflets, jacket, reflectors, spare tyre cover, and technical articles in magazine / journals. All these are rated as highly satisfactory.
- h) During the project the PSC meeting are conducted regularly up to 2009. Meetings have recorded the performance of project activities but at many occasions corrective actions and follow up actions are either slow or missing.

4.3.8 **Contribution in Upgrading the Skill of National Staff**

The National staff skill has been upgraded in many ways, some of these are:

- The National staffs from Government and Private Sectors along with stakeholders are associated in planning, designing, tender and tendering and construction supervision of NMT facilities' infrastructure. The National staffs have upgraded their knowhow in above activities.
- The study tours have provided experience on success stories on NMT in developed world and manuals of best practices in operation and maintenance.
- The National staffs have gained experience in awareness campaign for promotion of NMT and developed publicity material which will go a long way in promoting NMT in the country.

4.3.9 **SMEs and Partnership**

There is a need to strengthened knowledge base and capacity of SMEs involved in NMT facilities in the city. It would be appropriate to develop training modules for SMEs in the sector, how to raise funds and maximizing participation in the NMT activities through walking and cycling. The SMEs may develop affordable spare parts on available technology in co-operation with development partners to have long term project's impact; otherwise sustainability could be threatened by non-availability of bicycle spare parts which are imported. The project should have identified before completion of project the interested donors, agencies and development partners for additional technical assistance / co-operation; for identification, planning, designing, retrofitting and implementation of NMT to continue the ongoing intervention.

The policies have been reviewed and adopted to facilitate enabling environment for NMT activities. The project framework of outcomes/outputs and activities as available in project document and inception report is very well conceived and documented. The documents have stressed the need of awareness, institutional framework and infrastructure development for a

successful NMT. However on few occasions the key performance indicators are not measurable.

4.4 Summary of Ratings

Based on project findings, implementation, effectiveness and results, a summary of ratings has been prepared for NMT project. Overall project is **Marginally Unsatisfactory** however project failed to achieve its objectives and rated **Unsatisfactory**. The summary of rating is presented in **Table 4.7**.

Table 4.7: Summary of Rating

S.No	Description	Rating
Progress towards Achieving Project Objectives		Marginally Unsatisfactory
1	Sector Related goals	Marginally Unsatisfactory
2	Project development objectives	Marginally unsatisfactory
3	Global Objectives	Unsatisfactory
4	Transport Based Green House Gases Emission Reduction	Unsatisfactory
5	A Well designed And constructed NMT network along with cycle repair, renting and parking facilities	Marginally Unsatisfactory
6	Increased Uptake of NMT	Marginally Unsatisfactory
7	Institutional Framework	Marginally Satisfactory
8	Conducive policy and legal framework	Satisfactory
9	Improved Quality of Life	Marginally Unsatisfactory
10	Sustainability	Marginally Satisfactory
11	Institutional Development	Marginally Satisfactory
Progress in Project Implementation		Marginally Unsatisfactory
12	Implementation Approach	Marginally unsatisfactory
13	Management Arrangement	Unsatisfactory
14	Stakeholder Participation	Marginally Satisfactory
15	GEF Resources	Satisfactory
16	Co-financing	Unsatisfactory
17	Procurement Management	Marginally Satisfactory

5 RECOMMENDATIONS

Based on analysis and results following recommendations are proposed:

- Progress has been made to increase public awareness about NMT. However it would have been appropriate to be more targeted specific events in an area and groups of the society. Botswana may participate in cycling events in the International Games / events for generating interest in NMT.
- The success of the project is dependent on the completion of design and construction of NMT facilities. The identification of NMT routes and design of infrastructure was very slow. The routes and infrastructure facilities shall be identified and fridge at the time of project Proposal / appraisal.

- The monitoring and evaluation of key indicators shall be identified at appraisal and need to be monitored on regular basis so that intermittent performance evaluation could be conducted and timely corrective actions could be taken to achieve the objectives and outcomes. The timely non availability of monitoring and evaluation data for key performance parameters has put the project at higher risk.
- The Government of Botswana would need to provide continuous support for NMT infrastructure and its integration with mass rapid transit system (MRTS) to reduce GHGs and may lead to earn carbon credit through clean development mechanism (CDM).
- The UNDP/GEF assistance is project based. In order to have an integrated development impact in the country/city, it should shift from the project based approach to Sector Wide Approach (SWAp) in the city transport sectors.
- Development of SMEs for local fabrication, manufacturing of cycle, instruments, equipments used in cycle repair and maintenance will develop capacity at the private sector level. This will also reduce dependence and availability problems with imported parts.
- There is a need for aid co-ordination between various agencies through a common framework at the GOB level. A coordinated approach for project implementation, aid co-ordination and co-financing will bring international agencies on a common platform for better results.

6 LESSON LEARNED

The main lessons learned from the NMT intervention in Gaborone include:

- i) NMT has to be integrated in Gaborone city planning and transport development strategies. The main constraints for acceptance of NMT by people are: high atmospheric temperature/ heat due to sun, non availability of long route mass transit system, non-identification of potential short routes, non availability of en-route bicycle repair and maintenance facilities, parking and garage and bath facilities. NMT infrastructure shall only be developed on specific routes connecting the mass transit system or near the schools based on public consultation and traffic surveys before start of the project.
- ii) There is a requirement for change in mind set for favourable perception towards the use of NMT and transit system. The awareness campaign, a day without car except emergency services, guides and volunteers on road crossing facilitation may change the leverage towards NMT. The vehicle occupancy ratio is low. There is nothing to encourage modal shift from MT to NMT. Government is slow in implementing cycle initiative. Bicycle in schools could be used as sport and mode of transport. Organization may encourage use of bicycle by contributing half of the cycle cost. Botswana Government or cycle club may send cycling team to participate in International sports events.

- iii) Requests for projects for financing are not always accompanied by feasibility studies / detailed project reports since such studies are generally prepared only after funding is secured. This practice has however adversely affected the project quality at entry due to non-availability of studies, the gaps in database, reliability of cost estimates and basic technical details. Such data gaps and lacunae have led to the setting up of unrealistic targets for project milestones at appraisal. For example, the design of NMT facility was completed at the end of project in June 2010 which would have been completed in the First year (by August 2007) of the project. On a few occasions, it has changed the project configuration, leading to project delays.
- iv) Appointment of staff, effective formulation of committees and sensitization of stakeholders on project procedures prior to commencement of project implementation is a pre-requisite to reduce-/- avoid delays observed at the start and during the implementation of NMT project.
- v) The awareness campaigns, study tours and physical implementation of NMT project should have been taken simultaneously to achieve the objectives.
- vi) Road laws for cycling need to be more covered. Funds should be earmarked for NMT activities in the Government budget. The intersection at road crossing should be cycle friendly.
- vii) The participation of women in city safe cycle training and organized events is very low (about 8%). Campaign should be conducted from start of the project through targeted activities for women for their involvement in NMT activities.

ANNEXURE-1

NMT ROUTE /INFRASTRUCTURE DESIGNED DURING THE PROJECT

S.NO	Road / Street	Description	Distance (km)
1	Nkurumah	This route connects old Naledi suburbs with minibus area on eastern side Station mall and to Pedestrian Bridge over the railway lines on the western side of the mall. It has a rural road cross-section and runs parallel to rail line	1.9
2	Molapowabojang	Provides connection from the western bypass, pass Gaborone Technical College and Access to and from residential area of Kgamaadi road	2.5
3	Jawara Road	Connects south ring road and Mabuto drive and an alternative route from the University of Botswana towards the Mall.	0.6
4	Broadhurst way	Connects Nelson Mandela drive and Broadhurst Industrial area up to Lenyaphiri Road	2.5
5	Segoditshane Way	Connects Notwane Road in South to Hukutswe Road in the North	6.6
6	Adjacent to Sobhuza Drive	Between Independence Avenue and Nyerere drive and parallel to Sobhuza Drive	1.2
7	Gaborone West Open	Routes connects New Lobatse Road with Western bypass and traverse a belt of Public open space and two primary schools	2.0
8	Notwane Road, Churchill Way, Botswana road and Government Precinct	Connects National stadium, University of Botswana through the Mall and with the main bus Terminus in the West	2.6
9	Pedestrian Bridge over Segoditshane River	Connects Broadhurst way with Nyerere drive at Sobhuza Drive	0.2
Total Distance (km)			20.1

TERMS OF REFERENCE: TERMINAL EVALUATION

PROJECT: Incorporating Non-Motorized Transport Facilities in the City of Gaborone, Botswana: PROJECT NUMBER: PIMS 2841, ATLAS 00041288

1 Introduction

a) UNDP/GEF Monitoring and Evaluation Policy

The Monitoring and Evaluation (M&E) Policy at the project level has four objective: i) to monitor and evaluate results and impacts; ii) to provide a basis for decision making on necessary amendments and improvements; iii) to promote accountability for resource use; and iv) to document, provide feedback on and disseminate lesson learned. A mix of tools is used to ensure effective project M&E. These might be applied continuously through the life time of the project-periodic monitoring of indicators or as specific time bound exercises such as mid term reviews; audit reports and evaluations.

In accordance with UNDP/GEF M&E policies and procedures, all regular and medium size projects supported by GEF should undergo a final evaluation upon completion of implementation. A terminal evaluation of a GEF funded project is also required before a concept proposal for additional funding can be considered for inclusion in a GEF work program. However a final evaluation is not an appraisal of the follow up phase.

The evaluations are intended to assess the relevance, performance and success of the project. It looks at early signs of potential impacts and sustainability of results, including the contribution to capacity development and achievement of global environmental goals. It will also identify and documents lesson learned and make recommendations that might improve design and implementation of other UNDP/GEF Projects.

b) The Project Objectives and Context within the country Programme

The transport sector in Botswana is one of the fastest growing sectors of the economy, with motorized vehicle use rapidly increasing, particularly in urban areas. The sector is already a significant source of greenhouse gas emissions. Continued growth in the use of motorized transport vehicles has consequences that include associated increases in greenhouse gas emissions and related negative social and environmental impacts such as traffic congestion, accidents, and air pollution. It is envisaged that facilitating much greater use of non-motorized transport as a modal alternative to motorized transport for some people and purposes would reduce growth in transport-related greenhouse gas emissions. For this to occur there must be an acceptable, attractive, safe, and sustainable non-motorized transport alternative that is widely available.

Gaborone City Council in partnership with United Nations Development Programme (UNDP), the Global Environmental Facility (GEF) and the Ministry of Local Government is implementing a project to incorporate non-motorized transport infrastructure into the City's roads development. The project "*Incorporating Non-Motorized Transport (NMT) Facilities in the City of Gaborone*" (hereinafter referred to as the "NMT project") seeks to promote the

significant use of substantially cheaper non-motorized modes of transport (NMT) particularly walking and cycling in Gaborone and to encourage and facilitate a modal shift from motorized transport (MT) to non-motorized transport modes for relatively short distances that can be covered by such modes. The project also seeks to demonstrate and record the many benefits as well as the efficacy of a modal shift to NMT with a view not only to increasing the modal share of NMT in Gaborone, but also to widely disseminating the lessons and encouraging the replication of the project across cities and towns of Botswana and the region. The project was to be carried out by three major activity groupings namely:

- i) NMT Project Facility Design
 - Gaborone City Council (GCC),
 - Department of Roads (DoR),
 - Department of Town and Regional Planning (DTRP), and
 - Contractors.
- ii) Promotion and Communication
 - Department of Road Transport and Safety (DRTS),
 - Non-Governmental Organizations (NGOs),
 - Media, and
 - Private sector Sponsors.
- iii) Policy and Legal Framework Reviews
 - Department of Road Transport and Safety (DRTS),
 - Police,
 - Ministry of Finance and Development Planning (MFDP)
 - Department of Environmental Affairs (DEA), and
 - Department of Meteorology (DMS).

2 Objectives of the Evaluation

The Evaluation of the non-motorized transport project is commissioned by the Government of Botswana, Ministry of Local Government, Gaborone City Council, UNDP in Botswana and GEF in accordance with the project's M&E plan. It is intended to assess the performance of the project against planned results. The result of evaluation will also inform the partners in the project of the wider sustainable transport issues for the future.

3 Scope of the Evaluation

The Evaluation will evaluate the project's achievements according to the following Project Review criteria:

a) Outcomes: Assess progress towards attaining the project's environmental objectives and outcomes. This should include the extent to which the project contributed to: (a) Reduction in transport-based greenhouse gas emissions; (b) Well designed and constructed NMT Network and Other Facilities; (c) increased uptake of NMT amongst users; (d) Informed and equipped Institutional Framework for NMT; (e) Conducive Policy and legal Framework; and (f) Improvement to quality of life (health and employment creation).

b) Implementation approach: Review the clarity of roles and responsibilities of the various individuals, agencies and institutions and the level of coordination between relevant players.

Assess the level to which the Logical Framework Approach (LFA) and performance indicators were used as project management tools;

- evaluate any partnership arrangements established for implementation of the project with relevant stakeholders involved in the countries/region;
- describe and assess efforts of UNDP in support of the implementing agencies, regional and national institutions;
- make recommendations as to how to improve project performance in terms of effectiveness and efficiency in achieving impact on institutional and capacity development and the targeted conservation concerns.

c) Country Ownership/drivenness

Assess the extent to which the representatives of the participating countries (including governmental officials, civil society, etc.) were actively involved in project implementation.

d) Co-financing

Assess whether the governments and other partners have maintained financial commitments to the project and undertake a reconciliation of the co-financing pledged and realised.

e) Stakeholder Participation and benefits accrued

- Assess the level of public involvement in the project and comment as to whether the scope of public involvement has been appropriate given the broader goals and objectives of the project;
- review and evaluate the extent to which project benefits have reached the intended beneficiaries.

f) Sustainability: Assess the likelihood of continuation of project outcomes/benefits after completion of GEF funding; and describe the key factors that will require attention in order to improve prospects for sustainability of project outcomes. Factors of sustainability that should be considered include; institutional capacity (systems, structures, staff, expertise, etc.) social sustainability, policy and regulatory frameworks that further the project objectives, financial sustainability.

g) Replication Approach: Describe the main lessons that have emerged in terms of: strengthening country ownership/drivenness; strengthening stakeholder participation; institutional structure and capacity building; application of adaptive management strategies; efforts to secure sustainability; knowledge transfer; and the role of M&E in project implementation. In describing all lessons learned, an explicit distinction needs to be made between those lessons applicable only to this project, and lessons that may be of value more broadly. Make recommendations on how the lessons and experience can be incorporated into the design of similar initiatives in the future.

e) Financial Planning

- Assess the financial control systems, including reporting and planning, that allowed the project management to make informed decisions regarding the budget;
- assess the extent to which the flow of funds had been proper and timely both from UNDP and from the project management unit to the field;

- evaluate the extent of due diligence in the management of funds and financial audits.

f) Cost effectiveness: Assess compliance with the incremental cost criteria (GEF funds used to finance a component of the project that would not take place without GEF funding and securing co-funding and associated funding); and assess the extent to which the project has completed the planned activities and met or exceeded the expected outcomes according to schedule and as cost effectively as initially planned.

g) Monitoring and Evaluation: Review the project's reporting systems and their efficiency; and review the implementation of the project's monitoring and evaluation plans including any adaptation to changing conditions (adaptive management) – and specifically, assess whether the lessons, insights and recommendations of the mid-term evaluation were applied successfully to re-direct the project.

4 Products Expected from the Evaluation

The evaluator will present a final report to UNDP employing the headings outlined in these TORs. The Report will include an Executive Summary summarising the main findings, lessons and recommendations. The evaluation will include ratings on the following aspects (1) Sustainability, (2) Outcome/achievement of the objectives, (3) Implementation approach. The ratings will be Highly Satisfactory, Satisfactory, Marginally Satisfactory, Marginally Unsatisfactory, Unsatisfactory and Highly Unsatisfactory as defined in the most updated “Guidelines for Implementing and Executing Agencies to Conduct Terminal Evaluations” of the GEF Evaluation Office (2011).

5 Methodology or Evaluation Approach

The evaluator will undertake a review of documentation, including the Project Document and technical reports. The evaluator will liaise with all key stakeholders including Gaborone City Council, Ministry of Local Government, other government ministries, relevant NGOs and academic institutions, and civil society representatives. Structured and semi-structured interviews will be organised with key stakeholders to collect information. Structured feedback mechanisms such as a self-administered, electronic set of questions (survey) could also be designed and utilised. A detailed list of stakeholders will be included in the inception report of the consultancy, Field visits will be undertaken to monitor the progress in developing the NMT facilities in different areas of the City of Gaborone

ANNEXURE-3

ITINEARY, INTERVIEW, MEETING AND SCHEDULE

DATE	TIME	ACTIVITY	NAME & DESIGNATIONS	Agency	TEL	E-MAIL
05.02.2012	12:00	Arrival Sir Seretse Khama Airport, Gaborone	Dr Krishna Pal	Consultant	0091-9811975355	drkrishnapal@hotmail.com
06.02.2012	9:00 - 16:30	HR Matters, IT Connection Initial meeting , discussion on Evaluation Programme and directing to offices, Collection of available reports	Ndapiwa Semausu, Human Resources Analyst Lelanani Toteng, Programme Assistant	UNDP	3633718	Ndapiwa.semausu@undp.org Lelanani.toteng@undp.org
07.02.2012	9:30 – 10:00	Meeting on Available reports and methodology to be adopted	Rebonyebatho Moaneng, Assistant Resident Representative (Programme)	UNDP	3633709	r.moaneng@undp.org
07.02.2012	10:00 -10:30	Briefing	Lare Sisay, Resident Representative	UNDP	3633706	Lare.sisay@undp.org
07-08 .02.2012	7:30 - 16:30	Review of documents & drafting Inception Report	Dr Krishna Pal			
09.02.2012	10:00 – 11:00	Submission of the inception Report	Dr Krishna Pal			
09.02.2012	1500-1530	Meeting	Tumelo Town Planner	City Hall	74178945	
10.02.2012	8:30 - 9:30	Meeting	Jabu Tshaakane Former NMT Project Finance and Admin.	UNDP office	71344277	jmothusi6@yahoo.co.uk
10.02.2012	9:45 – 10:45	Meeting	Sedibelo Phukula Ministry of Local Government	Office No. 248	71636256 /3658618	sphukula@gov.bw
10.02.2012	11:00 – 12:00	Meeting	Leonard Dikobe, Former UNDP Environment Specialists	Leonard to meet at UNDP	71810710	Leonarddikobe@yahoo.com
10.02.2012	14:00 -15:00	Meeting	Khumo Manyathelo & Field Visit	GCC	71643838	manyathelo@hotmail.com
13.02.2012	10:00-11:00	Meeting	Field Visit & Meeting Boatametse Modukanele, Former NMT Project Manager	Ministry of Finance,	72386808	bomodukanele@gov.bw
13.02.2012	11:00-12:00	Meeting	Jeremiah Kokwane	Jonmol Cycle Services	71847905	gerrkokwane@yahoo.com
13.02.2012	14:00 -15:00	Meeting	Keneilwe Moseki, Executive Secretary, Somarelang Tikologo/ Environment Watch	Somarelang Tikologo/ Environment Watch Extension.	71738776	Kenmos26@gmail.com
13.02.2012	15:00-16:00	Meeting	Marvin Mmutle, MVA (Former Department of Road Transport and Safety)	Motor Vehicle Agency (MVA) Fair Grounds	3188533	mmmutle@mfafund.bw
14.02.2011	8:30 - 9:30	Meeting	Ingrid Otukile, GEF Focal Point, Department of Environmental Affairs, (DEA/MWET)	Will meet at UNDP office	3901292 72408852	iotukile@gov.bw
14.02.2012	9:30-10:30		David Lesolle, Former Department of Meteorological Services	University of Botswana	72857121	David.lesolle@mopipi.ub.bw

DATE	TIME	ACTIVITY	NAME & DESIGNATIONS	Agency	TEL	E-MAIL
15.02.2012	9:00	Audio Conference	Lucas Black Eddy Russell	UNDP /GEF		
17.02.2012	14:00	Meeting	Sedibelo Phukula Ministry of Local Government	Office No. 248	71636256 /3658618	sphukula@gov.bw
20.02.2012	14:00	Meeting	Sedibelo Phukula Ministry of Local Government	Office No. 248	71636256 /3658618	sphukula@gov.bw
14.02.2012 - 20.02.2012	14:00	Analysis & Report writing	Dr Krishna Pal			
21.02.2012	10:00	Submission of the Draft Report to UNDP	Dr Krishna Pal			
	10:00 -16:00	Initial Review of Report by UNDP	UNDP			
	16:00	Sharing Report with RSC/GEF	UNDP			
22.02.2012	9:00	Meeting	Mr Emmanuel Banda, CSE	DWMPD	3902053	ebanda@gov.bw
	14:00	Meeting	Mr Augur O. Malefho	Road Safety & Transport	71391775 3905422	amalefho@gov.bw
	15:00	Meeting/Visit	Ms Kgalalelo Machola	Children Traffic School	71424601	Kmmachola79@gmail.com
23.02.2012	8:00	Comments from GEF/RSC	GEF/RSC			
		Initial internal Comments from UNDP to Consultant	UNDP			
	16:00	Submission of revised Draft Report to UNDP	Dr Krishna Pal			
24.02.2012	8:00	Distribution of draft Report to Stakeholders	.UNDP			
	10:00 12:00	Stakeholders' meeting & Presentation of Draft Report (GEF to attend)	UNDP and Dr Krishna Pal			
27.02.2012 28.02.2012	7:30 16:00	Summary of Finding of Presentation	Dr Krishna Pal			
29.02.2012		Debriefing Meeting with Mr. Lare Sisay, RR, a.i. Modification in Draft report	Dr Krishna Pal			
01.03.2012		Departure	Dr. Krishna Pal			
07.03.2012	14:00	Deadline of written comments from stakeholders to Dr. Krishna Pal	Stakeholders			
08.03.2012	16:00	Submission of Final Report to UNDP	Dr. Krishna Pal			

LIST OF PEOPLE INTERVIEWED AND CONTACTED

UNITED NATIONS DEVELOPMENT PROGRAMME (UNDP)

Mr Lara Sisay, Resident Representative (3633706; lara.sisay@undp.org)
Mr Rebonyebatho Moaneng, Assistant Resident Representative (3633709; r.moaneng@undp.org)
Ms Ndapiwa Semausu, Human Resources Analyst (3633718; ndapiwa.semausu@undp.org)
Ms Phemo Kgomotso, Project Programmer, (3633711; phemo.kgomotso@undp.org)
Ms Lelanani Toteng, Programme Assistant (3633721; lelanani.toteng@undp.org)

MINISTRY OF FINANCE

Mr Boatametse Modukanele, Former NMT Project manager (72386808; bomodukanele@gov.bw)

MINISTRY OF LOCAL GOVERNMENT

Ms Sedibelo Phukula, Ministry of Local Government, (71636256/3658618; sphukula@gov.bw)

MINISTRY OF ENVIRONMENTAL AFFAIRS

Ms Ingrid Otukile, GEF Focal Point, Department of Environmental Affairs, Ministry of Wildlife, Environment and Tourism (3901292, 72408852; iotukile@gov.bw)

DEPARTMENT OF TRANSPORT AND SAFETY

Mr Augur O. Malefho (71391775/ 3905422; amalefho@gov.bw)
Ms Kgalalelo Machola (71424601; kmmachola79@gmail.com)

GABORONE CITY COUNCIL (GCC)

Mr Tumelo Setshogo, City Hall (74178945)
Mr Khumo Manyathelo, Principal Transport Engineer (71643838; manyathelo@hotmail.com)

UNIVERSITY OF BOTSWANA AND DEPARTMENT OF METEOROLOGY

Mr David Lesolle, (72857121 David.lesolle@mopipi.ub.bw)

DEPARTMENT OF WASTE MANAGEMENT AND POLLUTION CONTROL

Mr Emmanuel Banda, Chief Sanitation Engineer (3902053, ebanda@gov.bw)

INDIVIDUALS WORKED ON PROJECT OR SIMILAR PROJECTS

Mr Jabu Tshaakane, Former NMT Project F&A (71344277; jmothusi6@yahoo.co.uk)
Mr Leonard Dikobe, Former UNDP Environmental Specialist (71810710; leonarddikobe@yahoo.com)
Mr Jeremiah Kokwane, Jonmol Cycle Services, (71847905; gerrkokwane@yahoo.com)

MVA FUND

Mr Sesolo Robers, Financial Accountant (3188533, srobert@mvafund.bw)

SUMMARY OF FIELD VISITS

Field visits were made to have a feel of the works going on either as a part of this project or other project. The field visits were conducted along with Principal Transport Engineer, Transport Economist and urban planner of Gaborone City Council on 12th and 14th February 2012 at Gaborone. The walkways and cycle track have been developed on the following principle:

- **Adjoining Cycle Track:** It fits in with the road carriage way and adjacent to and on the same level of road with it. These are painted with cycle mark and available on outer / left side of the road. The width vary from 75 cm to 150 cm. The cyclist crosses the red light on the crossing along with the vehicles. These are hazardous and are mostly available in city area on old roads,
- **Raised Cycle Track:** These are adjoining the carriageway but at higher level. At crossings the track comes at the level of road in old roads while in new roads the crossing cross-sections are so designed that cyclist remains at the same level. The road level of vehicle is elevated to the level of cycle path, this also reduces the speed of vehicle. These roads and cycle / walk way are available in innovation hub.
- **Free Cycle Track:** These cycle tracks are separated by a verge and may be at the same level as the carriageway or at different level. These can be seen in outskirts of Gaborone or near the school.

NMT tracks has been designed in the project but not implemented. However, about 20% of the roads have cycle tracks. The newly designed and implemented tracks are technically designed and are implemented with good quality control.

LIST OF DOCUMENTS REVIEWED / CONSULTED

- i) Project Document on Incorporating NMT Facilities in the city of Gaborone, Botswana
- ii) Project Inception Report
- iii) Minutes of Project Steering Committee Quarterly Meetings 2007 – 2009.
- iv) Quarterly Project Progress Reports 2007 – 2009
- v) Quarterly Monitoring and Reporting Log 2007 – 2009
- vi) Report on Best Practices in Non-Motorised Transport Planning, Implementation and Maintenance, June 2007.
- vii) Communication Strategy for NMT Project
- viii) Project Implementation Review (PIR) reports 2007, 2008 and 2009
- viii) Amendment of Road Traffic (Signs) Regulations – 2008 (Schedules and Regulations)- Roads Department, Ministry of Works and Transport
- ix) Vision 2016 – Towards Prosperity for All (Government of Botswana)
- x) Publicity Material on Awareness for increasing intake of NMT
- xi) Gaborone City Development Plan, Revised in 2009 for (1997-2021)
- xii) Road Crash and Claims Report, Motor Vehicles Accident Fund, December 2009
- xiii) NMT Infrastructure Designs, Drawings and Tender Documents, June 2010
- xiv) Review of Road Traffic Act, 1975
- xv) Wena, volume 13 No22, 2006/7
- xvi) Publicity Material: leaflet, newsletters, pamphlets, manual, stickers, spare wheel cover, jackets and reflectors
- xvii) Planned NMT route Map
- xviii) UNDP Monitoring and Evaluation Frameworks
- xix) GEF Guidelines for rating of project progress, objectives and implementation.
- xx) Cycling: Non-Motorized Transport Project, Gaborone City Council (2007 & 2008)

QUESTIONNAIRE THAT GUIDED THE DISCUSSIONS WITH STAKEHOLDERS

1 Project Proposal:

- i) Is the project proposal objectives, outputs, activities well formulated in terms of?
 - Addressing the real problems and issues,
 - Concept and logics,
 - Identification of project routes, and subsequent linkages,
 - Adequate funds for implementation of NMT intervention,
 - Adequate knowhow and guidelines for design and implementation of the project,
 - Type of benefits, institutional development and Linkages with national development priority.
- ii) Is the Project design and its products of good quality?
 - Project formulation report, project operational plans and budget provisions.
- iii) Were the stakeholders involved at the planning stage? If not why?
- iv) Is the project relevant to the national socio-economic development priorities? Is it integrated with national strategies (eg poverty reduction strategy) and Pollution reduction strategy?
- v) Was this project part of the city's project development plans or it was outside the plans?
- vi) Are the project's objectives still valid and relevant? Will they result in value addition if they are achieved?
- vii) To what extent does the country's *policy environment* remain conducive to achieve results, including policy impact and replication of the lessons being learnt from project implementation?

2 Results achievement

- i) Is the project made satisfactory progress in timely achievement of project outputs, and related delivery of inputs and activities? If not why?
- ii) In your opinion whether the NMT project has contributed to the reduction of transport based GHG emissions,
- iii) Has the improved policy legal and institutional framework for NMT contributed for enabling environment for improved quality of life, reducing traffic congestion and accidents in the city?

- iv) Is the project effectively addressed capacity constraints at the local level? Is the capacity development plan effective and likely to lead to sustained capacity improvements in the long-term?
- v) Is the Government is likely to replicate the approach and project?
- vi) Are the procurement strategies and practices adopted appropriate and cost effective?
- vii) Is the NMT infrastructure appropriately designed and planned based on demand, technical considerations, and construction standards of good quality?
- viii) Are adequate resources, capacity and systems in place for operations and maintenance of infrastructure provided?
- ix) Is the role of stakeholder participation in the various phases of project cycle namely planning, design, operations and maintenance appropriate and well functioning?

3 Project implementation and performance

- i) Has NMT produced the planned results in terms of:
 - Training for stakeholders (government officials, technicians, entrepreneurs)
 - Increase uptake of NMT among users and other stakeholders through dissemination of information on NMT, promotion of networking of stakeholders
 - Facilitation of an enabling policy and legal framework for NMT
 - Breaking cultural barrier to greater use of NMT modes of transport, particularly use of bicycles
- ii) Was the management arrangements for the programme adequate and appropriate in terms of staff capacity and resources appropriate and sufficient for successful implementation of the project?
- iii) Regarding financial systems any bottlenecks in the system of financial disbursement between donors, Ministry of Local Government, GCC and PMU.
- iv) Regarding M&E, does the project monitoring system include development of baseline on regular interval, linked to indicators, process, output and outcome level performance?
- v) In your opinion, can you say that the project has been managed well, in terms of achieving outputs in relation to inputs, costs and time?
- vi) Was the project's institutional and implementation arrangements suitable for the successful achievement of the project's objectives or are there any institutional obstacles in implementation or operations of the project,

4 Technical Assistance

- i) Was the technical assistance from UNDP appropriate, adequate and timely to support the project in achieving its objectives?

5 Project impacts

- i) How effective is the project in:
 - Institutional and capacity development, Contribution to GHG reduction and other targeted conservation concerns?
 - Promoting business enterprise and supporting services for NMT?
 - Increase of financing availability and mechanisms on NMT facilities?
- ii) What has been the NMT contribution to the development of enabling policy and regulatory frameworks for GHG-emission reduction initiatives in the country?

6 Sustainability

- i) Are the activities and impacts likely to continue after external support is terminated?
- ii) Is the project getting the required support and acceptance from stakeholders?
- iii) Is the project operating at a sufficiently large scale to bring about desired impacts? What strategies need to be put in place to help the sustainability of the Project? Which aspects of the project are likely to be replicated elsewhere?

7 Lessons and Recommendations

Communicate lesson learned and Recommendations on issues and activities for the replication of project in the country

ETHICS STATEMENT FOR INDEPENDENT EVALUATOR

This Evaluation is guided by, and has applied, the following principles:

Independence The Evaluator is independent and has not been engaged in the Project activities, nor was he responsible in the past for the design, implementation or supervision of the project.

Impartiality The Evaluator endeavoured to provide a comprehensive and balanced presentation of strengths and weaknesses of the project. The evaluation process has been impartial in all stages and taken into account all the views received from stakeholders.

Transparency The Evaluator conveyed in as open a manner as possible the purpose of the evaluation, the criteria applied and the intended use of the findings. This evaluation report aims to provide transparent information on its sources, methodologies and approach.

Disclosure This report serves as a mechanism through which the findings and lessons identified in the evaluation are disseminated to policymakers, operational staff, beneficiaries, the general public and other stakeholders.

Ethical The Evaluator has respected the right of institutions and individuals to provide information in confidence and the sources of specific information and opinions in this report are not disclosed except where necessary and then only after confirmation with the consultee.

Competencies and Capacities The credentials of the Evaluator in terms of his expertise, seniority and experience as required by the terms of reference are provided in an annex; and the methodology for the assessment of results and performance is described.

Credibility This evaluation has been based on data and observations which are considered reliable and dependable with reference to the quality of instruments and procedures and analysis used to collect and interpret information.

Utility The Evaluator strived to be as well-informed as possible and this ensuing report is considered as relevant, timely and as concise as possible. In an attempt to be of maximum benefit to stakeholders, the report presents in a complete and balanced way the evidence, findings and issues, conclusions and recommendations.

Signature: Dr Krishna Pal

Date: 21th February 2012

ANNEXURE-9

TERMINAL EVALUATION TICKBOX

EVALUATION ASSESSMENT TICK BOX

ASPECT	YES	NO	QUALITY COMMENT Quality/all elements
Table of Contents	✓		
Acronyms	✓		
Executive Summary	✓		
Introduction	✓		
Purpose	✓		
Ethics			
Key issues/evaluation questions	✓		
Structure of evaluation	✓		
Background of project & Development context. (What the project seeks to address, start and duration , immediate and development objectives, main stakeholders, results expected).	✓		
Methodology of evaluation	✓		
Findings			
Rating of progress towards objective/outcomes (rating)	✓		
Progress on Project Implementation (rating)	✓		
(i)Project formulation, Overall project strategy & Design, Changes to Project Strategy during inception, Review of Project Strategy indicators and targets, Country ownership/Drivenness & participation during design, Relevance	✓		
(ii)Implementation Approach	✓		
(iii) Use of logframe	✓		
(iv) M&E	✓		
(v) Technology, use of		✓	
(vi) Technical capacity.	✓		
(vii) Operational relations.	✓		
(viii) Stakeholder participation.	✓		
(ix) Institutional Arrangements	✓		
(x) Generation & dissemination of information & lessons	✓		
(xi) Linkages with other	✓		

ASPECT	YES	NO	QUALITY COMMENT Quality/all elements
programmes/projects			
Country ownership	✓		
Project methodology	✓		
Financial management & Co-financing	✓		
UNDP contribution	✓		
Risks management	✓		
Partnerships	✓		
Replicability	✓		
Summary ratings table	✓		
Sustainability	✓		
Communications	✓		
Conclusions			
Recommendations	✓		
Lessons Learnt	✓		
Appendices			
TOR	✓		
Itinerary	✓		
List of people consulted	✓		
Summary of field visits	✓		
Documents reviewed.	✓		
Questionnaire used and summary of results	✓		
Evaluation consultant agreement form		✓	

ANNEXURE-10**MEETING ON REVIEW OF DRAFT REPORT ON
THE TERMINAL EVALUATION ON NON-MOTORIZED TRANSPORT FACILITIES
IN GABORONE CITY****VENUE: UN CONFERENCE ROOM, THIRD FLOOR****DATE : 24th February 2012****TIME: 10:00-12:00**

S.No	Name	Office / Designation	Telephone Number	E.Mail
1	Mr Rogers Dhliwayo	Economic Advisor, UNDP	3633716	Rogers.dhliwayo.@undp.org
2	Ms Phemo Kgomotso	Environmental Analyst, UNDP	3633711	phemo.kgomotso@undp.org
3	Ms Lelanani Toteng,	Programme's Assistant, UNDP	3633721	lelanani.toteng@undp.org
4	Mr Boat Modukane	Former NMT Project manager	72386808	bomodukanele@gov.bw
5	S.Marihtshi	F&A Associate, UNDP-GOV-DEA	71716235	smarihtshi@gov.bw
6	Mr Tumelo Setshogo	Economic planner, GCC, City Hall	3657541	setshogo@hotmail.com
7	Mr Khumo Manyathelo,	GCC, Principal Transport Engineer	3908957	manyathelo@hotmail.com
8	Mr A Modisenyane	GCC, City Hall	3908951	apollmod@yahoo.com.au
9	Mr Jeremiah Kokwane	Jonmol Cycle Services,	71847905	gerrkokwane@yahoo.com
10	Mr Lucas Black	UNDP / GEF	0027-12-3548132	lucas.black@undp.org
11	Mr Eddy Russell	UNDP / GEF		eddy.russell@undp.org

ANNEXURE-11

VEHICLES IN BOTSWANA AND GABORONE^{31, 32}

YEAR	BOTSWANA										GABORONE	
	Cars	LDVs	Trucks	Buses	Motor Cycle	Tractors	Trailers	Tanker/Horses	Others	Total	Total	% of Country
1999	44,452	60,227	7,706	5,262	914	3,648	6,822	944	1,821	131,796	-	-
2000	48,223	63,235	7,970	5,989	987	2,688	7,187	1,102	1,941	139,322	51,053	36.64
2001	53,733	67,306	8,679	6,458	1,027	3,165	7,556	571	2,079	150,574	55,721	37.00
2002	59,791	72,134	8,701	6,903	1,041	3,133	7,963	998	2,143	162,807	59,906	36.80
2003	65,479	75,355	9,394	7,407	990	2,957	8,808	1,219	2,219	173,828	63,680	36.63
2004	74,465	79,122	9,942	8,749	1,027	3,068	9,336	1,286	2,270	189,265	70,354	37.17
2005	83,039	79,812	10,349	9,490	943	2,913	9,777	1,506	2,335	200,064	78,280	39.12
2006	91,874	80,743	11,270	9,660	947	2,816	10,209	1,600	2,413	211,532	83,386	39.42
2007	104,926	82,916	12,819	10,019	967	2,835	11,297	1,831	2,453	230,063	89,295	38.81
2008	120,783	88,547	15,324	10,889	1,109	3,371	12,296	1,892	2,287	256,498	97,560	38.04
2009	-	-	-	-	-	-	-	-	-	286,451	105,140	36.70
2010	-	-	-	-	-	-	-	-	-	318,400	111,060	34.88

ANNEXURE-12

ROAD FATALITIES IN GABORONE AND BOTSWANA³³

City/Country	2006	2007	2008	2009	2010
Gaborone	94	96	74	94	72
Botswana	429	497	455	475	397

³¹ Department of Road Transport and Safety, Central Statistics office, Gaborone, Botswana; Bus also includes minibus also.

³² MVA Fund Learn on us, Gaborone, Botswana

³³ Road Fatalities in District, Botswana Police and MVA Fund 2010.

SAVING IN GHGs BY BICYCLE SHARING SCHEME

Project Lifetime (Numbers of Years)	10					
Average Bike Trip Length (Km)	5					
	Value	Year of Attainment	Saving in Emissions	CO2	PM	Nox
Starting Number of Cycle in the System	1,525	1	Total Emissions Savings (tons/project lifetime)	25,971	8.41	117.94
Number of cycle on completion of Project	25,000	10	Average Yearly Emissions Savings (tons/year)	2,597	0.84	11.79
Number of trips / cycle/ day at starting year of Project	2	1	kg saved/bike/year	172	0.06	0.78
Number of trips / cycle/ day at final year of Project	5	10				
Trips Avoided	%	Average Speed (km/hr)	Occupancy	Emission Factor (gm/passenger/km)		
				CO ₂	PM	NO _x
Pedestrian	31	3	-	-	-	-
Bus	43	30	41.34	21.58	0.02	0.19
Taxi	2	30	2.38	90.12	0.01	0.24
Car	20	30	2.38	90.12	0.01	0.24
Private Cycle	4	10	-	-	-	-
Two Wheelers	0	20	1.26	23.57	0.03	0.27
Others	0	-	1.26	66.46	0.02	0.32
Total	100	-				