



GLOBAL ENVIRONMENT FACILITY
INVESTING IN OUR PLANET

Naoko Ishii
CEO and Chairperson

May 12, 2015

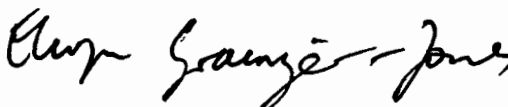
Dear Council Member:

UNDP as the Implementing Agency for the project entitled: *Morocco: Mainstreaming Climate Change in the National Logistics Strategy and Roll-Out of Integrated Logistics Platforms*, has submitted the attached proposed project document for CEO endorsement prior to final approval of the project document in accordance with UNDP procedures.

The Secretariat has reviewed the project document. It is consistent with the proposal approved by Council in November 2013 and the proposed project remains consistent with the Instrument and GEF policies and procedures. The attached explanation prepared by UNDP satisfactorily details how Council's comments and those of the STAP have been addressed. I am, therefore, endorsing the project document.

We have today posted the proposed project document on the GEF website at www.TheGEF.org. If you do not have access to the Web, you may request the local field office of UNDP or the World Bank to download the document for you. Alternatively, you may request a copy of the document from the Secretariat. If you make such a request, please confirm for us your current mailing address.

Sincerely,


Naoko Ishii

Attachment: GEFSEC Project Review Document
Copy to: Country Operational Focal Point, GEF Agencies, STAP, Trustee



REQUEST FOR CEO APPROVAL

PROJECT TYPE: Full-sized Project

TYPE OF TRUST FUND: GEF Trust Fund

For more information about GEF, visit TheGEF.org

PART I: PROJECT INFORMATION

Project Title: Mainstreaming climate change in the National Logistics Strategy and Roll-Out of Integrated Logistics Platforms			
Country(ies):	Morocco	GEF Project ID: ¹	5358
GEF Agency(ies):	UNDP (select) (select)	GEF Agency Project ID:	5181
Other Executing Partner(s):	Ministry of Equipment, Transport and Logistics (METL)	Submission Date:	April 20, 2015
		Resubmission Date:	April 30, 2015
GEF Focal Area (s):	Climate Change	Project Duration(Months)	48
Name of Parent Program (if applicable):		Project Agency Fee (\$):	216,071
<ul style="list-style-type: none"> ➤ For SFM/REDD+ <input type="checkbox"/> ➤ For SGP <input type="checkbox"/> ➤ For PPP <input type="checkbox"/> 			

A. FOCAL AREA STRATEGY FRAMEWORK²

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Grant Amount (\$)	Cofinancing (\$)
CCM-3	Investment in renewable energy technologies increased	Renewable energy capacity installed	GEF TF	459,396	2,727,532
CCM-4	Favorable policies and measures created for low carbon development in the freight transport sector	Low carbon freight transport policies and measures in place	GEF TF	1,815,033	118,555,000
Total project costs				2,274,429	121,282,532

B. PROJECT FRAMEWORK

Project Objective: To operationalize the mitigation potential of the National Logistics Strategy through facilitation of the Government's roll-out of integrated logistics platforms in a NAMA framework.

Project Component	Grant Type	Expected Outcomes	Expected Outputs	Trust Fund	Grant Amount (\$)	Confirmed Cofinancing (\$)
1. Strengthened national enabling environment for green logistics	TA	Institutions, public policies and regulations are enhanced regarding low-carbon development of the Moroccan transport sector	1.1 Institutional strengthening and capacity development for the Ministry of Equipment, Transport and Logistics and the newly-established Moroccan Agency for Logistics Development (AMDL) 1.2 Climate change mitigation dimension of the National Logistics Strategy	GEF TF	650,000	990,000

¹ Project ID number will be assigned by GEFSEC.

² Refer to the [Focal Area Results Framework and LDCF/SCCF Framework](#) when completing Table A.

			<p>specified and operationalized for the development of a low-carbon regulatory framework for the logistics sector</p> <p>1.3 Country-specific road fleet profile and emission factors developed for Moroccan transport modes (road and rail), and used for scenario development</p> <p>1.4 An interdepartmental committee is set up to promote emission mitigation policies in the transport sector</p> <p>1.5 Implementation of knowledge-sharing and communication activities related to transport GHG mitigation solutions</p>			
2. Comprehensive mitigation programme for Greater Casablanca integrated logistics platform developed as a NAMA	TA	The network of Multi-flux Logistics Zones of Greater Casablanca is developed as a nationally appropriate mitigation action ("NAMA") model project as part of the National Logistics Strategy	<p>2.1. GHG inventory and MRV systems designed and implemented for NAMA purposes</p> <p>2.2 NAMA designed for immediate implementation of 5 priority components (eco-driving training, awareness of operators, modal shift, compliance of vehicles with Euro 4 and a 1.5 MW rooftop PV installation).</p> <p>2.3 Standardized baseline for transport modal switch (from road to rail) developed as a mitigation tool to promote replication</p> <p>2.4. Replication strategy for 17 additional low-carbon Logistics Regional Plans developed, building on the Greater Casablanca model</p> <p>2.5 Innovative 'nested NAMA' framework developed to couple the Greater Casablanca Logistics Regional</p>	GEF TF	640,000	103,200,000

			Plan NAMA to a broader Zenata Eco-city NAMA ('NAMA Ville'), initiative so as to promote mitigation synergies in a consistent and robust GHG inventory and MRV framework			
3. Emission reductions implemented in a NAMA framework through targeted investments	INV	The mitigation measure ("NAMA") is made operational by upgrade investments of the logistics zones provided for by the logistical regional plan of Greater Casablanca	3.1 Partial GEF investment financing for 3 specified mitigation interventions in the Logistics Regional Plan of Greater Casablanca (eco-driving training, awareness of operators, and a 1.5 MW rooftop PV installation), along with a support to the compliance of vehicles with the Euro 4 standard	GEF TF	876,123	16,060,782
Subtotal					2,166,123	120,250,782
Project management Cost (PMC) ³				GEF TF	108,306	1,031,750
Total project costs					2,274,429	121,282,532

C. SOURCES OF CONFIRMED COFINANCING FOR THE PROJECT BY SOURCE AND BY NAME (\$)

Please include letters confirming cofinancing for the project with this form

Sources of Co-financing	Name of Co-financier (source)	Type of Cofinancing	Cofinancing Amount (\$)
GEF Agency	UNDP	Cash	200,000
National Government	METL	Cash	7,955,000
		In-kind	100,000
National Government	AMD L	Cash	3,300,000
National Government	ONCF	Cash	6,800,000
National Government	CDG	Cash	94,300,000
National Government	SNTL	Cash	8,427,532
National Government	SNTL	In-kind	200,000
Total Co-financing			121,282,532

D. TRUST FUND RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY¹

GEF Agency	Type of Trust Fund	Focal Area	Country Name/ Global	(in \$)		
				Grant Amount	Agency Fee	Total

³ PMC should be charged proportionately to focal areas based on focal area project grant amount in Table D below.

				(a)	(b) ²	c=a+b
UNDP	GEF TF	Climate Change	Morocco	2,274,429	216,071	2,490,500
Total Grant Resources				2,274,429	216,071	2,490,500

¹ In case of a single focal area, single country, single GEF Agency project, and single trust fund project, no need to provide information for this table. PMC amount from Table B should be included proportionately to the focal area amount in this table.

² Indicate fees related to this project.

F. CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:

Component	Grant Amount (\$)	Cofinancing (\$)	Project Total (\$)
International Consultants	370,000	7,276,951	7,646,951
National/Local Consultants	385,000	4,851,301	5,236,301

G. DOES THE PROJECT INCLUDE A “NON-GRANT” INSTRUMENT? No

(If non-grant instruments are used, provide in Annex D an indicative calendar of expected reflows to your Agency and to the GEF/LDCF/SCCF/NPIF Trust Fund).

PART II: PROJECT JUSTIFICATION

A. DESCRIBE ANY CHANGES IN ALIGNMENT WITH THE PROJECT DESIGN OF THE ORIGINAL PIF⁴

A.1 National strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAS, NBSAPs, national communications, TNAs, NCSA, NIPs, PRSPs, NPFE, Biennial Update Reports, etc.

No changes

A.2. GEF focal area and/or fund(s) strategies, eligibility criteria and priorities.

No changes have been made in this regard from the PIF.

A.3 The GEF Agency's comparative advantage:

The GEF Agency's comparative advantage remains as detailed in the PIF. Over the period of the PPG process, UNDP has further strengthened its ties and contacts with the relevant stakeholders.

A.4. The baseline project and the problem that it seeks to address:

The PIF provided a detailed description of the baseline situation and the problems to be addressed. These descriptions of the baseline projects largely remain valid. The project baseline is similar to the PIF (as regards the scope of activities) but is now more detailed and significantly expanded. Sections 1.1 and 1.2 of the Project Document provide a comprehensive review of the baseline situation in the sector and in respect of the project. No significant changes to that baseline situation have occurred during the PPG process.

Table 1 below summarizes the changes in co-finance from the PIF stage to CEO Endorsement Request. Additional detail was reflected in the actual co-financing commitments, as can be seen in particular with the direct involvement and commitment of ONCF and SNTL. Most noteworthy has been the inclusion in the co-financing entities of the major contribution of the “Caisse de Dépôt et de Gestion” (CDG). CDG is a financial institution originally created as a public institution in 1959. Its primary mandate is to drive investment in strategic economic sectors. Through its role in the development of the new eco-city of Zenata through the “Société d'Aménagement de Zenata” (SAZ), its subsidiary, CDG will play a key role in this project, particularly in regards to the coupling of the Greater Casablanca NAMA to the

⁴ For questions A.1 –A.7 in Part II, if there are no changes since PIF and if not specifically requested in the review sheet at PIF stage, then no need to respond, please enter “NA” after the respective question.

new eco-city of Zenata NAMA. CDG will also be expected to play a leading role in the future development of logistics platforms in other parts of the country. The greater involvement of CDG in the project and its willingness to commit significant funds in relation to the replicability of the project across Morocco is the most significant (positive) change in relation to the PIF and testifies as to the strategic importance of this project.

Additional changes in co-finance stem from the clarification of the different commitments from operators in the Greater Casablanca logistics platform, namely SNTL and ONCF, the main logistics operators in the area. The involvement of these partners is critical as they will be the longer-term operators of the platforms and these will become central to their operations.

Table 1 – Material changes in co-finance from PIF to CEO Endorsement Request (by donor/funding source)

Source of Co-Financing	PIF Amount (US \$)	Actual Amount at CEO ER (US \$)	Description
METL	600,000	8,055,000	This major increase results from the contribution of METL to the development of the northern stretch to link road RR 332 to the Zenata logistics area, within the framework of a partnership agreement signed on 13 th of May 2014 by various stakeholders. The overall budget of this road project is estimated to US \$70,000,000 and the contribution of METL is equivalent to US \$7,955,000. They will also provide an additional 100K in in-kind support for the project.
AMDLE	10,000,000	3,300,000	AMDLE reviewed its co-financing during the PPG phase according to their financial planning and on-going projects. The reviewed (confirmed) co-financing corresponds to budgets allocated for conducting feasibility studies for the structuring of logistic zones in various regions of Morocco.
MEMEE	100,000	-	This co-financing was not included given that activities originally considered with the promotion of the National Climate Change Committee were instead oriented towards the step-up of a transport sector-specific interdepartmental committee to promote emission mitigation policies.
UNDP	350,000	200,000	UNDP had to decrease its co-finance due to new budget constraints.
Greater Casablanca logistics platforms stakeholders (SNTL, ONCF, FNTR, CDG, Casablanca Urban Agency)	6,500,000	-	This initial amount increased in total and is now reflected now in the different specific contributions outlined below.
ONCF	-	6,800,000	ONCF will contribute to the development of cross-modal structures at different logistics platforms and in the development of the standardized baseline on modal shift. The cross-modal structures concerns the development of rail transport of containers along the connections Casablanca-Marrakech/ Casablanca-Tangier/ Casablanca-Fes with Dry Ports in Marrakech, Tangier and Fes acting as integrated bimodal (rail/road) service terminals.

Source of Co-Financing	PIF Amount (US \$)	Actual Amount at CEO ER (US \$)	Description
SNTL	-	8,627,532	SNTL will contribute co-financing for the 1.5 MW PV panels at its Zenata installations as well as contributing to the development of the eco-driving activities through its network of operators.
CDG	-	94,300,000	<p>This co-financing corresponds to the capital expenditure budget planned for the Zenata eco-city mobility project development for the period 2015-2018. A budget equivalent to 7.7 million USD has been allocated for the period 2011-2014.</p> <p>The mobility project at the new Zenata eco-city seeks to reach the strategic objective of the Greater Casablanca Urban Travel Plan where the modal shares of vehicles should not exceed 30%. Accordingly, the project seeks the development of various interconnected transport modes and infrastructure: tramway, regional rapid transit, rail, stations, connecting roads and highways, etc.</p>
Total	17,550,000	121,282,532	Overall increase of 591% from PIF to CEO ER

In summary, overall the baseline co-finance investments for the project have increased significantly from the PIF stage from \$ **17,550,000** at the PIF stage to \$ **121,282,532**, **an overall increase of 591%**. This currently represents a co-financing ratio of over **53:1** (co-finance to the GEF grant).

This increase in co-finance is reflective of the envisioned government investment that was mentioned in the PIF to support the implementation of then recently developed (2013) National Logistics Strategy but could not be confirmed at that time (the PIF correctly predicted the government co-finance for the underlying project would be “likely significantly increased during the PPG phase”⁵). At the time of the PIF (2013) a new agency under the supervision of the METL, the Moroccan Agency for Logistics Development (AMD), had just been established to implement the Strategy; that agency is now fully operationalized and has assumed the mandate as the State's chief monitor and coordinator of the National Logistics Strategy (which is no longer just a document but a series of investments). The investments in the Multi-flux Logistics Zones of Greater Casablanca are now confirmed as the first of what are expected to be 18 regional plans to be developed and implemented under a nationally appropriate mitigation action ("NAMA") model for the National Logistics Strategy. The MFLZ of Casablanca is the largest planned zone in the national MFLZ program, with a surface area of 323 ha. The increase in co-finance for Component #2 reflect a realization of the Government counterparts' stated commitment to fund the key underlying infrastructure activities related to the GEF project (including the eco-mobility project for the new city of Zenata) and begin the national transition towards the concept of low-carbon development for the freight transport sector. This increased co-finance is a massive boost to the envisioned transformative impact and potential for scale-up to be supported by the GEF project; with this funding now in place for the underlying investments (leveraged by GEF support) the project's near term objective of “operationalizing” the mitigation potential of the Logistics Strategy is now almost assured while the more medium-term GEF aim of supporting the replication potential of this approach across the entire country has now been significantly strengthened. For both these reasons the higher level of co-finance is a major positive influence on the realization of the direct and indirect emission reduction benefits targeted by the project.

⁵ See footnote 5 of the PIF in regards to envisioned Government co-finance

A. 5. Incremental /Additional cost reasoning: describe the incremental (GEF Trust Fund/NPIF) or additional (LDCF/SCCF) activities requested for GEF/LDCF/SCCF/NPIF financing and the associated global environmental benefits (GEF Trust Fund) or associated adaptation benefits (LDCF/SCCF) to be delivered by the project:

The incremental reasoning relating to the baseline projects is detailed in Section 2.6 of the Project Document. In brief, the baseline projects are expected to be implemented only partially in the absence of the GEF-financed project and with known deficiencies. The principal deficiencies have been identified as the lack of a legal and institutional framework to underpin the transition to a low carbon freight transport system; the lack of substantial incentives for both behavioral change (e.g. eco-driving) and equipment turnover; as well as significant fragmentation of the road sector and lack of awareness of operators, especially in the informal sector.

The project is structured in three components. The first component aims to strengthen institutions and public policies in relation to low carbon development. This outcome focuses on the main barriers to the national development of low-carbon freight transport. These barriers include improving the integration of the concept of low carbon cargo in the implementation of the National Logistics Strategy. Although the institutional framework has been strengthened by the creation of the AMDL and OMCL, the lack of specific policy instruments to the strategy, the lack of financial resources, and lack of expertise in developing low carbon, among others, limits the expected impact related to GHG reductions through the implementation of the axes of the logistics strategy.

The main changes from the PIF stage within this component has been the increased focus on the development of a systematic approach to data collection and to emission factor calculations versus a more ad hoc statistical analysis of road surveys, as well as the identified need for a set of guidelines on NAMA development given the dispersed nature of current efforts. Also included in the design is much closer cooperation between these activities and those related to the climate change policy of the Moroccan government in the context of the preparation of crucial reporting documents such as the Biennial Update Reports and the National Communication.

Outcome 2 focuses on the development of the Greater Casablanca Multi-Flux Logistics Platforms as a model NAMA embedded in the National Logistics Platforms. The first output to be achieved as part of this outcome is the creation of the GHG inventory and its associated MRV system, designed and implemented for NAMA purposes. To achieve this, several activities must take place, namely the creation of a benchmark based on international NAMA experiences in the urban freight sector and the design and implementation of GHG emissions inventories and MRV systems, etc. This benchmark will lead to the development of the specific terms of reference for the preparation of the GC NAMA design document (NAMA-DD).

This NAMA and associated emissions reductions will be designed from the immediate implementation of 5 priority components (that are part of the Logistics Regional Plan of GC). These are: 1) eco-driving training; 2) awareness of operators on a set of measures aimed at reducing fuel consumption; 3) modal shift (road to rail); 4) the installation of a PV system with a 1.5 MW capacity; and 5) support for the renewal of the fleet, including making operational the introduction of the Euro 4 standard now mandatory in Morocco since January 2015 on all locally assembled vehicles. Allocated GEF investment in Outcome 3 will ensure the implementation of these activities.

Compared to the PIF stage a much more detailed program in relation to the Training of Trainers (ToT) component on eco-driving has been developed. This initiative will be based on national ongoing eco-driving initiatives, including those of the SNTL, ADEREE and Office of Vocational Training and Employment Promotion (OFPPT) and also from expertise of European countries that have implemented similar programs. The beneficiaries will be trainers of the OFPPT providing continuing education for obtaining category C of driving license related to trucks dedicated to road freight. The project targets the training of 100 trainers in the field. In this context, the identification of a list of beneficiary trainers will be the first activity to be undertaken followed by the definition of the terms of the training of trainers in eco-driving with the support of SNTL, ADEREE and OFPPT. Considering the continuous training program being implemented by OFPPT in regard to professional driving, the 100 trainers that will follow the specific eco-driving ToT would likely be selected among the 160 trainers of this on-going program.

Other changes from the PIF stage, mainly from Outcome 3, concern the removal of the mandatory vehicle testing and energy efficiency activities. For vehicle testing, the investigations conducted during the PPG phase indicated that a mandatory vehicle testing scheme already exists in Morocco across the established network of Centers of Vehicle Testing. Moreover, the introduction of a new set of mandatory testing of vehicles at the logistics platforms was considered by some stakeholders (METL and AMDL) as a potentially limiting factor of the attractiveness of the future logistics zones. Instead, improvements of vehicle maintenance and testing were considered as more practical for support via outreach activities. Regarding the energy efficiency activities, the proposed PIF activities (i.e., energy audits of the GC logistics buildings and establishment of a green buildings labelling scheme) were not included since these activities are not closely related to the transport sector and moreover are already under development by the national energy efficiency strategy and other projects. All of these modifications to the project design were done after extensive consultation with the key stakeholders, including the FT-CGEM, METL, AMDL and ADEREE.

Outcome 3 focuses on the operationalization of some of the components of the proposed NAMA. These include in particular:

- Eco-driving: the GEF project will contribute to the implementation of an eco-driving training program for trainers providing continuing education in the OFPPT for obtaining category C of driving licenses, related to trucks dedicated to road freight. The project aims to provide training on eco-driving to 100 trainers. The GEF support will take the form of a partial financing of the costs dedicated to training.
- Installation of a 1.5 MW PV plant: Following completion of SNTL's technical and economic feasibility study on the implementation of roof-top photovoltaic panels with a capacity of 1.5 MW, the GEF project will support SNTL by co-funding the purchase of the materials needed for installation⁶. In the same context, the project and ADEREE will provide technical assistance to the SNTL on connection of the system to the electrical grid and net-metering.
- Awareness of operators: a broad education campaign will be implemented for road freight operators registered at the METL Registry to encourage them to implement a set of measures including: eco-driving; acquisition of new vehicles benefiting from the measures initiated by the State to promote the Euro 4 standard; and regular maintenance and testing of vehicles. The outreach effort will provide the necessary information to the operators on the benefits of these measures, as well their impact on the energy bill and fuel savings. It should be noted that the promotion of these measures is in agreement with the study launched by the METL concerning the calculation and updating of reference costs of road freight transport. Awareness activities will be implemented in partnership with the FT-CGEM targeting the GC region and other regions of the Kingdom.

Part of this outcome will also be support for the renewal of the fleet. This refers to support for the initiative started in 2008 by METL, which aimed to improve the efficiency of vehicles through subsidies for drivers of older vehicles to purchase up to half the cost of a new vehicle. The project will provide technical and administrative support to the owners of older freight transport vehicles in order to help them benefit from the fleet renewal scheme that will be designed as part of the policy instruments to be developed in Outcome 1. The recent introduction of Euro IV standard in Morocco has sharpened the need for increased support for fleet renewal.

The comparison of outputs between the PIF and the CEO endorsement request stages are detailed in the table below.

Table 2 - Comparison in Outputs (disaggregated by Component) from PIF to CEO Endorsement Request

Component	Outputs at PIF stage	Outputs at CEO ER	Comments
Outcome 1	1.1 Institutional strengthening and capacity development for the Ministry of Equipment and Transport and the newly-established	1.1 Institutional strengthening and capacity development for the Ministry of Equipment, Transport and Logistics and the newly-	The main change has been the new focus (for reasons already mentioned) on setting up an interdepartmental

	<p>Moroccan Agency for Logistics Development (AMDL)</p> <p>1.2 Climate change mitigation dimension of the National Logistics Strategy specified and operationalized for the development of a low-carbon regulatory framework for the logistics sector</p> <p>1.3 Country-specific road fleet profile and emission factors developed for Moroccan transport modes (road and rail), and used for scenario development</p> <p>1.4 Replication strategy for 17 additional low-carbon logistics platforms developed, building on the Greater Casablanca model</p> <p>1.5 National Climate Change Committee strengthened and its role established as NAMA Focal Point</p> <p>1.6 Implementation of knowledge-sharing and communication activities related to transport GHG mitigation solutions</p>	<p>established Moroccan Agency for Logistics Development (AMDL)</p> <p>1.2 Climate change mitigation dimension of the National Logistics Strategy specified and operationalized for the development of a low-carbon regulatory framework for the logistics sector</p> <p>1.3 Country-specific road fleet profile and emission factors developed for Moroccan transport modes (road and rail), and used for scenario development</p> <p>1.4 An interdepartmental committee is set up to promote emission mitigation policies in the transport sector</p> <p>1.5 Implementation of knowledge-sharing and communication activities related to transport GHG mitigation solutions</p>	<p>committee specific to transport emission policies (Output 1.4) compared to the previous focus on the strengthening of the National Climate Change Committee (previous output 1.5 of the PIF)</p> <p>The replication strategy for the low carbon logistics platforms (previously Output 1.4 in the PIF) has now been moved to Outcome 2 and is included as Output 2.4</p>
Outcome 2	<p>2.1 GHG inventory and MRV systems designed and implemented for NAMA purposes</p> <p>2.2 NAMA designed for immediate implementation of 3 selected components (mandatory road vehicle testing, mandatory eco-driving training, and a 1.5 MW rooftop PV installation) and follow-up implementation of fleet renewal</p> <p>2.3 Standardized baseline for transport modal switch (from road to rail) developed as a mitigation tool to promote replication</p> <p>2.4 Innovative 'nested NAMA' framework developed to couple the Greater Casablanca logistical platform NAMA to a broader New Town urban NAMA ('NAMA Ville') initiative so as to promote</p>	<p>2.1. GHG inventory and MRV systems designed and implemented for NAMA purposes</p> <p>2.2 NAMA designed for immediate implementation of 5 priority components (eco-driving training, awareness of operators, modal shift, compliance of vehicles with Euro 4 and a 1.5 MW rooftop PV installation).</p> <p>2.3 Standardized baseline for transport modal switch (from road to rail) developed as a mitigation tool to promote replication</p> <p>2.4. Replication strategy for 17 additional low-carbon Logistics Regional Plans developed, building on the Greater Casablanca model</p> <p>2.5 Innovative 'nested NAMA' framework developed to couple the Greater Casablanca Logistics</p>	<p>The only changes have been the revision of the priority implementation components for the NAMA design (Output 2.2) and the inclusion of Output 2.4 (originally included in Outcome 1 of the PIF as mentioned above).</p>

	mitigation	Regional Plan NAMA to a broader Zenata Eco-city NAMA ('NAMA Ville'), initiative so as to promote mitigation synergies in a consistent and robust GHG inventory and MRV framework	
Outcome 3	<ul style="list-style-type: none"> Partial GEF investment financing for 3 specified mitigation interventions in the Greater Casablanca logistics platform (mandatory road vehicle testing, mandatory eco-driving training, and a 1.5 MW rooftop PV installation) accompanied by design support for a supplementary mitigation initiative (fleet renewal) 	3.1 Partial GEF investment financing for 3 specified mitigation interventions in the Logistics Regional Plan of Greater Casablanca (eco-driving training, awareness of operators, and a 1.5 MW rooftop PV installation), along with a support to the compliance of vehicles with the Euro 4 standard	No change except the removal of the mandatory vehicle testing and energy efficiency activities (originally outlined in the PIF) and replacement with support for the compliance of vehicles with the Euro 4 standard s

Additional cost reasoning

Of the GEF financing for outcome 1 (US\$ 650,000) – “Institutions, public policies and regulations are enhanced regarding low carbon development of the Moroccan transport sector” - a significant portion will go towards meeting the costs of technical assistance by both international and national consultants engaged in the development of capacity on the legal and technical aspects of both transport regulation and freight inventory. Much of this expertise is not currently available in the country and institutional capacity will benefit from the prescribed consulting work. Morocco has a well-established institutional framework alongside ambitious targets for the development of climate policy. Nevertheless, these targets require better capacity in the fields of sector policy coordination and policy monitoring, in particular in the production of greenhouse emission data.

GEF financing for outcome 2 (US\$640,000) – “The network of Multi-flux Logistics Zones of Greater Casablanca is developed as a nationally appropriate mitigation action ("NAMA") will mostly consist of grants for technical assistance for the development of a set of workshops and related technical work. The development of this NAMA is a significant and innovative contribution from Morocco to the development of transport sector emission reduction policies. There are few initiatives in the logistics field related to GHG emission reductions and some of the outputs of these activities will result in tools that may be immediately replicable in other countries (e.g. standardized baselines).

Outcome 3 – the operationalization of a NAMA through investment upgrades in logistics zone of Greater Casablanca – will be targeted at development of a number of practical low-carbon measures in the context of the logistics platforms, namely the deployment of large-scale rooftop PV, eco-driving training of trainers programme, outreach activities to promote a set of low carbon measures in the road freight sector (e.g., vehicle maintenance, eco-driving, fleet renewal, etc.) along with an assistance programme of fleet renewal to accommodate the adoption of the Euro IV emission

standard in lorries. The development of these activities will lead to considerable environmental benefits beyond the immediate GHG reductions, including fuel savings, improved local air quality and fewer road accidents.

In summary, the activities of the UNDP-implemented, GEF-financed project combine to mobilize and leverage considerable co-financing and enable future investments that would be very difficult to achieve through a less comprehensive programme. The project builds on ambitious but sub-optimal baseline initiatives, augmenting them with GEF funds to provide enabling support and expertise and thereby making the use of GEF funds very cost-effective with regard to the reduction of greenhouse gas emissions.

Global Environmental Benefits

The direct greenhouse gas (GHG) reduction benefits of the project will consist of the combination of the following emission reduction streams

- Eco-driving training for truck drivers associated with the regional logistical plan of Greater Casablanca. The METL and SNTL experiences with eco-driving training produced indicative vehicle emissions reductions of 10%. Based on certain assumptions (i.e., 16,000 vehicles will be driven ecologically annually), emissions reductions are estimated to be approximately **87,321 tCO₂ cumulative total** by the end of the project
- SNTL's 1.5 MW rooftop solar photovoltaic installation. Assuming annual electricity saved/generated of 3,700 MWh, a 0.59 tCO₂/MWh emission factor for the national electricity grid and a (conservative) 15-year lifetime for the solar panels, total direct lifetime emission reductions will be approximately **32,745 tCO₂ (15 year lifetime)**. It is anticipated that as Morocco's first large rooftop PV installation this investment will have significant replication effects.
- Fleet renewal through establishment of a dedicated credit line in conjunction with the National Transport Fund. According to the approach considered by the PPG preparation team, and assuming 5,000 vehicles participate in the renewal scheme during the project period (2016-2019) and that the new vehicles are 5% more efficient than the vehicles to be replaced, a direct emissions reduction of approximately **18,322 tCO₂ (cumulative total)** would be achieved by the end of project. This is considered as a highly conservative estimate.
- Road to rail modal shift. Major emission reductions are expected from this measure. In fact, taking into account the "tons/km" approach and assuming that 5% of the tons/kilometers transported by road will switch to the rail transport mode by the end of the project (2019), the emission reductions expected from the modal shift are around **872,756 tCO₂ (cumulative total)** by the end of project, representing about 9% of the total emissions of the reference year 2009. This measure is the most efficient as it reduces emissions on a large scale.
- Improvement of road freight vehicle maintenance and inspection that will be deployed through the outreach efforts of the sector. The European Union (EU), through its experience in technical inspection of road vehicles, suggests the realization of a 5-10% reduction in emissions. This measure mainly targets the formal sector by reaching 20% project's fleet in 2019. The potential for emission reduction remains conservative and it is estimated of the order of **491,373 tCO₂ (cumulative total)** by the end of the project.
- Beyond the above described measures, there are several policy instruments supported by the GEF such as introduction of a national fuel efficiency standard or the differentiation of vehicle annual registration fees according to fuel efficiency features that are expected to be subsequently adopted by the Government. The GEF project will analyze these actions as part of Outcome 1 and provide the necessary technical support to the authorities in charge of road transport to present these measures to decision-makers for prioritization and implementation. At this stage of the project, due to a lack of data,

it is extremely difficult to predict what actions will be taken by the government as regards these potential policy measures and so they are not factored into the direct emission reduction calculations.

The total direct emissions from the various activities and investments supported under the project and noted above will be **1,502,517 tCO₂**. More detailed information on calculations and assumptions are presented in Section 2.3 and Annex 8.2 of the Project Document.

Indirect emission reductions:

The indirect emission reductions that will result from the implementation of the GEF project have been calculated using the top down and the bottom-up approaches on a disaggregated approach for each measure (and then combined to reach and aggregate figure):

- Bottom-up approach

According to this approach, the calculation of the indirect emissions reductions for each measure (i.e., PV, eco-driving, fleet renewal, improvement of vehicle maintenance & testing and road to rail modal-shift) is based on the direct emissions reductions reference above and the application of a replication factor (RF) for each measure related to the project's indirect impact ten years after project closure (i.e., during the period 2020-2029). The choice of replication factors is given in Annex 8.2 of the Project Document. The bottom-up approach gives a total (aggregate for all measures) indirect emissions reduction target equal to 3,364,318 tCO₂.

- Top-down approach

Calculation of indirect emissions reductions via the top-down approach has also been calculated for each measure to reach an aggregate figure. This approach takes into account the technical and economic potential GHG savings with the perspective application within 10 years after the project (P10); multiplied by an assumed GEF causality factor (specific to each measure) which indicates to what degree the GEF intervention can claim causality for the reduction. The top-down indirect impact calculation generally constitutes the high extent of the range of the potential of indirect impacts. The 10-year (aggregate) total emissions reductions potential has been calculated as 11,115,550 tCO₂.

The table below summarizes the indirect emissions reduction calculations using both approaches and for each measure:

Table 3 - Targeted CO₂ emissions avoided from project interventions

GHG reduction measure	Approach	
	Bottom-up (tCO₂)	Top-down (tCO₂)
Eco-driving	349,286	3,405,538
PV (1,5MW)	130,980	222,666
Fleet renewal	45,805	282,157
Modal shift	872,756	625,194
Improvement of vehicle maintenance & testing	1,965,490	5,580,000
Total (tCO₂)	3,364,317	11,115,550

A.6 Risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and measures that address these risks

Despite Morocco's well-established vulnerability to climate change, the particular location of investments to be supported as part of the logistics strategy is not expected to be significantly affected by climate change-related impacts. Nevertheless, other non-climate and non-environment related risks can be significant. The table below, extracted from the Project Document summarizes these other risks to the project.

Table 4 – Summary of project risks

§	Description	Date identified	Type	Impact & Probability	Countermeasures / Mgt response	Owner	Submitted, updated by	Last Update	Status
1	Regulatory risks or delays in the development and implementation of the National Logistics Strategy low carbon policy options	PIF	Political/Regulatory	Lack of policy basis to catalyze low carbon development in the freight sector may delay or prevent reaching the 35% GHG reduction target P ⁷ = 2 I ⁸ = 3	Implication and engagement of all public and private stockholders in a transparent policy options development process. Capacity building and technical assistance. UNDP will rely on close relations with METL, AMDL, OMCL and other counterparts built through several past and on-going joint projects. Morocco's urgent need to reform the freight sector to serve the national economy also puts policy-makers under pressure to produce the necessary solutions.	Project Steering Committee		N/A	N/A
2.	Novelty and adoption risk – The stakeholders may not adopt swiftly the NAMA-DD	PPG	Organizational	Slow replicability of climate change mitigation actions in logistics platforms P = 2 I = 3	The proposed project includes specific capacity building and technical assistance components to help encourage participation in the low carbon policy instruments adoption and NAMA design. Special activities will target the NCCC to promote it as an effective NAMA focal point	Project Steering Committee		N/A	N/A

⁷ Probability from 1 (low) to 5 (high)

⁸ Impact from 1 (low) to 5 (high)

§	Description	Date identified	Type	Impact & Probability	Countermeasures / Mgt response	Owner	Submitted, updated by	Last Update	Status
3	Financial Risks – The development of incentive schemes are ineffective and inappropriate. The long-term success of the Logistics Strategy will depend on adoption of financial incentives by the Government.	PPG	Financial	<p>This is the most important risk to the project. The lack of adequate financial incentives to effectively promote fleet renewal and encouragement for small and medium size freight companies to join the formal sector and use the logistic platforms could have a major impact on the project's targeted results.</p> <p>P = 4 I = 4</p>	<p>The project will work closely with METL, the private banking sector and the freight federation (CGEM/FNRT) to design an integrated subsidy scheme.</p> <p>The government has confirmed their strong support for the financial incentives and commitment to ensure compliance with the targeted results via their co-finance letters.</p> <p>This risk will be carefully tracked and assessed during project implementation and adaptive management used to modify the financial incentive schemes (if needed) to ensure the envisioned project impacts</p>	Govt		N/A	N/A
4	Lack of adequate and reliable freight sector data to facilitate the monitoring of project impacts and planning of further policy measures.	PPG	Operational	<p>Difficulty in designing MRV systems and adequately forecast GHG reduction potentials</p> <p>P = 2 I = 2</p>	Development of a set of indicators to monitor progress of the national logistics strategy (GHG and non GHG indicators as co-benefit indicators) in a close cooperation with the main participants.	National Project Manager (NPM)			
5	Inadequate and/or non-capacitated human resources to successfully implement the project and support the mainstreaming of its results.	PPG	Operational	<p>Project not meeting the stated targets</p> <p>P = 2 I = 4</p>	The project includes significant capacity building and outreach components to help overcome this risk.	National Project Manager (NPM)		N/A	N/A
6	Environmental Risks – Management of obsolete vehicles.	PIF	Environmental	Fleet renewal will create obsolete vehicles as a by-	This project will work closely with the MdE to ensure conformity with the national waste regulations.				

§	Description	Date identified	Type	Impact & Probability	Countermeasures / Mgt response	Owner	Submitted, updated by	Last Update	Status
				product, presenting a risk of carbon leakage and/or environmentally-unsound disposal. P = 2 I = 2					
7	Absence of a formal national NAMA focal point	PIF	Institutional	Slow validation process of NAMAs at the national level and their submission to the UNFCCC. Inability to access international climate finance P = 2 I = 2	With M&E as the UNFCCC focal point, a focus will be given to NAMA development. This is one area where the use of well-experienced consultants can make a significant impact.	Project Steering Committee		N/A	N/A

A.7. Coordination with other relevant GEF financed initiatives

There are few direct synergies between this particular project and other GEF-financed initiatives at the national level except for the UNDP-GEF Energy Efficiency Codes in Residential Buildings and Energy Efficiency Improvement in Commercial and Hospital Buildings in Morocco (2009-2014, \$3 million GEF funding and \$15.7 million co-finance), executed by the National Agency for the Development of Renewable Energy and Energy Efficiency (ADEREE), has the principal objective of introducing mandatory minimum energy performance standards (MEPS) in the Moroccan residential, commercial and hospital sectors through the introduction of an Energy Efficiency Building Code, with associated barrier removal, capacity development and outreach activities. The project has worked to mobilize significant donor support to building energy efficiency, particularly an EU Euro 10 million programme for demonstration projects. The follow-on activities of that project will explore EE opportunities in the Greater Casablanca logistics platform and Zenata New Town.

On a global scale the project will seek to establish contact with and share lessons learned with the project management staff of the UNDP/GEF project “Greening the Logistics Industry in Zhejiang Province” which is similar in scope as well as learn from the experiences of the GEF-financed ADB project *ASTUD Asian Sustainable Transport and Urban Development Program (PROGRAM)*.

B. ADDITIONAL INFORMATION NOT ADDRESSED AT PIF STAGE:

B.1 Describe how the stakeholders will be engaged in project implementation.

The following table describes the various key stakeholders and their role in the project:

Table 5. Summary of Stakeholder Roles and Responsibilities

Key stakeholder	Role in the project:
METL	The Ministry of Equipment, Transport and Logistics (METL) is the main body responsible for the management of the transport sector in Morocco; it is the parent Ministry of the AMDL and is ultimately responsible for the National Logistics Strategy. It has a crucial role in the development of national logistics strategy. METL will be the main executing agency for this project and will be responsible for consolidating data in national registries. The Ministry will also help in the discussion and coordination of policy and the regulatory, fiscal and economic reforms needed to stimulate the development of GHG reduction measures in the freight sector. METL will drive the process of knowledge sharing and communication concerning activities related to GHG mitigation solutions in the transport sector.
AMDL	The Moroccan Agency for Logistics Development (AMDL) acts as the State's enforcer in terms of implementing the national logistics strategy. AMDL is a public institution and a legal entity with financial autonomy acting under the aegis of the state. As part of the project, AMDL will coordinate national actions to improve logistics competitiveness relating to specific projects such as the logistics zones. Alongside the public authorities, AMDL will help to encourage operators to participate in the logistics field and get involved in the establishment of training plans and plans for monitoring performance and efficiency in logistics services. The Agency will also be involved in the development of proposed legislation and regulations to promote domestic opportunities in the logistics sector and to organize the profession.
OMCL	The Moroccan Observatory of Logistics Competitiveness (OMCL), is an entity independent of AMDL, whose main tasks are: 1) to assess the performance of the logistics system through the establishment of monitoring indicators at national level; 2) to provide strategic intelligence; and 3) to be a driving force for proposals to improve logistics competitiveness. The OMCL's role in public policy is to serve as a dashboard for measuring the extent to which the national logistics strategy has been implemented. As part of the project, the OMCL will play a key role in data collection, coordination between public and private entities and the establishment of an MRV system specific to the freight sector.
ONCF	The National Railway Office (<i>Office National des Chemins de Fer</i> , ONCF), formed after independence, specifically in 1963, is responsible for the operation of the country rail network. The ONCF will play an important role within this project as regards the development of a measure promoting a modal shift from road to rail in the freight sector, and the replication of this in logistics

	platforms.
SNTL	The National Society of Transportation and Logistics (<i>Société Nationale des Transports et de la Logistique</i> , SNTL) is the largest provider of services for road freight transportation in Morocco. Since replacing the National Transport Office (considered as the main stakeholder in the road freight transport sector in Morocco) in 2007, SNTL has positioned itself as one of the leading logistics service providers in the country. The company posts an annual turnover of around 800 million dirhams corresponding to about 20 million tons of freight transported/year ⁹ . SNTL is responsible for managing the Zenata site, the first site of the Greater Casablanca logistics platform, and will also be responsible for managing the next logistics centers forming part of SNTL's master plan. As part of the project, SNTL will be involved in the design and implementation of certain activities such as eco-driving training and the installation of PV panels.
FT-CGEM	The National Federation of Road Transport (<i>Fédération du Transport</i> - CGEM, FT-CGEM) was established on June 10, 1993 to contribute to the development of the transport and logistics sector and to promote the interests of its members. A member federation of the CGEM (the Moroccan industry confederation), FT-CGEM includes 20 national transport and logistics organizations moving people and goods using various modes of transport at the urban, national and international level. As part of the project, and as a representative of the private sector, the FT-CGEM will be involved in the design of legal, fiscal and economic instruments, and also in ensuring the necessary involvement of the private sector in the implementation of certain activities.
AODU	Founded in 2008, the Organizing Urban Transport Authority (<i>Autorité Organisatrice des Déplacements Urbains</i> , AODU) works in the urban transport sector in the Greater Casablanca region. Since its inception, the AODU has been working on different tasks related to the development of transport plans and their implementation, the monitoring of transport system operations, the coordination of traffic management and research for sector funding. Through its work in its various fields of activity, including the organization of urban transport in Greater Casablanca, the AODU is a major partner in this project. This institution will play a key role in traffic optimization in the Greater Casablanca platform and will provide considerable support for optimizing traffic platform GC role and will be of considerable support in activities to reduce GHG emissions, which is the ultimate goal of the GC NAMA.
MoE and NCCC	Created in 1996, the National Climate Change Committee (NCCC) is composed of representatives of various ministries, public institutions, research institutions and other public and private institutions in sectors concerned with the issue of climate change. The committee's secretariat is led by the Ministry of Environment (MoE), and acts as the United Nations Framework Convention on Climate Change (UNFCCC) Moroccan focal point. Within this project, the NCCC and the MoE are a fundamental source of support in the establishment of a national NAMA framework and for the aggregation of emission reductions realized by this project into national communications and BURs. The Moroccan DNA (hosted at the DoE) will have an active role in the process of SBL development and submission to the UNFCCC as the national focal point (since it is planned that under Output 2.3 (activity 2.3.2) a trial application and calibration of the mitigation tool will be applied at the Zenata logistics site and at other relevant sites to modal shift).
CDG	The <i>Caisse de Dépôt et de Gestion</i> (CDG) is a financial institution originally created as a public institution in 1959. Its primary mandate is to drive investment in strategic economic sectors. It also has a central role in receiving, storing and managing savings resources which by their nature or origin require special protection. CDG is involved in major strategic projects in Morocco and is now the largest institutional investor in the Kingdom. Through its subsidiary, the Zenata Development Company (<i>Société d'Aménagement de Zenata</i> , SAZ), the CDG is leading the new eco-city of Zenata project, which is part of a larger urban development plan within Morocco. Indeed, the SAZ constitutes both the driver and the main contractor of the project. Through its role in the development of the new eco-city of Zenata through the SAZ, CDG will play a key role in this project, particularly in regards to the coupling of the Greater Casablanca NAMA to the new eco-city of Zenata NAMA. CDG will also be expected to play a leading role in future logistics platforms, with a potential for proportional replication.
ADEREE	The National Agency for the Development of Renewable Energy and Energy Efficiency (<i>Agence</i>

⁹ Source: SNTL

	<p><i>Nationale pour le Développement des Energies Renouvelables et de l'Efficacité Energétique</i>, ADEREE) is a public institution working for the widespread use of both renewable energy (RE) and energy efficiency (EE). Framed by the Law 16/09, the ADEREE has as its mission to contribute to the implementation of the national renewable energy and energy efficiency policy. This policy aims namely at the development of renewable energy penetration and increase of energy efficiency, thereby contributing to the country's sustainable development. Within the project, ADEREE will play a leading role in the formulation of policy instruments leading to the replicability of the renewable energy component of the project.</p>
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B.2 Describe the socioeconomic benefits to be delivered by the Project at the national and local levels, including consideration of gender dimensions, and how these will support the achievement of global environment benefits (GEF Trust Fund/NPIF) or adaptation benefits (LDCF/SCCF):

The project will deliver a range of socio-economic benefits. In most Maghreb countries, freight transport, especially national road transport, is still one of the weak links in logistics chains. Flaws typical of a road sector in transition include: prevalence of very small unprofessional firms carrying freight (often sole proprietorships or family businesses whose investment capacity is, consequently, comparatively limited); 2) informal fleets that are often of poor quality, with routine problems of stowage, overloading, reliability and motorization; and 3) drivers who are poorly trained not only in the handling of goods but also in driving itself and road safety. By helping the informal freight sector to become formalized, better socio-economic conditions will be afforded to truck drivers (e.g. inclusion in the National Social Security Fund, medical care, etc.).

First and foremost, the outreach workshops that will be organized in the Greater-Casablanca region as well as in other regions of the country will contribute to the increase in the number of freight transport operators aware of the importance of the economic and environmental benefits supported under the project such as eco-driving, fleet renewal through the national financial scheme, and improvement of vehicle maintenance. These workshops will be organized with the Transport Federation-General Confederation of Enterprises of Morocco, as the legitimate representative of the sector, to ensure the engagement of the transport operators. It is expected that the project will benefit no less than 1,000 freight transport operators (i.e. 100 operators outreached during each workshop with 10 workshops organized in various regions of the Kingdom) with many of these freight operators supporting the livelihood of tens if not hundreds of employees and sub-contractors. Support to these measures by policy instruments and their implementation by the transport operators will also generate more broad-based economic benefits given their potential impact on reduced fuel consumption, which will in turn impact the profitability of the transport operators. The project includes a target to measure the percentage annual average reduction in the fuel budget (by volume) among all freight transport operators benefiting from the project (leading to an improved economic position for those firms and their employees; the percentage reduction will be translated to a monetary equivalent in terms of fuel savings).

Moreover by upgrading the fleet of vehicles toward the Euro 4 Standard the freight sector will become more modernized and will be able to join the European market. 5,000 new freight vehicles benefit from the fleet subsidy renewal scheme Therefore the project will greatly contribute to the development and professionalization of the logistics sector and help Morocco's socio-economic development. Gender considerations were considered as part of the project design. While most of the freight employees and operators in Morocco are men, the aggregate economic impact of the project's interventions will indirectly positively impact the female household members of the beneficiaries.

Secondly, the project will support the development of an information system on road freight emissions that will be of great importance in helping Morocco access, deliver, monitor, report on and verify use of climate finance. It will also serve as an example of the integration of climate change measures into a specific sector and will assist the development of climate policy tools such as the national greenhouse gas inventory system and will feed into the national system once in place.

Thirdly, the use of Multi-Flow Logistics Zones to consolidate flow of goods and increase of the road to rail modal shift will lead to road decongestion in both urban and inter-urban areas. Consequently, air quality will be improved and considering that the transport sector is one of the main sources of air pollution in the country, the positive impact on human health is expected to be significant.

B.3. Explain how cost-effectiveness is reflected in the project design:

In absence of the GEF support and the associated stakeholder mobilization and financial leveraging, the envisioned low carbon development of Morocco's freight sector will be sub-optimal and delayed in terms of operationalization.

The GEF financing of the proposed project components and activities was specifically chosen to build on and leverage various sources of public financing by new or ongoing major infrastructure investments such as: the expansion of the existing Zenata logistic site as part of Logistics Regional Plan of the GC; the construction of a 20 km route including in particular a 4.5 km harbor breakwater sea that by-passes the downtown to connect Zenata logistics zone at Casablanca port and ensure an easy and seamless access to the port of Casablanca for trucks and vehicles dedicated to heavy weight without having to cross a dense urban area adjoining the port; and the construction of the 3rd railway between Kenitra and Casablanca that will be dedicated to freight and ongoing construction of the "First Development Zone" of the Zenata eco-city with a total area of 480 ha. The requested GEF contribution will contribute to the introduction and effective replication of low carbon freight transport concepts and policies by covering various strategic incremental costs and/or risks which are difficult to absorb by the other project partners. The GEF funding is leveraged from the variety of co-financing sources, including:

- METL policy activities, on which the project can build, especially under components 1 and 3;
- AMDL preparatory works of the logistics platforms and implementation of the National Logistics Strategy, in particular under component 2;
- SNTL activities at the Zenata site on which the project can build under component 2 and 3;
- ONCF activities to promote road to rail modal shift, especially under component 2;
- CDG development of Zenata eco-city, mainly under component 2.

GEF support for the activities of Outcome 1 will remove the barriers to low-carbon freight transport development at the national level. Although the institutional framework has been strengthened by the establishment of the National Logistics Strategy and creation of the AMDL and OMCL, the lack of specific policy instruments to the strategy, the lack of financial resources, and lack of expertise in developing low carbon tools to implement the strategy hampers its effectiveness as a climate change mitigation platform. Although the Government is committed to the strategy and has established a new agency to manage the strategy, the strategy itself does not describe in detail how the 35% reduction will be achieved or at what cost; as noted in the PIF GEF support is required to transform the aspirational target into an operational target that can realistically be achieved and verified. There is still a great deal of work needed to ensure that institutions, public policies and regulations are capacitated regarding low-carbon development of the Moroccan transport sector. The capacity of the Moroccan Agency for Logistics Development as well as SNTL, ONCF, ANP, the National Federation for Road Transport (FNTR), the General Confederation of Moroccan Business (CGEM) and counterpart agencies will be massively increased as a result of this project and this would not be done in the absence of GEF funding.

The GEF support for the activities of Outcome 2 will enable the development of the Logistics Regional Plan of Greater Casablanca as a NAMA framework under the National Logistics Strategy. The GEF funding will help support the optimal design of this NAMA, resulting in a feasible implementation of concrete mitigation actions. In the absence of GEF support, it is likely that the mitigation actions at the GC logistics platforms will not be rigorously optimized or monitored as regards GHG emissions. When implemented, it is likely that mitigation actions would suffer sub-optimal performance, as there has not thus far been consideration of performance monitoring factors to inform future developments. Therefore, the GEF funding will catalyze design and deployment of climate change mitigation actions at the GC logistics zones with a replicability perspective and ensure optimal synergy with other related geographic or sectoral mitigation actions.

GEF funds for Outcome 3 will catalyze the implementation of mitigation actions in the GC NAMA framework through targeted investments and mobilize \$16.38 million in co-financing. These investments will support the training of a large pool of trainers on eco-driving; so far this type of training is only done for the public transport drivers and SNTL drivers (the fleet of which is only about 200 vehicles whereas the national road freight fleet contains about 167,900 vehicles). Part of these investments will also ensure the installation of a 1.5 MW PV plant on the roof top of the Zenata

warehouses through partial financing for PV panel procurement and installation. Finally, the GEF investments will partially cover technical assistance to SNTL for the PV installation and to logistics operators to fully benefit from the fleet renewal scheme.

In terms of abatement potential, freight is the fastest-growing source of emissions from the transportation around the world. Whether it is the introduction of cleaner fuels, fuel economy standards, eco-driving, fleet renewal, investments in infrastructure or information technology to improve transport, the freight sector is still behind; this is true in Morocco and across North Africa. Overall the direct emission reductions versus GEF investment reflects an abatement cost of 1.51 US\$GEF/tCO₂, significantly lower (i.e. more cost-effective) than that estimated in the PIF and extremely cost-effectiveness when compared against other mitigation options in the country.

Sustainability

The project is embedded within the country's overall policy objectives on GHG emissions reductions and improvement of the freight sector's competitiveness. The project takes advantage of a globally structured foundation and a clear national vision for the steps taken in connection with the preparation of the National Logistics Strategy and the first implementation of its five axes.

Capacity building is a significant component in this project helping to establish a basis for sustainability. Indeed, this component is an integral part of the project and has helped to build a common vision of the steps to follow since the project's very beginning, and has ensured a sense of ownership among the project partners. As an ongoing process, capacity building is a fundamental component that will ensure project sustainability and continued success through the effective management of the National Logistics Strategy. With institutional capacity strengthened – particularly that of METL, AMDL and OMCL – these organizations will be able to provide the coordination and monitoring required in the various projects related to the logistics industry.

Furthermore, Morocco has several projects and programs aimed at capacity building and the provision of technical assistance in the mitigation of GHG emissions which will support this project. Some of these projects fall within the scope of international initiatives (such as the WB PMR, UNEP FIRM, and UNDP LECB projects), and others belong directly to Morocco's own bilateral or multilateral cooperation projects (such as GIZ's 4C project). Overall, these initiatives are designed to strengthen Morocco's technical and institutional capacities relating to the design and development of NAMAs, the establishment of MRV systems, and the preparation of national strategies for low-carbon development programs, etc. These initiatives will provide significant support for the project yielding results over the short and long term.

The commitment expressed by the partners will help ensure the funding and implementation of the various measures planned as part of this project. The financial sustainability of these measures will require the mobilization of additional resources that can go beyond national funding capacities. Morocco's current desire to ensure the transition towards a low carbon logistics industry will be the main driver of future initiatives. It is important to recognize that this project aims to develop a NAMA relating to the GC platform, a concept that is still being developed and is generating considerable interest internationally. This is an opportunity for the Kingdom to propagate the efforts being made to mitigate emissions from logistics sector.

Innovation

There are several innovative features in this proposal. These include:

The development of a standardized baseline for GHG reductions from modal shift. While such standardized baselines have been developed in the CDM context and in other GHG standards, few have been attempted in the transport sector, in particular for modal shift. The current application of CDM methodologies to the transport sector, for example, tends to under-estimate the potential for GHG emission reductions from cross-modal programmes.

The development of a nested NAMA and the consideration of the significant interaction between proposed activities therein, in terms of their cumulative GHG reduction potential. NAMAs have to date mostly been developed as one-off significant mitigation actions. What is proposed with this project is to develop a coherent set of actions within the same geographical unit – the Greater Casablanca logistics platform – and to develop the entire set of

actions, including interventions on logistics fleets, warehouses and driving behavior in an integrated approach. To our knowledge, this is the first such case in Africa, certainly in the freight transport sector.

Replicability

Output 2.4. *Replication strategy for 17 additional low-carbon Logistics Regional Plans developed, building on the Greater Casablanca model* is central to the project's replication strategy. The replication strategy proposed in this project will be based on the experience gained from the GC platform and will enable the concept of NAMA development in connection to these platforms to be expanded across the country. This approach should lead to significant results in terms of reducing GHG emissions, as mentioned in Section 2.3, but also in terms of the organization of the logistics sector as a whole.

Emerging countries, characterized by an intermediate logistics performance, present major freight development opportunities, as this sector is a fundamental pillar of these economies. Given the importance of this sector and the interest of many countries in logistics development, this project will provide a basis for the implementation of similar projects elsewhere and will provide some valuable experience of direct interest to other countries.

The project also includes the implementation of knowledge sharing and communication activities related to GHG mitigation solutions in the transport sector, and the creation of a project website to provide information on the project's activities, best practices and outcomes. The activities planned within this outcome can be used to develop a cooperation network aimed at taking the initiatives carried out as part of this project to a larger scale, first involving national stakeholders in order to expand the concept to the 17 platforms that will be developed as part of the National Logistics Strategy, and then to other emerging countries.

Replication at the national level will help to overcome the barriers present in the logistics sector, and in particular the presence of the informal sector and weaknesses in the regulatory and fiscal frameworks. This replication will strengthen the whole sector and will enable the effects of climate change to be taken into account not only at the level of the GC platform but also nationally, thereby contributing to the implementation of the National Logistics Strategy.

C. DESCRIBE THE BUDGETED M & E PLAN:

The UNDP Project Document provides a detailed description of the monitoring, reporting and evaluation to be undertaken during the Project (See Section 6 of the Project Document). Full details of indicators, baseline values and targets are presented in Annex 1 to this document (Results Framework).

Monitoring and evaluation activities will follow standard UNDP and GEF monitoring and evaluation policies and guidelines. Monitoring and evaluation of progress in achieving project results and objectives will be done based on the targets and indicators established in the project Results Framework (Annex 1). The project Monitoring and Evaluation Plan has been budgeted at US\$75,000 (see Table 6 below). A summary of the envisaged M&E activities is provided in the following table.

Table 6 – Monitoring and Evaluation Activity Summary

Type of M&E activity	Responsible Parties	Budget \$US <i>Excluding project team staff time</i>	Time frame
Inception Workshop and Report	Project Manager, Steering Committee, UNDP Morocco, UNDP-GEF	Indicative cost: \$3,000	Within first two months of project start up
Measurement of Means of Verification of project results.	UNDP Morocco, Project Manager	None	Start, mid- and end of project (during evaluation cycle) and annually when required
Measurement of Means of Verification for Project Progress on output and implementation	Oversight by Project Manager Project team	To be determined as part of the Annual Work Plan's preparation.	Annually, prior to ARR/PIR and the definition of annual work plans
ARR/PIR	Project Manager and team UNDP Morocco, UNDP-GEF	None	Annually
Periodic status/ progress reports	Project Manager and team (PMU)	None	Quarterly
Mid-Term Review	Project Manager and team (PMU) UNDP Morocco, UNDP-GEF External Consultants (i.e. review team)	Indicative cost: \$20,000	At the mid-point of project implementation (between 2nd and 3rd PIR)
Final Evaluation	Project Manager and team (PMU) UNDP Morocco, UNDP-GEF External Consultants (i.e. evaluation team)	Indicative cost: \$40,000	At least three months before the end of project implementation
Project Terminal Report	Project Manager and team (PMU) UNDP Morocco	None	At least three months before the end of the project
Audit	UNDP Morocco Project Manager and team (PMU)	Indicative cost per year: \$3,000 for a total of \$12,000 (for 4 years)	Annually
HACT : Micro evaluation	UNDP Morocco Project Manager and team (PMU)	None	Once
TOTAL indicative COST Excluding project team staff time and UNDP staff and travel expenses		\$US 75,000	


PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)

- A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT(S) ON BEHALF OF THE GOVERNMENT(S):** (Please attach the [Operational Focal Point endorsement letter\(s\)](#) with this form. For SGP, use this [OFP endorsement letter](#)).

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)
Mohamed Benyahia	Director of Partnerships, Communications & Cooperation; GEF OFP	MINISTRY OF ENERGY, MINES, WATER & ENVIRONMENT	20 th March 2013

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF/LDCF/SCCF/NPIF policies and procedures and meets the GEF/LDCF/SCCF/NPIF criteria for CEO endorsement/approval of project.

Agency Coordinator, Agency Name	Signature	Date (Month, day, year)	Project Contact Person	Telephone	Email Address
Adriana Dinu UNDP/GEF Executive Coordinator		April 30, 2015	Lucas Black Regional Technical Advisor – Arab States / Energy, Infrastructure, Transport and Technology (EITT)	Tel: +90 538 598 5172	lucas.black@undp.org

ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

<p>This project will contribute to achieving the following Country Program Outcome: The principles of the "National Charter for the Environment for Sustainable Development" are implemented in coherence between sectoral strategies and priorities for the environment, climate change adaptation and risk management and by strengthening territorial convergence in areas and the most vulnerable populations with special attention to gender.</p>
<p>Country Program Outcome Indicators:</p> <p>Indicator 5.1.1: Number of strategies produced / reviewed consistently and integrating the principles of ESD charter. Indicator 5.3.1: Number of strategies developed for mitigation and adaptation to CC. Indicator 5.3.2: Number of entities that have received capacity building in CC and risk management</p>
<p>Primary applicable Key Environment and Sustainable Development Key Result Area: Sustainable Development</p>
<p>Applicable GEF Focal Area Objective: CCM 4 - "Promote energy efficient, low-carbon transport and urban systems" CCM 3 - "Promote investment in renewable energy technology"</p>

	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
<p>Project Objective</p> <p>To operationalize the mitigation potential of the National Logistics Strategy through facilitation of the Government's roll-out of integrated logistics platforms in a NAMA framework.</p>	<p>Amount of <u>additional</u> tons of direct CO₂ emissions reduced relative to baseline (five categories of emission reductions)</p>	<p>Under BAU scenario 8,856 tCO₂ will be reduced by newly introduced vehicles benefiting from the current METL funding scheme and eco-driven freight vehicles from SNTL (2016-2019)</p>	<p>1) Eco-driving: 87,321 tCO₂ cumulative total by the end of the project</p> <p>2) Solar PV (1.5 MW): 32,745 tCO₂ (over lifetime)</p> <p>3) Fleet renewal: 18,322 tCO₂ cumulative total by the end of project</p> <p>4) Modal shift: 872,756 tCO₂ cumulative total by end of project</p> <p>5) Improvement of vehicle maintenance & testing: 491,373 tCO₂ cumulative total by the end of the project.</p> <p>Total: 1,502,517 tCO₂ Direct emissions</p>	<p>Project monitoring reports and final evaluation.</p> <p>Data from STNL</p> <p>National Communication to the UNFCCC and BURs.</p>	<p>Economic risks: continuation of the international economic crisis and its impact on the Moroccan economy; potential occurrence of climate drought periods that may impact the agriculture sector as the key driver of the national economy.</p> <p>Financial risks: sourcing the necessary financial resources to develop the logistic platforms, to subsidize the fleet renewal scheme and to offer proper incentives to professionalize the informal sector.</p>

	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
	<p>Energy production from renewable sources (MWh/yr) – Solar PV plant</p> <p>National systems in place to access, deliver, monitor, report on and verify use of climate finance</p> <p>Number of freight transport operators aware of economic and environmental benefits of eco-driving, fleet renewal through the national financial scheme and improvement of vehicle maintenance.</p> <p>Percentage reduction in the fuel budget (by volume) among all freight transport operators benefiting from the project (leading to improved economic position for those firms and their employees)</p>	<p>0</p> <p>0</p> <p>0</p> <p>Current average annual baseline fuel consumption (liters) among operators - TBD during year 1 of project</p>	<p>3,700 MWh/yr from PV</p> <p>A system is in place to report on climate finance in the transport sector</p> <p>1,000 freight transport operators (i.e. 100 operators outreached during each workshop with 10 workshops organized in various regions of the Kingdom).</p> <p>At least 10% average annual reduction in fuel consumption volume (translated to monetary equivalent in savings) for all freight transport operators by end of project</p>	<p>Data from SNTL</p> <p>Reports of meetings and workshops</p> <p>Project reporting and specific reporting mechanism put in place for all freight transport operators involved in project to track fuel consumption over lifetime of project</p>	
Outcome 1 Institutions, public policies and regulations are enhanced regarding low-carbon development of the Moroccan transport sector	<p>Institutional capacity to ensure mainstreaming and monitoring of low carbon development in the freight transport sector</p> <p>Policy measures and regulations in place to mainstream low carbon development in the logistics sector.</p>	<p>No specific institution dedicated to GHG monitoring and policy development in the transport sector</p> <p>No policy measures and mitigation actions in place to reach the 35% CO2 reduction impact</p>	<p>One specific institution set-up as an inter-ministerial committee and capacities are strengthened in GHG monitoring and policy development for low-carbon development</p> <p>Policy measures are implemented to reach the 35% CO2 reduction impact.</p>	<p>Reports of activities, monitoring and final evaluation.</p> <p>Reports of meetings and workshops</p> <p>Submitted policy options to decision makers</p>	<p>AMDCL and OMCL obtaining the necessary support and resources to fully play a role in low-carbon development of the freight transport sector</p> <p>Delay in the development and implementation of the national logistics strategy</p> <p>Negotiation of the proposed low-carbon policy options and regulatory improvements with the private sector before</p>

	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
	% of cars in the road fleet registry with GHG relevant data	No regulations exist to date specific to GHG monitoring or low carbon development in transport sector 0 %	At least 2 regulations on low-carbon development in the logistics sector are formally submitted for approval to GSG 100% of the road fleet registry has GHG data	Submitted regulations to GSG Institutional registers and databases	submission for the Government approval process. Lack of interest from private banks to join the fleet renewal scheme
	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
Outcome 2 The network of Multi-flux Logistics Zones of Greater Casablanca is developed as a nationally appropriate mitigation action ("NAMA") model project as part of the National Logistics Strategy	Existence of GC logistics platform with its own GHG inventory and MRV system Existence of GC logistics platform designed as a model NAMA for replication perspective at the 17 other logistics platforms Existence of an innovative "nested NAMA" framework to couple the GC logistical platform NAMA to the eco-city of Zenata ('NAMA Ville')	No GHG inventory and MRV systems exists 0 NAMA-DD for GC logistic platform exists. No 'nested NAMA' framework developed	GHG inventory and MRV systems designed and implemented for GC NAMA The NAMA Design Document (NAMA-DD) validated by the NCCC and registered in the UNFCCC NAMA Registry A standardized baseline methodology for freight modal switch from road to rail is developed, tested at the Zenata site and submitted to the UNFCCC for approval. The NCCC validates the 'nested NAMA' framework	Project monitoring reports and final evaluation. GC GHG inventory and MRV system GC NAMA-DD. Nested NAMA-DD UNFCCC NAMA Registry	Stakeholders engagement in data collection and validation of NAMA designs Examination and validation of the proposed NAMAs (GC-NAMAs, Kernel and Nested NAMA frameworks) by NCCC
Outcome 3 The mitigation measure ("NAMA") is made operational by upgrade	Number of operationalized GHG reduction measures through investments facilitated by the project at	No PV panels installed on the roofs of the Zenata site	1.5 MW of PV panels are procured and installed at the Zenata site	Energy audit reports	Lack of national regulatory framework on net metering Slowness of procedures for

	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
investments of the logistics zones provided for by the logistical regional plan of Greater Casablanca	the GC logistics platforms	<p>5 SNTL trainers training on eco-driving</p> <p>70% of SNTL vehicles are less than 5 years</p>	<p>100 trainers trained on eco-driving</p> <p>5,000 new freight vehicles benefit from the fleet subsidy renewal scheme</p>	<p>Records of attendance of eco-driving training</p> <p>Certificates of new vehicles</p> <p>Annual reports of the fleet subsidy renewal scheme</p> <p>Economic performance reports of GC logistics site</p>	<p>granting subsidies for fleet renewal</p> <p>Engagement of the private sector, mainly the informal sector, in implementing mitigation actions</p>

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

Responses to Comments from STAP Review

1. The project could explore complementary with BUR and National Communication projects of Morocco. Since BUR also aims at developing and reporting of NAMAs they also develop Emission Factors

Since the Ministry of Environment and the National Committee on Climate Change (NCCC) represent key actors in the preparation processes of National Communications, National GHG Inventories and BURs, these two bodies are strongly involved in the project, mainly in the activities related to the NAMAs design, development of GHG calculation methodologies and improvement of country-specific emission factors. During the PPG phase, the Ministry of Environment was strongly involved providing guidance and recent GHG data from the Third National Communication (in progress). Through their involvement in this project, the Ministry of Environment and NCCC will make sure that synergies and complementarities are forged between the BURs and National Communications in order to provide the necessary coordination and avoid duplication and overlap.

2. STAP suggests focusing on “ASI” framework and developing a full strategy for ASI. The rationale for 1.5 MW solar power project is not clear for a transportation project (unless perhaps the plan is to eventually link it with electric road or rail vehicles but this is unlikely). The building owners will benefit from the green power generated, but it will only indirectly impact on the logistics problems being addressed by the project. Instead the focus could be more on activities to promote ASI framework.

The different measures and activities that will be implemented through the project aim to promote an ASI approach, especially activities related to the implementation and replication of MFLZ (Multi-Flow Logistics Zones), eco-driving, road to rail modal shift that will ensure consolidation of flows of transported goods, the use of more environmentally modes, the reduction of emissions and the improvement of fuel efficiency.

Regarding the installation of a 1.5 MW PV system, the goal is to meet the electrical needs of future refrigerated warehouses in the logistics site of Zenata to attract other types of goods at this site. This will contribute to the consolidation of flows of other types of transported goods, such as goods from the food industry and agricultural sector, and hence the national stakeholders wanted to include it in the project.

However, the PPG preparation team in consultation with the stakeholders did not recommend the energy audit of buildings and the promotion of a green labeling scheme for the logistics sites proposed in the PIF. These measures were considered not have a direct impact on the transport sector and are being considered in other projects in line with the national energy efficiency strategy.

3. The PIF could refer to STAP-GEF Technical Report on Transportation for GHG accounting, which is complex for transportation projects. The report is available on STAP’s website: www.stapgef.org

In terms of emissions calculations, the PPG preparation team has used the:

- “Manual for calculating greenhouse Gas Benefits for GEF” related to transportation projects found on the GEF website for 1) eco-driving, 2) fleet-renewal, 3) modal shift and 4) improvement of vehicle maintenance & testing measures (indirect emissions);
- “Manual for calculating greenhouse Gas benefits for GEF” related to Energy Efficiency & RE emissions for both direct & indirect emission calculations for the Solar PV (1.5 MW) plant

Methods/formulas found in both of those manuals are generally consistent with the methods recommended in the STAP GHG guidelines for Transport projects (pages from 11 to 19). However, the project’s direct emissions reductions related to 1) eco-driving, 2) fleet-renewal, 3) modal shift and 4) improvement of vehicle maintenance & testing measures have been calculated using international best practices and formulas adopted by national stakeholders and the project team

due to the a lack of specific data (fuel economy, price/speed sensitivity of travel demand, etc.) required for the STAP methodology or unsuitable spreadsheets for the project specificities (freight transport instead of passenger one).

4. The PIF reads some times as a CDM project (Emission Factors, MRV, NAMA, etc.). It is also very narrowly focused on just one specific location (Zenata site). Instead it should read more like a typical GEF project on trying to make an impact on the city, region, sector, or even at the national level

This is noted and the CEO ER and Prodoc were developed to read more like a typical GEF project. The national impact aspect was considered in the project through the replication strategy, which will be developed within the framework of the second Outcome, as described in the ProDoc. As such the national logistics strategy will be covered by developing 17 additional low-carbon Logistics Regional Plans by building on the Greater Casablanca model. Furthermore, the project includes activities that will have an important impact at the national level, such as activities related to the development of policy instruments (such as the amendment of a Decree to make eco-driving mandatory and the design of fleet renewal financial scheme, capacity building, outreach workshops, etc). Furthermore the logistics site of Zenata was chosen since it is the first operational site of the national logistics strategy and has the potential to test the feasibility of a Nested NAMA approach with the development of the Zenata eco-city. Through this approach a model will be developed for potential replication to others logistics regional plans throughout the country.

5. Supporting the work of the new agency on logistics with this project is a good approach. Growth in demand for freight movements is likely to grow rapidly and linking to NAMAs makes sense. Reducing national road transport emissions by 35% in just two years is very ambitious, even for well-funded projects. Can stakeholders, (including drivers) be skilled up in that time and all necessary investments made? It could be that monitoring a few key changes then heavily promoting the cost savings (and GHG reductions) will help drive rapid progress but it is not clear how this would happen in the target time available

The reduction of 35% of CO₂ emissions with respect to the 2009 reference year is the ultimate impact of the National Logistics Strategy in the mid-term range (i.e. by 2020). The activities to be developed through this project will contribute to reaching part of this target. In fact, based on the ER calculations, the project (over the 4 years period) will lead to a reduction of about 15% of the freight transport CO₂ emissions (as compared to 2009 levels). In addition, the project will contribute to remove some barriers (policy level, financial, capacities, etc.) that will help realize the ambitious target of the 35% reduction as specified by the strategy.

6. Typical rapid growth in demand for road transport (passengers and freight) is evident in Morocco so the project is well timed to evaluate improved freight logistics and modal switch from road to rail where practical. But this is no easy task as suitable handling systems and container storage areas may need to be constructed

Road to rail modal shift was considered in the project considering the actual share reached by ONCF (National Rail Office). In fact, as is explained in the ProDoc, ONCF has established its own integrated logistics strategy (2010-2015) involving the application of three levers: 1) Development of rail infrastructure in ports, 2) Development of sectoral strategies (cereal logistics plans and hydrocarbon logistics plans) and 3) Construction and operation of a network of logistics platforms consisting of 5 major platforms over an area of 300ha in Casablanca (Mita), Zenata, Fez, Marrakech and Tangier.

The “MITA” dry port facility in Casablanca, with an area of 8 ha, has been operational since September 2009 and has a 600 m rail track connected to the rail network providing a range of services. Moreover, the ONCF co-financing of US\$6,800,000 during the project period will concern the three projects of rail transport of containers along the connections Casablanca-Marrakech/Casablanca-Fes/Casablanca-Tanger with a Dry Ports in Marrakech, Fes and Tanger acting as integrated bimodal (rail/road) service terminals. Based on these elements, and in consultation with different stakeholders, including ONCF, modal shift was considered as one of the main measures to be developed through the project and has major potential of CO₂ emissions reduction.

7. The aim to have 18 cities with freight centers (or “hubs”) spread throughout the country makes good sense, so concentrating on the Zenata site in Casablanca could work well to establish a model for the others but should be carefully considered. Is it typical and will lessons learned from experience be able to be easily applied elsewhere?

The National Strategy for the Development of Logistics Competitiveness aims to develop 18 logistics plans over the Kingdom, as described in detail in the ProDoc. The main stakeholders involved in this strategy are those implementing the different components of this project, namely AMDL, METL, ONCF and SNTL, and constitute the main key actors of the inter-ministerial committee to be set-up and strengthened during the project to promote national climate change mitigation policies in the freight transport sector. The close involvement of these stakeholders in project activities will ensure more synergy and coordination for future logistics projects by building on the Greater Casablanca model and realizing the replication strategy.

8. Using GEF funds for vehicle testing is okay, but since many of the heavy duty vehicles tested will be privately owned by commercial companies, the aim should be to eventually make the testing project self-funding.

During the ProDoc preparation phase, and in consultation with the stakeholders and following STAP guidance, it was decided to exclude this activity considering that a mandatory annual vehicle testing scheme already exists in Morocco for heavy trucks.

Consequently, it was decided to work with operators through the implementation of an outreach campaign. This campaign will be dedicated to road freight operators registered at the METL Registry to encourage them to implement a set of measures including: eco-driving and acquisition of new vehicles benefiting from the measures initiated by the State to promote the Euro 4 Standard and regular maintenance of vehicles. The outreach effort will provide the necessary details to the operators on the benefits of these measures but also their impact on the energy bill, as well as that of fuel savings. The promotion of these measures is consistent with the study launched by the METL concerning the calculation and updating of reference costs of road freight transport. Awareness activities will be implemented in partnership with the private sector (FT-CGEM) by targeting first the Greater Casablanca region and other regions of the Kingdom. This activity targets 20% of the formal and structured sector that will be able to carry out the instructions learned via the campaign (more details on GHG reduction calculations are presented in Annex 8.2 of Prodoc).

9. The training of 1000 drivers in 2008 seemed to be satisfactory, but have they been revisited to see if lessons learned were maintained over the years. What share of national drivers is this? If only a few per cent as suspected since there are 68,000 trucks in the fleet, a considerable effort is still needed to reach all drivers. One consideration might be to pay them a bonus based on a share of the fuel saved by their eco-driving.

In consultation with stakeholders, and after analysis of regulatory framework (Decree of the Minister of Infrastructure and Transport No. 2713-10 of 23 December 2010) concerning the professional conduct, this activity has been substituted by the review and the amendment of this decree in order to make eco-driving training mandatory.

To ensure implementation of eco-driving training in the future, the project will develop also an eco-driving “Training of Trainers” (ToT) program. This ToT program will be based on actual national initiatives, including those of the SNTL, ADEREE and OFPPT, and also on expertise of European countries that have implemented similar programs. The selected trainers will be among 160 trainers of OFPPT that are already providing continuing training to professional heavy truck drivers. The project targets the training of 100 ToT on eco-driving.

Assuming that the new regulatory framework and the eco-driving ToT program will require about 3 years, the project aims to ensure the training of 16,000 drivers by the end of the project. In the long term, the project will ensure the training of a large number of drivers and will catalyze greater GHG emissions reductions (more details on GHG reduction calculations are presented in Annex 8.2 of Prodoc).

10. Innovative policy support could help meet the continuous target for example by regulating the maximum road speed of trucks to be far lower than at present, this would save fuel as well as induce the modal shift to rail if it proved to be faster.

The project supports policy instruments on a strategic level that will have a greater impact in term of CO₂ emissions reductions, such as the review and amendment of the decree concerning professional conduct to make eco-driving mandatory in the annual continuous training program and design of a sustainable financial scheme to support fleet renewable.

Responses to comments from GEF Secretariat at PIF Stage

a) Specific activities to promote multi-modal synergies.

The fact that the main multi-modal logistic operators (ONCF, SNTL, AMDL) are part of the steering committee of the project and also the responsible partners for the implementation of various activities will promote such synergies. These synergies will be fostered through the implementation of project-specific activities, such as:

- Activities of Output 1.3 “Country-specific road fleet profile and emission factors developed for Moroccan transport modes (road and rail), and used for scenario development”;
- Activities of Output 1.4 “An interdepartmental committee is set up to promote emission mitigation policies in the transport sector”;
- Activities of Output 2.3 “Standardized baseline for transport modal switch (from road to rail) developed as a mitigation tool to promote replication.

The detailed list of activities of these Outputs is presented in Section 2.1 of the Project Document.

b) Clarification of activities registered as NAMAs and corresponding MRV systems.

These activities will be developed and implemented under Outcome 2, mainly under:

- Output 2.1 “GHG inventory and MRV systems designed and implemented for NAMA purposes”;
- Output 2.4. “Replication strategy for 17 additional low-carbon Logistics Regional Plans developed, building on the Greater Casablanca model”;
- Output 2.5 “Innovative ‘nested NAMA’ framework developed to couple the Greater Casablanca Logistics Regional Plan NAMA to a broader Zenata Eco-city NAMA (‘NAMA Ville’), initiative so as to promote mitigation synergies in a consistent and robust GHG inventory and MRV framework”.

The detailed list of activities of these Outputs is presented in Section 2.1 of the Project Document.

c) Detailed estimation of GHG emission reductions with sound methodologies and assumptions, including the effects of multi-modal synergies.

The detailed calculations and assumptions used to estimate the GHG emission reductions including the effect of multi-modal synergies are presented in Section 2.3 and Annex 8.2 of the Project Document. A summary of the results of these estimations are presented in this document in Section A. 5. Of the CEO ER.

d) Mitigation approach to the increase of obsolete vehicles.

The introduction of the Euro 4 standard is now mandatory in Morocco since January 2015 (even on locally assembled vehicles) and represents the main approach to mitigate the increase of obsolete vehicles. The GEF project will support this approach through the development of a fleet renewal scheme via financial incentives with the collaboration of the banking sector.

Responses to comments from Council Members (Comments from Germany)

- a) Germany recommends to make clear in the beginning of the proposal that the Ministry of Equipment and Transport is the parent Ministry of the AMDL which is ultimately responsible for the National Logistics Strategy and which will support developing the mitigation aspects of the Strategy.*

The Prodoc presents a thorough presentation of the National Logistic Strategy (see para 17 to 24); it’s implementation status (para 25 to 46); and more importantly its mode of governance (para 43). The role of the AMDL in the

implementation of the National Logistics Strategy is detailed in para 90 to 92. Moreover in “Table 5. Summary of Stakeholder Roles and Responsibilities” of the CEO ER it is made clear that the Ministry of Equipment and Transport is the parent ministry of AMDL and is responsible for the strategy.

- b) *The development of country-specific emission factors for different freight vehicle-types and fuels is commendable. However, it is ambitious and due care shall be taken in their design, including complementarity with BURs and NC which also assess NAMAs and use emission factors.*

Indeed, Morocco is fully aware of the need for development of country-specific emission factors by vehicle category (for both road and rail freights) and fuels, which will allow for a more accurate inventory of GHG emissions, but also to monitor potential reductions and to reduce the overall uncertainty. The emission factors to be developed under Outcome 1 (Output 1.3; activity 1.3.3.) will build on and seek to improve upon emission factors included in the Simplified Calculation tool for GHG emissions in Morocco developed by the “Mohammed VI Foundation For The Protection of the Environment” under a cooperation agreement with ADEME (August 28, 2011). These emissions factors were used in the ex-ante GHG calculations noted in the Prodoc; however the calculation of the direct emissions realized by the project at terminal evaluation (ex-poste) will be done with the more customized emission factors supported under Outcome 1.

- c) *Germany considers the replication strategy for up-scaling the 17 additional logistics platforms planned nationally a good approach. Specific local circumstances need to be taken into account when planning further logistic platforms. The lessons learnt of this project shall be integrated into the replication strategy to make it applicable to other situations.*

This is noted and the replication strategy developed under this project (output 2.4) will fully incorporate the lessons learned from this project and the operationalization of the Greater Casablanca Logistics platform. Replication at the national level will help to significantly overcome the barriers present in the logistics sector, and in particular the presence of the informal sector and weaknesses in the regulatory and fiscal frameworks. This replication will strengthen the whole sector and will enable GHG reduction measures to be taken into account not only at the level of the Greater Casablanca platform but also nationally, The replication strategy proposed in this project will be based on the experience gained from the Greater Casablanca platform and will enable the concept of NAMA development in connection to these platforms to be expanded across the country. This approach should lead to significant results in terms of reducing GHG emissions, as mentioned in section 2.3 of the Prodoc, but also in terms of the organization of the logistics sector as a whole.

- d) What is the value added in respect of the global benefits of revitalizing the NCCC for this project?

Within this project, the NCCC is considered by national stakeholders to be a key source of support in the establishment of a national NAMA coordination framework. The NCCC was established in order to engage national institutions and build their capacity to address the issue of climate change. It was also designed to monitor all aspects relating to Morocco's commitments in the national implementation of the UNFCCC. In terms of reporting to UNFCCC (National Communications and BURs) as well as NAMA development, this committee plays a vital role.

- e) When establishing NAMA eligibility and quality criteria the Committee will build on DNA's experience with CDM project approval criteria. Germany in this context welcomes that the GEF project will work with the Moroccan DNA to develop a SBL for freight modal switching from road to rail (Output 2.3) to be test-applied at the Zenata Platform.

This recommendation is noted and will be ensured given that MoE (who hosts the Moroccan DNA as well as the NCCC) will have an active role in the process of SBL development and submission to the UNFCCC as the national focal point. It is planned that under Output 2.3 (activity 2.3.2) a trial application and calibration of the mitigation tool will be applied at the Zenata logistics site and at other relevant sites to modal shift.

- f) The planned development of a ‘nested NAMA’ framework is very innovative. However it is critical to ensure that overlap and duplication is avoided when inter-linking NAMAs and nesting NAMAs in other NAMAs. Further agencies/ technical experts shall be integrated in this process to observe a reasonable cost-benefit relation.

This is noted and that consideration is indicated in para 122 of the Prodoc, and description of Output 2.5 and activities 2.5.1 to 2.5.3.

- g) What criteria are applied to the mandatory road vehicle testing? Will it include emissions testing?

The present mandatory vehicle inspection scheme in Morocco includes emissions testing, such as the evaluation of the opacity of the exhaust pipe fumes that are conducted by the privately managed Centers of Vehicle Testing (see para 71 of the Prodoc).

- h) Please add non-GHG impacts (co-benefits) especially possible impacts on the region, city or the sector.

Non-GHG impacts (co-benefits) are presented in Section 2.3 of the Prodoc (especially in para 136 to 141) as well as Section B.2 of the CEO ER; various non-GHG benefits and indicators are also listed in the project results framework and will be monitored and report on during project implementation (see the results framework in Annex A of the CEO ER).

- i) How will the emission reductions from the eco-driving training be monitored?

As mentioned in the Results Framework (Annex A to the CEO ER) the emission reductions from the eco-driving training will be monitored through records of attendance to eco-driving training and application of the calculation methodologies used in Section 8.2 of the Prodoc specific to eco-driving.

ANNEX C: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS¹⁰

A. PROVIDE DETAILED FUNDING AMOUNT OF THE PPG ACTIVITIES FINANCING STATUS IN THE TABLE BELOW:

PPG Grant Approved at PIF: \$100 000.00			
<i>Project Preparation Activities Implemented</i>	<i>GEF/LDCF/SCCF/NPIF Amount (\$)</i>		
	<i>Budgeted Amount</i>	<i>Amount Spent To date</i>	<i>Amount Committed</i>
Assessing the national enabling environment for green logistics	60 000.00	35 941.88	24 058.12
Designing a comprehensive mitigation programme for Greater Casablanca integrated logistics platform developed as a NAMA	25 000.00	20 000.00	5 000.00
Development of the business case for targeted investments in emission reductions implemented in a NAMA framework	15 000.00	10 000.00	5 000.00
Total	100 000.00	65 941.88	34 058.12

¹⁰ If at CEO Endorsement, the PPG activities have not been completed and there is a balance of unspent fund, Agencies can continue undertake the activities up to one year of project start. No later than one year from start of project implementation, Agencies should report this table to the GEF Secretariat on the completion of PPG activities and the amount spent for the activities.

ANNEX D: CALENDAR OF EXPECTED REFLOWS (if non-grant instrument is used)

Provide a calendar of expected reflows to the GEF/LDCF/SCCF/NPIF Trust Fund or to your Agency (and/or revolving fund that will be set up)

N/A



Global Environmental Facility
United Nations Development Programme
Country: Morocco
PROJECT DOCUMENT¹



Project Title: Mainstreaming climate change in the National Logistics Strategy and Roll-Out of Integrated Logistics Platforms

UNDAF Outcome(s):

UNDAF Outcome 5: The principles of the "National Charter for the Environment for Sustainable Development" are implemented in coherence between sectoral strategies and priorities for the environment, climate change adaptation and risk management and by strengthening territorial convergence in areas and the most vulnerable populations with special attention to gender.

Output 5.1: The main actors are supported to ensure consistency between the national and sectoral strategies with the National Charter for Environment and Sustainable Development (NCESD).

Indicator 5.1.1: Number of strategies produced / reviewed consistently and integrating the principles of ESD charter.

Final Target: The transport strategy incorporates the CC.

Output 5.3: Capacities related to development and coordination of strategies and programs of mitigation and adaptation to climate change and management of natural and technological risks are developed and strengthened.

Indicator 5.3.1: Number of strategies developed for mitigation and adaptation to CC.

Final Target: The network of Multi-flux Logistics Zones of Greater Casablanca is developed as a nationally appropriate mitigation action ("NAMA") model project as part of the National Logistics Strategy.

Indicator 5.3.2: Number of entities that received capacity building in CC and risk management.

Final Target: At least 6 entities benefit from capacity building on CC (METL, ONCF, SNTL, AMDL, ADEREE, MdE).

UNDP Strategic Plan Primary Outcome:

Outcome 1: Growth and development are inclusive and sustainable, incorporating productive capacities that create employment and livelihoods for the poor and excluded

IRRF Indicator 1.4.1: Number of countries with strengthened systems in place to access, deliver, monitor, report on and verify use of climate finance.

¹ For UNDP supported GEF funded projects as this includes GEF-specific requirements

Indicator 1.4.2 Number of countries where implementation of comprehensive measures - plans, strategies, policies, programmes and budgets - to achieve low-emission and climate-resilient development objectives have improved

Expected CP Outcome(s):

The principles of the "National Charter for the Environment for Sustainable Development" are implemented in coherence between sectoral strategies and priorities for the environment, climate change adaptation and risk management and by strengthening territorial convergence in areas and the most vulnerable populations with special attention to gender.

Executing Entity/Implementing Partner:

The Ministry of Works, Transport and Logistics (METL)

Implementing Entity/Responsible Partners:

Agence Marocaine de Développement de la Logistique

Observatoire marocain de la compétitivité logistique

Société Nationale des Transports et de la Logistique

Office National des Chemins de Fer

Agence Nationale des Ports

Ministère délégué auprès du ministre de l'énergie, des mines, de l'eau et de l'environnement, Chargé de l'Environnement

Confédération Générale des Entreprises du Maroc/ Fédération Nationale du Transport Routier

Caisse de Dépôt et de Gestion

Autorité Organisatrice des Déplacements Urbains

Brief Description

Morocco, as a highly vulnerable country to the effects of Climate Change (CC), has voluntarily committed as part of the global fight against climate change to implement various low-carbon activities and programs.

This project is an integral part of the National Strategy for Development of Logistics Competitiveness which aims, among other objectives, for a 35% reduction in CO₂ emissions in the road freight transport sector in Morocco by optimizing movement of goods throughout the Kingdom. The project aims to operationalize this target and integrate CC considerations into the strategy and in the implementation of integrated Multi-Flow Logistics Zones (MFLZ) that are being implemented as part of the same strategy. The project focuses primarily on the MFLZ of Greater Casablanca and aspires to build a pilot approach containing various mitigation measures with the long-term aim of replication in other logistics zones for other regions of Morocco (as envisaged by the strategy).

In tandem with the reduction of CO₂ emissions, the project will focus on the establishment of policy measures and mitigation actions to help replicate the National Logistics Strategy across all MFLZs. Additionally the project aims to draft regulations on low-carbon development of the logistics sector; establish Government policies and financial incentives in low-carbon development in this sector; and develop skills and expertise in the government, private sector and academia in order to support low-carbon development in the Moroccan logistics sector.

It is expected that the project will benefit no less than 1,000 freight transport operators and will greatly contribute to the development and professionalization of the logistics sector and Morocco's socio-economic development. The project will support the development of an information system on road freight emissions that will be of great importance in helping Morocco access, deliver, monitor, report on and verify use of climate finance. The use of Multi-Flow Logistics Zones to consolidate flow of goods and increase of the road to rail modal shift will lead to road decongestion in both urban and inter-urban areas and air quality will be improved for citizens (considering that the transport sector is one of the main sources of air pollution in the country).

The project's National Focal Point is the Ministry of Infrastructure, Transport and Logistics (METL). The project will receive close collaboration from AMDL, SNTL, ONCF, OMCL, FT-CGEM, ADEREE, and others.

Programme Period:	2016-2020
Atlas Award ID:	00087522
Atlas Project ID:	00094492
GEF PMIS:	5358
UNDP PIMS #	5181
Start date:	January 1, 2016
End Date:	December 31, 2020

Management Arrangements: NIM
PAC Meeting Date:

Total resources required	<u>\$US 123,556,961</u>
Total allocated resources:	
o GEF	<u>\$US 2,274,429</u>
Other parallel funding (cash/in-kind):	
o METL (cash)	<u>\$US 7,955,000</u>
o METL (in-kind)	<u>\$US 100,000</u>
o AMDL (cash)	<u>\$US 3,300,000</u>
o CDG (cash)	<u>\$US 94,300,000</u>
o ONCF (cash)	<u>\$US 6,800,000</u>
o SNTL (cash)	<u>\$US 8,427,532</u>
o SNTL (in-kind)	<u>\$US 200,000</u>
o UNDP (cash)	<u>\$US 200,000</u>
Total Co-Financing:	<u>\$US 121,282,532</u>

Agreed by METL

Date/Month/Year

Agreed by UNDP

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List of Acronyms

4C	Competence Centre of Climate Change (<i>Centre de Compétence du Changement Climatique</i>)
ADEREE	National Agency for the Development of Renewable Energy and Energy Efficiency (<i>Agence nationale pour le Développement des Energies Renouvelables et de l'Efficacité Energétique</i>)
ADM	Moroccan Highways (<i>Autoroutes du Maroc</i>)
AMDL	Moroccan Agency for Logistics Development (<i>Agence Marocaine de Développement de la Logistique</i>)
ANAPEC	National Agency for the Promotion of Employment and Skills (<i>Agence Nationale de Promotion de l'Emploi et des Compétences</i>)
ANP	National Ports Agency (<i>Agence Nationale des Ports</i>)
AODU	Organizing Urban Transport Authority (<i>Autorité Organisatrice des Déplacements Urbains</i>)
ASMEX	Moroccan Association of Exporters (<i>Association Marocaine des Exportateurs</i>)
AWP	Annual Work Plan
CBU	Complete Built-up Unit
CC	Climate Change
CDG	Development and management Fund (<i>Caisse de Dépôt et de Gestion</i>)
CDM	Clean Development Mechanism
CNCC	National Committee on Climate Change (<i>Comité National du Changement Climatique</i>)
CNEDD	National Charter of Environment and Sustainable Development (<i>Charte Nationale de l'Environnement et du Développement Durable</i>)
CNEH	National Testing and Certification Center (<i>Centre National d'Essais et d'Homologation</i>)
CNSS	National Social Security Fund (<i>Caisse Nationale de Sécurité Sociale</i>)
CVT	Centers of Vehicle Testing
DPET	Provincial Departments of Public Works and Transport (<i>Direction Provinciale de l'Équipement et du Transport</i>)
DRET	Regional Directorates of Public Works and Transport (<i>Direction Régionale de l'Équipement et du Transport</i>)
DSPCT	Directorate of Strategy, Programs and Coordination of Transport (<i>Direction de la Stratégie, des Programmes et de la Coordination des Transports</i>)
EE	Energy Efficiency
EIB	European Investment Bank
EU	European Union
EVP	Twenty-foot Equivalent (<i>Equivalent vingt pieds</i>)
FIRM	Facilitating Implementation and Readiness for Mitigation
FT-CGEM	Transport Federation-General Confederation of Enterprises of Morocco (<i>Fédération du Transport-Confédération Générale des Entreprises du Maroc</i>)
GC	Great Casablanca
GDP	Gross Domestic Product
GEF	Global Environment Fund
GHG	Greenhouse Gases
GVWR	Gross Vehicle Weight Rating
LAZ	Logistics Activities Zone
LECB	Low Emissions Capacity Building
LPI	Logistics Performance Indicator

MAC	Marginal Abatement Cost
MAESS	Ministry of Handicraft, Social and Solidaty Economy (Ministère de l'Artisanat et de l'Économie Sociale et Solidaire)
MAPM	Ministry of Agriculture and Maritime Fishing (<i>Ministère de l'Agriculture et de la Pêche Maritime</i>)
MdE	Ministry Delegate to the Minister of Energy, Mines, Water and Environment Head of Environment (<i>Ministère délégué auprès du ministre de l'énergie, des mines, de l'eau et de l'environnement, Chargé de l'Environnement</i>)
MEAS	Ministry of Employment and Social Affairs (<i>Ministère de l'Emploi et des Affaires Sociales</i>)
MEF	Ministry of Economy and Finance (<i>Ministère de l'Économie et des Finances</i>)
MENFP	Ministry of National Education and Vocational Training (<i>Ministère de l'Education Nationale et de la Formation Professionnelle</i>)
MES	Ministry of Higher Education, Scientific Research and Executive Training (<i>Ministère de l'Enseignement Supérieur, de la Recherche Scientifique et de la Formation des Cadres</i>)
METL	Ministry of Equipment, Transport and Logistics (<i>Ministère de l'Équipement, du Transport et de la Logistique</i>)
MFLZ	Multi-Flow Logistics Zones
MI	Ministry of the Interior
MICIEN	Ministry of Industry, Trade, Investment and the Digital Economy (<i>Ministère de l'Industrie, du Commerce, de l'Investissement et de l'Économie Numérique</i>)
MRV	Monitoring, Reporting and Verification
MtCO ₂ e	Million tons of CO ₂ equivalent
NAMA	Nationally Appropriate Mitigation Actions
NAMA-DD	NAMA Document Design
OFPPT	Office of Vocational Training and Employment Promotion (Office de la Formation Professionnelle et de la Promotion du Travail)
OMCL	Moroccan Observatory of Logistics Competitiveness (<i>Observatoire Marocain de la Compétitivité Logistique</i>)
ONCF	National Rail Office (<i>Office National des Chemins de Fer</i>)
PCCM	Moroccan Climate Change Policy (Politique du CC du Maroc)
PMR	Partnership for Market Readiness
PMU	Project Management Unit
PNRC	National Plan for the Fight against Global Warming (Plan National de lutte contre le Réchauffement Climatique)
PSIU	Integrated Emergency Strategic Plan for Road Safety (<i>Plan Stratégique Intégré d'Urgence de sécurité routière</i>)
RE	Renewable Energy
SAZ	Zenata Development Company (<i>Société d'Aménagement de Zenata</i>)
SBAA	Standard Basic Assistance Agreement
SNTL	National Company for Transportation and Logistics (<i>Société Nationale des Transports et de la Logistique</i>)
tCO ₂ e	Tons CO ₂ equivalent
TIR	International Road Transport (Transport International Routier)
UN	United Nations
UNDAF	United Nations Development Assistance Framework
UNDG	United Nations Development Group

UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNS	United Nations System in Morocco (UNSM)
USTDA	United States Trade and Development Agency
WB	World Bank

1. SITUATION ANALYSIS

1.1 Context and Global Significance

1. Due to its location Morocco is highly vulnerable to the effects of climate change (CC), an issue which is exacerbated primarily by the expansion of desertification and the reduction of potential water resources. In order to address this issue, Morocco has proactively implemented adaptation and mitigation measures as part of an integrated, participatory and responsible approach.
2. Although its national GHG emissions are low (total emissions are estimated to be 91.414GgCO₂e for the reference year 2010, or 2.97tCO₂e per capita for the same year²), Morocco is aiming to lay the foundations of a low carbon green economy to be gradually developed using an ambitious investment program integrating energy efficiency measures and the use of renewable energy. This political ambition, driven by his Majesty King Mohammed VI, has now been set down in the National Charter on the Environment and Sustainable Development. From a climate change perspective, this ambition is displayed in the new Moroccan Climate Change Policy (*Politique du Changement Climatique au Maroc*, PCCM)³.
3. In pursuit of its sustainable development, Morocco has launched important initiatives that will underlie its energy efficiency strategy towards 2030. This strategy will aim essentially at increasing energy independence and security in the Kingdom, climate change mitigation and protection of the environment. It will in addition support the overall National Energy Strategy, which targets a reduction in energy consumption of 12% in 2020 and 15% in 2030. To this end, the State-Generals of Energy Efficiency (large multi stakeholder exercises) were launched by the National Agency for the Development of Renewable Energy and Energy Efficiency (ADEREE) and have mobilised the participation of stakeholders from all different groups: State agencies, local communities, professionals, associations and experts in various thematic working groups. These State-Generals have as their main goal to drive the energy efficiency strategy and to translate it into short, mid and long-term action plans, so as to provide Morocco with a roadmap for longer term climate mitigation and energy security⁴.
4. A number of sectors in Morocco have a direct impact on GHG emissions. Based primarily around road transport, freight transport is one of the main sources of emissions in Morocco as it is an energy intensive sector whose energy consumption is continuing to grow. Despite being an emitting sector, the transport of freight is also a significant contributor to national growth, as evidenced by the positive correlation between changes in global economic activity and the growth of the sector⁵.
5. In 2013, this sector alone contributed to 5.8% of the total value added, with 10.3% of that coming from tertiary activities at constant prices. Its value added grew from 19.6 billion dirhams (DH) in 2000 to 33.8 billion dirhams in 2011, equivalent to an average annual growth of 5%. In terms of jobs created, freight transport employed nearly 493,460 people in 2011, representing 4.7% of the working population, with 76% of the jobs located in urban areas⁶.

² Source: National Greenhouse Gas Inventory- Part I National Greenhouse Gas Inventory Report, Interim report, Third National Communication on Climate Change, Deputy Ministry to the Minister of Energy, Mining, Water, and Environment, in charge of the Environment, June 2014

³ Source: Morocco's Climate Change Policy Deputy Ministry to the Minister of Energy, Mining, Water, and Environment, in charge of the Environment

⁴ Source : ADEREE

⁵ Source: The freight transport sector: Constraints and pathways to reform - the Ministry of Economy and Finance, Directorate of Studies and Financial Forecasts, March 2013

⁶ Source: The freight transport sector: Constraints and pathways to reform - the Ministry of Economy and Finance, Directorate of Studies and Financial Forecasts, March 2013

6. The freight transport sector, whether by road, sea, rail or air, is crucial to economic development. Being a central component within several different strategic sectors, freight is a lever for improving Morocco's internal and external trade competitiveness and is a boon for job creation. The development of trade networks creates further logistics management needs and requires the establishment of efficient services to address constraints relating to time, reliability and quality. In Morocco, these needs have been accentuated by the liberalization of trade initiated by the country in the 1980s, and the conclusion of free trade agreements, at the bilateral or regional level, during the last decade⁷.
7. Morocco has seen an increase in foreign trade but also a growing trade deficit that has reached 202.064 billion dirhams as of 2012⁸. Europe is the country's largest trading partner. In fact, in 2012, Europe's market share was 60% of Morocco's total trade (57.5% in 2011), followed by Asia (21% of trade), America (12%) and Africa (6.5%). France has remained Morocco's primary trading partner and largest customer, accounting for 22.6% of Morocco's foreign sales⁹. According to the Foreign Exchange Office, the trade deficit saw a slight improvement in 2013 due to a 2% decline in imports and a 1.1% decline in exports, leading to a new total of -196.4 billion dirhams.

(millions of dirhams)	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Foreign Trade										
Imports CAF	136,070.1	157,921.2	184,379.5	210,553.6	251,287.5	326,042.2	263,981.7	297,963.4	357,769.6	386,949.0
Exports FOB	83,887.4	87,896.5	99,265.2	111,979.3	125,516.9	155,739.9	113,020.0	149,583.4	174,994.5	184,885.0
Balance	-52,182.7	-70,024.7	-85,114.3	-98,574.3	-135,770.6	-170,302.3	-150,961.7	-148,380.0	-182,775.1	-202,064.0

Table 1: Trade balance sheet (Source: Foreign Exchange Office)

8. The road-based freight transport sector represents between 65 and 80 million tons of freight (approximately 13 billion t-km every year), or in other words 70% of the domestic freight flow, and also provides 80% of freight jobs in Morocco. As the main mode of freight transport domestically, this sector is experiencing continuing annual growth of approximately 6%¹⁰. In 2011, energy consumption in freight transport vehicles (mainly diesel) accounted for 27.4% of the total energy consumption attributed to the transport sector¹¹. Average mileage for the same year was 64,815km for the 3.5t<GVWR<8t weight category, 110,626 km for the 8t<GVWR<14t category, and 71,793 km for vehicles with GVWR>14t.

⁷ Source: Moroccan Investment Development Agency (Agence Marocaine de Développement des Investissements)

⁸ Source: Foreign Exchange Office

⁹ Source: Treasury, General Directorate (France)

¹⁰ Source: National Strategy for the Development of Logistics Competitiveness (*Stratégie Nationale de Développement de la Compétitivité Logistique*), METL April 2010.

¹¹ Source: Survey on energy consumption in the transport sector, Phase V, Final Report, MEMEE, October 2012

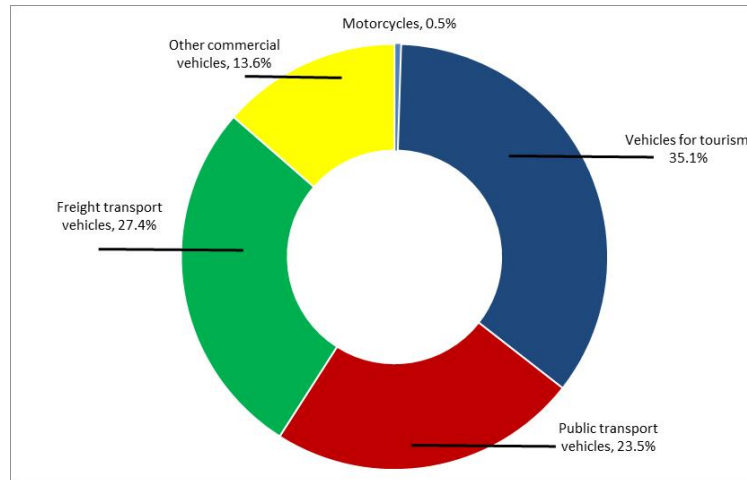


Figure 1: Distribution of energy consumption in the transport sector by type (Source: Survey on energy consumption in the transport sector, Phase V, Final Report, MEMEE, October 2012)

9. The number of road freight transport vehicles is increasing in parallel with the continued growth of the sector. Vehicles whose Gross Vehicle Weight Rating (GVWR) is greater than 14t represent the largest share. The fleet can be characterized by its age; the average age of vehicles is about 13 years¹².

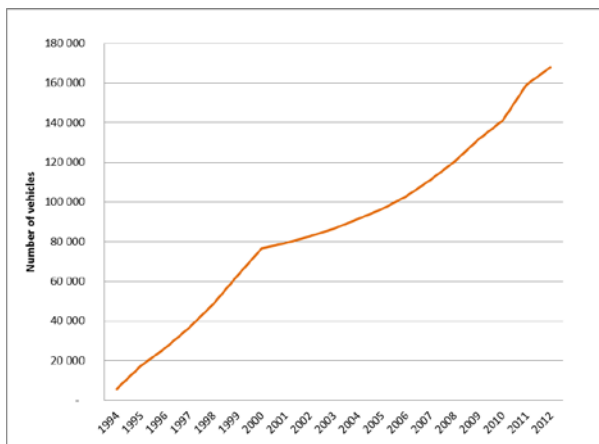


Figure 2: Evolution of the number of road freight vehicles (Source: Calculations and projections made by Prodóc preparation team using data from METL)

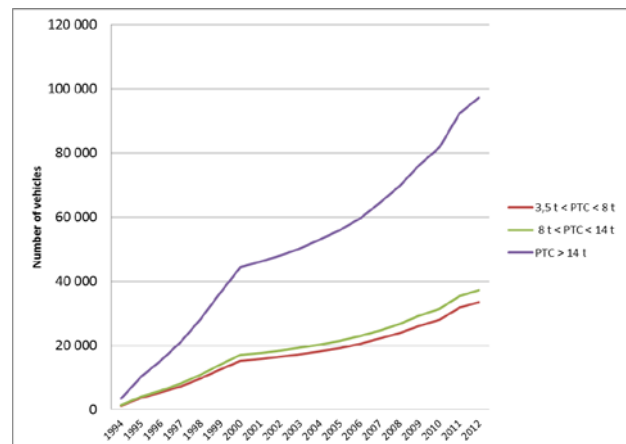


Figure 3: Evolution of the number of road freight vehicles by GVWR category (Source: Calculations and projections by Prodóc preparation team using data from METL)

10. This sector suffers from a high degree of atomicity and is highly fragmented. The strong presence of informal operators, who make up more than 40%¹³ of the sector, and the competition that results are a major obstacle to the development of the sector, as are the organizational and management deficiencies and high costs, etc. All these elements have a negative impact on the competitiveness of

¹² Source: Constraints and pathways to reform - the Ministry of Economy and Finance, Department of Studies and Financial Forecasting, March 2013

¹³ Source: Constraints and pathways to reform - the Ministry of Economy and Finance, Department of Studies and Financial Forecasting, March 2013

domestic production, which for many years has been in need of comprehensive reform. There are three main types of operator within the sub-contracting structure of the road transport industry:

- ✓ formal, structured operators (~200 units): actors with a modern logistics offering;
- ✓ formal, unstructured operators (~20,000 units): actors registered with METL but comprising a highly fragmented fleet (90% have an average 1-2 lorries) not in compliance with all expected standards (e.g. fleets with an average age of 13 years vs. the benchmark of 7 years);
- ✓ informal operators (~20-30,000 units): accounting for a relatively high share compared to the benchmark formal sector (10%), these operators create unfair competition for the formal sector (e.g. charging up to 50% less)¹⁴.

11. In addition, rail freight is a vital link in the national supply chain and an important vehicle in the Kingdom's socio-economic development. Indeed, the achievements of 2013 consolidate the positive trend in rail freight and logistics activity that has been recorded over the last four years. The total turnover from freight activity rose to 2,150 million DH, an improvement of nearly 2% from 2012. In the same year, phosphate transport activity reached 27.7 million tons, making a record turnover of 1,750 million dirhams, an increase of 4% compared to 2012 and an improvement of 9% compared to budgetary forecasts.

12. In 2013, rail freight had a rocky start due to adverse economic conditions and high rainfall. However, several positive factors allowed the sector to recover and achieve the results recorded that year, including the launch of new freight consignments such as hydrocarbons (Tanger-Med) and clay, and increased transportation of Renault cars. Similarly, Casa-Mita warehouses were established and brought into operation. These helped to improve the logistics competitiveness of the National Rail Office and strengthen its position as a facilitator and logistics integrator¹⁵.

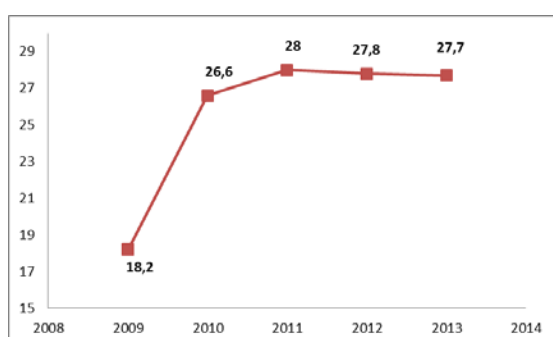


Figure 4: Growth in phosphate transportation in millions of tons (Source: Annual reports 2012 and 2013, ONCF)

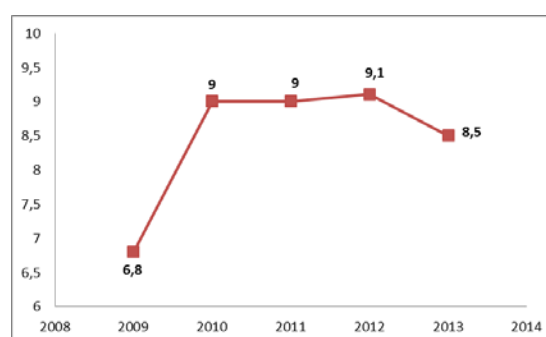


Figure 5: Growth in freight transportation, excluding phosphate transportation, in millions of tons (Source: Annual reports 2012 and 2013, ONCF)

13. The national rail network runs on two types of energy. These are diesel, the consumption of which reached 8,600 tons in 2011, and electricity, of which 302.3 GWh were used in the same year. As a form of transport that offers a lot of advantages (transportation of larger volumes over longer distances, reduction of greenhouse gas emissions, reduced congestion on roads and more security, etc.) rail freight has a large potential for development. Indeed, with an annual transported volume of 36.2 million tons (equivalent to 5.7 billion t-km in 2013), i.e. only 30% of the domestic flow of freight compared to road freight (70%), efforts need to be made to promote a modal shift from road to rail.

¹⁴ Source: National Strategy for the Development of Logistics Competitiveness (*Stratégie Nationale de Développement de la Compétitivité Logistique*), METL April 2010.

¹⁵ Annual Report 2013, ONCF

14. Morocco has undoubtedly benefited from the growth of the logistics and freight sector, but not without its downsides. Emissions from the freight sector, particularly from road transportation, have followed the same growth trend as the overall sector and have doubled between 1999 and 2010 to reach 12,691,483¹⁶tCO₂e in 2012. Emissions of rail freight remain broadly stable and low, at around 400,000tCO₂e, representing approximately 5% of emissions from the overall freight sector (road and rail). In 2012, these emissions accounted for approximately 86% of total emissions in the transport sector in Morocco, which reached 14,745 million tCO₂¹⁷eq, as shown in the figure below¹⁸:

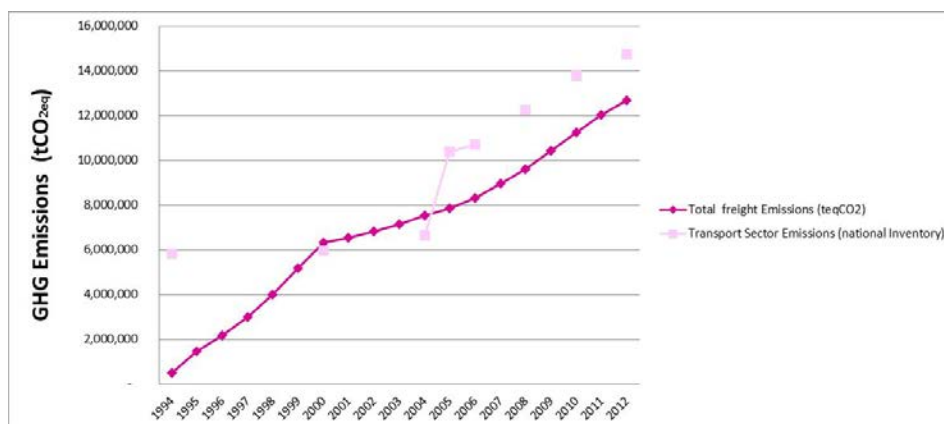


Figure 6: Comparison of freight (road and rail) sector emissions (source Prodoc preparation team) and total transport sector emissions (source: National Communications GHG Inventories)

15. Using historic emissions data from the freight (road and rail) sector, it is possible to make future emissions projections without taking mitigation measures into account (in other words a Business as Usual scenario), as shown in the figure below. These projections¹⁹ were made as part of the preparation of this Project Document. Annex n° 8.2 explains the details of the methodology followed, the assumptions considered and the equation used.

¹⁶ Source: ECI (Calculations made as part of this Project Document)

¹⁷ Source NATIONAL GREENHOUSE GAS EMISSIONS INVENTORY REPORT, Interim Report, Deputy Ministry to the Minister of Energy, Mines, Water and Environment, in charge of the Environment, June 2014

¹⁸ Data on greenhouse gas emissions for the years 1994, 2000 and 2004 are taken from the National Greenhouse Gas Emissions Inventory Report, Part III, Directorate of Partnerships, Communication and Cooperation, MoE, March 2009.

¹⁹ Projections made by the Prodoc preparation team

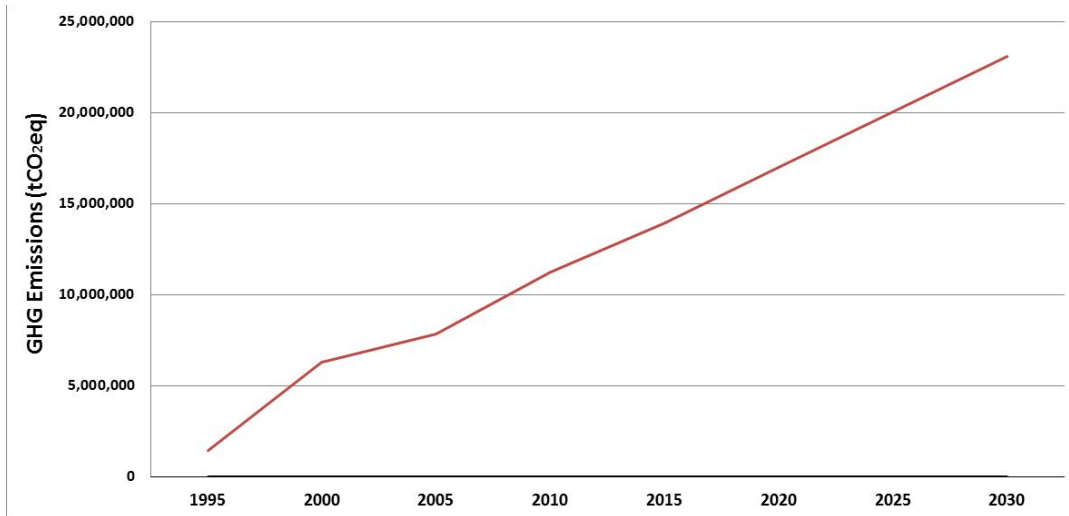


Figure 7: Projected freight (road and rail) sector emissions under BAU scenario

16. Even though Morocco's freight transport sector is growing, it still suffers from a number of disadvantages that damage its competitiveness. This situation is mainly due to organizational blockages in the road transport sector, the relative lack of infrastructure and delays in logistics services. This has prompted the government to enact reforms, such as the logistics strategy designed in April 2010. The strategy has been designed to address certain obstacles in order to try and stimulate the development of GHG emission reduction measures in the freight transport sector in Morocco.

1.2 Baselines, barriers and current Government policy to address the root causes and threats

Strategic framework

17. The performance of the Moroccan logistics sector as a whole remains transitional. In order to overcome the various deficiencies in the sector and to provide appropriate solutions to freight flow management issues, the **National Strategy for the Development of Logistics Competitiveness** (enacted through a framework contract between the State and the CGEM for the period 2010-2015) was launched. **The Ministry of Equipment, Transport and Logistics (Ministère de l'Équipement, du Transport et de la Logistique) is the Ministry that is legally responsible for the implementation of the strategy.**

Its aim is to provide the necessary support for the development of this sector, and also to support other related sectoral strategies, including the industrial Emergence Plan (*Plan Emergence*); the Green Morocco Plan (*Plan Maroc Vert*) for the agricultural sector; and the sector Halieutis Plan (Plan Halieutis) for the fishing industry.

18. The parties in the aforementioned framework contract set the following objectives:
- a reduction in logistics costs in relation to GDP from a current level of 20% to 15% in the medium term through optimized high volume management of freight flows;
 - accelerated GDP growth through an increase in induced value added: a 5 point direct increase in GDP over 10 years, through a lowering of logistics costs and the emergence of a competitive logistics sector;
 - the creation of 36,000 jobs by 2020;
 - Reduce pollution (a decrease in T/kms of 30% and **a reduction in CO₂ emissions from road freight transport of 35% in the medium term (around 2020) with respect to the 2009**

levels, and decongestion of roads and cities. Based on the freight sector GHG baseline (Figure 6), **this reduction target is estimated to be about 3,482,000 tCO₂.**

19. The implementation of this strategy is broken down into the following five pillars:



Figure 8: The five pillars of the national logistics strategy

20. Implementation of policies and measures in relation to these five pillars will be undertaken progressively, with a view to its full deployment in the long term (by 2030).
21. The action plan resulting from this strategy is being implemented through a public-private partnership. Several partners are supporting this strategy, including the National Rail Office (Office National des Chemins de Fer, ONCF) and the National Port Agency (Agence Nationale des Ports, ANP), who are the main actors in modal shift from road to rail and sea at the national level. The execution of this strategy will require the establishment of contracts for the development of regional MFLZ and sectoral contracts for training, road freight transport qualification and improvements of logistical competitiveness of various flows, such as import/export flows, building materials flows, national distribution flows, agricultural and energy flows.
22. Public authorities are a significant source of support to rail freight, and have included it in the new national logistics vision as a real player in the development of logistics services via multi-modal platforms. Therefore, ONCF has established its own integrated logistics strategy (2010-2015) involving the application of three levers: 1) Development of rail infrastructure in ports; 2) Development of sectoral strategies (cereal logistics plans and hydrocarbon logistics plans); and 3) Construction and operation of a network of logistics platforms consisting of 5 major platforms over an area of 300 ha in Casablanca "Mita", Zenata, Fez, Marrakech and Tangier.

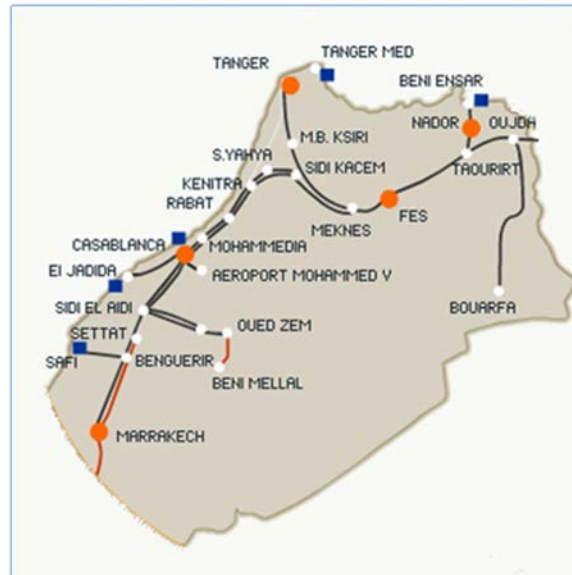


Figure 9 : Container terminal network (Source: ONCF)

23. With a view to improving the competitiveness of the port sector and in order to meet the changing demands placed on ports, Morocco has adopted a new approach to the operation of port services. This approach integrates logistical effectiveness and competitiveness into the heart of port development programs. As part of this approach, a strategy with a 2030 target was adopted to "contribute to economic and social development at both national and regional levels through the provision of world class infrastructure, facilities and port services".
24. This ANP-implemented strategy takes into account the process of advanced regionalization which Morocco is currently undergoing and is based around the following seven objectives: 1) Research port performance particularly in light of incentives for innovation; 2) Promote logistic effectiveness; 3) Optimize port infrastructures and existing connections; 4) Positioning in the national, regional and international context; 5) Capitalize on the structuring role of ports; 6) Integrate environmental and urban objectives into the design phase of investment projects; and 7) Allow adaptation to long-term uncertainties.

The logistics strategy pillars and their implementation status

Pillar 1: Development of an integrated national network of logistics zones

25. The aim of this first pillar is to establish an integrated national network of MFLZ near major consumption points, production areas, major trading centers and major transport infrastructures (ports, highways, railways, etc.). These logistic activity zones bring together one or more platform types:
- container platforms;
 - distribution and logistics outsourcing platforms;
 - agro-commercialization platforms;
 - construction material platforms;
 - cereal platforms.
26. **The first regional plan of MFLZ that was planned as part of this strategy is that of Greater Casablanca (GC).** Divided over 8 sites and grouping the five main types of logistics zones, this logistics plan is spread over a total area of 978ha (representing 30% of the total surface area foreseen in the framework of the national network of multi-flow logistics zones to be developed in Morocco by 2030), and is attached to Morocco's largest port, one of the largest ports in Africa. The implementation of this

regional plan is accompanied by the completion of the maritime route in the form of a 4.5 km harbor breakwater, with a cost of 700 million dirhams allowing for a fluid and easy access to lorries to the Port of Casablanca without entering the urban area, as well as the completion of the northern service road (length 18.4 km) linking RR322 to the Zenata logistics area (the convention was signed in May 2014). This project, estimated at 600 million DHS will be implemented over three years and will thus complete an effective link between the Zenata zone and the Casablanca Port area, allowing Zenata to fulfill its vocation as a center for the development of the logistics sector. This shipping route will provide easy and seamless access for trucks and heavy vehicles to the port of Casablanca without the need to cross the city.

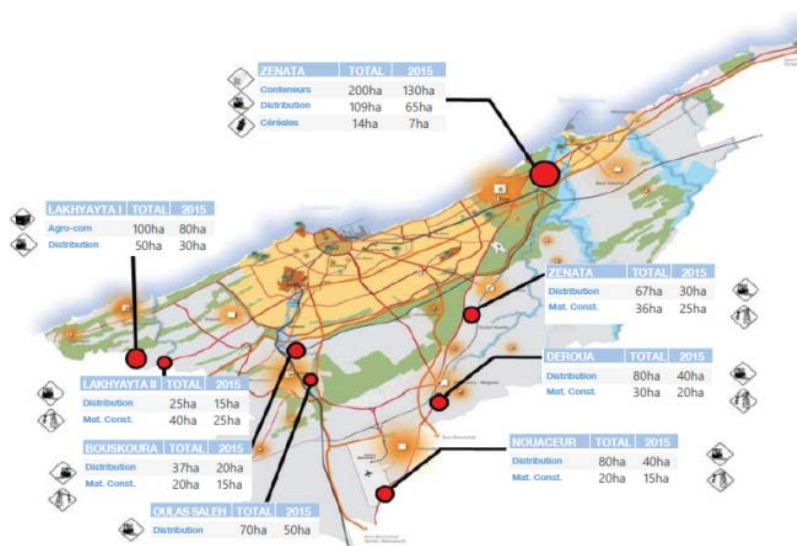


Figure 10: Sites belonging to the Greater Casablanca integrated logistics platform (Source: METL)

27. The development of this regional plan also fits within the scope of the GHG emissions mitigation policy as a Nationally Appropriate Mitigation Action (NAMA) initiated by the country. Indeed, this regional plan will later connect to a broader development project – that of the new city of Zenata – which represents what is arguably the first eco-city in Morocco and indeed in the whole of Africa. This city is Greater Casablanca's last major strategic land reserve and is located at a strategic junction crossed by several major road, highway and rail infrastructures. The implementation of the Zenata eco-city forms a real advantage in the development of the logistics platform.



Figure 11: Map of the upcoming new city of Zenata (Source: CDG)

28. At this stage, only the Zenata logistics zone is under development. This is the largest planned zone in the national MFLZ program, with a surface area of 323 ha. The development of this zone is being carried out in accordance with the blueprints and urban guidelines created for the new city of Zenata, as well as the implementation agreement from the State/CGEM program contract for the period 2010-2015, relating to the development of multi-flow logistics zones in the Greater Casablanca region.
29. In this context, a cooperation agreement was signed with the European Investment Bank (EIB), with the aim of securing technical assistance in the definition of the future development of the Zenata multiflow logistics zone from technical, environmental, economic, financial and organizational perspectives.
30. Moreover, market and project structuring studies for the first logistics zones in various regions of Kingdom have already been launched. These studies aim primarily at 1) the assessment of current and future needs in terms of real estate and logistics services in each region; 2) the identification of a detailed and precise phasing for the implementation of the regional plan of MFLZ in each region;; and 3) the definition of the project to create the first logistics area to be developed in each of the regions under study considering technical, environmental, economic and financial aspects. In May 2014, the METL and the MEF signed a framework memorandum to coordinate the mobilisation of the real estate necessary to the development of the national MFLZ network.
31. Currently, the first and only logistics center developed on the Zenata site is that of the National Company for Transportation and Logistics (*Société Nationale du Transport et de la Logistique*, SNTL). This is a multi-flow center built over an area of 28 hectares and is divided into two sections. The first, spread over an area of 12 ha, is operational and is only used by SNTL's truck fleet. The second, inaugurated by King Mohammed VI on May 13, 2014, will create a logistics real estate opportunity to be offered to other private operators. This second section is made up of 10 warehouses with a surface area of 6,000m² each.
32. This second section has also been designed to accommodate a PV system. In this context, a study on the technical and economic feasibility of setting up a 1.5 MW photovoltaic plant on the roof was conducted. The USTDA (United States Trade and Development Agency) provided a grant in support of this study, which was carried out by the "POWER ENGINEERS" engineering firm. The study concluded with a comparison of several options, based on technical data and climate data for the area, and was used to analyze the feasibility of implementing the photovoltaic power plant, which will be the first of

its kind in Morocco with a capacity of more than 1MW. The 1.5 MW PV system main goal is to meet the electrical needs of future refrigerated warehouses in the logistics site of Zenata to attract other types of goods at this site. This will contribute to the consolidation of flows of other types of transported goods, such as goods from the food industry and agricultural sector. Additionally, the PV system is also considered to respond to power needs of electric vehicles that SNTL intends to introduce in its fleet on-site.



Figure 9: SNTL logistics center in Zenata (1st section)



Figure 10: SNTL logistics center in Zenata (2nd section)

33. Eventually the Zenata logistics site should see the arrival of other operators, including the ONCF and the ANP, making it a single logistic site. Note that a first multi-modal rail container terminal was developed by ONCF over an area of 43 hectares, 10 km from the Zenata site, in the heart of the industrial district of Ain Sebaa (Greater Casablanca) and 6 km from the Port of Casablanca. The “MITA” dry port facility, with an area of 8 ha, has been operational since September 2009 and has a 600 m rail track connected to the rail network providing a range of services. In 2013 it handled 35,000 containers, an increase of 28% compared to the volume achieved in 2012, corresponding to a 13% increase in turnover compared to the previous year.²⁰

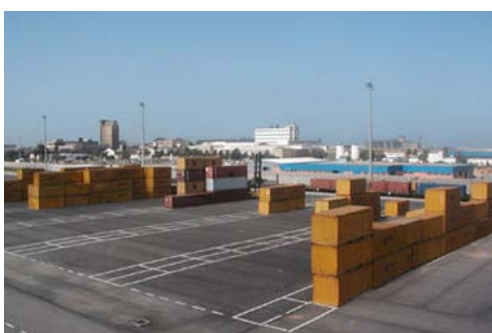


Figure 14: Casablanca MITA dry port

34. ONCF's comprehensive and integrated logistics offering to its customers was finalized in 2013 with the completion of the first phase of the Logistics Activities Zone (LAZ) adjoining the Mita dry port. This zone contains six warehouse units covering an area of 26,000m², a business center, a messaging hub and various support facilities. The preparation for the operation of these warehouses has gone through several stages, including the recruitment of specialist logisticians, the establishment of logistical warehouse management software (WMS), the signing of a customs agreement for a bonded logistics warehouse of 4,300m², the fitting of warehouse rack storage, the acquisition of handling equipment and installation of security systems, etc.

Pillar 2: Optimized and higher volume freight flows

²⁰ Source: Annual Report 2013, ONCF

35. The second pillar covered by the national logistics strategy focuses on the improvement, organization and development of the most important freight flow supply chains in Morocco. The framework contract for development of logistics competitiveness between the State and CGEM stipulates the elaboration of a set of implementation contracts at sector level aiming at improving supply chains for specific merchandise types, deemed to have substantial potential for progression. In effect, there is a large development potential for the optimization of the flows of goods in the national economy such as import/export flows, agricultural produce, building materials, hydrocarbon products and retail distribution. After broad consultation with the different public and private partners within the sector, action plans for improvement of specific products were finalized and put in place in May 2014.
36. These action plans, covering the period 2014-2020, comprise measures for the different links in the logistic chains, with a view to:
- facilitate logistics operations at border controls;
 - optimize logistics flows for export supply chains, from source to border, realizing so-called "export highways";
 - follow-up of traditional retail modernization processes with regards to logistics deployment;
 - better structure urban logistics;
 - Encourage the creation of small distributor associations, providing them with access to land of the regional logistics zones.

Agreement/Implementation Agreement	Objectives	Pillars	Signatories
Sectoral implementation agreement relating to the improvement of logistics competitiveness in import-export flows	<ul style="list-style-type: none"> - Reduction in import-export logistics costs; - Improvement in the reliability of import-export supply chains; - Reduction in the environmental impacts of import-export flows 	<ul style="list-style-type: none"> - Support for the emergence of import-export supply chain aggregators; - Development of customized logistics infrastructures for import-export flows; - Improvement of transportation offerings for import-export flows; - Facilitation of logistics operations at borders; - Reinforcement of security and freight integrity 	Contract agreed between: <ul style="list-style-type: none"> - The State represented by the MEF, MAPM, METL, MICIEN, MAESS, the MICIEN Deputy Ministry in charge of Foreign Trade, AMDL and - The private sector represented by CGEM, its committees, federations and affiliates, the FT (Transport Federation) and ASMEX (Moroccan Association of Exporters).
Sectoral implementation agreement relating to the improvement of the logistics competitiveness of domestic distribution flows	<ul style="list-style-type: none"> - Higher volume flows through the creation of dedicated logistics zones; - Development of a high added value logistics service offering - Improvement of urban logistics. 	<ul style="list-style-type: none"> - Higher volume flows and the development of out-sourcing; - Support for modernization of traditional trade in the logistics plan; - Contribution to the structuring of urban logistics. 	Contract agreed between: <ul style="list-style-type: none"> - The State represented by the MI, MEF, MAPM, METL, MICIEN, AMDL and - The private sector represented by CGEM and the FT.
Sectoral implementation agreement relating to the improvement of the logistics competitiveness of building material flows	<ul style="list-style-type: none"> - Higher volume flows, particularly between manufacturing and import sites on one side, and constructions sites on the other; - Support for the development of modern wholesale networks that provide real added value; 	<ul style="list-style-type: none"> - Higher volume flows from manufacturing and import zones to construction sites; - Support for the development of professional distributors and wholesalers offering value-added services; 	Contract agreed between: <ul style="list-style-type: none"> - The State represented by the MEF, METL, MICIEN, AMDL and, - The private sector represented by CGEM, its committees, federations and affiliates, and the FT.

	- Support for the development of value added services close to building sites.	- Promotion of professionalism in other players in the construction material sector	
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37. During the first half of 2014, stakeholder consultation with public partners have been pursued aiming at finalizing the framework contracts for implementation in the fields of agricultural and energy commodities, of which the first versions have already been elaborated.
38. The implementation of this pillar took a first step with the launch of a study on the structuring of the urban logistics system in Morocco, aimed at providing a roadmap for the restructuring of urban logistics chains. This study will provide a longer-term vision (2030) as well as action plans for short and mid-terms regarding the development of urban logistics, coherent and pertinent across the different territorial scales to be taken up and translated into action by the relevant local and regional stakeholders.

Pillar 3: Upgrades and incentives for the emergence of integrated and effective logistics companies

39. This pillar is concerned with the establishment of three key components. These are: 1) the restructuring of road freight transport operators; 2) the attraction of investors in order to bring integrated operators into the logistics sector; and 3) the upgrade of ordering parties. These three components will be realized through the development of various initiatives and actions and will help to improve the level of professionalism in logistics operators, thereby helping to create real added value in Morocco's logistics sector.

Pillar 4: Skills development through a national logistics training plan

40. Skills development for logistics operators is an essential pillar in the improvement of the logistics sector. This is a priority area that has garnered significant attention and has been designated as a key element in the successful implementation of the national logistics strategy. With this in mind, an integrated logistics training plan addressing all qualification levels has been established in this pillar.
41. This plan includes the establishment of two types of training (pre-employment and post-employment) and has two objectives:
- better visibility in relation to training needs and offerings;
 - Revitalization of existing training systems to create a broader offering better adapted to the demands and needs of the sector.
42. The implementation contract for the period 2014-2020, signed on May 13, 2014, aims at the strengthening in quantity and quality the training offer in the sector. In addition, mechanisms to ensure the adequacy of the training to be offered to professionals in the sector and the skills demanded will be developed on a public-private basis.

Agreement/Implementation Agreement	Objectives	Pillars	Signatories
Implementation agreement for the period 2014-2020 relating to the development of logistics training and skills	<ul style="list-style-type: none"> - To respond to the specific needs of different categories and professions; - To raise the skill level of training center graduates; 	<ul style="list-style-type: none"> - An increase in the number of opportunities for certain profiles; - Diversification and improvement of the quality of training opportunities and the transparency of proposed training courses; 	Contract agreed between: - The State represented by the MEF, the MENFP, the MES, the METL, the MEAS, the OFPPT, the ANAPEC, AMDL and,

	<ul style="list-style-type: none"> - To create training disciplines and specialties capable of attracting students with high levels of potential; - To ensure permanent monitoring of training needs in the logistics field; - To allow the opening of logistics companies in logistics training centers. 	- Dynamic balancing of training supply and demand in the logistics sector.	- the private sector represented by CGEM, its committees, federations and affiliates, and the FT.
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Pillar 5: Establishment of a governance framework for the sector and the regulatory measures adapted

43. Due to the size of the logistics sector, the multiplicity of actors it covers, and the number of disadvantages it faces, the improvement of logistics competitiveness in Morocco constitutes a significant challenge. This challenge requires the establishment of an institutional framework that is appropriate and conducive to the development of the strategy's various components. For this reason, the strategy includes measures to strengthen this framework such as the establishment of structures to successfully enforce its implementation. These include:
- The Moroccan Agency of Logistics Development (*l'Agence Marocaine de la Développement de la Logistique*, AMDL), public institution under the auspices of the Ministry of Equipment, Transport and Logistics, to monitor and coordinate effectively the implementation of the national logistics strategy and its programmes; and
 - The Moroccan Observatory of Logistics Competitiveness (*Observatoire Marocain de la Compétitivité Logistique*, OMCL), responsible for monitoring, tracking and measuring the performance of the logistics sector²¹.
44. Currently, the establishment of these institutions is under way, their roadmaps have been validated, their tools approved, and their respective organizational structures confirmed. In May 2014, a Convention was established between the State and the CGEM in relation to the organization and functions of the OMCL.
45. The various measures planned, and the efforts made as part of the implementation of this strategy, will continue to intensify in order to enhance the milestones and make more progress towards serving the national economy and supporting sectoral strategies through improved logistics competitiveness. Significant changes have already been observed in Morocco's logistics sector. For example, the country obtained the rank of 50th in the world in 2012 based on the Logistics Performance Indicator (LPI), compared to the rank of 94th achieved in 2007²²; achieved a ranking of 17th instead of 21st rank among emerging markets²³; and was 3rd place in the Euler Hermés Index of integration in world transport networks in 2012²⁴.
46. These results reflect the positive impact of a clearly defined strategy, beginning to be implemented on several levels, and the dynamism Morocco is experiencing in the logistics industry as a result. They also reflect the effectiveness of the guidelines and action plan, hence the need to continue in these efforts to operationalize all the strategic pillars. However, in terms of climate change, the national strategy has not specified the policy instruments (legal, fiscal, economic and financial) to be implemented in order to

²¹ These two institutions are described in greater detail in the institutional framework

²² Source: "Connecting to Compete 2012: Trade Logistics in the Global Economy", World Bank, 2012.

²³ Ranking based on the Agility Emerging Markets Logistics Index.

²⁴ Source : AMDL

achieve the ambitious target of a 35% reduction in CO₂ emissions from road freight transport. AMDL currently uses partnership agreements to associate sector partners in a global and integrated initiative around action plans involving the technically and legally relevant and competent partners for the numerous topics included in the strategy.

Morocco's transport infrastructure network

47. Recognizing the importance that the freight sector has to the national economy and the expansion of trade, Morocco has implemented a variety of measures to promote improved performance in the sector. Transport infrastructure represents a key component in the development of the freight sector, and has long since received major investment as part of the national policy on major works. With this in mind, METL has worked to make significant progress in the development of different transport infrastructures: roads, highways, railways, airports and ports.
48. As part of the accelerated implementation of the major works policy, the transport infrastructure network in Morocco is currently undergoing unprecedented new investment; a significant portion of this investment took place between 2007-2013 and has allowed Morocco to better position itself relative to its major competitors in North Africa. The major infrastructure network has been affected by a number of plans/structuring programs:
- **National investment plan (2008-2012) for the development of transport infrastructures²⁵:** With a budget of 120 billion dirhams, this plan aims to develop the sector's infrastructure and to equip the Kingdom with a 1,800km highway network linking all cities with populations greater than 400,000 inhabitants by 2015. The plan addresses various components such as highways, which has received a budget of 31 billion dirhams, and bus stations and the rail network (21 billion dirhams), with the rest of the budget dedicated to high-speed trains, the Tanger-Med II port project, road maintenance, construction of 2,000 km of rural roads annually, airports, maintenance of certain airport projects, the construction of 700km of expressway, the Mediterranean Bypass Project ('*Rocade Méditerranée*') and the construction of new highway connections;
 - **METL's strategy for the years 2012-2016:** This strategy draws on investments of up to 166 billion dirhams. Its focus revolves around projects relating to roads (26.1 billion dirhams), highways (8.15 billion dirhams), railways (27.5 billion dirhams), ports (28.5 billion dirhams), airports (5 billion dirhams) and finally logistics (63 billion dirhams).
 - **Contract Program between the State and National Society for Moroccan Highways (*société nationale des Autoroutes du Maroc, ADM*) for the period 2008-2015:** The amount of investment committed under this program agreement is 10 billion dirhams. This program agreement was signed in July 2008 and sets a target of achieving 1,800 km of new road in 2015. It also aims to clarify the relationship between the state and the ADM by establishing both mutual commitments and also the company's investment plan for the period of the highway program contract granted to the ADM. It also aims to set the performance standards to be achieved in the implementation and operation of the highway network, and to ensure the company's financial sustainability in the medium and long-term.
 - **Highway master plan up to 2025:** This plan aims to set new objectives in terms of highway development and the design of the operational framework in which land use planning and highway opportunities will be implemented. It has led to the identification of the areas necessary for the expansion of the core network, the definition of the first linkages and networks and the proposal of the infrastructure necessary for regional development and balance.

²⁵ Source: The freight transport sector: Constraints and pathways to reform - the Ministry of Economy and Finance, Directorate of Studies and Financial Forecasts, March 2013

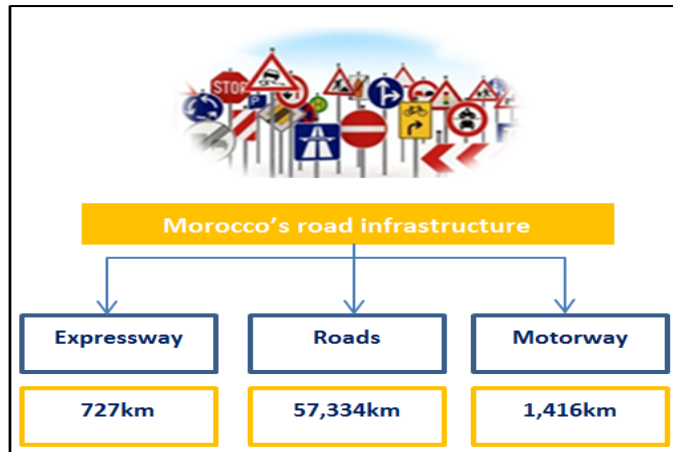


Figure 15: The status of road infrastructure in Morocco (source: METL)

As this project is solely concerned with road and rail freight, we focus solely on road and rail infrastructures in the following section.

The road and highway network

49. Roads are the main mode of freight transportation in Morocco (75%). The Moroccan road network is considered to be one of the best networks in the African continent, and has a total length of 57,334km, of which 41,431km (72.3%) is paved. According to Decree No. 2-83-620 of 1 February 1990, the Moroccan road network is managed by METL and is classified into four categories: national roads, highways, regional roads and provincial roads.
50. In 2009, the paved road network crossed the threshold of 40,000 kilometers. Immediately following independence in 1956 this network was only 10,348km in length. In 2010, the paved road network length reached 41,341km spread over 10,185km of national roads, 9,510km of regional roads and 21,736km of provincial roads. Between 2000 and 2010, approximately 9,000km of paved road were added, equivalent to an annual increase in the paved network of 2.5%.
51. In terms of the highway network, the length open to traffic is 1,416km, and METL has scheduled the completion of a further 384km as part of the supplementary highway master plan, in order to reach 1,800 kilometers of highway by 2015.

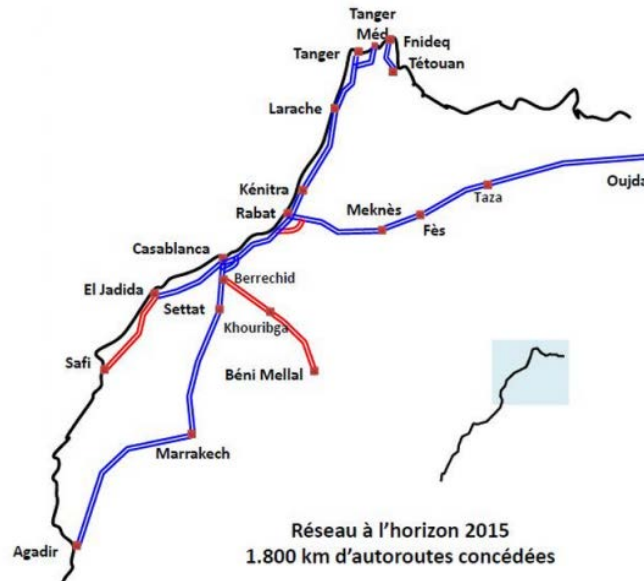


Figure 11: The highway network by 2015 (Source: METL)

52. A national expressway program is also being implemented to support the country's transport infrastructure development strategy. Started in the 90s, this program is being carried out in parallel to the highway program at a steady pace of implementation. The main aim of this program is the construction of 600km of expressway during the period 2012-2016, in order to reach a total of 1,300 kilometers. At present 727km of expressway are in service, while work is under way on a further 188km, and about 385km are planned for 2016²⁶.
53. Finally, for rural roads, the 3rd National Rural Roads Program was begun in 2012 with the objective of increasing activities to boost access to rural regions. It is primarily concerned with mountainous and remote areas, and aims to achieve balanced regional development, greater national solidarity by reducing regional disparities, improved socio-economic conditions through the promotion of employment, an effective fight against poverty and the conservation of natural resources.

Rail network

54. The Moroccan rail network is one of the most highly developed and modern in Africa. Indeed, after independence Morocco inherited a relatively modern and well maintained network; since 1963 this network has been operated by the National Railway Office (ONCF), the Moroccan public institution responsible for the management of passenger and freight transport by rail.
55. In order to support the development of the Kingdom's economic and social sectors, and to meet the expectations of customers and economic stakeholders, ONCF has worked to achieve a qualitative leap in the field of rail transport through:
- The realization of an operational, efficient and modern network;
 - An improved rail product offering and the creation of more attractive services;
 - Improved profitability, competitiveness and efficiency in production mechanisms, etc.

²⁶ Source: METL

56. To support this vision and to achieve the strategic objectives identified, program contracts were agreed between the State and ONCF for the periods 2005-2009 and 2010-2015. The main objective of these contracts is the realization of large investment programs relating to the rehabilitation of production mechanisms and a modernized rail network with increased capacity, amounting to 18 and 33 billion dirhams respectively.
57. The rail network is currently 2,110km in length. Of this, 1,284km is electrified²⁷, while the rest of the network operates on diesel traction. The ONCF is currently pursuing a strategy to expand the electrified part of the network. In this context, the electrification of the Fes-Taza line extending over 120km was launched on June 19, 2013 by King Mohammed VI, and the project is so far 46% complete. Work on an additional 530km section is currently being planned²⁸.

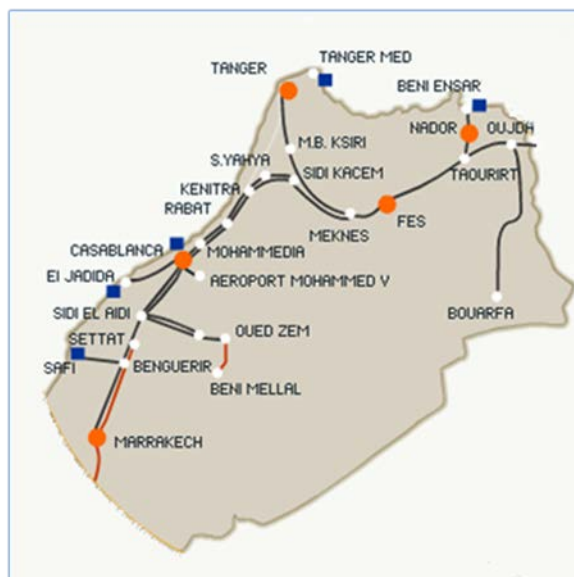


Figure 17: Morocco rail network (Source: ONCF)

Ports

58. For Morocco, ports constitute a key link in foreign trade supply chains and an important lever in the social and economic development of the country. Indeed, ports are linked to 98% of the Kingdom's external trade and therefore constitute a vital sector for the economy, not only in terms of helping national economic competitiveness, but also in taking the opportunity provided by international shipping to boost Morocco's standing in this sector, especially in the Mediterranean basin and Europe²⁹.
59. Due to the country's advantageous geo-strategic position, Morocco's ports play a considerable role in global trade; this is a role that needs to be consolidated through the modernization of the port sector in order to support not only the evolution of the economy, but also generate new opportunities that can further increase Morocco's global competitiveness.

²⁷ Source: METL

²⁸ Source: ONCF

²⁹ Source: The national port strategy 2030, METL, 2011.

60. Morocco has a variety of port types that span both of the country's seabords³⁰ :

- 13 commercial ports open to foreign trade;
- 10 regional fishing ports;
- 9 local fishing ports;
- 6 marinas.

61. The graph below summarizes the evolution of overall port activity during the past three years. This graph shows an overall contrasting trend, with an increase during 2011, and then a slight decrease in 2012, and finally in 2013 a significant variation in terms of exports and transshipment traffic.

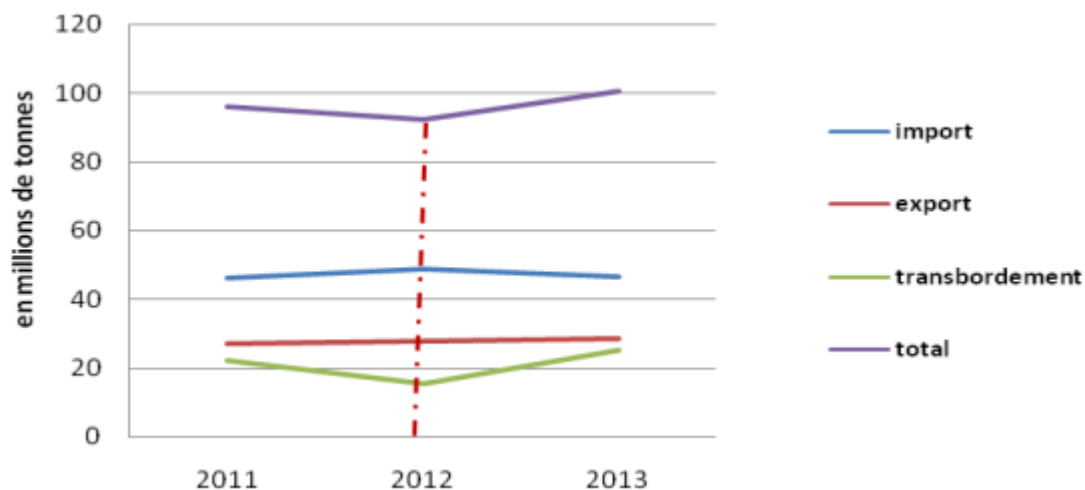


Figure 12: The evolution of overall port activity during the past three years (Source: Port activity in 2013 - METL)

62. The recorded increase in 2013 was primarily due to the resumption of transshipment activity at the port of Tanger Med (2.5 million TFEs (twenty-foot equivalent) /+41.1%), the positive trend in domestic exports, which grew by 2% to a total volume of 28.7 million tons, and a reduction in domestic imports of 4.0% (46.8 million tons)³¹.

Legal framework

63. In order to ensure the harmonious development of a freight transport sector that prioritizes complementarity and fair competition, a legislative framework was gradually developed for Morocco's freight sector. The framework was developed gradually in order to try and guarantee the integration of freight into the wider transport system, as a way of supporting the country's socio-economic and political development and the various sectoral reforms put in place.

64. The reform of road freight transport, effective as of March 13, 2003, was implemented through the adoption in 2000 of **Law 16-99**, which amends and supplements the section on freight transport in Decree N° 1-63-260 (1963), relating to transport by road motor vehicles. This law provides the legal framework for the reform of road freight transport and required a transitional period of three years in order to enable all stakeholders (administration - National Transport Office (ONT) - Professionals) to implement the necessary measures for its implementation.

65. This reform is part of the goal of making the Moroccan freight sector competitive and dynamic, by putting an end to the situations of vested interest and monopoly it was characterized by. It also aims to raise

³⁰ Source: ANP

³¹ Source: Port activity in 2013 - METL.

national transport to international standards, in order to access the global economy and meet the resulting challenge of improving national economic competitiveness.

66. The two main objectives of this reform are: 1) the encouragement of private initiatives and the promotion of investment in the field of road freight transport through the establishment of free market access, direct marketing between carriers and shippers and the emergence of new professions, and 2) the social and economic streamlining of the sector in order to phase out the shortcomings observed, such as the presence of a large share of informal operations outside of the regulatory framework, difficulties relating to regulation and the balancing of supply and demand, etc.

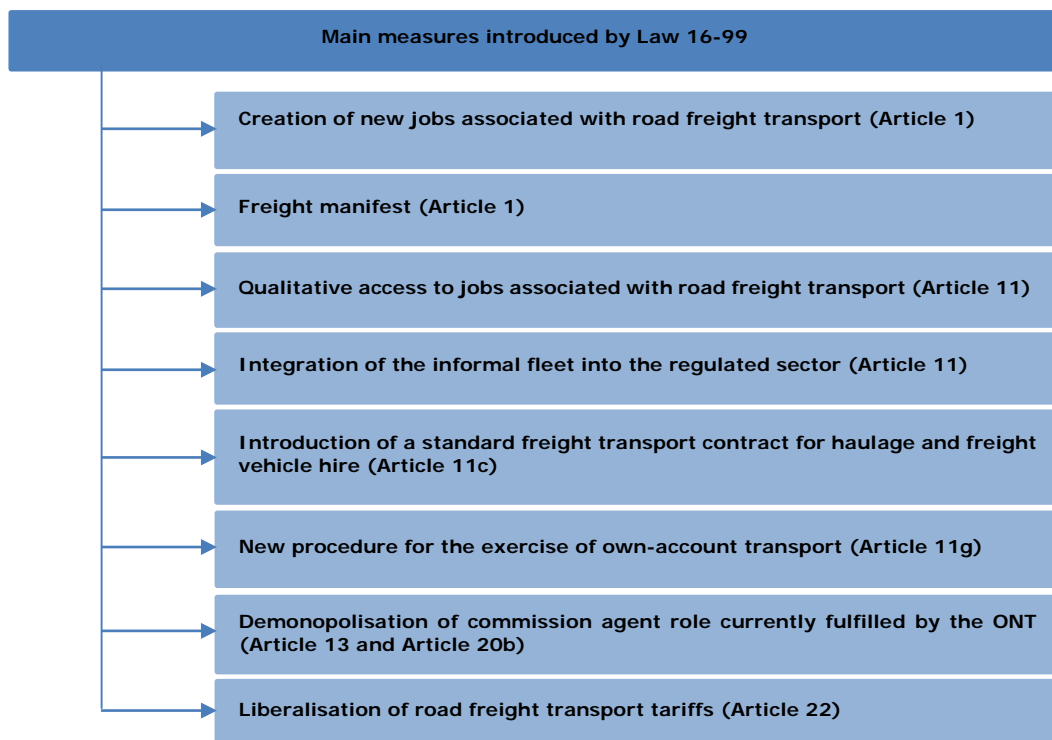


Figure19 : Main measures introduced by Law 16-99 (Source: Reform of the road freight transport sector - Evaluation of the implementation of measures from Law 16-99, March 2003- March 2007, Road Transport Department, METL)

67. Accompanying measures, including legislative and regulatory measures, were also put in place in order to ensure effective implementation of this reform and to give an operational content to certain provisions. This included the drafting of the following legislation:

- The decree of March 26, 2003 relating to road freight transport for hire and reward or for its own account, which establishes how the procedures for signing up to the special register of road haulage for hire or reward, the special register for the freight forwarding agent or the special register for freight vehicle hire (with or without driver) should be applied, and provides definitions for tickets and transport documents;
- The order of the Minister of Equipment and Transport of March 26, 2003 adopted in pursuance of the aforementioned Decree, which specifies the conditions for fulfilling the financial capacity and fitness to practice criteria, and establishes the procedure for granting vehicle registration and the modalities of use relating to transport documents;
- The order of the Minister of Equipment and Transport No. 1744-1703 of 26 Rajab 1424 (September 23, 2003), which relates to contracts for road freight transport for hire or reward, and contracts for the rental of freight motor vehicles with a driver.

68. Following the entry into force of the reform, and in order to continue the liberalization of the transport sector and to encourage investment, a dialogue was initiated between METL and the National Federation of Road Transport (*Fédération Nationale du Transport Routier*, FT-CGEM), which resulted in the signature on March 25, 2003 of a Program-Contract between the two parties for the period 2003-2006. This was followed by the signing of other Program-Contracts which make up the framework for the joint action of both parties to support the restructuring and modernization of the road freight transport sector. The last Program-Contract agreed between government represented by METL and the private sector, as represented by the FT-CGEM, covered the period 2011-2013, and involved the regulation and upgrade of road freight transport operators. The 2011-2013 Program-Contract materializes the will of METL to

raise the level of oversight of the profession and to upgrade the road freight transport sector through the implementation of 38 actions set over 7 axes. Protection of the environment was one of the seven axes addressed by this Program-Contract and actions were initiated with a particular view towards agreeing a charter of professional commitment in compliance with environmental standards (Euro Standards, CO₂ emissions, eco-driving standards, etc.).

69. In parallel with the reforms introduced by Law 16-99, the adoption of Law 52-02 that lays down the Rules of the Road, has taken effect on October 1, 2010 and represents an ambitious step and the main pillar of the national road security strategy. Reflecting the collective will of all stakeholders and members of civil society to ensure favorable conditions for road safety, this law has introduced new provisions through these Articles including:

- Article 40, introduces a professional driving license for certain vehicles categories including freight vehicles;
- Article 41, introduces mandatory continuous training every 5 years for licensed professional drivers;
- Article 45, which introduces the concepts of energy saving, the creation of non-recyclable waste and emissions of pollutants;
- Article 49, which subjects all registered vehicles to an administrative certification process;
- Article 53 introduces the vehicle registration requirement;
- Article 57 introduces the possibility of setting up an electronic system for managing registrations;
- Article 66 introduces mandatory technical inspections of any registered vehicle;
- Article 67 specifies the objectives of the technical inspection, including environmental protection against pollution;
- Article 68 provides specifications for roadworthiness;
- Article 133 introduces the creation of a national database of registered vehicles and specifies the data to be recorded;
- Articles 156 and 157 introduces the offences relating to vehicle certification;
- Etc.

70. To accompany the implementation of the continuous training of professional drivers (according to Article 41 of the Rules of the Road), a Program-Contract was signed between the METL, Ministry of Finance and Economy and the Office of Vocational Training and Employment Promotion (*Office de la Formation Professionnelle et de la Promotion du Travail*, OFPPT) for the period 2013-2016 in order to put in place the continuous training conditions for a population of 140,000 bus and truck drivers over 300,000 professional drivers already identified. To implement this program, the OFPPT will train 160 trainers (40 trainers per year), organize the trainings in various centers across the country (Casablanca, Tangier, Agadir, Taourirt, etc.) and follow a yearly training rate of 32,000 truck drivers and 3,000 bus drivers.

71. As part of the Integrated Emergency Strategic Plan for Road Safety (*Plan Stratégique Intégré d'Urgence de sécurité routière*, PSIU), METL launched an action plan to upgrade Morocco's technical inspection and certification sector on May 10, 2005, through the National Testing and Certification Center (*Centre National d'Essais et d'Homologation*, CNEH). The main objective of this project is the development and modernization of the sector. It aims to ensure the effectiveness of the controls in place at inspection centers (*Centres de Visites Techniques*, CVT), by creating new criteria for the verification of the mechanical condition of vehicles, in order to ensure the safety of road users. Among the elements tested, and particularly those concerning heavy vehicles, there are measures related to ambient air pollution, such as the carbon monoxide (CO) content of the exhaust gases and the opacity of exhaust fumes, ³²

³² Source: General specifications on the organization of vehicle inspection, National Testing and Certification Center, METL, 2006

etc. These reforms will also allow for the provision of reliable data on the state of the national vehicle fleet³³.

72. A workshop on the ten-year assessment of the implementation of the transport sector reform was organised under the chairmanship of the Minister Delegate to the METL in charge of Transport. This event had as its main objective the assessment of the state of reform in the road freight sector, delving into the main issues confronting it and establishing the required measures and solutions to the challenges identified, taking a participatory approach.
73. Meanwhile an evaluation of the first phase of implementation of the reform (2003-2007) was conducted by METL, or more precisely by the Road Transport Directorate, and has identified the major improvements achieved. The assessment concluded that the reform carried out has led to the removal of restrictions relating to the content of the transportation offerings, the strengthening of competition through the entry of new firms, the expansion of the range of choices available to customers, lower prices, and finally the establishment of a legal framework favorable to the development of well-structured transport companies operating in a competitive market according to defined rules. However, challenges remain such as the atomicity of the sector, the ageing of the fleet, unsatisfactory professional oversight, the low participation of the Moroccan fleet in international transport operations, and fiscal barriers including a lack of financial incentives etc.

Fiscal framework

74. The fiscal framework governing the transport sector includes several different taxes. These include primarily:
- **Axle tax:** this is an annual charge introduced in 1989 by the Finance Act placed on motor vehicles used in the transport of passengers and goods with a gross vehicle weight (GVW) of more than three tons (except for exempted vehicles). This is paid into the Road Maintenance Special Account;
 - **License:** this is a direct tax on liberalized professions, industries and businesses. The amount to be paid depends on the location of the company, and the number and types of vehicles used;
 - **Income Tax:** These are levies on the annual income paid to driving staff. The rate of this tax varies according to income bracket;
 - **VAT:** International transport operations and their services, as well as repairs, maintenance, refurbishment, chartering and hiring of various means of international transport are exempt from value added tax and have deduction rights. The recovery of VAT paid in respect of the purchase of diesel used by vehicles for commercial road public transport of passengers and goods is around 10%;
 - **Corporation Tax:** Corporation tax is required on the revenues and profits of corporations, public institutions and other legal entities that carry out profitable ventures, with an irrevocable option on partnerships. The normal rate applied is 30%. In addition, specific rates and partial or total exemptions are provided for certain products and payments;
 - **Annual tax own-account public transport freight vehicles whose GVW exceeds 3.5 Tons:** Fixed at 20 DH/ton;
 - **Technical Inspection :** Inspection fees vary according to vehicle type and weight, passing from 305 DH for 5.5t garbage trucks to more than 8,500 DH for lorries weighing 26 tons to 38 tons and more;
 - **Annual registration fees (Vignette):** Depends on the fiscal rating of the vehicle and engine type (diesel or petrol).

³³ Source: METL

75. In order to increase the competitiveness of Moroccan road freight transport companies,³⁴ fiscal incentives were granted to the road transport sector. These include:

Measure	Description
Customs relief	<p>This measure consists of:</p> <ul style="list-style-type: none"> ○ The application of the minimum rate of 2.5% for customs duties on imports of trailers to be used in the transport of textile and clothing products for export; ○ The application of the minimum rate of 2.5% for customs duties when importing disassembled equipment in CKD form (Complete Knock Down = batches of auto spare parts) (Finance Act 2nd half of 2000) .
Readjustment of the axle tax	<p>Under the Finance Act 2004, the axle tax was readjusted as follows:</p> <ul style="list-style-type: none"> ▪ Consideration of MPTW (Maximum Permissible Towing Weight) of the articulated vehicle combination when calculating the amount of the tax; ▪ Reduction of the tax rate for vehicles whose GVW rating is higher than 9 tons; ▪ Introduction of deferred payments (in two equal installments) for motor vehicles and combinations of vehicles with a GVWR greater than 9 tons. <p>More details are provided in the table below.</p>

Tonnage (GVWR)	Former tariff (DH)	Current tariff (DH)
From 3,000 to 5,000kg	800	800
From 5,001 to 9,000kg	1,350	1,350
From 9,001 to 15,000 kg	3,200	2,750
From 15,001 to 20,000kg	5,200	4,500
From 20,001 to 33,000kg	8,500	7,300
From 33,001 to 40,000kg	9,000	7,500
Greater than 40,000kg	9,000	11,000

Table 2 : Reform of the road freight transport sector - Evaluation of the implementation of measures from Law 16-99, March 2003- March 2007

76. The Finance Act 2005 introduced a new provision enabling the resolution of the "illegal" situation created by the non-payment of the axle tax by some carriers in previous years, by allowing them to pay this tax at double the maximum rate if the payment was made by the deadlines provided. Any payments made beyond these deadlines may also incur additional fees.
77. This regulation particularly concerns former chartered haulage vehicles in Casablanca (vehicle circulation limited to the city). Indeed, on the decision of the local authorities, these former chartered vehicles did not pay axle tax, even though freight transport vehicles assigned to that category of transport are not exempt from paying this tax.
78. In order to better organize the functioning of the freight sector in Morocco and reduce the taxes applied to freight, the FT-CGEM is working to overcome barriers to the development of logistics services. For this reason, and as part of the consultations conducted for the 2014-2016 Contract Program, fiscal proposals were submitted by FT-CGEM. These include primarily:
- The introduction of the concept of professional fuel;

³⁴ Source: Reform of the road freight transport sector, Evaluation of measures implemented by Law 16-99 March 2003 - March 2007 / Ministry of Equipment and Transport, Road Transport Directorate

- Readjustment of VAT rates on diesel;
- An incentive for the renewal of the ageing road transport fleet of vehicles;
- Improved competitiveness of domestic International Road Transport (TIR) operators through the launch of measures promoting the renewal of TIR vehicle fleets, the development of customs legislation, and the promotion of groupings of Moroccan TIR companies in order to create technically and economically solvent businesses, etc.

Barriers

79. The freight sector, which remains largely under-optimized, has been a focus of national attention for several years, and flagship measures have been identified to reduce its GHG emissions. Indeed, it is a strategic priority in the quest to strengthen the competitiveness of the national economy. In addition to the development of transport infrastructure and liberalization reforms of transport modes, selected specific measures have already been taken.
80. The first measure put in place in this context was the **renewal of the freight and mixed-purpose road transport fleet**. Indeed, under the guidance accompanying the reform of the road freight sector, METL introduced a vehicle renewal premium for road freight transport for hire or reward and mixed purpose vehicles for the period 2008-2010. This program is based on two fundamental principles:
- The final withdrawal of the vehicle to be renewed from circulation and the establishment of a procedure for its demolition;
 - The replacement of the vehicle to be withdrawn by a new vehicle with a weight equal to or greater than 15 tons.
81. The proposed renewal premium is supported through the budget of the Independently Managed State Services (*Services de l'Etat Gérés de Manière Autonome*, SEGMA) unit within the Directorate of Road Transport Security under METL, subject to an annual limit of 170 million dirhams. The amount of this premium varies depending on the age and weight of the vehicle to be renewed. However, as the amounts that were initially proposed did not seem to be sufficiently attractive, they were revised as part of the Finance Act in 2011. This revision included:
- An increase in the amount of the premium from 90,000 DH to 200,000 DH for the renewal of hire and reward freight transport vehicles and rural public transport (mixed transport) vehicles;
 - The ability by hire and reward freight carriers to use renewal premiums corresponding to two motor vehicles for the acquisition of a single motor vehicle;

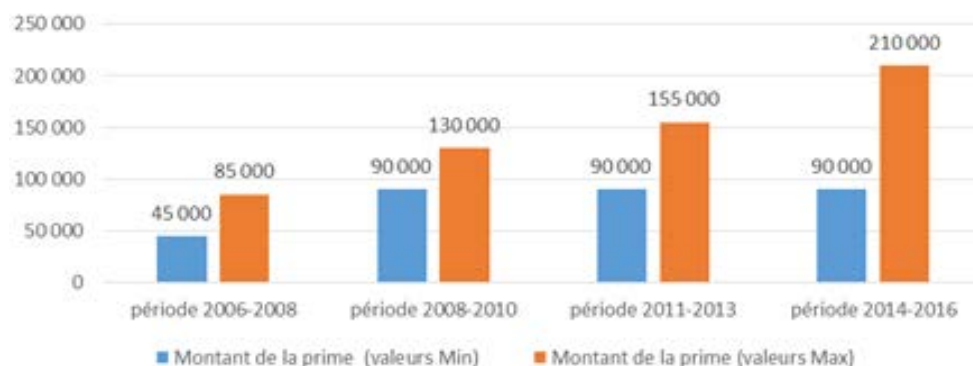


Figure 20: Evolution of the amounts of the renewal premium of road freight transport vehicles (Source: METL)

82. Even though the amounts for the renewal premium have evolved over these years, the results for the period of 2009-2011 remains mixed considering the low number of vehicles that have benefited from the financial mechanism (see Table 3). Recent data provided by the METL indicate that at the end of 2013 the total number of vehicles that have benefited from this mechanism has reached 1,375.

According to the FT-CGEM, the difference between the premium and the actual purchase price of a new vehicle is a real handicap for the sector. Financial arrangements and additional financing sources must be found, in this regard, in order to increase the renewal premium and hence remove this barrier.

Years	Number of files opened	Number of cases commissioned	Number of vehicles withdrawn from circulation	Number of cases reported
2009	230	128	31	71
2010	281	163	15	103
2011	238	128	7	103
Total	749	419	53	277

Table 3: Results relating to the renewal of the road freight and mixed-purpose transport fleet 2009-2011 (Source: Independently Managed State Services report, Draft Finance Act for the 2013 fiscal year - Ministry of Economy and Finance)

83. The second measure put in place concerned the **Adoption of pollutant emissions standards for new vehicles (Euro 4 Standard)**. Following the adoption of the Law No. 52-05 concerning the Highway Code, joint orders by METL and MEMEE, defining the Vehicle Certification technical benchmark were adopted December 25, 2010. These implementing regulations have been amended and supplemented by joint orders of METL and MEMEE published in the Official Gazette on 01/11/2012. In this framework, the current legislation provides that:

- Imported cars (CBU - "Complete Built-up Unit") must comply with the Euro 4 standard;
- Vehicles manufactured or assembled locally from 1st January 2015 must also comply with the Euro 4 standard.

84. In addition, **eco-driving measures** were also launched in 2008 by METL, aimed at training 1,000 bus drivers (passenger transport) on aspects related to road safety and energy-efficient driving. However, the road transport relating to freight was not involved at this stage. Initiatives have nevertheless occurred, particularly at the SNTL level, which organized eco-driving training sessions for its own drivers and drivers of other partners. To consolidate this initiative, SNTL offered a bonus to drivers obeying the driving instructions, and is planning to establish a school to expand the concept of eco-driving. The actual fleet of SNTL contains 221 vehicles where more than 60% are less than 5 years old.

85. Although several measures have been undertaken and plans and reforms have been developed to support the evolution of the freight sector in Morocco, difficulties remain, and hinder full development of the sector. At this time, climate change is weakly considered with respect to the ambitious impact of 35% reduction of CO₂ emissions, expected from the new sector strategy. The main barriers identified are presented in the table below:

Theme	Barriers
Legal	<ul style="list-style-type: none"> ▪ Lack of a legal framework promoting the consolidation of small businesses; ▪ Lack of legislation enabling improved practices of fair competition in the sector (including through sanctions); ▪ Absence of eco-driving in the legal framework on driving safety and economic driving. This legal framework is currently being amended, and potential new measures may be included, most notably the curricula for the training for the « <i>formation de qualification initiale minimale obligatoire</i> (FQIMO) » established by the Minister of Transport Decision n°2713-10 (23rd of December, 2010) concerning the professional driving; ▪ Lack of a legal framework for reporting sectoral energy consumption and/or greenhouse gas emissions;

	<ul style="list-style-type: none"> ▪ Lack of a legal framework for the establishment of an MRV system for sectoral GHG emissions.
Institutional	<ul style="list-style-type: none"> ▪ Whereas there have been efforts of consultation and coordination among stakeholders with a view to ensuring synergy of actions and objectives, particularly with respect to the planning of integrated logistics zones and the acquisition of land by the main actors (AMD, ONCF and ANP), further actions are still required; ▪ Lack of system dedicated to the management of GHG data in the freight sector; ▪ Limited institutional capacity to effectively adopt, implement and further develop policy instruments for reducing greenhouse gases.
Fiscal	<ul style="list-style-type: none"> ▪ Insufficient tax benefits to encourage the informal sector to formalize and professionalize; ▪ No direct legislative adjustments of road freight transport tariffs during variations in diesel prices (prices that have a significant impact on the cost of transport)³⁵; ▪ Inadequate tax incentives to rejuvenate the fleet of old road transport vehicles.
Financial	<ul style="list-style-type: none"> ▪ Limited access to suitable finance mechanisms; ▪ Lack of incentive mechanisms dedicated to the informal sector in order to encourage its structure and its professionalization; ▪ The incentive provided by METL as a way of rejuvenating the fleet of old road freight transport vehicles is modest compared to the actual price of the vehicle, and does not create the emulation hoped for (only 1,375 vehicles replaced via this mechanism from 2009 to end of 2013); ▪ Lack of adequate financial arrangements to ensure the necessary levers for the rejuvenation of the road vehicle fleet.
Organizational	<ul style="list-style-type: none"> ▪ Significant fragmentation of the road transport sector; ▪ Presence of the informal sector in road transport services as well as in urban logistics platforms creates unfair competition for the formal sector in general and for future logistics platforms in particular; ▪ Inadequate oversight of the profession in terms of training and guidance; ▪ Low participation of Moroccan fleet vehicles in international transport operations, since the majority of the fleet does not align with international standards required.
Other	<ul style="list-style-type: none"> ▪ Lack of awareness in the informal and unstructured sectors; ▪ Inspection facilities for freight transport, consisting of five base stations and other mobile facilities, need to be strengthened; ▪ Vehicle inspection measures need to be strengthened, particularly through additional checks directly relating to fuel economy and greenhouse gas emissions.

³⁵ Since the end of November 2014 Morocco has stopped the subsidy of petroleum products from the Compensation Fund by having recourse now to an indexing system on the current prices of petroleum products.

1.3. Institutional framework and stakeholder analysis

86. One of the main benefits of the project lies in strengthening the institutional and inter-institutional cooperation relating to the design and planning of actions to reduce GHG emissions in the freight sector in particular. Although there are a number of initiatives being developed by a range of stakeholders separately, it became clear during the preparation of the project that: (a) there is little coordination between institutions at present; (b) the various institutions would welcome such interaction; and c) institutional capacity needs to be strengthened in terms of understanding and taking actions towards climate change mitigation.

87. **The Ministry of Equipment, Transport and Logistics (METL)** is the main body responsible for the management of the transport sector in Morocco. It consists of 13 departments, in addition to the Regional Directorates of Public Works and Transport (DRET) and the Provincial Departments of Public Works and Transport (DPET). Each directorate consists of several divisions and units responsible for their own particular field of expertise within the directorate to which they belong. The General Council of Infrastructure and Transport, in light of the vast expertise and experience of its members, plays a role in assessing, advising and supporting METL's different administrative structures, and also assists in the transformation that all modes of transport and major works included in the action plan must undergo.

88. **METL** develops and implements, within the legal and regulatory framework, government policy in the area of roads, ports, rail, air and sea. It is also responsible for defining government policy on road safety and coordinating its implementation, ensuring the completion of construction projects entrusted by other departments, local authorities or public institutions, and studying and proposing reforms regarding legislation, regulations and standards in the fields within its competence, etc. Its strategy is based on the development of 9 themes, as presented in Figure 23.

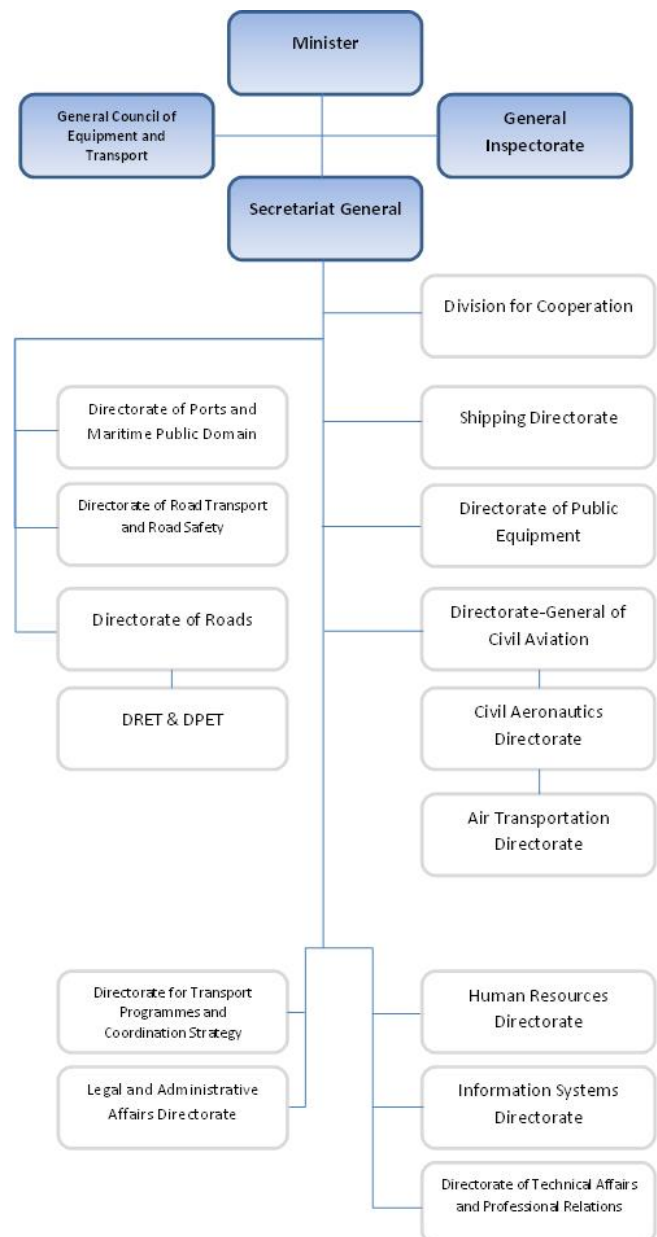


Figure 131 : METL Organizational Chart (Source: METL)

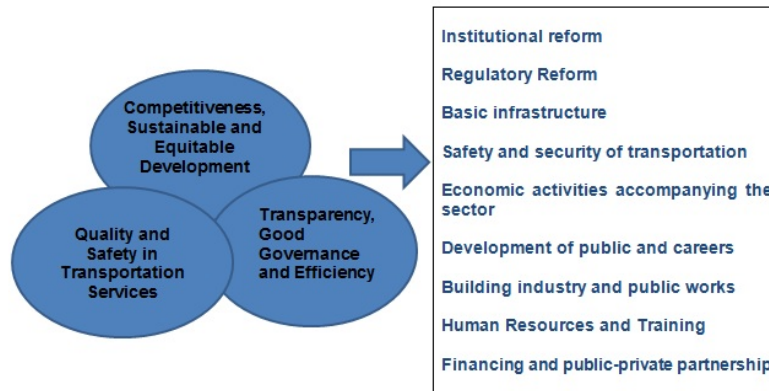


Figure 22 : METL's strategic areas (Source: METL)

89. METL has a crucial role in the development of national logistics strategy. METL has made progress in liberalization reforms, in introducing of competition in the various different modes of transport and in improving the quality of service and tax provisions, etc. METL will be the focal point in this project and will be responsible for consolidating data in national registries. The Ministry will also help in the discussion and coordination of policy and the regulatory, fiscal and economic reforms needed to stimulate the development of GHG reduction measures in the freight sector. METL will drive the process of knowledge sharing and communication concerning activities related to GHG mitigation solutions in the transport sector.
90. The creation of the **Moroccan Agency for Logistics Development (AMDL)** has strengthened the institutional framework governing the logistics sector in Morocco. Indeed, given the breadth of issues and the significant impacts expected from the national development strategy on logistics competitiveness, the establishment of a management structure has been crucial in order to ensure national coordination of measures to improve logistics competitiveness, including those on specific projects such as logistics zones. The AMDL was therefore established to address this need with its creation through Law No. 59-09 in July 2011.
91. The organization of the Agency, as approved by its Board of Directors on May 13, 2013, includes three directorates, 11 departments and 24 services. The AMDL is managed by a Chief Executive Officer and is administered by a Board of Directors composed of State and Presidential representatives, three representatives from the trade association most representative of Moroccan businesses, the President of Federation of the Chambers of Commerce, Industry and Services, and three people appointed by the Head of Government, due to their expertise in the logistics field. In addition to the President, AMDL Board is currently made up of 15 members. As of September 2014, AMDL has a staff of 40 employees.

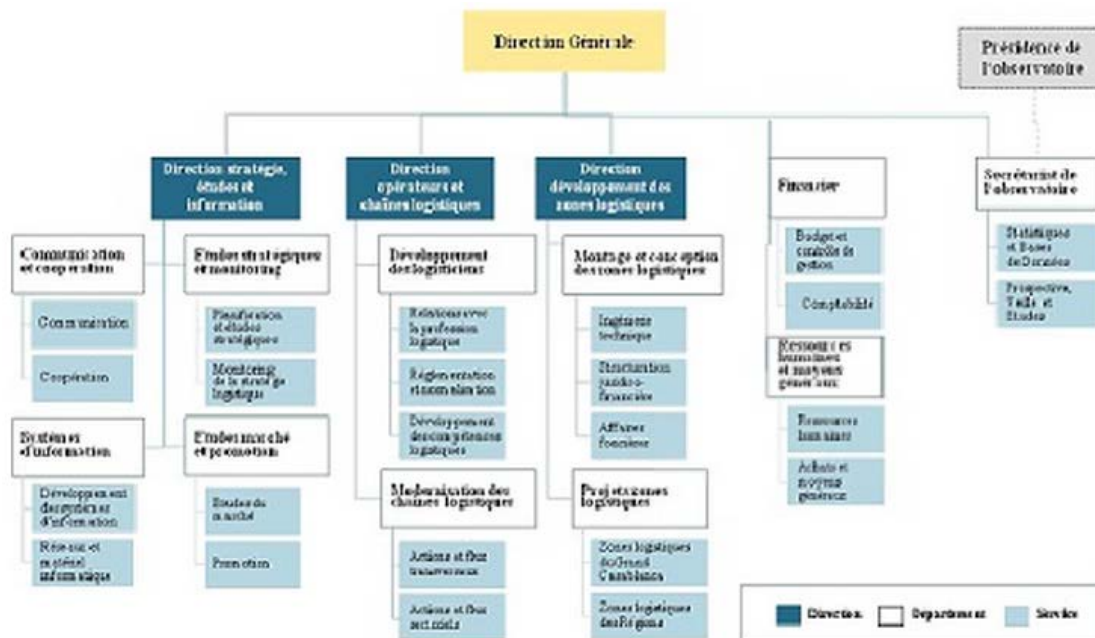


Figure 23: AMDL's Organizational Chart (Source: AMDL)

92. The AMDL therefore acts as the State's enforcer in terms of implementing the national logistics strategy that constitutes a major challenge due to the multiplicity of actors and the different areas of institutional expertise it calls on, etc. AMDL is a public institution and a legal entity with financial autonomy acting under the aegis of the state. As part of the project, AMDL will coordinate national actions to improve logistics competitiveness relating to specific projects such as the logistics zones. Alongside the public authorities involved, AMDL will help to encourage operators to participate in the logistics field and get involved in the establishment of training plans and plans for monitoring performance and efficiency in logistics services. The Agency will also be involved in the development of proposed legislation and regulations to promote the domestic opportunities in the logistics sector and to organize the profession.
93. Governance of the national strategy has also been strengthened by the Moroccan Observatory of Logistics Competitiveness (OMCL). This is an entity independent of AMDL whose main tasks are: 1) to assess the performance of the logistics system through the establishment of monitoring indicators at national level; 2) to provide strategic intelligence; and 3) to be a driving force for proposals to improve logistics competitiveness. In other words, the OMCL will serve as a dashboard for measuring the extent to which the national logistics strategy has been implemented. As part of the project, the OMCL will play a key role in data collection, coordination between public and private entities and the establishment of an MRV system specific to the freight sector.
94. The Contract program between the State and the CGEM officially recognizing the logistics strategy recommended that the OMCL be established as a public-private partnership. The contract also stipulates that the latter takes the form of a non-profit organization funded jointly by the CGEM and the State. A provisional organizational plan was adopted before the transition to the non-profit, partnership-based system. Currently the OMCL does not yet have a dedicated headquarters; its secretariat is temporarily housed at AMDL's headquarters³⁶.

³⁶ Annual Review 2013, METL

95. To better define the functioning and organization of the OMCL, an agreement was signed May 13, 2014 between the State and the CGEM³⁷. The development of the Observatory's activities has also benefited from the establishment of a cooperation agreement signed by the AMDL and the International Finance Corporation (IFC) attached to the World Bank. The contract includes technical assistance to define, design and implement indicators related to training and employment in the Moroccan logistics sector. In the same context, 8 million DH has been allocated from AMDL's 2014 budget for studies related to the design and production of monitoring indicators relating to sector development. It should be noted that the OMCL's secretariat is currently included in the AMDL's organizational structure.³⁸
96. The rail freight sector is characterized by the presence of a single operator: the National Railway Office (*Office National des Chemins de Fer*, ONCF), formed after independence, specifically in 1963. This Moroccan public institution is responsible for the operation of the country rail network which is structured around six hubs, including one hub dedicated to freight and logistics, with a staff of 7858 employees in 2013³⁹. This operator manages the transport by rail of both passengers and freight. In relation to freight, its central structure is organized around different industrial sectors in order to optimize the services offered⁴⁰, namely the Agriculture and Agri-food sector, the Energy sector, the Minerals and Cement Sector and the Container Sector. The ONCF will play an important role within this project in the development of a measure promoting a modal shift from road to rail in the freight sector, and the replication of this in logistics platforms.
97. As for road freight, the largest provider of services for road freight transportation in Morocco is the National Society of Transportation and Logistics (*Société Nationale des Transports et de la Logistique*, SNTL). Since replacing the National Transport Office (considered as the main stakeholder in the road freight transport sector in Morocco) in 2007, SNTL has positioned itself as one of the leading logistics service providers in the country. Indeed, the company offers a diverse range of services relating to the supply chain management, and meets the highest possible safety, quality and proximity standards. The company posts an annual turnover of around 800 million dirhams corresponding to about 20 million tons of freight transported/year⁴¹. In 2010, in order to respond to the changing domestic market and to conquer new market shares internationally, SNTL partnered with DAMCO to create the joint venture "SNTL DAMCO LOGISTICS", a leading company in logistics services. The creation of this new entity is part of SNTL's strategy of allying with the major players whose core business and expertise are complementary. This joint venture is responsible for managing the Zenata site, the first site of the Greater Casablanca logistics platform, and will also be responsible for managing the next logistics centers forming part of SNTL's master plan. As part of the project, SNTL will be involved in the design and implementation of certain activities such as eco-driving training and the installation of PV panels.
98. To defend the interests of road transport agents (of people and goods), the National Federation of Road Transport (*Fédération du Transport* - CGEM, FT-CGEM) was established on June 10, 1993 to contribute to the development of the transport and logistics sector and to promote the interests of its members. A member federation of the CGEM, FT-CGEM includes 20 national transport and logistics organizations moving people and goods using various modes of transport at the urban, national and international level. As part of the project, and as a representative of the private sector, the FT-CGEM will be involved in the design of legal, fiscal and economic instruments, and also in ensuring the necessary involvement of the private sector in the implementation of certain activities.

³⁷ Agreement signed by Mr. Aziz Rebbah, METL Minister, Mr. Driss El Azami El Idrissi, MEF Deputy Minister, Ms. Miriem CHAQROUN Bensalah, President of the CGEM, Mr. Younes Tazi, CEO of AMDL and Mr. Hicham Saadli, President of the OMCL.

³⁸ Annual Review 2013, METL

³⁹ Annual Report 2013, ONCF

⁴⁰ Source: ONCF

⁴¹ Source: SNTL

99. The primary issue this project is targeting is Climate Change, and mitigation of GHG emissions in particular. Created in 1996, the National Climate Change Committee (NCCC) is composed of representatives of various ministries, public institutions, research institutions and other public and private institutions in sectors concerned with the issue of climate change. The committee's secretariat is led by the MoE, and acts as the United Nations Framework Convention on Climate Change (UNFCCC) Moroccan focal point. Within this project, the NCCC and the MoE are a fundamental source of support in the establishment of a national NAMA framework.
100. The NCCC was established in order to engage these institutions and build their capacity to address the issue of CC. It was also designed to monitor all aspects relating to Morocco's commitments made as part of the UNFCCC. In terms of national communications to the UNFCCC, this committee is a vital organ that plays an important role in providing access to the data needed to produce reports and validate different technical studies.
101. Founded in 2008, the Organizing Urban Transport Authority (*Autorité Organisatrice des Déplacements Urbains*, AODU) works in the urban transport sector in the Greater Casablanca region and inherited a remarkable backlog regarding public transport. However, since its inception, the AODU has been working on different tasks related to the development of transport plans and their implementation, the monitoring of transport system operations, the coordination of traffic management and research for sector funding. Between 2008 and 2010, the authority has carried out various studies related to these areas of activity, including a study on the restructuring of public transit in the GC region, the GC traffic plan, which concerned the selection of a scenario that could increase bus transport's modal share from 13% to 21% and therefore lead to a socio-economic gain of about 400 million DH/year, and traffic plans related to six communities, etc.
102. In relation to the freight sector and the reduction of GHG emissions, AODU is a partner in the "Mix-City" project, which was a project piloting the use of trams for freight transport during off-peak times. Through its work in its various fields of activity, including the organization of urban transport in Greater Casablanca, the AODU is a major partner in this project. This institution will play a key role in traffic optimization in the Greater Casablanca platform and will provide considerable support for optimizing traffic platform GC role and will be of considerable support in activities to reduce GHG emissions, which is the ultimate goal of the GC NAMA.
103. The *Caisse de Dépôt et de Gestion* (CDG) is a financial institution originally created as a public institution in 1959. Its primary mandate is to drive investment in strategic economic sectors. It also has a central role in receiving, storing and managing savings resources which by their nature or origin require special protection. CDG is involved in major strategic projects in Morocco and is now the largest institutional investor in the Kingdom, and a major player in the national economy.
104. Through its subsidiary, the Zenata Development Company (*Société d'Aménagement de Zenata*, SAZ), the CDG is leading the new eco-city of Zenata project, which is part of a larger urban development plan within Morocco. Indeed, the SAZ constitutes both the driver and the main contractor of the project. Through its role in the development of the new eco-city of Zenata through the SAZ, CDG will play a key role in this project, particularly in regards to the coupling of the Greater Casablanca NAMA to the new eco-city of Zenata NAMA. CDG will also be expected to play a leading role in future logistics platforms, with a potential for proportional replication.
105. The National Agency for the Development of Renewable Energy and Energy Efficiency (*Agence Nationale pour le Développement des Energies Renouvelables et de l'Efficacité Energétique*, ADEREE) is a public institution working for the widespread use of both renewable energy (RE) and energy efficiency (EE).

Framed by the Law 16/09, the ADEREE has as its mission to contribute to the implementation of the national renewable energy and energy efficiency policy. This policy aims namely at the development of renewable energy penetration and increase of energy efficiency, thereby contributing to the country's sustainable development.

106. The main missions of ADEREE include :

- Support of public administration in relation to national and regional plans and incentive measures for the development of renewable energy and energy efficiency;
- Implementation, promotion, piloting, monitoring and coordination of development programs in the domains of RE and EE in relation with the national strategy;
- Identification, assessment and mapping of renewable energy resources and energy efficiency potential and recommendations for area where solar and wind energy can be developed;
- Development of national expertise, standards, labels and trainings in the sector of RE and EE;
- Monitoring and coordination of energy at the national level;
- Mobilisation of technical and financial cooperation and participation in entities developing activities within the scope of ADEREE's missions.

2. STRATEGY

2.1 Project Objectives, Outcomes and Outputs

107. The objective of this project is to reduce GHG emissions in Morocco's logistics sector by developing the concept of low carbon logistics while still prioritizing development of the Logistics Regional Plan of GC. This will entail the development of a pilot set of mitigation measures to be replicated in other MFLZ, with a view to contributing to Morocco's overall goal of a 35% reduction in freight CO₂ emissions by 2020 relative to 2009 emissions.
108. This project supports the work already under way in Morocco to reduce freight sector emissions and the various initiatives already implemented in this context. Indeed, this project will analyze all the various possible emissions reduction policy instruments, measures and options before they are implemented, taking into account the specificities of the sector, integration into national policy and the various barriers this can present, etc.
109. The project will build on the work and studies performed to date, and it is aimed at strengthening the institutional and legal framework necessary for the implementation of the project's various activities and the pursuit of other measures once this project is completed. The project works on two levels: 1) strengthening Moroccan policy and the regulatory and institutional framework for low-carbon development of the Moroccan logistics industry and 2) the development of a model project from GC Logistics Regional Plan as a NAMA, based on the design and operationalization of its MRV system.
110. The project will contribute to the transition towards the concept of low-carbon development for the freight transport sector. This is a first step towards expanding the concept to other areas and establishing it as a key element in national sustainable development. The various components of the project are detailed below. The project was prepared through a process of close consultation with various freight and climate change mitigation stakeholders, to ensure maximum national coordination, the maximum number of synergies with initiatives and projects already taking place, optimal commitment of partners during the implementation phase and the sustainability of the project.

The project is structured in three Outcomes or components, as described below.

Outcome 1: Institutions, public policies and regulations are enhanced regarding low carbon development of the Moroccan transport sector

GEF funding: US\$650,000

Co-financing: US\$990,000 (METL: US\$100,000; AMDL: US\$200,000; ONCF: US\$500,000; SNTL: US\$100,000; UNDP: US\$90,000)

111. This outcome focuses on the main barriers to the national development of low-carbon freight transport. These barriers include improving the integration of the concept of low carbon cargo in the implementation of the National Logistics Strategy. Although the institutional framework has been strengthened by the creation of the AMDL and OMCL, the lack of specific policy instruments to the strategy, the lack of financial resources, lack of expertise in developing low carbon, among others, reduce the expected impact related to GHG reductions through the implementation of the axes of the logistics strategy.
112. The project aim to support the various institutions involved, including METL, AMDL and OMCL, in translating the ambitious target into a range of policy instruments and measures that are achievable at the national level. For this reason, various outputs will be developed; each one is reflected in a number of activities. The first output of this outcome is the **institutional strengthening and capacity building of METL and AMDL** through the organization of targeted training and the development of a set of tools and training guides on low carbon development, NAMAs and MRV. Indeed, this component is a crucial element in the success of the project, especially as it is an element that has already been mentioned as a result of central pillars of the National Logistics Strategy implementation. The project will seek to achieve its main objective of **introducing CC into the National Logistics Strategy**, by

evaluating various policy tools, technical initiatives and GHG mitigation measures in the freight sector. The establishment of an appropriate regulatory and fiscal framework is essential in order to promote and implement specific policy measures and mitigation measures in the freight sector. Technical assistance will therefore be provided to support the institutions involved in developing and implementing this framework. The decree of the Minister of Infrastructure and Transport No. 2713-10 of 17 Muharram 1432 (23 December 2010) concerning the professional conduct will also be reviewed in this context and amended to include the eco-driving training. The measures to be implemented thereafter will be subject to an assessment based on a set of indicators designed to monitor emission reductions and the co-benefits achieved.

113. It is important to remember that the freight sector in Morocco is characterized by a high degree of atomicity and the presence of a significant informal sector. This makes it difficult to quantify and describe the sector's different features and components in order to create an accurate profile of the sector, a key step in the realization of the GHG emissions inventory. The project will provide considerable support for the realization of a **road freight transport fleet profile**, particularly through the use of statistical surveys of all the relevant public and private sources involved (formal companies, inspection centers, road tax payment systems, weighing centers, etc.), focusing on data relating to the number of vehicles, their type, age, GVWR, pressure, fuel type and efficiency, ownership, mileage, laden weight and load type, etc. A centralized data collection system will also be developed to ensure regular collection and updates. This system will also consider climate finance reporting.
114. Besides the need for reliable and regularly updated data, the creation of the GHG inventory requires two essential elements: 1) emissions factors and 2) calculation methodologies. Therefore, as part of this project a research agreement between METL and a national school of engineering will be established, in order to ensure the **development of emission factors specific to the Moroccan freight sector**. Calculation methodologies and the freight sector GHG emissions inventory will also be developed to help guide the authorities involved.
115. NAMA development requires the establishment of an institutional framework in which employees have the skills necessary to promote low-carbon development in transport sector. For this reason, as part of this outcome an intended output is the establishment of an interministerial committee to promote emission mitigation policies in the transportation sector. This committee will be created and strengthened to ensure coordination between different government CC policies in the sector. To date, no legal basis or procedural and technical framework for the national validation of NAMAs has been developed. The project will contribute to and will help to build committee capacities by assisting with NAMA assessments and by developing a set of guidelines establishing national NAMA eligibility, design and quality criteria.

Outcome 1	Outputs	Activities
Institutions, public policies and regulations are enhanced regarding low-carbon development of the Moroccan transport sector	1.1 Institutional strengthening and capacity development for the Ministry of Equipment, Transport and Logistics and the newly-established Moroccan Agency for Logistics Development (AMDL)	1.1.1. Development of a set of guidelines and training materials to ensure proper management of low-carbon development at METL and AMDL; 1.1.2. Technical training on GHG data management, MRV and NAMA design and implementation specific to the freight sector 1.1.3. Study tours for Government officials and private sector representatives to countries with relevant experience in low-carbon development of freight sector
	1.2 Climate change mitigation dimension of the National Logistics Strategy specified and operationalized for the development of a low-carbon	1.2.1 Technical, regulatory and economic feasibility assessment of a range of policy instruments and GHG mitigation actions in the freight sector (including MAC curves) 1.2.2 Legal support to the preparation of a regulatory framework to promote specific policy measures and mitigation actions in

	regulatory framework for the logistics sector	<p>the freight sector among which the introduction of a mandatory GHG inventory and MRV scheme, mandatory implementation of EURO 4 Norm, promotion of fiscal incentive measures for fuel efficiency, road to rail modal shift and fleet renewal schemes</p> <p>1.2.3 Revision of the Decree of the Minister of Equipment and Transport No. 2713-10 of 17 Muharram 1432 (23 December 2010) relating to professional conduct and its amendment to include the eco-driving training;</p> <p>1.2.4 Design of the fleet renewable financial incentive system to progressively introduce a schedule enactment of EURO IV standards. Includes a feasibility study and consultations with key stakeholders⁴²;</p> <p>1.2.5 Design and implementation of an indicator-based monitoring system of the National Logistics Strategy to track GHG emissions, climate finance and also co-benefits (such as economic growth of the sector, transition rate from informal to formal sector, newly created freight companies, occupancy rate of logistic platforms, etc.)</p>
	1.3 Country-specific road fleet profile and emission factors developed for Moroccan transport modes (road and rail), and used for scenario development	<p>1.3.1 Statistical surveys from all relevant public and private sources such as formal companies, CVT⁴³, payment system thumbnails, weighing centers, etc. to draw-up a realistic road and rail fleet profile detailing key data such as number of vehicles, type, age, GVWR, pressure, fuel type and efficiency, ownership, mileage, loaded type and weights</p> <p>1.3.2 Development of a centralized system to ensure a permanent data collection and update of the road fleet and rail profile;</p> <p>1.3.3 Establishment of a research agreement between METL and a national engineering school to ensure the development of emission factors specific to the Moroccan freight sector</p> <p>1.3.4 Development of a set of methodologies to calculate freight sector GHG emissions</p>

⁴² These may include: METL (Transport Fund), *Caisse Centrale de Garantie* – CCG (www.ccg.ma) and private banks through their professional coordination body (*Groupement Professionnel des Banques du Maroc* – GPBM).

⁴³ CVT: *Centres de visites Technique*. Freight vehicles are inspected once a year in these centers and during these inspections mileage is recorded. Such data can be compiled to serve as basis of the MRV of the sector. The CNEH : *Centre National d'Essai et d'Homologation*, a public institution operating under the METL foresees the work of the network of CVTs: <http://www.mtpnet.gov.ma/Securite/Securite-routiere/Pages/Contrôle-technique-des-vehicules.aspx>. Note that a computer network exists between the CVTs and CNEH, allowing data transfer from the control centers to CNEH for better monitoring and a good knowledge of the sector.

	1.4 An interdepartmental committee is set up to promote emission mitigation policies in the transport sector	1.4.1 Development of a set of guidelines to establish national NAMA eligibility, design and quality criteria, related to transport sector 1.4.2 Capacity building of the committee through trainings on NAMAs and development of a NAMA evaluation procedures manual 1.4.3 Support to the committee for the assessment of NAMAs in transport sector
	1.5 Implementation of knowledge-sharing and communication activities related to transport GHG mitigation solutions	1.5.1 Development of a communication and knowledge sharing plan 1.5.2 Establishment of a project website to communicate the activities, best practices and outputs of the project 1.5.3 Organization and involvement in national and international conferences on low carbon development in the freight sector

Outcome 2: The network of Multi-flux Logistics Zones of Greater Casablanca is developed as a nationally appropriate mitigation action ("NAMA") model project as part of the National Logistics Strategy.

GEF funding: US\$640,000

Co-financing: US\$103,200,000 (AMD: US\$3,000,000; ONCF: US\$6,200,000; CDG: US\$94,000,000)

116. Integrated logistics platforms hold significant GHG emissions reduction potential. By virtue of this potential and the replication strategy to be developed within the first outcome, this project focuses on the Logistics Regional Plan of GC as a pilot NAMA project model. The first output to be achieved as part of this outcome is the **creation of the GHG inventory and its associated MRV system**, designed and implemented for NAMA purposes. To achieve this, several different activities must take place, namely the creation of a benchmark based on international NAMA experiences in the urban freight sector and the design and implementation of GHG emissions inventories and MRV systems, etc. This benchmark will lead to the development of the specific terms of reference for the preparation of the GC NAMA design document (NAMA-DD).
117. This **NAMA will be designed for immediate implementation of 5 priority components**. Indeed, emissions reductions through the Logistics Regional Plan of GC will occur as a result of the introduction of five measures selected in this project. These are 1) eco-driving training 2) awareness of operators on a set of measures aimed at reducing fuel consumption, 3) modal shift (road to rail), 4) the installation of a PV system with 1.5 MW capacity and 5) support for the renewal of the fleet, including making operational the introduction of the Euro 4 standard now mandatory in Morocco since January 2015 even on locally assembled vehicles. Outcome 3 provides more details on these components.
118. As part of this outcome, a Training of Trainers (ToT) program on eco-driving will be developed and will be based on national initiatives, including those of the SNTL, ADEREE and OFPPT and also on expertise of European countries that have implemented similar programs. The beneficiaries will be trainers of the OFPPT providing continuing education for obtaining category C of driving license, related to trucks dedicated to road freight. The project targets the training of 100 trainers in the field. In this context, the identification of a list of beneficiary trainers will be the first activity to be held followed by the definition of the terms of the training of trainers in eco-driving with the support of SNTL, ADEREE and OFPPT. Considering the continuous training program being implemented by OFPPT in regard to professional driving, the 100 trainers that will follow the specific eco-driving ToT would have to be selected among the 160 trainers of this on-going program.

119. The NAMA-DD to be developed as part of this outcome must be based on the following mitigation areas as a minimum: eco-driving, fixed infrastructure, energy efficiency/renewable energy, fleet renewal (Euro 4) and a modal shift from road to rail. In terms of monitoring fleet renewal, the project will provide support enabling AMDL to explore and develop additional opportunities to boost fleet renewal, primarily in terms of attracting additional funding from national or international sources.
120. Given road transport's share of freight flow over that of rail freight (70% vs 30%), a modal shift from road to rail has significant emissions reduction potential that must be exploited in order to maximize GHG reductions and should be considered as a NAMA mitigation measure. To this end, this outcome also aims to **develop a standardized baseline for a modal shift (from road to rail) that can serve as a replicable mitigation measure**. Currently, only one CDM project methodology covers modal shift. This is mainly due to the complexity of the procedure, the rules in place and the need to demonstrate additionality in CDM projects. As the modal shift is one of the most important measures in this project given its mitigation potential, the development of a standardized baseline methodology to evaluate the GHG emissions transferred from road to rail (modal shift) is planned. This methodology will then be submitted to the UNFCCC for approval. As part of the same output, a trial application and calibration of the mitigation tool is planned to take place at the Zenata logistics site and at sites of other projects relevant to modal shift.
121. Integrated logistics zones, as conceived and perceived by the National Logistics Strategy, have a strong potential for replication. This first outcome also aims to develop a **strategy for replication to the other regional plans of logistics zones development**, based on the pilot approach developed for the MFLZ of GC regional plan. Indeed, this project will support AMDL by using the experience gained from MFLZ regional plan of GC to design mitigation measures for each of the other platforms. To do this, a number of activities will be implemented, including the assessment of the GHG mitigation potential of each of the different platforms and the development of these platforms within a "NAMA kernel" based on their MRV framework.
122. The final output to be achieved as part of this outcome concerns **the development of an innovative "nested NAMA" framework allowing the GC NAMA and new eco-city of Zenata ("NAMA city") NAMA to combine**, a move aimed at promoting mitigation synergies in the context of a strong and consistent GHG inventory and MRV framework. In the context of this output, an assessment will be carried out of the overlap and synergies between the mitigation measures in GC NAMA and those in the "NAMA city". There are also plans to develop a "nested NAMA" framework as the basis for the development and accounting of mitigation measures at the logistics sites of GC and Zenata eco-city without any duplication or overlap. The final activity planned for this output consists of the establishment of a set of guidelines to promote replication of the "nested NAMA" framework to other potential "nested NAMAs" in other locations or sectors.

Outcome 2	Outputs	Activities
The network of Multi-flux Logistics Zones of Greater Casablanca is developed as a nationally appropriate mitigation action ("NAMA") model project as part of the National Logistics Strategy	2.1. GHG inventory and MRV systems designed and implemented for NAMA purposes	<p>2.1.1 Benchmark study on international experiences related to NAMAs and MRV systems in the transport/freight sector in urban areas (This study should lead to the development of specific ToRs for the GC NAMA-DD);</p> <p>2.1.2 Background surveys on use of logistics platforms; data gathering on volumes, cargo, emissions, etc.;</p> <p>2.1.3 Design and implementation of a GHG inventory and MRV systems, including associated IT platforms, to be used by stakeholders and potential users of the future 8 sites of the GC Logistics Regional Plan.</p>

	2.2 NAMA designed for immediate implementation of 5 priority components (eco-driving training, awareness of operators, modal shift, compliance of vehicles with Euro 4 and a 1.5 MW rooftop PV installation).	<p>2.2.1 Establishment of a list of beneficiaries who will benefit from the Training of Trainers (ToT) on eco-driving</p> <p>2.2.2 Design of the ToT program on eco-driving;</p> <p>2.2.3 Survey to determine the tonnage that could be transferred from road to rail;</p> <p>2.2.4 Development of a NAMA-DD for the GC Logistics Regional Plan based on at least the following mitigation modules: eco-driving, fixed infrastructure, renewable energy/energy efficiency, fleet renewal and road to rail modal shift.</p>
	2.3 Standardized baseline for transport modal switch (from road to rail) developed as a mitigation tool to promote replication	<p>2.3.1 Development of a standardized baseline methodology to assess GHG emissions from road to rail modal shift and its submission to UNFCCC for approval;</p> <p>2.3.2 Test-applying and calibrating the mitigation tool at the Zenata logistic site and any other relevant modal shift projects</p>
	2.4. Replication strategy for 17 additional low-carbon Logistics Regional Plans developed, building on the Greater Casablanca model	<p>2.4.1. Assessment of the GHG mitigation potential to be developed in each Logistics Regional Plan based on AMDL's action plans and the developed mitigation policies and actions from output 1.2</p> <p>2.4.2. Capitalize the Greater Casablanca Logistics Regional Plan experience as a framework model to serve its replication across the additional Logistics Regional Plans</p> <p>2.4.3. Development of the others Logistics Regional Plans as a "NAMA kernel" with an associated MRV framework</p>
	2.5 Innovative 'nested NAMA' framework developed to couple the Greater Casablanca Logistics Regional Plan NAMA to a broader Zenata Eco-city NAMA ('NAMA Ville'), initiative so as to promote mitigation synergies in a consistent and robust GHG inventory and MRV framework	<p>2.5.1 Assessment of potential overlaps and synergies of mitigation actions between GC Logistics Regional Plan NAMA and the Eco-city NAMA ("NAMA Ville")</p> <p>2.5.2 Design of a "Nested NAMA" framework as a ground basis for the development and accounting of mitigation actions at the GC and the Zenata New eco-city without any duplication or overlap</p> <p>2.5.3 Develop a set of guidelines to promote the replication of the "Nested NAMA" framework to other potentially nested NAMAs either for geographical or sectoral considerations</p>

Outcome 3: The mitigation measure ("NAMA") is made operational by upgrade investments of the logistics zones provided for by the logistical regional plan of Greater Casablanca

GEF funding: US\$876,123

Co-financing: US\$16,060,782 (METL: US\$7,557,250; SNTL: US\$8,427,532; UNDP: US\$76,000)

123. The third expected outcome of this project is the operationalization of some components of GC NAMA. A number of emissions reduction measures have been planned thanks to a total investment of \$123.55 million. The amount allocated by the **GEF covers the partial financing of three measures:**

- Eco-driving: the GEF project will contribute to the implementation of an eco-driving training program for trainers providing continuing education in the OFPPT for obtaining category C of driving licenses, related to trucks dedicated to road freight. The project aims to provide training on eco-driving to 100 trainers. The GEF support will take the form of a partial financing of the cost dedicated to training. The GEF investment to support this activity is estimated to \$60,000.
- Installation of a 1.5 MW PV plant: Following SNTL's technical and economic feasibility study on the implementation of photovoltaic panels with a capacity of 1.5 MW on the roof, the GEF project will support SNTL by partially funding the purchase of the materials needed for installation. In the same context, the project and ADEREE will provide technical assistance to the SNTL on connection to electrical grid and net-metering. The GEF investment to support the PV installation is estimated to \$500,000⁴⁴.
- Awareness of operators: it aims to implement a broad education campaign dedicated to road freight operators registered at the METL Registry to encourage them to implement a set of measures that are: eco-driving, acquisition of new vehicles benefiting from the measures initiated by the State to promote the Euro 4 standard and regular maintenance of vehicles. The outreach effort will provide the necessary details to the operators on the benefits of these measures but also their impact on the energy bill, as well as that of the fuel. It should be noted that the promotion of these measures is in perfect agreement with the study launched by the METL concerning the calculation and updating of reference costs of road freight transport. Awareness activities will be implemented in partnership with the FT-CGEM targeting the GC region and other regions of the Kingdom. The GEF investment to support this activity is estimated to \$100,000.

124. Part of this outcome is also the support for the renewal of the fleet: This refers to support for the initiative started in 2008 by METL, which aimed to improve the efficiency of vehicles through subsidies for drivers of older vehicles of up to half the cost of a new vehicle. This support will take the form of examining options for opening a credit line to operators in order to encourage the renewal of vehicles and to remove financial barriers. The project will also provide technical and administrative support to the owners of older freight transport vehicles in order to help them benefit from the fleet renewal program.

Outcome 3	Outputs	Activities
The mitigation measure ("NAMA") is made operational by upgrade investments of	3.1 Partial GEF investment financing for 3 specified mitigation interventions in the Logistics Regional Plan of Greater Casablanca (eco-driving training, awareness of operators, and a 1.5 MW rooftop PV installation), along	3.1.1 Financial support to the implementation of the eco-driving training for trainers; 3.1.2 Awareness workshops for road freight operators 3.1.3 Technical assistance to SNTL on grid connection, net metering and PV panels procurement

⁴⁴ The SNTL financial planning takes into account the full cost of the PV project estimated to \$2,727,532 so the GEF investment can be considered as a rebate. The breakdown of this cost is as follow: panels 57%, inverters 12%, installation 19%, construction 4%, balance of plant 8% and shipping cost 1%.

the logistics zones provided for by the logistical regional plan of Greater Casablanca	with a support to the compliance of vehicles with the Euro 4 standard	3.1.4 Partial financing of a 1.5 MW rooftop solar PV installation 3.1.5 Technical and administrative support to owners of old freight vehicles to benefit from the fleet renewable scheme
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2.2 Key indicators, risks and assumptions

125. In accordance with the GEF's Focal Area Objective #4 to **"Promote energy efficient, low-carbon transport and urban systems"** from the GEF-5 Climate Change Strategy, the key success indicators of the project are:

- The number of cities adopting sustainable transport and urban policies and regulations;
- Volume of investment mobilized;
- Tons of CO₂ equivalents avoided.

In accordance with the GEF's Focal Area Objective #3 "Investment in renewable energy technologies" from the GEF-5 Climate Change Strategy, the key success indicators of the project are:

- Investment in renewable energy technologies increased
- Volume of investment mobilized
- GHG emissions avoided (Tons of CO₂ equivalent)

126. Specifically, the project aims to achieve the following:

- A reduction in freight transport CO₂ emissions and some emission reductions from the installment of renewable energy in freight sector infrastructure;
- The establishment of policy measures and mitigation actions, packaged together as a "NAMA Kernel" to help replicate the National Logistics Strategy across all logistics platforms, including the development of a standardized baseline for a transport modal shift (from road to rail) that can serve as a mitigation tool to promote replication;
- Draft regulations on low-carbon development in the logistics sector;
- Establishment of Government policies and financial incentives promoting investment in low-carbon development in the logistics sector;
- Development of an annually updated road fleet profile;
- Procurement and installation of 1.5 MW of PV panels at the Zenata site;
- Development of skills and expertise in the government, private sector and academia in order to support low-carbon development in the Moroccan logistics sector.

For further details about the related targets, see the project's Results Framework in Section 3.

127. The principal risks identified relating to the successful implementation of the project include:

- Political and regulatory risks– There has been a significant delay in the development and implementation of the National Logistics Strategy. Therefore, to avoid any further postponement, negotiation with the private sector of the proposed low-carbon policy options and regulatory improvements has to be placed before submission to the Government approval process. There is also a potential lack of a national regulatory framework for net metering.
- Novelty and adoption risks – There may be a limited engagement of stakeholders in data collection and validation for the NAMA-DD. A lack of skills and awareness could also be considered as a novelty and adoption risk. Indeed, AMDL is too new and is in a transition

phase and construction of its work teams which requires a time of ownership of the various files and thematic fully staffed to be able to ramp up in coordinating the implementation of various projects of logistics strategy, etc.

- Financial Risks - There may be a lack of interest from private banks in joining the fleet renewal scheme. Therefore, sourcing the necessary financial resources to develop the logistic platforms, subsidize the fleet renewal scheme and offer proper incentives to professionalize the informal sector would be challenging. In addition to that, private sector road freight companies may resist participating in mitigation measures such as improving maintenance and eco-driving training. Private sector haulage companies, and particularly the small firms, may resist the perceived additional costs associated with fleet and driver improvement measures.
- Economic Risks - The international economic crisis and its impact on the Moroccan economy may continue. Meanwhile, the potential occurrence of periods of climate drought may impact the agriculture sector as the main driver of the national economy.
- Environmental Risks – Fleet renewal will create obsolete vehicles as a by-product, presenting a risk of carbon leakage and/or environmentally-unsound disposal.
- Another risk is related to the potential for replication of the project on other platforms. Indeed, if the other logistics zones planned by other regional plans remaining cannot be realized, this could hinder the project replication potential.
- There is a lack of adequate and reliable freight sector data to facilitate the monitoring of project impacts and planning for further policy measures.
- Lack of capacity for low carbon development in the sector to carry out the project and support the integration of its results. One of the main risks in the development of this concept lies in the commitment of project partners to the implementation of the MRV system. Indeed, because of the strong atomicity of the sector, a great deal of data is unrecognizable and the quality of information available is not always reliable and optimal. The engagement of all of the partners in this regard is an essential element in the establishment of the MRV system and in ensuring that the elements fundamental to the success of the project will be monitored. The project also faces fiscal risks, especially regarding the lack of interest from private banks in joining the plan to renew the road freight transport fleet and the lack of tax incentives available to help structure the informal sector.

128. In order to address project management risks, a committed full-time project manager with adequate outreach and networking skills is absolute essential for the success of the planned activities. The project manager should have the ability to: i) engage the key stakeholders in constructive discussion about future low carbon development needs in the freight sector; ii) guide and supervise the studies done and effectively co-operate with the international and national experts contracted to support this work; iii) present their findings and recommendations in a convincing manner to key policy-makers, private sector representatives and opinion leaders, taking into account the main macroeconomic and policy drivers for local freight sector development; and iv) identify areas of future work. During project implementation, the project manager also needs to be supported by qualified technical and legal experts.

Table 4: Risk Analysis

§	Description	Date identified	Type	Impact & Probability	Countermeasures / Mgt response	Owner	Submitted, updated by	Last Update	Status
1	Regulatory risks or delays in the development and implementation of the National Logistics Strategy low carbon policy options	PIF	Political/Regulatory	Lack of policy basis to catalyze low carbon development in the freight sector may delay or prevent reaching the 35% GHG reduction target P ⁴⁵ = 2 I ⁴⁶ = 3	Implication and engagement of all public and private stockholders in a transparent policy options development process. Capacity building and technical assistance. UNDP will rely on close relations with METL, AMDL, OMCL and other counterparts built through several past and on-going joint projects. Morocco's urgent need to reform the freight sector to serve the national economy also puts policy-makers under pressure to produce the necessary solutions.	Project Steering Committee		N/A	N/A
2.	Novelty and adoption risk – The stakeholders may not adopt swiftly the NAMA-DD	PPG	Organizational	Slow replicability of climate change mitigation actions in logistics platforms P = 2 I = 3	The proposed project includes specific capacity building and technical assistance components to help encourage participation in the low carbon policy instruments adoption and NAMA design. Special activities will target the NCCC to promote it as an effective NAMA focal point	Project Steering Committee		N/A	N/A
3	Financial Risks – The	PPG	Financial	This is the most important risk to	The project will work closely with METL, the private banking	Govt		N/A	N/A

⁴⁵ Probability from 1 (low) to 5 (high)

⁴⁶ Impact from 1 (low) to 5 (high)

§	Description	Date identified	Type	Impact & Probability	Countermeasures / Mgt response	Owner	Submitted, updated by	Last Update	Status
	development of incentive schemes are ineffective and inappropriate. The long-term success of the Logistics Strategy will depend on adoption of financial incentives by the Government.			the project. The lack of adequate financial incentives to effectively promote fleet renewal and encouragement for small and medium size freight companies to join the formal sector and use the logistic platforms could have a major impact on the project's targeted results. P = 4 I = 4	sector and the freight federation (CGEM/FNRT) to design an integrated subsidy scheme. The government has confirmed their strong support for the financial incentives and commitment to ensure compliance with the targeted results via their co-finance letters. This risk will be carefully tracked and assessed during project implementation and adaptive management used to modify the financial incentive schemes (if needed) to ensure the envisioned project impacts				
4	Lack of adequate and reliable freight sector data to facilitate the monitoring of project impacts and planning of further policy measures.	PPG	Operational	Difficulty in designing MRV systems and adequately forecast GHG reduction potentials P = 2 I = 2	Development of a set of indicators to monitor progress of the national logistics strategy (GHG and non GHG indicators as co-benefit indicators) in a close cooperation with the main participants.	National Project Manager (NPM)			
5	Inadequate and/or non-capacitated human resources to successfully implement the	PPG	Operational	Project not meeting the stated targets P = 2 I = 4	The project includes significant capacity building and outreach components to help overcome this risk.	National Project Manager (NPM)		N/A	N/A

§	Description	Date identified	Type	Impact & Probability	Countermeasures / Mgt response	Owner	Submitted, updated by	Last Update	Status
	project and support the mainstreaming of its results.								
6	Environmental Risks – Management of obsolete vehicles.	PIF	Environmental	<p>Fleet renewal will create obsolete vehicles as a by-product, presenting a risk of carbon leakage and/or environmentally-unsound disposal.</p> <p>P = 2 I = 2</p>	This project will work closely with the MdE to ensure conformity with the national waste regulations.				
7	Absence of a formal national NAMA focal point	PIF	Institutional	<p>Slow validation process of NAMAs at the national level and their submission to the UNFCCC. Inability to access international climate finance</p> <p>P = 2 I = 2</p>	With MdE as the UNFCCC focal point, a focus will be given to NAMA development. This is one area where the use of well-experienced consultants can make a significant impact.	Project Steering Committee		N/A	N/A

2.3 *Expected benefits, design principles and strategic considerations*

Direct emission reductions

The direct greenhouse gas (GHG) reduction benefits of the project will consist of the combination of the following emission reduction streams

- Eco-driving training for truck drivers associated with the regional logistical plan of Greater Casablanca. The METL and SNTL experiences with eco-driving training produced indicative vehicle emissions reductions of 10%. Based on certain assumptions (i.e., 16,000 vehicles will be driven ecologically annually), emissions reductions are estimated to be approximately **87,321 tCO₂ cumulative total** by the end of the project
- SNTL's 1.5 MW rooftop solar photovoltaic installation. Assuming annual electricity saved/generated of 3,700 MWh, a 0.59 tCO₂/MWh emission factor for the national electricity grid and a (conservative) 15-year lifetime for the solar panels, total direct lifetime emission reductions will be approximately **32,745 tCO₂ (15 year lifetime)**. It is anticipated that as Morocco's first large rooftop PV installation this investment will have significant replication effects.
- Fleet renewal through establishment of a dedicated credit line in conjunction with the National Transport Fund. According to the approach considered by the PPG preparation team, and assuming 5,000 vehicles participate in the renewal scheme during the project period (2016-2019) and that the new vehicles are 5% more efficient than the vehicles to be replaced, a direct emissions reduction of approximately **18,322 tCO₂ (cumulative total)** would be achieved by the end of project. This is considered as a highly conservative estimate.
- Road to rail modal shift. Major emission reductions are expected from this measure. In fact, taking into account the "tons/km" approach and assuming that 5% of the tons/kilometers transported by road will switch to the rail transport mode by the end of the project (2019), the emission reductions expected from the modal shift are around **872,756 tCO₂ (cumulative total)** by the end of project, representing about 9% of the total emissions of the reference year 2009. This measure is the most efficient as it reduces emissions on a large scale.
- Improvement of road freight vehicle maintenance and inspection that will be deployed through the outreach efforts of the sector. The European Union (EU), through its experience in technical inspection of road vehicles, suggests the realization of a 5-10% reduction in emissions. This measure mainly targets the formal sector by reaching 20% project's fleet in 2019. The potential for emission reduction remains conservative and it is estimated of the order of **491,373 tCO₂ (cumulative total)** by the end of the project.
- Beyond the above described measures, there are several policy instruments supported by the GEF such as introduction of a national fuel efficiency standard or the differentiation of vehicle annual registration fees according to fuel efficiency features that are expected to be subsequently adopted by the Government. The GEF project will analyze these actions as part of Outcome 1 and provide the necessary technical support to the authorities in charge of road

transport to present these measures to decision-makers for prioritization and implementation. At this stage of the project, due to a lack of data, it is extremely difficult to predict what actions will be taken by the government as regards these potential policy measures and so they are not factored into the direct emission reduction calculations.

The total direct emissions from the various activities and investments supported under the project and noted above will be **1,502,517 tCO₂**. More detailed information on calculations and assumptions are presented in Section 2.3 and Annex 8.2 of the Project Document.

Indirect emission reductions:

129. The indirect emission reductions that will result from the implementation of the GEF project have been calculated using the top down and the bottom-up approaches:

- Bottom-up approach:

130. According to this approach, the calculation of the indirect emissions reductions for each measure (i.e., PV, eco-driving, fleet renewal, improvement of vehicle maintenance & testing and road to rail modal-shift) is based on the direct emissions reductions calculated earlier and the application of a replication factor (RF) related to the project's indirect impacts ten years after project closure (i.e., during the period 2020-2029). The choice of replication factors is given in Annex 8.2. The bottom-up approach gives a total indirect emissions reductions equal to 3,364,318 tCO₂.

- Top-down approach:

131. Calculation of indirect emissions reductions via the top-down approach has also been done for each measure. This approach takes into account the technical and economic potential GHG savings with the perspective application within 10 years after the project (P10); multiplied by an assumed GEF causality factor (specific to each measure) which indicates to what degree the GEF intervention can claim causality for the reduction. The top-down indirect impact calculation generally constitutes the high extent of the range of the potential of indirect impacts. The 10-year total emissions reductions potential has been calculated as 11,115,550 tCO₂.

132. The table below summarizes the results obtained relating to indirect emissions reductions using both approaches and for each measure:

Table 5: Indirect Emissions Reductions as per the Top-down and Bottom-up Approaches

GHG reduction measure	Approach	
	Bottom-up (tCO ₂)	Top-down (tCO ₂)
Eco-driving	349,286	3,405,538
PV (1.5 MW)	130,980	222,666
Fleet renewal	45,805	282,157
Modal shift	872,756	625,194
Improvement of vehicle maintenance & testing	1,965,490	5,580,000
Total (tCO₂)	3,364,317	11,115,550

133. Regarding both approaches (bottom-up/top-down), all the considered assumptions and calculation details are described in Annex 8.2.

134. In summary, using conservative assumptions, the GEF project is expected to generate direct emissions reductions totaling approximately 1,502,517 tCO₂, representing about 15% of the 2009 GHG emission level of the freight sector, and resulting in a GEF cost of 1.51 US\$GEF/ tons CO₂ avoided. Additional

emission savings can be expected through general capacity development and institutional strengthening activities.

In terms of emissions calculations, the PPG preparation team has used the:

- “Manual for calculating greenhouse Gas Benefits for GEF” related to transportation projects found on the GEF website for 1) eco-driving, 2) fleet-renewal, 3) modal shift and 4) improvement of vehicle maintenance & testing measures (indirect emissions);
- “Manual for calculating greenhouse Gas benefits for GEF” related to Energy Efficiency & RE emissions for both direct & indirect emission calculations for the Solar PV (1.5 MW) plant

Methods/formulas found in both of those manuals are generally consistent with the methods recommended in the STAP GHG guidelines for Transport projects (pages from 11 to 19). However, the project’s direct emissions reductions related to 1) eco-driving, 2) fleet-renewal, 3) modal shift and 4) improvement of vehicle maintenance & testing measures have been calculated using international best practices and formulas adopted by national stakeholders and the project team due to the a lack of specific data (fuel economy, price/speed sensitivity of travel demand, etc.) required for the STAP methodology or unsuitable spreadsheets for the project specificities (freight transport instead of passenger one).

135. For further details about the assumptions and results of the project’s GHG reduction analysis, see Annex 8.2.
136. In addition, thanks to the use of logistic platforms and also the modal shift measure, the project will lead to road decongestion in both urban and inter-urban areas. Consequently, air quality will also be improved.
137. The project will also achieve a range of socio-economic benefits. By helping the informal freight sector to become formalized, better socio-economic conditions will be afforded to truck drivers (e.g. inclusion in the National Social Security Fund, medical care, etc.).
138. First and foremost, the outreach workshops that will be organized in the Greater-Casablanca region as well as in other regions of the country will contribute to the increase in the number of freight transport operators aware of the importance of the economic and environmental benefits supported under the project such as eco-driving, fleet renewal through the national financial scheme and improvement of vehicle maintenance. These workshops will be organized with the Transport Federation-General Confederation of Enterprises of Morocco, as the legitimate representative of the sector, to ensure the engagement of the transport operators. It is expected that the project will benefit no less than 1,000 freight transport operators (i.e. 100 operators outreached during each workshop with 10 workshops organized in various regions of the Kingdom). Support to these measures by policy instruments and their implementation by the transport operators will also generate economic benefits given their potential impact on reduced fuel consumption.
139. Moreover by upgrading the fleet of vehicles toward the Euro 4 Standard the freight sector will become more modernized and will be able to join the European market. Therefore the project will greatly contribute to the development and professionalization of the logistics sector and help Morocco’s socio-economic development.
140. Secondly, the project will support the development of an information system on road freight emissions that will be of great importance in helping Morocco access, deliver, monitor, report on and verify use of climate finance. It will also serve as an example of the integration of climate change measures into a specific sector and will assist the development of climate policy tools such as the national greenhouse gas inventory system and will feed into the national system once in place.
141. Thirdly, the use of Multi-Flow Logistics Zones to consolidate flow of goods and increase of the road to rail modal shift will lead to road decongestion in both urban and inter-urban areas. Consequently, air quality will be improved and considering that the transport sector is one of the main sources of air pollution in the country, the positive impact on human health is expected to be significant.

2.4 *Project rationale and policy conformity*

142. The project falls within the context of the implementation of the national strategy for logistics. This strategy represents the overall framework relating to the development of Morocco's logistics competitiveness. Through the activities envisaged, this project will support the achievement of the expected impact in reducing emissions from the operationalization of the different axes provided by the national logistics strategy, through the development of policy instruments (economic, legal, fiscal, financial), the integration of concrete emissions reduction actions into multi-flow logistics zones and actions to strengthen the governance of the sector.
143. As major emitter of greenhouse gases, the freight sector's GHG reduction potential is significant. Although efforts have been made to improve the functioning of the sector and to reduce its emissions, the results have generally been minimal, leaving the performance of the sector at an intermediate stage and emissions continuing to grow. Therefore efforts in this sector need to be stepped up. With this in mind this project presents an excellent opportunity for development of certain specific areas through the implementation of the proposed project activities. This sector has been chosen in response to these issues and the many challenges related to them. The project aims to highlight the various barriers that persist and the reforms that need to be implemented, support efforts to implement the strategy and help the logistics sector to catalyze major investments in the same vein as the energy, industry and agriculture sectors
144. It is important to note that the freight sector has not previously received any support from emissions mitigation projects funded by international donors or other funding agencies. Indeed these funds remain focused around projects to increase renewable energy use and improve energy efficiency in other sectors (buildings, industry, etc.). The freight sector has been somewhat neglected even though it has a significant emissions reduction potential. This is explained by the many difficulties and barriers that characterize the sector, including its strong atomicity, the presence of strong pressure from the informal sector and a regulatory framework requiring stricter reforms, etc. The sector remains a work in progress open to any structuring approach; there are currently a number of possible development paths open at this point. The project aims to develop activities aimed at overcoming such barriers
145. The project meets the objectives of the climate change mitigation strategy in the GEF-5, including:
- Strategic objective 3 relating to the promotion of investment in renewable energy technology;
 - Strategic objective 4 relating to the promotion of energy efficiency, low carbon transport and urban systems.
146. The specific outcomes of the CC mitigation strategy that the project addresses include:
- The adoption and implementation of frameworks relating to sustainable transport, urban policy and regulation;
 - An increase in investments in low carbon transport and urban systems;
 - Investment in renewable energy technologies increased;
 - GHG emissions avoided.
147. Through its activities, this project will assist the reforms necessary for the support of the Moroccan logistics sector. In order to meet the above strategic objectives, the project aims to develop several components including capacity building for key sector institutions relating to low carbon development and the development of multiple GHG emission reduction measures and policy instruments that can be structured as NAMAs and replicated across the logistics platform network.
148. The project will be a breakthrough in the development of low carbon logistics sector and will play an important role in the contribution to the expected impact of logistics strategy on reducing CO2 emissions. In parallel to the objectives outlined in the National Logistics Strategy, the project will constitute an initial step in supporting the development of a low carbon freight sector. The logistics industry will pursue a new course which will introduce climate change mitigation considerations and aim for the wider application of these considerations through the replication strategy to be proposed. This sector's experience will also serve as a basis for low carbon development in other emitting sectors in Morocco.

2.5 *Country ownership: Country eligibility and country drivenness*

Country eligibility

149. According to the Instrument for the Establishment of the Restructured GEF, Morocco qualifies for GEF funding for the following reasons:
- It ratified the UNFCCC in December 1995;
 - It is a Non-Annex I Party to the UNFCCC.
150. In addition the UNDP has recognized experience and is one of the key agencies supporting emissions reductions in Morocco. In this context the UNDP has supported the following projects in Morocco:
- CDM capacity building project;
 - Preparation of the Second National Communication project;
 - Preparation of the Third National Communication project;
 - Low Emissions Capacity Building (LECB) Project;
 - Development of a building energy efficiency code project.

Country drivenness

151. Emissions from the freight sector continue to grow, and the various barriers faced by the sector are still present, despite the efforts made and the reforms implemented. The project seeks to support the Kingdom in its approach to structuring the logistics industry and aims to put appropriate policy instruments in place to achieve the expected impact in terms of reducing emissions resulting from the operationalization of the different axes provided by national logistics strategy. The measures proposed in this context were thoroughly discussed by key stakeholders, and their support for the project is confirmed in the co-financing letters attached to this Project Document.
152. Since the project inception, during the various meetings and workshops held, the institutions and stakeholders invited to make a contribution to the preparation of this document have expressed their will, their availability and their commitment in supporting Morocco in the realization of this project and the implementation of the planned activities.
153. Indeed, METL, AMDL and the other key partners have been involved throughout the entire document preparation process and have played a key role in determining the strategic directions chosen, in defining the proposed activities, in providing the available data for GHG emissions calculations and analyses related to the freight sector during the preparation of this project document. This involvement reflects the active engagement of various stakeholders (public and private) and their strong will for the project to succeed, as a means of bringing Morocco closer to the development of a low-carbon logistics industry and its increased competitiveness.
154. In addition to stakeholder engagement, the objective of the project is completely in line with Government efforts and the various strategies and plans already in place. This is particularly true of the National Logistics Strategy, with the project aiming to bring to fruition the strategy's target of a 35% reduction in CO₂ emissions from road freight sector by 2020. The project also addresses the national vision in the fight against climate change announced in the Moroccan Climate Change Policy (*Politique du changement climatique au Maroc*, PCCM). This project has therefore been integrated into the economic and environmental pillars of the PCCM's vision, targeting 1) the implementation of a green and inclusive economy and 2) the integration of the environment into the central concerns of social-economic and regional development. In addition to the PCCM, this project is fully consistent with a number of other national strategies and plans, including the National Plan for the Fight against Global Warming (*Plan National de lutte contre le Réchauffement Climatique*, PNRC) and the recent Green Investment Plan (*Plan d'investissements verts*) that Morocco presented at the Climate Summit organized by Mr. Ban Ki Moon in September, 2014. These policies, strategies and plans provide a structured base that will underpin the implementation of the various outcomes of this project.
155. The UNDAF, through its Joint Action Plan for 2012-2016, reflects the commitment of the Moroccan government and UN agencies in Morocco to strengthening the reforms put in place and intensifying their cooperation in order to address GHG emissions mitigation and the integration of climate change into

national strategies, including those relating to logistics. The project is also in line with the UNDAF's Outcome 5 on Environment and Sustainable Development, which provides four outputs:

- **Output 5.1** : The main actors are supported to ensure consistency between national and sectoral strategies and the national charter of environment and sustainable development (CNEDD);
- **Output 5.2** : Regional development plans and projects in the zones targeted are implemented bearing in mind the provisions of the CNEDD;
- **Output 5.3** : Capacities in terms of the development and coordination of 1) climate change mitigation and adaptation programs and strategies and the management of natural and 2) technological risks, are developed and strengthened;
- **Output 5.4**: the capacity of key actors to access funds is enhanced as a way of supporting the operationalization of the CNEDD.

156. The GEF Operational Focal Point for Morocco, M. Mohamed Benyahya, endorsed the project with the letter attached in Annex 8.4.

2.6 Cost-effectiveness

157. In absence of the GEF support and the associated stakeholder mobilization and financial leveraging, no concrete action to promote low carbon development in freight sector is expected to take place or it will be considerably delayed.

158. The financing of the proposed project components and activities is building on a mix of public and private financing, which are further supported by the ongoing, major infrastructure investments, with which the public sector is currently proceeding, such as the expansion of the existing Zenata logistic site as part of Logistics Regional Plan of the GC, the construction of a 20 km route including in particular a 4.5 km harbor breakwater sea that by-passes the downtown to connect Zenata logistics zone at Casablanca port and ensure an easy and seamless access to the port of Casablanca for trucks and vehicles dedicated to heavy weight without having to cross a dense urban area adjoining the port, the project of construction of the 3rd railway between Kenitra and Casablanca that will be dedicated to freight and ongoing construction of the "First Development Zone" of the Zenata eco-city with a total area of 480 ha. The requested GEF incremental contribution of 2,274,429 USD will contribute to the introduction and effective replication of low carbon freight transport concepts by covering such incremental costs and/or risks, which are difficult to absorb by the other project partners. The GEF funding will be a grant instrument. The required co-financing for these initiatives is leveraged from the variety of sources, including:

- METL policy activities, on which the project can build, especially under components 1 and 3⁴⁷;
- AMDL preparatory works of the logistics platforms and implementation of the National Logistics Strategy, in particular under component 2⁴⁸;
- SNTL activities at the Zenata site on which the project can build under component 2 and 3⁴⁹;
- ONCF activities to promote road to rail modal shift, especially under component 2⁵⁰;
- CDG development of Zenata eco-city, mainly under component 2⁵¹.

159. The GEF financing for Outcome 1 will consist of grants for technical assistance, which will support the further development of policy instruments of the National Logistics Strategy to contribute to the achievement of the expected impact in terms of reducing emissions resulting from the operationalization of the different axes provided by the national logistics strategy, strengthen the institutional framework to promote low carbon development in the freight sector and consolidate the national profile of the freight sector as a basis for a future robust MRV system. Together, these initiatives are expected to foster a regulatory, fiscal and economic environment for attracting investments in fleet renewal,

⁴⁷ See the Co-financing letter from METL in Appendix 8.3

⁴⁸ See the Co-financing letter from AMDL in Appendix 8.3

⁴⁹ See the Co-financing letter from SNTL in Appendix 8.3

⁵⁰ See the Co-financing letter from ONCF in Appendix 8.3

⁵¹ See the Co-financing letter from CDG in Appendix 8.3

formalization of informal freight companies and ensure the replicability of climate change mitigation actions at future logistics platforms in Morocco.

160. The support for the activities of Outcome 1 creates an overall environment for low carbon development in the freight sector. The deployment of GEF funds is cost-effective because undertaking such work in Morocco is extremely difficult and costly. By mobilizing and strengthening existing ideas and objectives within the Moroccan Government, the project makes it both more likely that the objectives will be achieved and that they will be achieved at a cost much lower than if they were initiated through other means.
161. The support for the activities of Outcome 2 will enable the development of Logistics Regional Plan of Greater Casablanca as a NAMA framework under the National Logistics Strategy. These activities mobilize \$103.2 million against GEF's investment. Further, the GEF funding will help support the optimal design of this NAMA, resulting in a feasible implementation of concrete mitigation actions, such as fleet renewal, road to rail modal shift, eco-driving, use of renewable energy sources (PV panels) and awareness of freight operators to lead to an improvement of their vehicle maintenance, development of a replication strategy over the future 17 logistics platforms ("NAMA kernel"), promotion of synergies with Zenata eco-city in a consistent and robust GHG inventory and MRV system ("NAMA Ville"), and, therefore, the greatest reduction in greenhouse gas emissions. In the absence of GEF support, it is likely that the mitigation actions at the GC logistics platforms will be considerably unclear and unfeasible. When implemented, it is likely that mitigation actions would suffer sub-optimal performance, as there has not thus far been consideration of performance monitoring factors to inform future developments. Therefore, the GEF funding will catalyze design and deployment of climate change mitigation actions at the GC logistics zones with a replicability perspective throughout the other logistics platforms and ensure optimal synergy with other related geographic or sectoral mitigation actions.
162. The allocation of GEF funds for Outcome 3 will catalyze the implementation of mitigation actions in the GC NAMA framework through targeted investments and mobilize \$16.06 million in co-financing. These leveraging investments will concern the training of a large pool of trainers on eco-driving considering that so far this type of training concerned only the public transport drivers and SNTL drivers which fleet is only about 200 vehicles whereas the national road freight fleet contains about 167,900 vehicles. Part of these investments will ensure the installation of the 1.5 MW PV on the roof top of the Zenata warehouses, by providing partially financing for PV panel procurement and installation. Finally, the investments will partially cover also technical assistance to SNTL for the PV installation and to logistics operators to fully benefit from the fleet renewal scheme.
163. With a total GEF contribution of \$2,274,429 the unit abatement cost that will be achieved by the project will be 1.51 US\$/tCO₂e based on direct emissions and a range of 0.67 – 0.20 - US\$/tCO₂e for indirect emissions.
164. Further information on the financing and cost-sharing arrangements of the project can be found from section 4.1. In converting budgets made in Moroccan Dirhams to US dollars, an exchange rate of USD 1 = MAD 8.8 has been used.

2.7 Sustainability

165. The project sits within the country's overall policy objectives on GHG emissions reductions and improvement of the freight sector's competitiveness. The project takes advantage of a globally structured foundation and a clear national vision for the steps taken in connection with the preparation of the National Logistics Strategy and the first implementation of its five axes.
166. Capacity building is a significant component in this project helping to establish a basis for sustainability. Indeed, this component is an integral part of the project and has helped to build a common vision of the steps to follow since the project's very beginning, and has ensured a sense of ownership among the project partners. As an ongoing process, capacity building is fundamental component that will ensure project sustainability and continued success through the effective management of the National Logistics Strategy. With institutional capacity strengthened, particularly that of METL, AMDL and OMCL, these organizations will be able to provide the coordination and monitoring required in the various projects

related to the logistics industry, the reduction of its emissions, the associated NAMAs and the evaluation of the measures implemented, etc.

167. Furthermore, Morocco has several projects and programs aimed at capacity building and the provision of technical assistance in the mitigation of GHG emissions. Some of these projects fall within the scope of international initiatives (such as the WB PMR, UNEP FIRM, and UNDP LECB projects), and others belong directly to Morocco's own bilateral or multilateral cooperation projects (such as GIZ's 4C project). Overall, these initiatives are designed to strengthen Morocco's technical and institutional capacities relating to the design and development of NAMAs, the establishment of MRV systems, and the preparation of national strategies for low-carbon development programs, etc. These initiatives are a significant support for the project yielding results over the short and long term.
168. The commitment expressed by the partners will help ensure the funding and implementation of the various measures planned as part of this project. The financial sustainability of these measures will require the mobilization of additional resources that can go beyond national funding capacities. Morocco's current desire to ensure the transition towards a low carbon logistics industry will be the main driver of future initiatives. It is important to remember that this project aims to develop a NAMA relating to the GC platform, a concept that is still being developed and is generating considerable interest internationally. This is an opportunity for the Kingdom to propagate the efforts being made to mitigate emissions from logistics sector.
169. The activities proposed under this project represent measures with long-term benefits. Whether it's eco-driving, the renewal of the fleet (whose vehicles have an average lifetime of 12 years) or the testing of vehicles, etc., the resulting benefits and profits are long-term and will not stop when the project ends. The eventual strategy for replication in other platforms will also aim to contribute to the sustainability of the project's achievements. This strategy will benefit from the experience gained from the GC platform and will seek to extend these initiatives nationwide.

2.8. Replicability

170. The replication strategy proposed in this project will be based on the experience gained from the GC platform and will enable the concept of NAMA development in connection to these platforms to be expanded across the country. This approach should lead to significant results in terms of reducing GHG emissions, as mentioned in section 2.3, but also in terms of the organization of the logistics sector as a whole.
171. Emerging countries, characterized by an intermediate logistics performance, present major freight development opportunities, as this sector is a fundamental pillar of these economies. Given the importance of this sector and the interest of many countries in the GEF program for logistics development, this project will provide a basis for the implementation of similar projects elsewhere and will provide some valuable experience of direct interest to other countries.
172. The project also includes the implementation of knowledge sharing and communication activities related to GHG mitigation solutions in the transport sector, and the creation of a project website to provide information on the project's activities, best practices and outcomes. The activities planned within this outcome can be used to develop a cooperation network aimed at taking the initiatives carried out as part of this project to a larger scale, first involving national stakeholders in order to expand the concept to the 17 platforms that will be developed as part of the National Logistics Strategy, and then to other emerging countries.
173. Replication at the national level will significantly help to overcome the barriers present in the logistics sector, and in particular the presence of the informal sector and weaknesses in the regulatory and fiscal frameworks. This replication will strengthen the whole sector and will enable the effects of climate change to be taken into account not only at the level of the GC platform but also nationally, thereby contributing to the implementation of the National Logistics Strategy.

3. PROJECT RESULTS FRAMEWORK

<p>This project will contribute to achieving the following Country Program Outcome: The principles of the "National Charter for the Environment for Sustainable Development" are implemented in coherence between sectoral strategies and priorities for the environment, climate change adaptation and risk management and by strengthening territorial convergence in areas and the most vulnerable populations with special attention to gender.</p>
<p>Country Program Outcome Indicators:</p> <p>Indicator 5.1.1: Number of strategies produced / reviewed consistently and integrating the principles of ESD charter.</p> <p>Indicator 5.3.1: Number of strategies developed for mitigation and adaptation to CC.</p> <p>Indicator 5.3.2: Number of entities that have received capacity building in CC and risk management</p>
<p>Primary applicable Key Environment and Sustainable Development Key Result Area: Sustainable Development</p>
<p>Applicable GEF Focal Area Objective:</p> <p>CCM 4 - "Promote energy efficient, low-carbon transport and urban systems"</p> <p>CCM 3 - "Promote investment in renewable energy technology"</p>

	Indicator	Baseline	Targets End of Project	Source verification	of	Risks and Assumptions
<p>Project Objective</p> <p>To operationalize the mitigation potential of the National Logistics Strategy through facilitation of the Government's roll-out of integrated logistics platforms in a NAMA framework.</p>	Amount of <u>additional</u> tons of direct CO ₂ emissions reduced relative to baseline (five categories of emission reductions)	Under BAU scenario 8,856 tCO ₂ reduced by newly introduced vehicles benefiting from the current METL funding scheme and eco-driven freight vehicles from SNTL (2016-2019)	<p>1) Eco-driving: 87,321 tCO₂ cumulative total by the end of the project</p> <p>2) Solar PV (1.5 MW): 32,745 tCO₂ (over lifetime)</p> <p>3) Fleet renewal: 18,322 tCO₂ cumulative total by the end of project</p> <p>4) Modal shift: 872,756 tCO₂ cumulative total by end of project</p> <p>5) Improvement of vehicle maintenance & testing: 491,373 tCO₂ cumulative total by the end of the project.</p> <p>Total: 1,502,517 tCO₂ Direct emissions</p>	<p>Project monitoring reports and final evaluation.</p> <p>Data from STNL</p> <p>National Communication to the UNFCCC and BURs.</p>		<p>Economic risks: continuation of the international economic crisis and its impact on the Moroccan economy; potential occurrence of climate drought periods that may impact the agriculture sector as the key driver of the national economy.</p> <p>Financial risks: sourcing the necessary financial resources to develop the logistic platforms, to subsidize the fleet renewal scheme and to offer proper incentives to professionalize the informal sector.</p>

	Indicator	Baseline	Targets End of Project	Source verification	of Risks and Assumptions
	<p>Energy production from renewable sources (MWh/yr) – Solar PV plant</p> <p>National systems in place to access, deliver, monitor, report on and verify use of climate finance</p> <p>Number of freight transport operators aware of economic and environmental benefits of eco-driving, fleet renewal through the national financial scheme and improvement of vehicle maintenance.</p> <p>Percentage reduction in the fuel budget (by volume) among all freight transport operators benefiting from the project (leading to improved economic position for those firms and their employees)</p>	<p>0</p> <p>0</p> <p>0</p> <p>Current average annual baseline fuel consumption (liters) among operators - TBD during year 1 of project</p>	<p>3,700 MWh/yr from PV</p> <p>A system is in place to report on climate finance in the transport sector</p> <p>1,000 freight transport operators (i.e. 100 operators outreached during each workshop with 10 workshops organized in various regions of the Kingdom).</p> <p>At least 10% average annual reduction in fuel consumption volume (translated to monetary equivalent in savings) for all freight transport operators by end of project</p>	<p>Data from SNTL</p> <p>Reports of meetings and workshops</p> <p>Project reporting and specific reporting mechanism put in place for all freight transport operators involved in project to track fuel consumption over lifetime of project</p>	
Outcome 1 Institutions, public policies and regulations are enhanced regarding low-carbon development of the Moroccan transport sector	<p>Institutional capacity to ensure mainstreaming and monitoring of low carbon development in the freight transport sector</p> <p>Policy measures and regulations in place to mainstream low carbon</p>	<p>No specific institution dedicated to GHG monitoring and policy development in the transport sector</p> <p>No policy measures and mitigation actions in place to</p>	<p>One specific institution set-up as an inter-ministerial committee and capacities are strengthened in GHG monitoring and policy development for low-carbon development</p> <p>Policy measures are implemented to reach the 35% CO2 reduction impact.</p>	<p>Reports of activities, monitoring and final evaluation.</p> <p>Reports of meetings and workshops</p> <p>Submitted policy options to decision makers</p>	<p>AMDCL and OMCL obtaining the necessary support and resources to fully play a role in low-carbon development of the freight transport sector</p> <p>Delay in the development and implementation of the national logistics strategy</p> <p>Negotiation of the proposed low-carbon policy options</p>

	Indicator	Baseline	Targets End of Project	Source verification of	Risks and Assumptions
	development in the logistics sector. % of cars in the road fleet registry with GHG relevant data	reach the 35% CO2 reduction impact No regulations exist to date specific to GHG monitoring or low carbon development in transport sector 0 %	At least 2 regulations on low-carbon development in the logistics sector are formally submitted for approval to GSG 100% of the road fleet registry has GHG data	Submitted regulations to GSG Institutional registers and databases	and regulatory improvements with the private sector before submission for the Government approval process. Lack of interest from private banks to join the fleet renewal scheme
	Indicator	Baseline	Targets End of Project	Source verification of	Risks and Assumptions
Outcome 2 The network of Multi-flux Logistics Zones of Greater Casablanca is developed as a nationally appropriate mitigation action ("NAMA") model project as part of the National Logistics Strategy	Existence of GC logistics platform with its own GHG inventory and MRV system Existence of GC logistics platform designed as a model NAMA for replication perspective at the 17 other logistics platforms Existence of an innovative "nested NAMA" framework to couple the GC logistical platform NAMA to the eco-city of Zenata ('NAMA Ville')	No GHG inventory and MRV systems exists 0 NAMA-DD for GC logistic platform exists. No 'nested NAMA' framework developed	GHG inventory and MRV systems designed and implemented for GC NAMA The NAMA Design Document (NAMA-DD) validated by the NCCC and registered in the UNFCCC NAMA Registry A standardized baseline methodology for freight modal switch from road to rail is developed, tested at the Zenata site and submitted to the UNFCCC for approval. The NCCC validates the 'nested NAMA' framework	Project monitoring reports and final evaluation. GC GHG inventory and MRV system GC NAMA-DD. Nested NAMA-DD UNFCCC NAMA Registry	Stakeholders engagement in data collection and validation of NAMA designs Examination and validation of the proposed NAMAs (GC-NAMAs, Kernel and Nested NAMA frameworks) by NCCC
Outcome 3 The mitigation measure ("NAMA") is made operational by	Number of operationalized GHG reduction measures through investments	No PV panels installed on the roofs of the Zenata site	1.5 MW of PV panels are procured and installed at the Zenata site	Energy audit reports	Lack of national regulatory framework on net metering

	Indicator	Baseline	Targets End of Project	Source verification	of Risks and Assumptions
upgrade investments of the logistics zones provided for by the logistical regional plan of Greater Casablanca	facilitated by the project at the GC logistics platforms	5 SNTL trainers training on eco-driving 70% of SNTL vehicles are less than 5 years	100 trainers trained on eco-driving 5,000 new freight vehicles benefit from the fleet subsidy renewal scheme	Records of attendance of eco-driving training Certificates of new vehicles Annual reports of the fleet subsidy renewal scheme Economic performance reports of GC logistics site	Slowness of procedures for granting subsidies for fleet renewal Engagement of the private sector, mainly the informal sector, in implementing mitigation actions

Project Outputs and Related Target(s)/Sub-target(s), as applicable

Outcome 1 Institutions, public policies and regulations are enhanced regarding low-carbon development of the Moroccan transport sector	Outcome 2 The network of Multi-flux Logistics Zones of Greater Casablanca is developed as a nationally appropriate mitigation action ("NAMA") model project as part of the National Logistics Strategy	Outcome 3 The NAMA is operationalized through investments for the upgrade of logistical zones under Logistics Regional Plan Greater Casablanca.
Output 1.1 Institutional strengthening and capacity development for the Ministry of Equipment, Transport and Logistics and the newly-established Moroccan Agency for Logistics Development (AMD L)	Output 2.1 GHG inventory and MRV systems designed and implemented for NAMA purposes	Output 3.1 Partial GEF investment financing for 4 specified mitigation interventions in the Logistics Regional Plan of Greater Casablanca (eco-driving training, awareness of operators, compliance of vehicles with the Euro 4 standard and a 1.5 MW rooftop PV installation).
Output 1.2 Climate change mitigation dimension of the National Logistics Strategy specified and operationalized for the development of a low-carbon regulatory framework for the logistics sector	Output 2.2 NAMA designed for immediate implementation of 5 priority components (eco-driving training, awareness of operators, modal shift, compliance of vehicles with Euro 4 and a 1.5 MW rooftop PV installation).	

Output 1.3 Country-specific road fleet profile and emission factors developed for Moroccan transport modes (road and rail), and used for scenario development	Output 2.3 Standardized baseline for transport modal switch (from road to rail) developed as a mitigation tool to promote replication	
Output 1.4 An interdepartmental committee is set up to promote emission mitigation policies in the transport sector	Output 2.4 Replication strategy for 17 additional low-carbon logistics regional plans developed, building on the Greater Casablanca model	
Output 1.5 Implementation of knowledge-sharing and communication activities related to transport GHG mitigation solutions	Output 2.5 Innovative 'nested NAMA' framework developed to couple the Greater Casablanca Logistics Regional Plan NAMA to a broader Zenata Eco-city NAMA ('NAMA Ville'), initiative so as to promote mitigation synergies in a consistent and robust GHG inventory and MRV framework	

4. TOTAL BUDGET AND WORK PLAN

4.1 Total budget

Award ID:	00087522	Project ID(s):	00094492
Award Title:	Mainstreaming climate change in the National Logistics Strategy and Roll-Out of Integrated Logistics Platforms		
Business Unit:	Morocco		
Project Title:	Mainstreaming climate change in the National Logistics Strategy and Roll-Out of Integrated Logistics Platforms		
PIMS no.	5181		
Implementing Partner (Executing Agency)	METL		

GEF Outcome/Atlas Activity	Responsible Party/ Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Total (USD)	See Budget Note:
OUTCOME 1	METL	62000	GEF	71200	International Consultants	60,000	60,000	30,000	20,000	170,000	1
				71300	Local Consultants	50,000	50,000	40,000	20,000	160,000	2
				71400	Contr. services – indiv.	20,000	20,000	20,000	20,000	80,000	17
				72125	Studies and research services	10,000	10,000	10,000	10,000	40,000	3
				75700	Workshops and meetings	10,000	10,000	10,000	10,000	40,000	4
				74200	Audio visual and printing production costs	15,000	10,000	5,000	5,000	35,000	5
				71600	Travel	25,000	25,000	15,000	10,000	75,000	6
				72800	IT Equipment	0	25,000	25,000	0	50,000	7
				Sub-total GEF		190,000	210,000	155,000	95,000	650,000	
				Total Outcome 1		190,000	210,000	155,000	95,000	650,000	
OUTCOME 2	METL	62000	GEF	71200	International Consultants	30,000	60,000	55,000	25,000	170,000	8
				71300	Local Consultants	30,000	75,000	50,000	20,000	175,000	9
				71400	Contr. services – indiv.	20,000	20,000	20,000	20,000	80,000	17
				71600	Travel	25,000	25,000	15,000	10,000	75,000	6
				75700	Workshops and meetings	10,000	10,000	10,000	10,000	40,000	10

				72800	IT Equipment	0	50,000	25,000	25,000	100,000	7				
				Sub-total GEF		115,000	240,000	175,000	110,000	640,000					
				Total Outcome 2		115,000	240,000	175,000	110,000	640,000					
OUTCOME 3	METL	62000	GEF	71200	International Consultants	10,000	15,000	5,000	0	30,000	11				
				71300	Local Consultants	15,000	15,000	10,000	10,000	50,000	12				
				72200	Equipment & Furniture	125,000	125,000	125,000	125,000	500,000	13a				
				75700	Workshops and meetings	15,000	15,000	15,000	15,000	60,000	13b				
				72100	Contractual Services-companies	25,000	25,000	25,000	25,000	100,000	13c				
				72105	Construction & Engineering	20,000	20,000	15,000	10,000	65,000	14				
				71600	Travel	2,000	4,000	3,000	2,123	11,123	6				
				74100	Professional Services	0	20,000	0	40,000	60,000	15				
				Sub-total GEF		212,000	239,000	198,000	227,123	876,123					
				Total Outcome 3		212,000	239,000	198,000	227,123	876,123					
				Project Management	METL	62000	GEF	71400	Contr. services – indiv.	20,000	20,000	20,000	20,000	80,000	17
								71600	Travel	3,000	3,000	3,000	2,000	11,000	18
72800	IT Equipment	7,000	3,000					1,000	1,000	12,000	19				
72200	Equipment and furniture	2,000	2,000					1,000	306	5,306	20				
Sub-total GEF		32,000	28,000					25,000	23,306	108,306					
4000	UNDP	71400	Contr. services – individuals			31,000	31,000	31,000	31,000	124,000	17				
		71300	Local Consultants			10,000	10,000	10,000	10,000	40,000	17				
		75700	Workshops and meetings			5,000	5,000	5,000	5,000	20,000	16				
		71600	Travel			4,000	4,000	4,000	4,000	16,000	18				
		Sub-total UNDP				50,000	50,000	50,000	50,000	200,000					
		Total Management				82,000	78,000	75,000	73,306	308,306					
				PROJECT TOTAL GEF		549,000	717,000	553,000	455,429	2,274,429					
				PROJECT TOTAL UNDP		50,000	50,000	50,000	50,000	200,000					
				PROJECT TOTAL GEF & UNDP		599,000	767,000	603,000	505,429	2,474,429					

Budget Notes:

No	Note
1	International climate change mitigation consultants for capacity building on GHG management; NAMA & MRV design; policy options analysis; assessment of mitigation potentials and design of GHG methodologies and data management systems for the freight sector
2	Local consultants to support international consultant; conduct surveys, data-gathering and field work to the extent possible; legal consultant to draft regulations; financial consultant to design the fleet renewable scheme; communication consultant.
3	Convention with an engineering school to conduct research and develop national emission factors for the road and rail freight sector
4	Workshops and training to support policy options assessment and design; capacity building for climate change mitigation in the freight sector (GHG management, MRV and NAMA).
5	Edition and printing of training documents, implementation of the knowledge-sharing and communication activities
6	Travel costs of international and local consultants and project participants to assist to conferences and workshops. To note that some project implementation activities will be conducted at the regional level.
7	Software, computers and IT tools for the GHG management
8	International climate change mitigation consultants for benchmarks; development of NAMAs; design of MRV systems; development of road to rail modal shift methodologies; Assessment of GHG mitigation potentials.
9	Local consultants to assist international consultant on NAMA and modal shift designs; surveys and data gathering; development of the eco-driving ToT program;
10	Workshops for NAMAs development (GC NAMAs", "Nested NAMAs" and "NAMA Kernel")
11	International consultants for technical assistance on PV installation
12	National consultants to assist ToT on eco-driving,; assist potential beneficiaries of the fleet renewable scheme; Organize awareness workshops
13a	Funds to partially finance costs related ToT on equipment of the Solar PV installation
13b	Funds to partially finance costs related ToT on eco-driving (training of the trainers)
13c	Funds to partially finance costs related ToT on Awareness activities for operators
14	Construction and engineering for the PV installation and grid connection
15	Mid-term review, final evaluation and audit costs. Audit should be undertaken annually as indicated in the UNDP financial rules and regulations
16	Training and awareness workshops
17	Local long-term consultants / core project team consisting of the project manager, project engineer and administrative assistant
18	Project team travel cost
19	Software, computers and IT tools for the project team.
20	Office equipment and supplies for the project team.

Summary of funds:

Source of funding	Amount (USD) Year 1	Amount (USD) Year 2	Amount (USD) Year 3	Amount (USD) Year 4	Amount (USD) Total
GEF	549,000	717,000	553,000	455,429	2,274,429
UNDP	50,000	50,000	50,000	50,000	200,000
National Government (cash and in-kind)	30,270,633	30,270,633	30,270,633	30,270,633	121,082,532
TOTAL	30,869,633	31,037,633	30,873,633	30,776,062	123,556,961

Summary of project co-financing (in US\$):

		METL	AMD L	ONCF	CDG	SNTL	UNDP	Total
Outcome 1	Cash		200,000	500,000				700,000
	In-kind	100,000				100,000		200,000
Outcome 2	Cash		3,000,000	6,200,000	94,000,000			103,200,000
	In-kind							
Outcome 3	Cash	7,557,250				8,427,532		15,984,782
	In-kind							
Project management	Cash	397,750	100,000	100,000	300,000		200,000	1,097,750
	In-kind					100,000		100,000
Total		8,055,000	3,300,000	6,800,000	94,300,000	8,627,532	200,000	121,282,532

The letters of co-financing are found in Annex 8.3.

4.2 Work plan

	2016				2017				2018				2019			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
OUTCOME 1. INSTITUTIONS, PUBLIC POLICIES AND REGULATIONS ARE ENHANCED REGARDING LOW-CARBON DEVELOPMENT OF THE MOROCCAN TRANSPORT SECTOR																
Output 1.1: Institutional strengthening and capacity development for the Ministry of Equipment, Transport and Logistics and the newly-established Moroccan Agency for Logistics Development (AMD)																
1.1.1 Development of a set of guidelines and training materials to ensure proper management of low-carbon development at METL and AMD																
1.1.2 Technical training on GHG data management, MRV and NAMA design and implementation specific to the freight sector																
1.1.3 Study tours for Government officials and private sector representatives to countries with relevant experience in low-carbon development of freight sector																
Output 1.2: Climate change mitigation dimension of the National Logistics Strategy specified and operationalized for the development of a low-carbon regulatory framework for the logistics sector																
1.2.1 Technical, regulatory and economic feasibility assessment of a range of policy instruments and GHG mitigation actions in the freight sector (including MAC curves)																
1.2.2 Legal support to the preparation of a regulatory framework to promote specific policy measures and mitigation actions in the freight sector among which the introduction of a mandatory GHG inventory and MRV scheme, mandatory implementation of EURO 4 Norm, promotion of fiscal incentive measures for fuel efficiency, road to rail modal shift and fleet renewal schemes																
1.2.3 Revision of the Decree of the Minister of Equipment and Transport No. 2713-10 of 17 Muharram 1432 (23 December 2010) relating to professional conduct and its amendment to include the eco-driving training																
1.2.4 Design of the fleet renewable financial incentive system to progressively introduce a schedule enactment of EURO IV standards. Includes a feasibility study and consultations with key stakeholders																
1.2.5 Design and implementation of an indicator-based monitoring system of the National Logistics Strategy to track GHG emissions, climate finance and also co-benefits (such as economic growth of the sector, transition rate from informal to formal sector, newly created freight companies, occupancy rate of logistic platforms, etc.)																

Output 1.3: Country-specific road fleet profile and emission factors developed for Moroccan transport modes (road and rail), and used for scenario development																
1.3.1 Statistical surveys from all relevant public and private sources such as formal companies, CVT, payment system thumbnails, weighing centers, etc. to draw-up a realistic road and rail fleet profile detailing key data such as number of vehicles, type, age, GVWR, tyre type and pressure, fuel type and efficiency, ownership, mileage, loaded type and weights																
1.3.2 Development of a centralized system to ensure a permanent data collection and up-date of the road fleet and rail profile																
1.3.3 Establishment of a research agreement between METL and a national engineering school to ensure the development of emission factors specific to the Moroccan freight sector																
1.3.4 Development of a set of methodologies to calculate freight sector GHG emissions																
Output 1.4: An interdepartmental committee is set up to promote emission mitigation policies in the transport sector																
1.4.1 Development of a set of guidelines to establish national NAMA eligibility, design and quality criteria, related to transport sector																
1.4.2 Capacity building of the committee through trainings on NAMAs and development of a NAMA evaluation procedures manual																
1.4.3 Support to the committee for the NAMAs assessment of NAMAs in transport sector																
Output 1.5: Implementation of knowledge-sharing and communication activities related to transport GHG mitigation solutions																
1.5.1 Development of a communication and knowledge sharing plan																
1.5.2 Establishment of a project website to communicate the activities, best practices and outputs of the project																
1.5.3 Organization and involvement in national and international conferences on low carbon development in the freight sector																
OUTCOME 2. THE NETWORK OF MULTI-FLUX LOGISTICS ZONES OF GREATER CASABLANCA IS DEVELOPED AS A NATIONALLY APPROPRIATE MITIGATION ACTION ("NAMA") MODEL PROJECT AS PART OF THE NATIONAL LOGISTICS STRATEGY																
Output 2.1 GHG inventory and MRV systems designed and implemented for NAMA purposes																
2.1.1 Benchmark study on international experiences related to NAMAs and MRV systems in the transport/freight sector in urban areas (This study should lead to the development of specific ToRs for the GC NAMA-DD)																
2.1.2 Background surveys on use of logistics platforms; data gathering on volumes, cargo, emissions, etc.																
2.1.3 Design and implementation of a GHG inventory and MRV systems, including associated IT platforms, to be used by stakeholders and potential users of the future 8 sites of the GC Logistics Regional Plan																

Output 2.2 NAMA designed for immediate implementation of 5 priority components (eco-driving training, awareness of operators, modal shift, compliance of vehicles with Euro 4 and a 1.5 MW rooftop PV installation)																
2.2.1 Establishment of a list of beneficiaries who will benefit from the Training of Trainers (ToT) on eco-driving																
2.2.2 Design of the ToT program on eco-driving																
2.2.3 Survey to determine the tonnage that could be transferred from road to rail																
2.2.4 Development of a NAMA-DD for the GC logistics regional plan based on at least the following mitigation modules: eco-driving, fixed infrastructure renewable energy/energy efficiency, fleet renewal and road to rail modal shift																
Output 2.3 Standardized baseline for transport modal switch (from road to rail) developed as a mitigation tool to promote replication																
2.3.1 Development of a standardized baseline methodology to assess GHG emissions from road to rail modal shift and its submission to UNFCCC for approval																
2.3.2 Test-applying and calibrating the mitigation tool at the Zenata logistic site and any other relevant modal shift projects																
Output 2.4: Replication strategy for 17 additional low-carbon Logistics Regional Plans developed, building on the Greater Casablanca model																
2.4.1 Assessment of the GHG mitigation potential to be developed in each Logistics Regional Plan based on AMDL's action plans and the developed mitigation policies and actions from output 1.2																
2.4.2 Capitalize the Greater Casablanca Logistics Regional Plan experience as a framework model to serve its replication across the additional Logistics Regional Plans																
2.4.3 Development of the others Logistics Regional Plans as a "NAMA kernel" with an associated MRV framework																
Output 2.5 Innovative 'nested NAMA' framework developed to couple the Greater Casablanca Logistics Regional Plan NAMA to a broader Zenata Eco-City ('NAMA Ville') initiative so as to promote mitigation synergies in a consistent and robust GHG inventory and MRV framework																
2.4.1 Assessment of potential overlaps and synergies of mitigation actions between GC Logistics Regional Plan NAMA and the Eco-City NAMA ("NAMA Ville")																
2.4.2 Design of a "Nested NAMA" framework as a ground basis for the development and accounting of mitigation actions at the GC and the Zenata New Eco-City without any duplication or overlap																
2.4.3 Develop a set of guidelines to promote the replication of the "Nested NAMA" framework to other potentially nested NAMAs either for geographical or sectoral considerations																

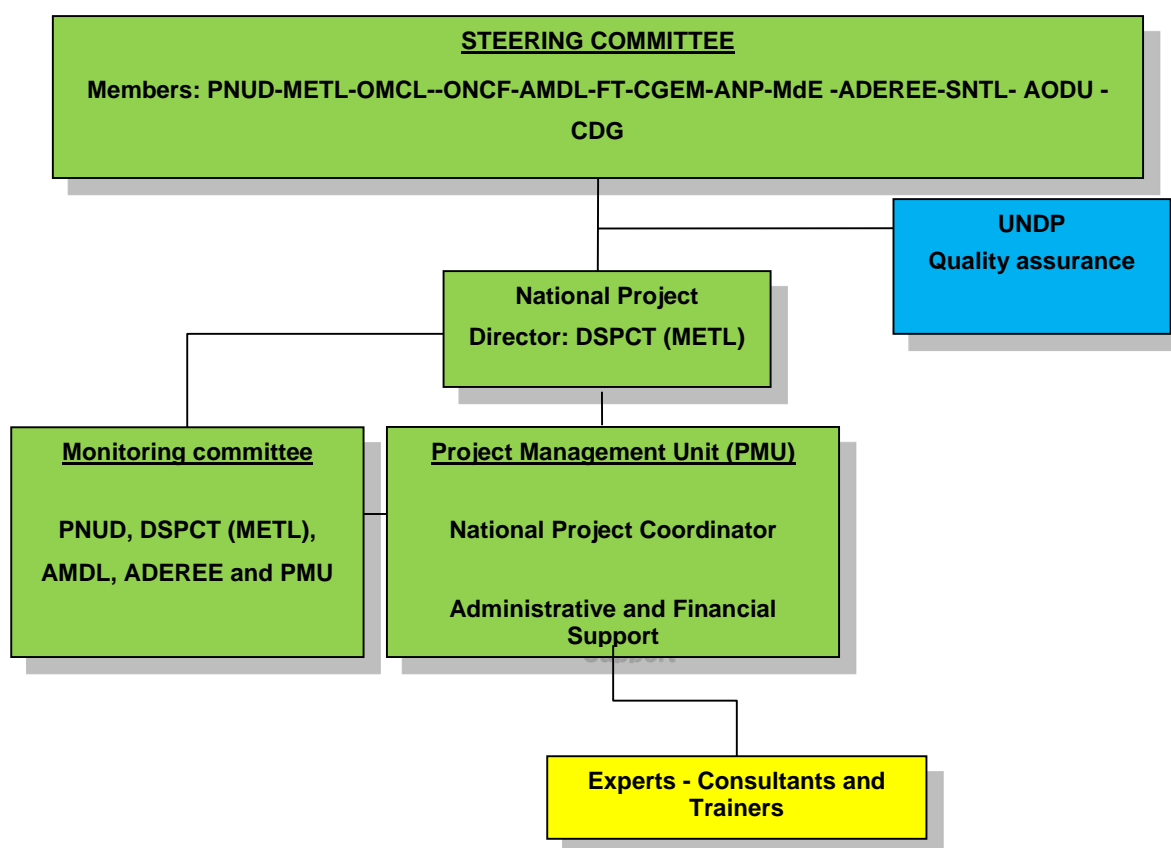
OUTCOME 3.THE MITIGATION MEASURE ("NAMA") IS MADE OPERATIONAL BY UPGRADE INVESTMENTS OF THE LOGISTICS ZONES PROVIDED FOR BY THE LOGISTICAL REGIONAL PLAN OF GREATER CASABLANCA .																
Output 3.1 Partial GEF investment financing for 4 specified mitigation interventions in the Logistics Regional Plan of Greater Casablanca (eco-driving training, awareness of operators, compliance of vehicles with the Euro 4 standard and a 1.5 MW rooftop PV installation).																
3.1.1 Financial support to the implementation of the eco-driving training for trainers																
3.1.2 Awareness workshops for road freight operators																
3.1.3 Technical assistance to SNTL on grid connection, net metering and PV panels procurement																
3.1.4 Partial financing of a 1.5 MW rooftop solar PV installation																
3.1.5 Technical and administrative support to owners of old freight vehicles to benefit from the fleet renewable scheme																
PROJECT MANAGEMENT																
Steering Committee meetings and reviews																
Quarterly reporting																
Annual reporting																
Project closure reporting																

5. MANAGEMENT ARRANGEMENTS

174. The project will be implemented according to the UNDP procedures “National Implementation by the Government – NIM”, the partner for the implementation of the project is METL. UNDP ensure quality assurance throughout the project.

Management structure

175. A project Management Unit (PMU) will be established at METL (see diagram). The PMU will be responsible for the management of the project under the supervision of the Steering Committee composed of METL, AMDL, OMCL, SNTL, ONCF, ANP, FT-CGEM, ADEREE, MdE and UNDP. The Steering Committee will be responsible for overseeing the implementation of project activities, coordination with other government departments and institutions. The Steering Committee will also ensure the approval and monitoring of the Annual Work Plan (AWP) of the PMU and in accordance with the rules and procedures of UNDP.



Roles and Responsibilities:

a. Steering Committee

176. The Steering Committee is responsible of decisions relating to the strategic direction of the project. The steering Committee of the project consists of the following institutions:

- The Ministry of Works, Transport and Logistics (METL/DSPCT) as director of the Steering Committee;
- UNDP as a supplier;

- The Moroccan Observatory of the logistics sector (OMCL)
- The National Office of Railways (ONCF);
- The Moroccan Agency for Development of Logistics (AMDL);
- The National Agency for the Development of Renewable Energy and Energy Efficiency (ADEREE);
- The Ministry of Environment (MdE);
- The Federation of the transport sector (CGEM/FNRT)
- The National Port Agency (ANP);
- The National Society of Transportation and Logistics (SNTL);
- The Organizing Authority of Urban Transport (AODU);
- The Development and management Fund (CDG)
- Other ministries and public institutions (Ministry of Finance, Ministry of Foreign Affairs and Cooperation, etc.).

177. The committee contains:

- A Direction, who chairs the committee and is responsible of the project, in collaboration with the supplier. The role of the Directorate is to ensure that the project is focused throughout its duration on the achievement of its objectives and outputs (management must ensure that the project provides a good quality / price ratio, making a conscious costs approach and balancing claims by beneficiaries and providers). It will also have as a role to validate and approve the necessary plans (institutional strengthening, training, exchange ...) for the implementation of activities;
- Primary Supplier (UNDP), which represents the interests of those who provide financial and / or technical project (design, development, facilitation, procurement, implementation). The main function of the supplier within the Project Committee is to provide the Board with respect to the technical viability of the project. Its role must have the authority to acquire and secure the resources required of suppliers;

178. The responsibilities of the Steering Committee are:

- **At the launch of the project:** steering committee, in consultation with partners, will meet at the start of the project and on the basis of the project document, it will study the project, the risks and potential partnerships;
- **Annual reviews:** the steering committee will meet every season in the cycle of the project to:
 - Evaluate the financial results of the project;
 - Ensure coordination and harmonization of the approach and methodology agreed;
 - Identify enlargement modalities of experience and the perimeter of the database if necessary;
 - Validate the planning of the following year.
- **At the end of the project:** the steering committee will met at the end of the project (end of 2018) to assess the final results of the project and validate the expected outputs, to learn and validate an implementation plan of the recommendations of the project's final evaluation.

b. Project Management Unit (PMU)

179. The PMU proposes an implementation plan for the recommendations from the final evaluation of the project. It consists of a National coordinator responsible of the project's operational management. The National Coordinator will be hired as full-time low carbon transport or GHG management expert. He will be assisted by an administrative assistant and accountant hired full time for the project.

180. The National Coordinator is responsible for managing the project on a daily basis. Its main responsibility is the outcomes expected from the project and described in the project document results, depending on the required quality standards, and taking into account the specificities and constraints of time and costs

outsourced. The coordinator works under the direct supervision of the National Project Director, and under the authority of the Steering Committee, according to standards established by the committee.

181. METL, in consultation with PNUD, will appoint a national coordinator who will be responsible for the project management. It assumes, in close cooperation and under the supervision of the Steering Committee, the following responsibilities:

- Is accountable for the results of the project:
 - Responsible for defining when, where and how the activities will be implemented;
 - Ensure that the project complies with the plan;
 - Responsible and accountable for managing the project on a daily basis, the overall monitoring of the operational implementation and on-going evaluation of the project.
- Manages resources and procurement:
 - Initiates the selection of resources needed for successful implementation of the activities;
 - Supervise consultants / team leaders in achieving their mission;
 - Provides financial management of the Project;
 - Provides accounting and administrative management of the project;
 - Ensures the preparation of terms of reference of service contracts, studies and works;
 - Ensures quality control of the services provided under the project in relation to the departments concerned (services, studies and works).
- Manages communication:
 - Inform all stakeholders of progress;
 - Organizes and participates in national and regional meetings and exchange workshops, within the framework of the project;
 - Prepares and drafts the minutes of the meetings of the Steering Committee;
 - Ensures the animation of exchanges between different actors.
- Manages reporting:
 - Planning:
 - Develops annual planning documents – AWP
 - Monitoring Required:
 - Develops all reports of the project's monitoring and evaluation on a quarterly basis + 1 annual report;
 - Develops tracking logs on a quarterly basis: Risk log, issues log, journal lessons learned from the project.
- Manages risks:
 - Fixes cut-off points and potential conflicts between stakeholders.
- Manages change:
 - Manages change through revisions, major revisions are first submitted to the Steering Committee;
 - Emits recommendations / observations on closure of the project when it has achieved its objectives, where it is no longer able to reach its goals.
- Provides knowledge management in the project:
 - Manages the interface between the project staff and the central government, particularly with regard to the integration of the lessons of the project in public policy;
 - Is responsible for training and cross-actions provided by the Project.

c. Monitoring Committee

182. The Monitoring Committee is responsible of decisions relating to the orientation and operational planning of the project, when guidance is sought by the coordinator of the project, including approval of revisions (business planning, budget, etc.). The monitoring committee of the project consists of the following institutions:

- The Ministry of Works, Transport and Logistics (METL) as the Project Director, mainly the Directorate of Strategy, Programs and Coordination of Transport (*Direction de la Stratégie, des Programmes et de la Coordination des Transports*);
- The Moroccan Development Logistics Agency (AMDL);
- The National Agency for the Development of Renewable Energy and Energy Efficiency (ADEREE);
- UNDP as a provider and manager of the project quality assurance;
- PMU.

183. The National Coordinator shall consult the committee for decisions when exceeding the tolerances of the project.

184. The responsibilities of the Steering Committee are:

- Implementation:
 - Monitoring the implementation and approving the planning prepared by the PMU;
 - Assess any changes in the design, the extent or duration of the project;
 - Evaluate any overtaking of the project's tolerances.
- Quarterly Reviews:
 - To assess the progress of the project in relation to the work plan provided. This evaluation will be based on the review of business and quarterly financial and tracking logs submitted by the Project Coordinator reports;
 - Validate any revisions and sign the work plan for the next quarter;
 - Make recommendations and proposals to ensure the good progress of the project.

d- Project's Quality Assurance

185. The Quality Assurance Project function is a responsibility delegated by the Steering Committee of the project to the UNDP who will attend to the good progress and quality of the project and support it by providing the expertise networks of United Nations.

186. It is necessary to separate the functions of project support and project assurance to maintain the independence of quality control developed by the project's assurance. Monitoring carried out by the UNDP in its agent's quality of management and its role of the project's quality assurance.

187. The UNDP will establish and communicate the explanatory and financial reports according to its policies and procedures reports, as well as in its operational guidelines. Moreover, the UNDP in its function of the project's quality assurance will have to feed the monitoring tools required by the Atlas system, including:

- Seizure of the information contained in the quarterly report submitted by the national coordinator in Atlas at the end of each quarter;
- Logs' risks update and problems in Atlas at the end of each quarter, based on information from the quarterly report submitted by the national coordinator;
- Based on the information entered in Atlas, a quarterly report from Atlas will be submitted to the CP;
- Monitoring plan will be updated regularly in Atlas to record the actions of major monitoring.

6. MONITORING FRAMEWORK AND EVALUATION

188. The following activities will be implemented to ensure the monitoring and evaluation of the project.

Inception workshop to launch the project:

189. To launch the project, a workshop will be organized in the following two months of signing the project document. At this stage, the roles of different stakeholders of the project must be assigned including the role of partner implementation (METL), the UNDP country office in Morocco, the UNDP regional technical advisor and other stakeholders. The project's launching workshop is a crucial step to enhance the ownership of the project by all the partners and to prepare the annual work plan (AWP) for the first year.

190. The project's launching workshop should address the following points:

- a) Enable all partners to have a perfect understanding of the project and make it their own. Discussion of roles, functions and responsibilities in decision making within the project including the development of reports, communication strategy and mechanism for conflict resolution. If necessary, the terms of reference of the project team can be discussed once again.
- b) Based on the results' and resources' Logical Framework (Log Frame), finalize the Annual Work Plan (AWP) of the first year. Review and agree on the indicators, targets, sources of verification and provide tables of assumptions and risks.
- c) Provide a detailed view over the reports that have to be elaborated and the monitoring and evaluation system to be followed. The budget for the monitoring and evaluation system must be programmed and approved.
- d) Discuss the procedures of preparing financial reports and obligations in this regard.
- e) Scheduling the Steering Committee's meetings. The first meeting of the Steering Committee should be scheduled within the 12 months following the launch meeting.

191. The inception workshop report is a key reference document; it must be prepared and shared with all participants to formalize decisions and commitments made at the meeting. It should be considered as a key project deliverable.

Quarterly:

192. A report on the project's progress to be prepared by the management team as per the format of the UNDP's quarterly reports.

193. The progress of the project must be recorded on the platform of the UNDP's Results Based Management. Based on the information recorded on ATLAS, a report on the project's progress can be generated from the "Executive Snapshot". Other recordings on ATLAS can track logs' problems, risks, lessons learned, etc.

Annually:

194. The annual Project Review/Project Implementation Reports (APR/PIRs) will be the responsibility of the UNDP Implementation Officer with support from the PMU. This report is prepared to monitor progress made since project start, especially for the previous reporting period. The APR/PIR combines both UNDP and GEF reporting requirements.

195. The APR/PIR includes, but is not limited to, reporting on the following:

- Progress made toward project objective and project outcomes – each with indicators, baseline data and end-of-project targets (cumulative)
- Project outputs delivered per project outcome (annual)
- Lessons-learned/good practice
- Annual Work Plan and other expenditure reports

- Risk and adaptive management

196. The PMU will develop a detailed programme of monitoring and will review meetings, consultations with partners who will implement the project and relevant stakeholders that have been incorporated into the inception workshop report. The schedule will include: (i) a tentative agenda for meetings of the Project Steering Committee and other relevant advisory and/or coordination mechanisms if appropriate, and (ii) activities related to M & E of the project.
197. Day-to-day monitoring of the progress of project implementation will be the responsibility of both the Project Manager and UNDP Implementation Officer, based on the annual work plan and its indicators. The Project Manager will report to the UNDP Implementation Officer any delays or difficulties that take place in the project development, for the adoption of corrective measures in time and support or appropriate remedial actions.

Mid-Term of Project Cycle Review:

198. The project will undergo a Mid-Term Review by an independent consultant at the mid-point of project implementation (December 2017). The Mid-Term Review will determine progress being made toward the achievement of outcomes, and will identify course corrections if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; it will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. The findings from this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. The organisation and timing of the Mid-Term Review will be decided after consultation between the parties regarding the project document.
199. A GEF Climate Change Mitigation Tracking Tool will be completed at the mid-term of the project.

Final Evaluation:

200. A Final Evaluation Report will be prepared by an independent evaluator during a three-month period prior to the final Project Steering Committee meeting. The final evaluation will focus on the delivery of the project's results as initially planned (and as corrected after the Mid-Term Review, if any such correction takes place). The final evaluation will look at the impacts and sustainability of results, including the contribution to capacity development and the achievement of global environmental benefits/goals.
201. A GEF Climate Change Mitigation Tracking Tool will be completed at the end of the project.

Frequency of monitoring and evaluation:

202. A detailed review of the project's review meetings will be developed by the management team of the project, in collaboration with the implementing partner and other partners. This program must be annexed to the report of the project's launch. Such a programming should include i) a schedule's proposal for the steering committee's meetings (or any other mechanism of consulting / coordination established) and ii) the monitoring activities and evaluation.

Monitoring day by day the project's implementation will be the responsibility of the national Project Coordinator based on the Annual Work Plan (AWP) and its indicators. The Project Coordinator will inform the UNDP of any delays or difficulties encountered in the implementation of the project to enable the country's office to take the necessary measures in time.

203. Periodic monitoring of the project's implementation will be provided by the UNDP office in Morocco through quarterly meetings with the project implementation managers or more frequently if needed. This will allow the various parts to make an assessment of achievements and address any problems encountered by the project at the right time in order to create the appropriate best execution of project activities conditions.

Project close-out:

204. During the last three months of the project's life, the management team must prepare a Project Terminal Report. The final report will summarize the results achieved (objectives, expected outcomes, outputs), lessons learned, problems and aspects in which the project could not achieve the expected results. It must also convey the recommendations of the project's implementation to ensure sustainability and replicability of the project's activities and results.

Audits:

205. Audits will be conducted in accordance with UNDP financial rules and regulations and applicable audit policies on UNDP projects.

Knowledge and knowledge management:

206. The results generated by the project will be disseminated within and outside the project's intervention area through sharing information and using networks and forums at subnational, national, regional and global levels. The national management unit will work in a much closed way, accompanied by the support of the overall program in order to achieve this goal.
207. The project team will identify and participate in an appropriate way, relevant and on scientific bases to the dissemination of lessons learned from the project in various working networks on the theme of the project.
208. The project will identify, analyze, and share lessons learned that might be beneficial in the implementation of the project sharing similar interests. There will be a two-way exchange of information between this project and other similar ones.

Table 6: Monitoring & Evaluation Work Plan and Budget

Type of M&E activity	Responsible Parties	Budget \$US <i>Excluding project team staff time</i>	Time frame
Inception Workshop and Report	Project Manager, Steering Committee, UNDP Morocco, UNDP-GEF	Indicative cost: \$3,000	Within first two months of project start up
Measurement of Means of Verification of project results.	UNDP Morocco, Project Manager	None	Start, mid- and end of project (during evaluation cycle) and annually when required
Measurement of Means of Verification for Project Progress on output and implementation	Oversight by Project Manager Project team	To be determined as part of the Annual Work Plan's preparation.	Annually, prior to ARR/PIR and the definition of annual work plans
ARR/PIR	Project Manager and team UNDP Morocco, UNDP-GEF	None	Annually
Periodic status/ progress reports	Project Manager and team (PMU)	None	Quarterly
Mid-Term Review	Project Manager and team (PMU) UNDP Morocco, UNDP-GEF External Consultants (i.e. review team)	Indicative cost: \$20,000	At the mid-point of project implementation
Final Evaluation	Project Manager and team (PMU) UNDP Morocco, UNDP-GEF External Consultants (i.e. evaluation team)	Indicative cost: \$40,000	At least three months before the end of project implementation
Project Terminal Report	Project Manager and team (PMU) UNDP Morocco	None	At least three months before the end of the project
Audit	UNDP Morocco Project Manager and team (PMU)	Indicative cost per year: \$3,000 for a total of \$12,000 (for 4 years)	Annually
HACT : Micro evaluation	UNDP Morocco Project Manager and team (PMU)	None	Once
TOTAL indicative COST Excluding project team staff time and UNDP staff and travel expenses		\$US 75,000	

7. LEGAL AND CONTRACTUAL CONTEXT

209. The UN System's Development Assistance Framework in Morocco (UNDAF) developed and signed by the Moroccan Government⁵² and the UNS, is a binding legal agreement covering the UNDP's five year program of activities in Morocco. At the project level, the planning and implementation reference document consists of the Annual Work Plan (AWP) signed by the Implementing Partner for one calendar year⁵³. Therefore, for a more effective measure of performance, the project's expected outcomes have been included in the wider framework of the UNDAF Outcome, and the combination of these two documents constitutes the "project document".
210. This project description constitutes the instrument referred to in Article 1 of the Standard Basic Assistance Agreement agreed between the Moroccan government and the United Nations Development Program and signed by the parties on May 13, 1982.
211. The Government of the Kingdom of Morocco (hereinafter "the Government") and the United Nations Development Program (hereinafter the "UNDP") concluded a basic agreement to manage UNDP assistance to the country which was signed by the two parties on May 13, 1982. According to Article 1, paragraph 2 of the SBAA (Standard Basic Assistance Agreement), the assistance provided by the UNDP to the Government will be made available to the Government and shall be furnished and received in line with the relevant and applicable resolutions and decisions of the competent UNDP bodies, and subject to the availability of the necessary funds to the UNDP. In particular, decision 2005/1 of January 28, 2005 of the UNDP Executive Board approved the new financial regulations and rules as well as the new definitions of the terms "execution" and "implementation", enabling the UNDP to fully implement the Common Country Program Procedures resulting from the simplification and harmonization initiative of the United Nations Development Group ("UNDG"). In light of this decision, the UNDAF and the AWP constitute together a project document as referred to in the basic agreement (SBAA).

Program Management

212. The program will be nationally executed under the overall co-ordination of the Ministry of Foreign Affairs and Cooperation. Government ministers, NGOs, intergovernmental organizations, UN agencies, including here the UNDP, will implement the program activities. The Government Coordinating Agency will nominate the Government Co-operating Agency directly responsible for the Government's participation in each of the UNDP's action plans (AWP). The AWP's describe the specific outcomes to be achieved and will constitute a basic agreement between the UNDP and each Implementing Partner in relation to the use of resources. Any reference to "Implementing Partner(s)" shall mean "Executing agent" as used in the Special Basic Assistance Agreement (SBAA).
213. In terms of program design and execution, the UNDP collaborates closely with key partners. The country program builds on the United Nations reform principles, in particular those of simplification and harmonization, by operating in accordance with the harmonized common country program instruments such as the UNDAF's results matrix, monitoring and evaluation, and the AWP's. To the extent possible, the UNDP and its partners will use the minimum necessary documents, in particular the documents signed by the UNDAF and the AWP's, in order to implement the program initiatives. However, as necessary and appropriate, the project documents should be prepared by using, inter alia, the relevant text from the UNDAF and the AWP's. The UNDP will sign the project documents with its partners in accordance with its institutional practices and local requirements. In line with the UNDG's Joint Programming Guidance Note, the scope of inter-agency cooperation is strengthened to cultivate new geographical convergence and programs.

⁵² Implementation of the UNDAF is entrusted to the Government Authority responsible for coordinating UNDP activities, in this case the Ministry of Foreign Affairs and Cooperation (Implementing Partner).

⁵³ In the case of multi-year projects, a specific work plan must be signed for each calendar year by the implementing partner and the UNDP.

214. Atlas facilitates rapid and effective implementation of the activities as well as effective financial monitoring to manage projects and the UNDP program.
215. All transfers of money to an implementing partner shall be made on the basis of the Annual Work Plans agreed between the implementing partner and the UNDP.
216. Money transfers relating to the activities detailed in the annual work plans may be made by the UNDP under the following conditions:
- Funds transferred directly to the implementing partner;
 - Prior to the start of activities (direct transfer of funds), or
 - After activities have been completed (reimbursement);
 - Direct payment to suppliers or third parties for obligations incurred by the implementing partners on the basis of requests signed by the designated official representative of the implementing partner;
 - Direct payments to suppliers or third parties for obligations incurred by UN agencies as part of activities agreed with the implementing partners.
217. Direct transfers of funds will be requested and released for program implementation periods not exceeding three months. Reimbursements of previously authorized expenses will be requested and released every three months, or after completion of the activities. The UNDP will not be required to reimburse expenses made by the implementing partner over and above the stipulated limits
218. Following the completion of any activity, any balance of funds will be redistributed by mutual agreement between the implementing partner and the UNDP, or in the case of external funds will be reimbursed to the UNDP.
219. The funds transfer modalities, the size of the disbursements and the scope and frequency of assurance activities may depend on the findings of a review of the public financial management capacity in the case of a government implementing partner, or an assessment of the financial management capacity of the non-UN implementing partner.
220. The funds transfer modalities, the size of the disbursements and the scope and frequency of assurance activities may be revised at any time during program implementation based on the findings of program and expenditure monitoring, reports and audits.
221. Resource mobilization efforts will be intensified in order to support the Results and Resources Framework (RRF) and ensure the sustainability of the program. The mobilization of other resources in the form of cost sharing, trust funds or government cash counterpart contributions will be undertaken to ensure the funding of the program.

Monitoring and evaluation

222. The Implementing Partners agree to cooperate with the UNDP in the monitoring of all activities supported by funds transfers and will facilitate access to the relevant financial files and to the personnel responsible for the management of funds provided by the UNDP. To that effect, the Implementation Partners agree to the following:
- Periodic on-site reviews and spot checks of their financial records by the UNDP or its representatives,
 - Programmatic monitoring of activities in line with UNDP standards and guidance for site visits and field monitoring,
 - Special or scheduled audits. The UNDP, in collaboration with other UN agencies, in consultation with the national authorities will establish an annual audit plan, giving priority to audits of implementing partners receiving large amounts of financial assistance from the UNDP, and to those partners whose financial management capacity needs reinforcing.

223. To facilitate assurance activities, the Implementing Partners and the UNDP may agree to use a program monitoring and financial control tool allowing data sharing and analysis.
224. The Court of Auditors may undertake audits of government implementing partners. If the audit company chooses to not undertake the audits of specific implementing partners in line with the frequency and scope required by the UNDP, then the UNDP will commission private sector audit companies to undertake these audits.
225. Evaluations and audits of non-government implementing partners will be undertaken in accordance with the policies and procedures of the UNDP.
226. The UNDP will ensure coherence between the AWP and the UNDAF results matrix. Annual reviews and the publication of regular progress updates will emphasize the different responsibilities of the UNDP, the Government and the implementing partners.
227. In case of direct transfer of funds or reimbursement, the UNDP shall notify the Implementing Partner of the amount approved by the UNDP and will disburse funds to the Implementing Partner within 3 days.
228. In case of direct payment to vendors or third parties for obligations incurred by the Implementing Partners on the basis of requests signed by the designated official representative of the Implementing Partners; or to vendors or third parties for obligations incurred by the UNDP in support of activities agreed with the Implementing Partners, the UNDP will make the payment within 3 days.
229. The UNDP will not have any direct liability under the contractual agreements concluded between the Implementing Partner and third party vendors.
230. If a UN agency provides funds to the same Implementing Partner, program monitoring, financial monitoring and auditing will be undertaken in coordination with the UN agency concerned.

8. ANNEXES

8.1 Terms of reference for project personnel

In order to improve the competitiveness of logistics sector, Morocco has set up a national strategy for this sector, which represents in its current government program a strategic priority and a lever for the national economy. Indeed, through this strategy, the Kingdom seeks to consolidate a real logistics competitiveness of its economy and aspires to create dynamism in the sector through the implementation of five-axis that this strategy provides.

In parallel with its government program that sets priorities and strategic directions of the country, Morocco has embarked on the process of fighting against climate change and consideration of environmental aspects in its development strategies to ensure a transition towards a low-carbon development, which fits perfectly with the National Strategy for Sustainable Development. Reducing emissions of greenhouse gases occurs in the **National Development Strategy of Competitiveness Logistics** as one of the main objectives of the latter. Indeed, the strategy calls for the **35% reduction in CO₂ emissions** by 2020.

For defining ways to operationalize this target to reduce emissions and to identify the necessary policy instruments, Morocco has sought the support of the GEF through UNDP for a project that aims the **"Integration of climate change in national development strategy logistics competitiveness and the implementation of integrated logistics hubs"**.

This project will lead to the following outcomes:

- **Outcome 1:** Institutions, public policies and regulations are enhanced regarding low carbon development of the Moroccan transport sector;
- **Outcome 2:** The network of Multi-flux Logistics Zones of Greater Casablanca is developed as a nationally appropriate mitigation action ("NAMA") model project as part of the National Logistics Strategy;
- **Outcome 3:** The mitigation measure ("NAMA") is made operational by upgrade investments of the logistics zones provided for by the logistical regional plan of Greater Casablanca.

Roles and Responsibilities

The National Project Coordinator is responsible for coordinating and managing all aspects of the implementation of the project. He represents the pivot of all the needed actions for the implementation of activities planned under this project. He has to work closely with the National Project Director and the various partners, ensuring communication between the different entities associated to the project for the proper performance of its various phases.

Therefore, the National Project Coordinator is responsible for:

- implementation of the work plan on time as approved by the Steering Committee;
- general and financial management;
- planning the work schedule and production of reports related to the progress of the project;
- ensuring that monitoring and evaluation activities are included in project planning;
- developing of terms of reference for project consultants;
- preparing tender process that will be launched within the project;
- ensuring communication between the different entities of the project structure, including the Steering Committee and stakeholders;
- supervision, monitoring and quality control of the implemented activities under the project;
- quality control of deliverables prepared within the project;
- Etc.

Required Qualifications and Experience

The project coordinator must justify the profile and the following skills:

- Minimum Diploma of a master's degree in environmental management major, energy, or any other field relevant to the project;

- Professional experience of minimum 10 years;
- Significant experience in the development and implementation and / or project planning cooperation projects with international donors;
- Technical Skills confirmed in climate change mitigation;
- Advanced knowledge of the freight sector in Morocco and the national context of its evolution and its barriers;
- depth knowledge on NAMAs and MRV systems;
- Proven skills in planning, organization and implementation of activities;
- Skills in team coordination, including in complex environments, multi-stakeholders and multi-donors
- Skills development and implementation of participatory process in order to facilitate dialogue between different stakeholders;
- Fluency in written and verbal communication;
- Very good command of languages (French, Arabic and English).

8.2 Greenhouse gas emissions calculations

Part of this project document preparation, establishment of an inventory of GHG emissions emanating from the freight sector (road & rail) has been requested to establish a baseline from which the projections of future reductions will be made.

This section is developed in two subsections. The first one concerns calculations of GHG emissions in the freight sector, outlining the different data sources, approaches considered, but also the constraints. The section's second part concerns the calculation of the various potential reductions of GHG emissions.

A. GHG Freight Transport Emissions – Data sources, Rational & constraints

This section presents the results of GHG emissions' calculations of the freight sector in Morocco. For this purpose, an Excel tool has been developed by the Prodoc preparation team using technical data provided by METL and ONCF.

The following sections describe methods of calculations, assumptions used to establish some extrapolations and sources of some data. Two methodologies have been considered, a simplistic methodology (V0) and a detailed one (V1). The results have been compared to the overall transport sector's emissions established in the national inventories developed as part of national communications. This comparison allows verifying the results' reliability.

Lastly, this exercise allowed the Prodoc preparation team to highlight some constraints and limitations in technical freight data. These constraints can be overcome by implementing some activities in the project to eventually improve the calculations of baseline GHG emissions but also reduction projections.

GHG Emissions (Road & Rail Freights)

Version 0 (or V0):

This version of calculations was based on the following steps:

1. Road Freight (vehicule.km approach):

- **Step 1:** The % applied to the utility vehicles in order to calculate the number of project vehicles (with a GVWR > 3.5 t) in V0 has been derived. It comes from the division of the sum of vehicles of which GVWR > 3.5t by the total number of utility vehicles :

$$\text{Formula 1:} \\ \text{\% of vehicles of which GVWR is > 3.5 t} = \Sigma \text{ vehicles > 3.5t} / \text{Total utility vehicles} = 18\%$$

Source: This formula is based on the statistical data register "PARC AUTO 2013" provided by the METL..

- **Step 2:** Step 1 of calculations allows to calculate the total number of project vehicles of which GVWR is > 3.5t :

$$\text{Formula 2:} \\ \text{Total project vehicles > 3.5 t} = \text{total utility vehicles} \times \text{\% vehicles GVWR>3.5t}$$

Source: From 2000 to 2013, the total number of utility vehicles is taken from the "PARC AUTO 72" sheet provided in data registers "PARC AUTO 2013" & "PARC AUTO 2009" (METL). Otherwise, for the years from 1994 to 2000, to have the total number of vehicles, Prodoc Preparation Team subtracted new registrations added each year as shown in the formula below:

$$\text{Veh (n)} = \text{veh (n+1)} - \text{new registrations (n+1)}$$

where n : year

- **Step 3:** In this step, the average Emission Factor is calculated according to the formula below:

Formula 3:

$$\text{Average EF} = \frac{\sum \text{EF of all categories of GVWR merged}}{\text{Number of categories considered}}$$

Source: Emission Factors are taken from the Simplified Calculation tool for GHG emissions in Morocco which was carried by the "Mohammed VI Foundation For The Protection of the Environment" under a cooperation agreement with ADEME (August 28, 2011) on "supporting the adaptation and the appropriation of a carbon calculation tool adapted to Morocco (Spreadsheet "FRET MARCHANDISES").

- **Step 4:** At this stage, and based on previous results, Global Emissions can finally be calculated according to the following formula:

$$\text{Global Emissions} = \text{Number of project vehicles} * \text{km traveled} * \text{average EF}$$

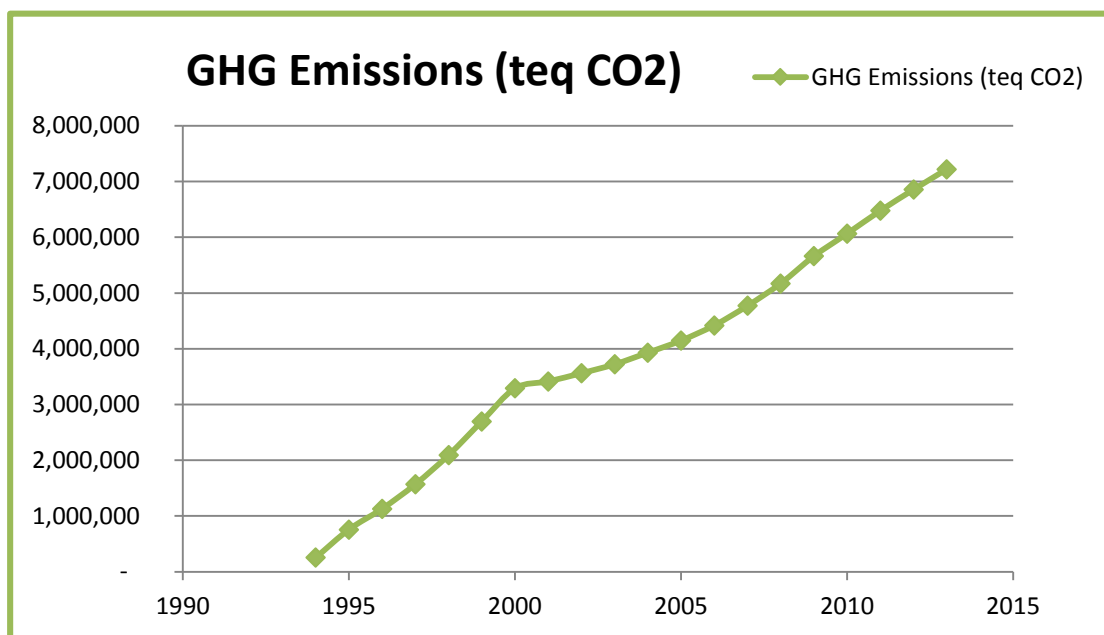


Figure 14: GHG road freight emissions (tCO₂) between 1994 & 2013 (Source: Prodoc preparation team)

2. Rail Freight (tons.km approach):

- **Step 1:** Data about the Tons * km transported each year (2005-2012) was provided by the "METL"
- **Step 2:** Emission factor considered is obtained by applying the weighted average method of the two emission factors: electric train represents 58.1%⁵⁴ of the railway network and Diesel train 41.9% of this network. (emission factors used are presented at the end of this annex):

$$\text{Average EF} = (\text{diesel EF train} \times \text{Diesel train modal part (\%)}) + (\text{EF electric train} \times \text{Electric train modal part (\%)})$$

Source: Emission Factors are taken from the Simplified Calculation tool for GHG emissions in Morocco which was carried by the "Mohammed VI Foundation For The Protection of the Environment" under a cooperation agreement with ADEME (August 28, 2011) on "supporting the adaptation and the appropriation of a carbon calculation tool adapted to Morocco (Spreadsheet "FRET MARCHANDISES").

→ Therefore, this method allows the direct calculation of GHG emissions according to the formula below:

$$\text{GHG Emissions} = \text{Tons transported} \times \text{Average EF}$$

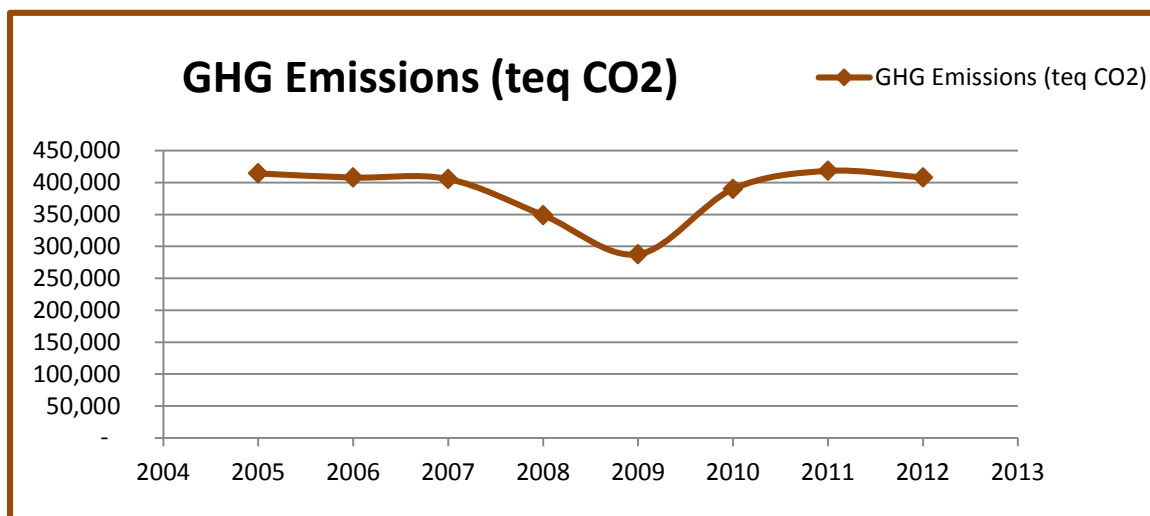


Figure 15: GHG rail freight emissions (tCO₂) between 2005 & 2012 (Source: Prodoc preparation team)

Total emissions from the Freight Transport & Comparison to the overall emissions from the Transport sector in Morocco

Now that the GHG emissions are calculated for both road and rail freights, a comparison to the overall emissions from the Moroccan Transport Sector has been done from 1994 to 2012.

⁵⁴ Data on modal shares for train are from the METL website: <http://www.mtpnet.gov.ma/ferroviaire/Strategie/Pages/Cadre-et-programme-d-action-ONCF.aspx>

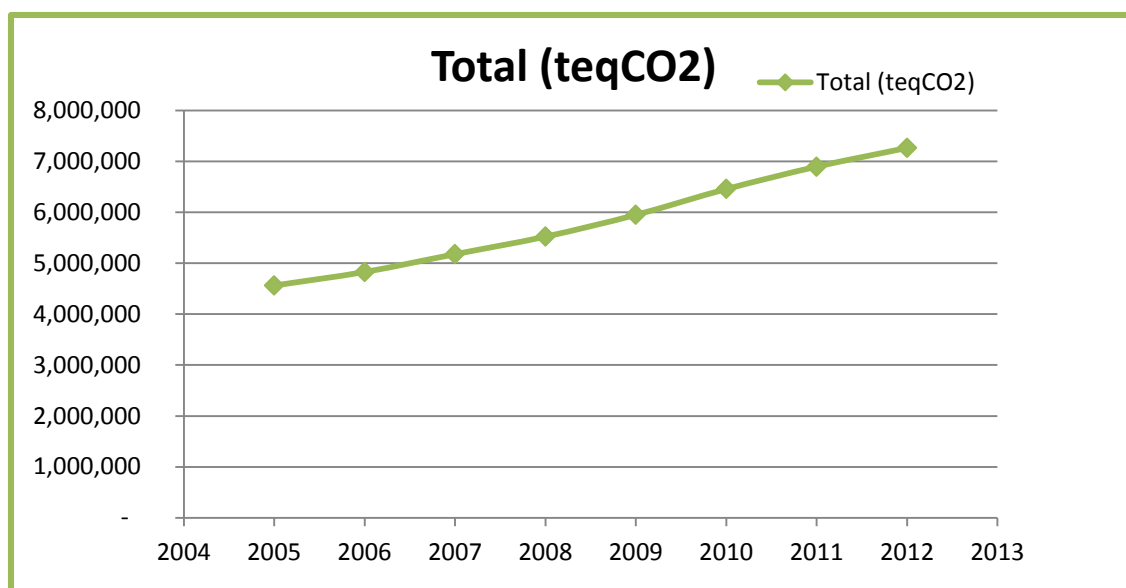


Figure 16: Total freight transport (road & rail) GHG emissions (Source: Prodoc preparation team)

Source: Data about the emissions emanating from the National Transport Sector is taken from the Second and Third national communications (reports of the National Emissions Inventory of greenhouse gases).

Emissions coming from rail freight for years prior to 2005 have been considered based on emissions from road freight using the formula:

$$\text{Emissions rail cargo } n = \text{Emissions road cargo } n * \text{Average emissions rail/road (\%)} \\ \text{where } n : \text{year}$$

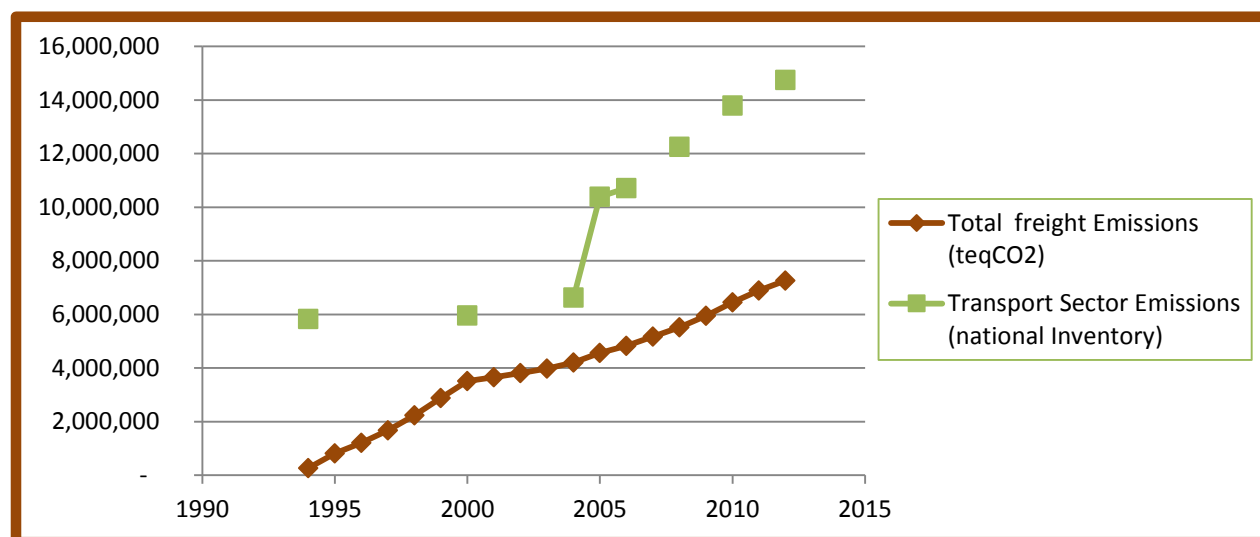


Figure 17: Comparison of freight sector emissions to overall transport sector emissions in Morocco (Source: Prodoc preparation team and National Communication GHG Inventories)

Total estimated emissions from the freight sector in horizons 2020, 2025 & 2030 (according to VO)

Furthermore, emissions in horizons 2020, 2025 and 2030 have been calculated using the extrapolation⁵⁵ method. In fact, it attempts to predict values of future emissions by relying on historical data (1994-2012). Thus, a trend line has been plotted on the graph of total emissions. The equation of this curve has been deduced as well as the coefficient of determination (R^2). This is used to specify the type of correlation obtained (either strong or not).

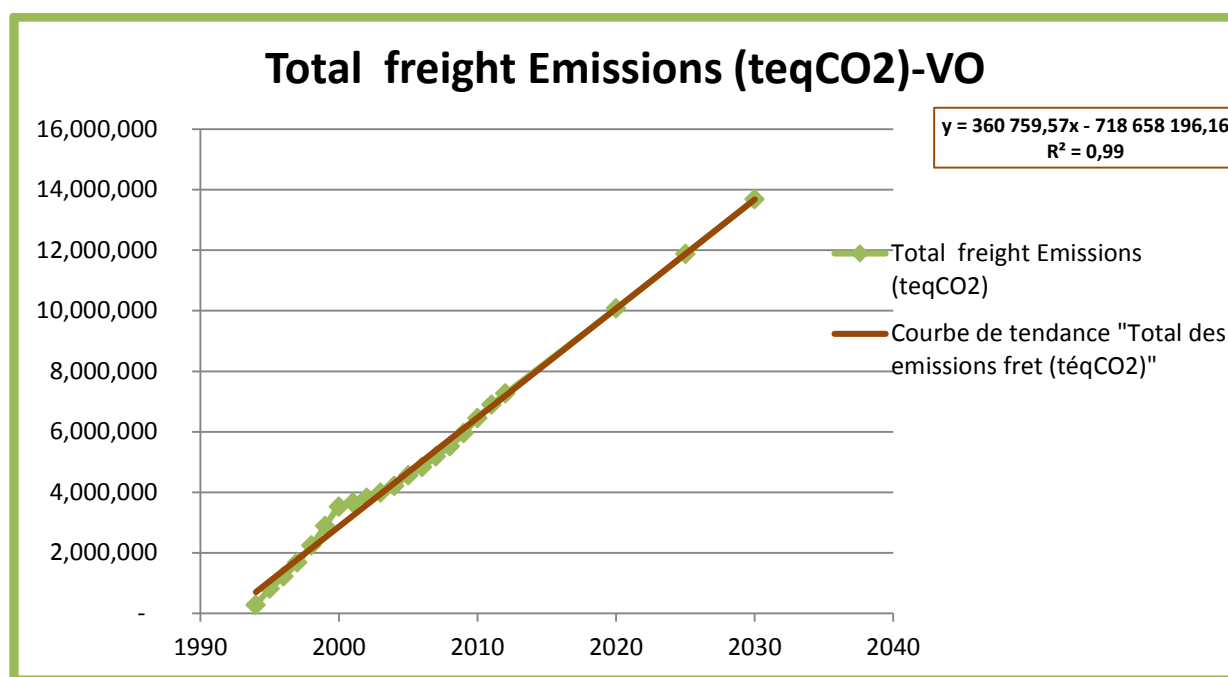


Figure 18: GHG freight sector emissions' projection in horizons 2020, 2025 & 2030 (calculated with VO method)
 (Source: Prodoc preparation team)

⁵⁵ **Extrapolation** is the process of estimating, beyond the original observation range, the value of a variable on the basis of its relationship with another variable.

Table 7: Numerical results of freight sector emissions (1994-2030), V0

Year	GHG Emissions road freight (teq CO2)	GHG Emissions rail freight (teq CO2)	Total freight Emissions (teqCO2)
1994	253 664	17 756	271420
1995	758 135	53 069	811204
1996	1 130 931	79 165	1210 096
1997	1 570 096	109 907	1680 003
1998	2 092 682	146 488	2 239 170
1999	2 697 660	188 836	2 886 496
2000	3 290 050	230 304	3 520 354
2001	3 414 362	239 005	3 653 367
2002	3 561 844	249 329	3 811 173
2003	3 721 372	260 496	3 981 868
2004	3 930 507	275 135	4 205 642
2005	4 147 647	414 330	4 561 977
2006	4 420 084	407 890	4 827 974
2007	4 771 320	405 580	5 176 900
2008	5 172 513	349 020	5 521 533
2009	5 661 075	287 770	5 948 845
2010	6 065 256	390 040	6 455 296
2011	6 476 473	418 320	6 894 793
2012	6 855 184	408 100	7 263 284
2020			10 076 145
2025			11 879 943
2030			13 683 740

Version 1 (or V1):**1. Road Freight (vehicule.km approach):**

Assuming that it is not possible to accurately collect all the data that would allow for the linear application of V0, **the proposed suggestions for improvement consist in an “enhanced” V0 or V1 version using the following approach:**

- In V1, instead of considering the project vehicles as a whole (% of the utility vehicles, the project vehicles could be divided by category assuming the contribution of each category (percentage, not the number itself, see below) for the whole project vehicles as per the information presented in V1. The Prodoc preparation team believes that the most accurate year is 2013 as it is the year with precise information provided by METL on the fleet of vehicles per category. This percentage can then be applied for each of the project vehicles number presented for each year in V0, allowing the calculation of number of vehicles by category for each year.

	3,5 t < GVWR < 8 t	8 t < GVWR < 14 t	GVWR > 14 t
Number of total vehicles by GVWR	18 356	20 494	53 583
%	20%	22%	58%

- Consequently, and by using number of vehicles per category, the average km per category of vehicle could be considered, instead of the average number (44 800). This number should be calculated as explained below :
 - For vehicles with a GVWR ≤ 8t and 8t < GVWR ≤ 14t, kilometers travelled are taken directly from the table on page 208 of the energy survey “*Enquête consommation énergétique_Rapport phase4*” as follow: 64,815 km for GVWR≤8t and 110,326 km for 8t<GVWR≤14t;
 - Regarding vehicles with a GVWR exceeding 14 tons, the weighted average is calculated as follows:

GVWR > 14 t				
	Number of vehicles	14 t < GVWR < 19 t	19 t < GVWR < 26 t	GVWR > 26 t
own-account	24 540	11 027	6 463	7 050
account of others	49 985	18 010	7 416	24 559
Total number of vehicles by each GVWR		29 037	13 879	31 609
Total number of vehicles GVWR > 14t	74 525			
km traveled by each GVWR		97 948	61 251	52 394
Average km traveled for GVWR > 14t	$(97\,948 * 29\,037 + 61\,251 * 13\,879 + 31\,609 * 52\,394) / 74\,525$			

- Finally, and by disaggregating information for each category of vehicles, the emission factors per category can then be used. This would allow a more accurate GHG emission calculations. However, this method is still a “conservative” estimate as the data used for the kilometers travelled is related to 2011. In fact, this data tend to underestimate the energy consumptions as it takes into account the consumption of vehicles with a lighter GVWR (GVWR<3.5t).

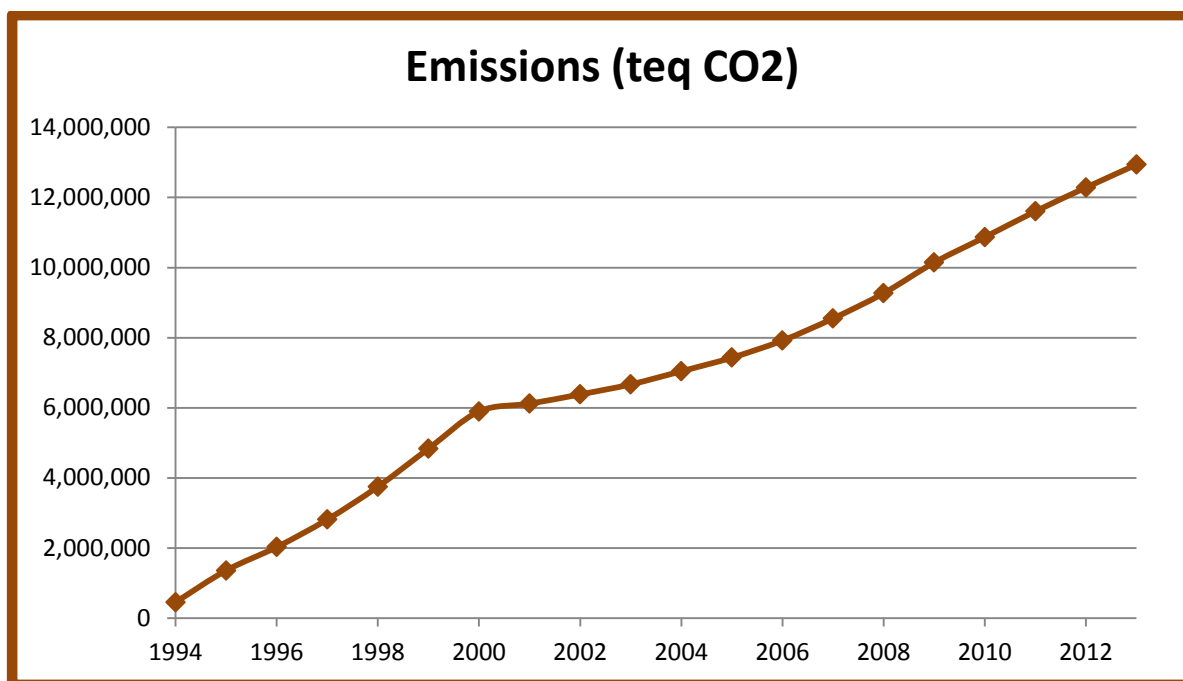


Figure 19: GHG freight sector emissions (tCO₂) between 1994 & 2013 (Source: Prodoc preparation team)

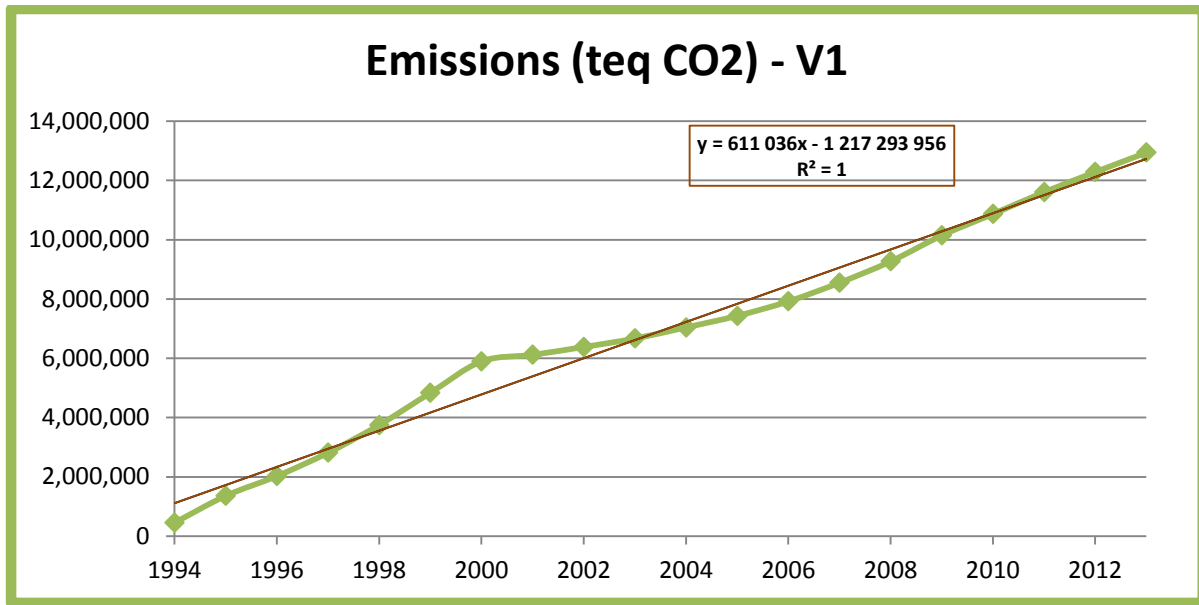


Figure 20: GHG freight sector emissions' projection in horizons 2020, 2025 & 2030 (Source: Prodoc preparation team)

Compared to the V0 method, the V1 method seems more accurate and provides higher GHG emissions for the road freight sector. The GHG emissions obtained with the V1 method are those included in Figure 6 of the Prodoc.

Total estimated emissions from the freight sector in horizons 2020, 2025 & 2030 (V1)

As it has been done for the previous calculations (V0), emissions in horizons 2020, 2025 and 2030 have been calculated using the same extrapolation method. Indeed, a trend line has been plotted on the graph of total emissions. The equation of this curve has been deduced as well as the coefficient of determination (R^2).

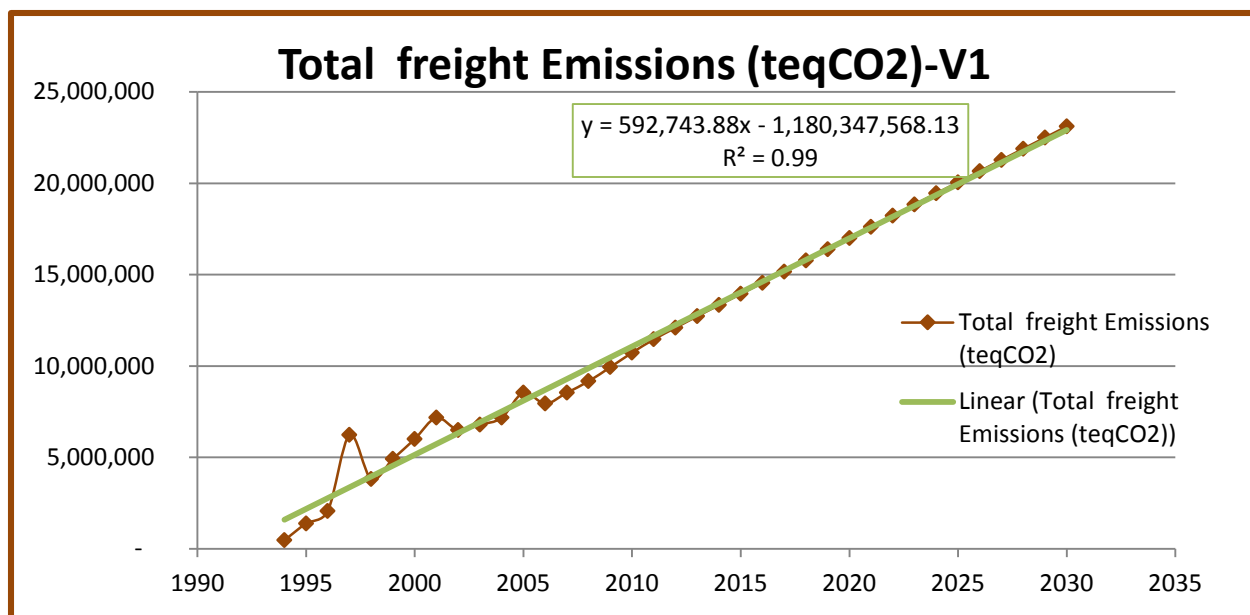


Figure 21: GHG freight sector emissions' projection in horizons 2020, 2025 & 2030 (calculated with V1 method)
(Source: Prodoc preparation team)

Table 8: Numerical results of freight sector emissions (1994-2030), V1

Year	Total freight Emissions (teqCO2)
1994	462 600
1995	1 382 582
1996	2 062 441
1997	6 226 599
1998	3 816 323
1999	4 919 555
2000	5 999 935
2001	7 167 867
2002	6 495 540
2003	6 786 549
2004	7 167 867
2005	8 546 311
2006	7 941 230
2007	8 537 561
2008	9 164 810
2009	9 936 173
2010	10 727 334
2011	11 456 511
2012	12 091 722
2020	16 998 765
2025	20 053 945
2030	23 109 125

Limits and constraints

Although Prodoc preparation team has attempted to estimate emissions using various assumptions, some limits should be considered. In fact, the obtained results confirm the difficulties due to limited availability of data needed for GHG emissions calculations. Most stakeholders were therefore not able to provide specific and complete data sets. Thus, calculations have then been based on some assumptions and extrapolation methods.

The following is the list of data that has been provided to the assigned the ProDoc preparation team:

- ✓ Emission factor by vehicle category (for both road and rail freights);
- ✓ Freight traffic transported (t.km) (data from 2005 to 2012);
- ✓ Overall number utility vehicles (data from 2000 to 2013, the number of vehicles for the rest of the years has been calculated on the basis of new registrations indicated in the records' tables);
- ✓ Average kilometers travelled;
- ✓ Average kilometers travelled by GVWR (2011);
- ✓ Data on new registrations;
- ✓ Percentage of vehicles by GVWR (2013);

To make a comprehensive and reliable version of GHG emissions' estimates, the Prodoc preparation team would have wished to obtain the following data:

- ✓ Exact number of project vehicles (GVWR > 3.5t) in all years from 1994 to 2013;
- ✓ Average Kilometers travelled by the various categories of GVWR in all years from 1994 to 2013;
- ✓ Tons of cargo transported by GVWR in all years from 1994 to 2013;
- ✓ Freight traffic transported (t.km) by train type (Electric/Diesel) in all years from 1994 to 2013;
- ✓ Fuel consumption of the freight sector in all years.

These data would have allowed for a more accurate inventory of GHG emissions, but also to monitor potential reductions especially for the "modal shift" measure.

B. Reduction potentials of GHG emissions

B.1 Direct Emissions

In this section, the reduction potentials of GHG emissions have been calculated based on some data but also assumptions considered by the Prodoc preparation team.

Reduction potentials have been calculated for every project's measure.

1. Improvement of vehicle maintenance & testing :

It is worth mentioning that for this measure, calculation of the reduction potential has been made for every GVWR category.

a. Assumptions and formulas:

Assuming that **20%**⁵⁶ of the 2019 fleet of freight vehicles will implement this measure, considering the various⁵⁷ GVWR categories, the average⁵⁸ cargo for each of these categories, a working time of **300**

⁵⁶ The 20% represent 50% of the formal sector (which represent 40% of the overall fleet) is considered to have more the ability to implement this measure.

⁵⁷ The **20% of the project** trucks (2019 trucks) assumed have been divided by category of GVWR according to the statistical data attributed by the METL (% representing each vehicle category, 2013 data): 19.85% for vehicles of which 3.5t<GVWR<8t; 22.17% for vehicles of which 8t<GVWR<14t and 57.96% for vehicles of which GVWR>14t.

⁵⁸ **6 tons** for vehicles of which 3.5t <GVWR<8t; **11 tons** for vehicles 8t<GVWR<14t and **27 tons** for vehicles

days/year, an emission factor related to each category and a **7%** reduction of emissions due to the improvement of maintenance, the reduction potential is calculated using the following formula:

$$ER = a y \sum_{j=1}^1 \sum_{i=1}^3 n_{i,j} T_{i,j} Km_{i,j} EF_{i,j}$$

Where:

- n_i – $N = \sum n_{i,j}$ the number of trucks targeted under this activity aims primarily the formal sector and is estimated at 20% of the overall 2019 population of trucks (surveyed at 199,000 in 2016, estimated to grow to 238,000 by 2019), yielding an approximate number of 47,000 trucks over the period;
- T_i – their average tonnage;
- Km_i – daily kilometers travelled, from METL surveys on energy efficiency;
- EF_i – gCO₂/tkm, derived from Foundation Mohammed VI survey results;
- i – the class of tonnage of different trucks (3.5t < GVWR < 8t, 8t < GVWR < 14t, GVWR > 14t), derived from METL surveys;
- j – number of years in the period;
- y – assumed improvement in emission intensity of trained drivers. This was benchmarked from existing studies at 7% decrease;
- a – working days/year: 300.

b. Results:

Taking everything into account, the reduction potential regarding this measure is of the order of **491,373 tCO₂** (see table below).

Table 9: Results concerning the improvement of vehicle maintenance measure

2019			
	Vehicles 3,5 t < GVWR < 8 t	Vehicles 8 t < GVWR < 14 t	Vehicles GVWR > 14 t
Number of trucks (the formal sector is aimed: 20% of the project fleet (2019) = 0,2 * 199 978 trucks)	9 456	10 561	27 609
Average tonnage (tons)	6	11	27
Km traveled/day (km/day)	216	369	239
Working days/year (days/year)	300	300	300
EF (gCO ₂)/tonne.km	244	132	83
% of reduction of emissions (%)	7%	7%	7%
Direct Emission Reductions (tCO₂)	491 373		

2. Eco-driving training :

a. Assumptions and formulas:

The reduction potential of this measure has also been treated by GVWR category.

It is necessary to note that 2016-2018 is a period that will be dedicated to the revision of the regulatory framework to introduce eco-driving as a mandatory component for the training of professional drivers, the design of training of trainers programs but also to the identification of the beneficiary trainers.

Therefore, it is assumed that the first trainings of drivers will only take place in 2019. Assuming **16,000**⁵⁹ medium trucks, divided⁶⁰ by GVWR, the average⁶¹ cargo for this category, working over **300 days/year**, an emission factor related to each category and a **10%** reduction of emissions due to eco-driving training, the reduction potential is calculated using the following formula:

$$ER = a y \sum_{j=1}^1 \sum_{i=1}^2 n_{i,j} T_{i,j} K m_{i,j} E F_{i,j}$$

Where:

- n_i – the number of trucks/drivers targeted for eco-driving training. This is estimated at 16,000 trucks (32,000 drivers), having an estimated average of two trucks for each driver trained.
- T_i – their average tonnage
- $K m_i$ – daily kilometers travelled, from METL surveys on energy efficiency
- $E F_i$ – gCO₂/tkm, derived from Foundation Mohammed VI survey results
- i – the class of tonnage of different trucks (3.5t<GVWR<8t, 8t<GVWR<14t, GVWR>14t), derived from METL surveys
- j – number of years in the period. The first years of the project will be dedicated to project preparation and development. The first training results should occur as of 2019. Estimates are made until 2029.
- y – assumed improvement in emission intensity of trained drivers. This was benchmarked from existing studies at 10% decrease.
- a – working days/year: 300.

b. Results:

The reduction potential of this measure is of the order of 87,322 tCO₂ (see table below).

⁵⁹ This number has been considered in the context of available funding, but also based on the experience of Morocco on the "qualifying training for road drivers of passengers" conducted by the Office of Vocational Training and Work Promotion (OFPPT). Since 100 trainers are targeted in the project, and considering that each trainer can train 16 drivers during a single session of 21 hours as per the actual regulatory framework for training, by considering that each trainer will perform annually 20 sessions of training, this would results in around 32,000 trained drivers. Assuming that a freight vehicle is driven by 2 drivers, the number of vehicles to be eco-driven by the end of the project (2019) is 16, 000 vehicles.

⁶⁰ The **16,000** trucks assumed have been divided by category of GVWR according to the statistical data attributed by the METL (% representing each vehicle category, 2013 data): 19.85% for vehicles of which 3.5t<GVWR<8t; 22.17% for vehicles of which 8t<GVWR<14t and 57.96% for vehicles of which GVWR>14t.

⁶¹ **6 tons** for vehicles of which 3.5t <GVWR<8t, **11 tons** for vehicles 8t<GVWR<14t and **27 tons** for vehicles GVWR>14t.

Table 10: Results concerning the eco-driving training measure

2019			
	Vehicles 3,5 t < GVWR < 8 t	Vehicles 8 t < GVWR < 14 t	Vehicles GVWR > 14 t
Number of trucks (16 000=32 000/2 trucks)	3 176	3 547	9 274
Average tonnage (tons)	6	11	27
Km traveled/day (km/day)	216	369	239
Working days/year (days/year)	300	300	300
EF (gCO ₂)/tonne.km	244	132	83
% of emissions reductions (%)	10%	10%	10%
Total Emission Reductions (tCO₂)	87 322		

3. 1.5MW SNTL rooftop solar photovoltaic installation :

a. Assumptions and formulas:

The direct emissions reductions are calculated based on the following formula and assumptions:

CO₂direct = E * L * C; where

- C – CO₂ emission factor, i.e. 0.59 tCO₂-eq/MWh for grid electricity
- L – average useful lifetime of investments, i.e. 15 years; and
- E – annual expected energy production

The calculation is presented in three steps:

- Calculation of an emissions factor for electricity displaced by project electricity.
- Calculation of the electricity generated by the project, according to GEF Guidelines.
- Calculation of GHG emissions avoided.

At each step, the most conservative assumptions are used.

Step 1:

The present grid emission factor for Morocco is 0.59kgCO₂/kWh⁶². This grid emission factor has been decreasing over the last decade from a level of approximately 0.75. Given the historical record and the difficulty in achieving further sustained decreases of this emission factor over the next decade, the project preparation team considers this emission factor to be reasonable and conservative.

Step 2:

The annual savings with energy generated from the 1.5 MW installation amount to 3,700 MWh, assuming a 25% capacity factor (this is deemed low both in terms of the annual insolation rate and the technical specification of current PV modules).

b. Results (or step 3):

Multiplying the average grid emission factor by the calculated energy generated from solar power as a result of the GEF project, the avoided greenhouse gas emissions are 32,745 tCO₂e.

⁶² This value was derived from calculations made in the context of Moroccan Clean Development Mechanism projects.

The approach above is conservative as it does not reflect the very high insolation rate and technological advances in PV. Given the size of the current installation of rooftop solar panels in Morocco and the current policy framework in the country for this particular technology, the Project Preparation Team has decided not to alter significantly the baseline grid emission factor throughout the assumed lifetime of the project.

Table 11: Results concerning PV installation

A	Annual Electricity Saved / Generated (MWh)	3 700,00
B	Emissions Factor (t CO ₂ / MWh)	0,59
C	Average Useful Investment Lifetime (years)	15
Results: Direct Emissions Reductions (A*B*C) tons CO ₂ e		32 745,00

4. Fleet renewal :

As for improvement of vehicles maintenance and the eco-driving, the reduction potential of this measure has again been treated by category of GVWR.

The fleet renewal component of the project aims to leverage the Moroccan National Transportation Fund and co-finance the adoption of more efficient, Euro V compliant, lorries. Direct emission reductions can be calculated based on the number of trucks participating in the fleet renewal scheme.

a. Assumptions and formulas:

Assuming that a number of **5,000** trucks⁶³ will be reached to participate in the fleet renewal project, and that the new vehicles will be 5% more efficient than old ones, the reduction potential of this measure has been assessed by category of tonnage, such that:

$$ER = y \sum_{i=1}^3 e_i p_i$$

where:

- e_i is the emission rate for each class of tonnage (calculated according to previous surveys of the freight fleet in Morocco, using the V1 calculation approach);
- p_i is the number of renewed vehicles divided by the total number of trucks estimated for each class of tonnage (extracted from surveys, assuming that the total renewed is 5,000);
- y is the expected efficiency improvement, deemed at 5%, i.e. 0.05.

b. Results :

Using the above formula gives an expected direct impact of the project at 18,322 tCO₂ (see table below).

⁶³ The implementation of both 2008-2010 and 2011-2013 bonus programs offered by the METL allowed the renewal of about 1,400 vehicles (data sent by the METL). Project leverage is considered to allow the renewal of 5,000 vehicles, through financial incentives of the State and private sector engagement (banks). The 5,000 vehicles represent only 3% of the global fleet of 2013 (167,905 vehicles, Figure 2).

Table 12: Results concerning fleet renewal

2019			
	Vehicles 3,5 t < GVWR < 8 t	Vehids 8 t < GVWR < 14 t	Vehicles GVWR > 14 t
Number of vehicles (trucks)	47 278	52 804	138 047
GHG Emissions / GVWR of trucks (tCO ₂)	2 153 670	4 252 044	11 049 672
Number of new vehicles (5000 trucks)	993	1 109	2 898
GHG Emissions / GVWR of new vehicles (tCO ₂)	45 212	89 262	231 964
Efficiency of new vehicles/old ones (%)	5%	5%	5%
Emissions Reductions / GVWR (tCO ₂)	2 261	4 463	11 598
Total Emission Reductions (tCO ₂)	18 322		

5. Road to rail modal shift :

a. **Assumptions and formulas:**

Considering the “t.km” approach and assuming that 5%⁶⁴ of t.km transported will switch from road to rail, the formula for calculating the modal shift reduction potential is as follows:

Reductions = older emissions (road + rail) – new emissions after the 5% of modal shift (road → rail)

b. Results :

The reduction potential of modal shift will be of the order of 872,756 tCO₂ representing about 9% of total emission for 2009 that are about 9,948,551 tCO₂ (see table below):

Table 13: Results concerning modal shift

2019		ROAD					
	Vehicles 3,5 t < GVWR < 8 t	Vehicles 8 t < GVWR < 14 t	Vehicles GVWR > 14 t				RAIL
Number of trucks (trucks)	47 278	52 804	138 047				
t.km transported (t.km)	372 686	1 216 886	1 938 399				
GHG emissions (tCO2)	2 153 670	4 252 044	11 049 672			t.km transported (t.km)	9 660 601 468
Total GHG emissions (tCO2)	17 455 386					GHG emissions (tCO2)	705 330
5% of t.km transported / GVWR (t.km)	18 634	60 844	96 920				
5% of t.km transported (t.km)	176 399					modal shift of 5% of t.km transported from the road sector (t.km)	9 660 777 867
new t.km transported after the modal shift (t.km)	354 052	1 156 042	1 841 479			Average EF (tégCO2/t.km)	0,00007
average EF (tégCO2/t.km)	0,00024	0,00013	0,000083			new GHG emissions after the modal shift (tCO2)	705 343
new GHG emissions after the modal shift (tCO2)	2 045 987	4 039 442	10 497 188				
Total new GHG emissions after modal shift	16 582 617						
						18 160 716	emissions before modal shift
						17 287 960	emissions after modal shift
						872 756	
						Emission reductions (tCO2)	

⁶⁴ This estimated number is based on an international benchmark achieved by ProDoc preparation team, on the share (%) of the flow of goods transported by the rail sector compared to those transported by road. Indeed, the numbers found for transport by rail generally vary between 30% and 50% of tons kilometers. At this point, the additional 5% of tons kilometers considered to move from road to rail represent a considered realizable value taking into account the current situation and the expected evolution (it should be noted that if all logistics platforms are connected to the rail network, the percentage in question is supposed to move to a much higher value in the future).

B.2 Indirect Emissions (waiting for the endorsement document)

As for direct emission reductions, the project comprises several activities, which must be assessed individually for their indirect emission reductions.

1. Improvement of vehicle maintenance & testing :

Bottom-up analysis

The GEF guidelines provide a formula for Bottom-Up (BU) emissions assessment as:

$$\text{CO}_2 \text{ indirect BU} = \text{CO}_2 \text{ direct} * \text{RF}$$

where RF is a Replication Factor.

Regarding this measure, bottom-up calculations used a replication factor of 4 assuming that on a yearly basis emission reductions would be again replicated at current in project levels for the next 10 years. This leads to 1.96 MtCO₂e.

Top-down analysis

P10 is estimated on the basis of a scenario in which over the 10 years, the proportion of vehicle testing in the population would increase in a linear fashion from 20% (in 2019) to 40% (in 2029). This is a best-case scenario for the penetration of vehicle testing, and would lead to emission reductions potential of 11 MtCO₂e. Given that much of the finance would go to structure the national system for vehicle testing rendering it available as an infrastructure beyond the project, the team assumed a causality factor of 60%, leading to a total of 6.58 MtCO₂e.

2. Eco-driving :

Bottom-up analysis

Following the project, the intended format for training will be used beyond the project period in follow-up training sessions for the expected timeline until 2029. This implies a replication factor of 4, leading to a total of 349,286tCO₂ of emission reductions.

Top-down analysis

By contrast, the potential indirect emissions when calculated via top-down approach are considerably higher. These are estimated as follows: P10, i.e. the maximum potential emission reductions are calculated using a theoretical coverage of 176,000⁶⁵ trucks by the end of 2029 (32,000 drivers, or 16,000 trucks each year) and a penetration rate of eco-driving courses of 20 sessions for each driver, which joins the current coverage and stretching the training capabilities of the country (based on the experience of Morocco on the “qualifying and training for road drivers of passengers” conducted by the OFPPT⁶⁵). With such a theoretical exercise, total emission reductions would be achieved over the 10 years of 5.6 MtCO₂e. Using a causality factor of 60%, i.e. “the GEF contribution is substantial, but modest indirect emission reductions can be attributed to the baseline” yields a total of 3.4 MtCO₂e. 60%

⁶⁵ Each year, 16,000 trucks will be added to the vehicles number of the previous year, according to the formula: vehicles (n) = vehicles (n-1) + 16,000. where n is the vehicle calculation year.

seems reasonable given the amount of savings generated through a more efficient driving pattern and the relatively high cost of fuel that is expected to prevail in the country and sector, which would lead anyway to some improvement in driving behaviour.

3. 1.5MW SNTL rooftop solar photovoltaic installation :

Bottom-up analysis

The GEF guidelines estimate a default RF of 2 for solar PV projects. For the project at hand, we estimate a default replication factor of 4 for the following reasons:

1. The rooftop installation at the project site is part of a wider network currently being built and planned of logistics installations;
2. Rooftop PV is now close to grid parity in many specific circumstances. Given the surging cost competitiveness, the expansion of PV in Morocco and other countries depends very much on the demonstration effect of large, visible projects;
3. The insolation rate in Morocco (i.e. availability of the resource) further contributes to the cost competitiveness of rooftop PV.

Therefore, with a replication factor of 4, the bottom-up indirect emissions are 130,980 tCO₂e.

Top-down analysis

Morocco is in the process of establishing a network of 17 logistics platforms. While this by no means exhausts the potential for PV rooftop sites, not even in the freight logistics sector (as more platforms and warehouses beyond the envisaged 17 will continue to co-exist with this network) it provides a useful description of the more immediate potential for replication.

Applying a conservative GEF Causality Factor of 40%, corresponding to Level 2 ("the GEF contribution is modest, and substantial indirect emission reduction can be attributed to the baseline"), indirect emissions reduction calculated top-down amount to 222,666 tCO₂e.

4. Fleet renewal :

Bottom-up analysis

The GEF Manual provides the following description for the replication factors: how often will the project's investments be repeated during the 10 years after project implementation. The project preparation team has assumed a replication factor of 2.5. This replication factor can be justified on the basis of the likely impact in the lorry market of the initial subsidy, leading to the accelerated renewal of the freight fleet in Morocco. Given the size of the current fleet, the expected baseline annual turnover rate, currently estimated at 3,500, this replication factor seems fairly conservative. Using such RF, the indirect emission reductions attributable to the project are estimated at 45,800 tCO₂e.

Top-down analysis

The top-down approach estimates the technical and economic potential of the widest possible adoption in the relevant market of the policy or measure being analysed and assesses the amount of that potential that can be reached through the project. For the potential, the figure is calculated as

$$P10 = \sum_{i=2020}^{2029} DEi$$

in which i is the number of years assumed in the lifetime of the project and DE are the direct emission reductions as calculated in A, for each year, assuming 3,500⁶⁶ trucks (instead of 5,000). This calculation provides a high-end figure of 705,393 tCO₂e.

In accordance with the GEF Manual a causality factor of 40% reflects the fact that “the GEF contribution is modest”. Given that inevitable some adoption of more efficient vehicles will inevitably happen, but that the majority of the sector is expected to comprise SMEs with lower levels of financing available for fleet renewal, along with the prevailing informality of the sector, the balance of factors leads to that causality factor. Using the formula in the Manual, this leads to a calculation of 282,157 tCO₂e.

5. Modal-shift :

Bottom-up analysis

The replication factor of the modal shift is deemed as 1, in the top-down approach, i.e. it is assumed that given the crucial dependence of modal shift emission reductions on the expansion and availability of the rail network and stock, it is not presumed that the project will have any effect in changing the economics of modal shift and rail transportation beyond the increased availability at project sites of rail infrastructure. Indeed, indirect emission reductions using this approach are equal to direct emissions calculated previously in the direct emission reductions section (872,756 tCO₂e).

Top-down analysis

The total potential for modal shift outside of the boundary is however different as there is over time the potential for much more modal shift to occur, especially given the increase in demand for logistics and transportation services that is expected. A theoretical doubling of the modal shift 10 years after the end of the project (i.e. an increase from 5% to 10%) would result in a total potential of approximately 3.12 MtCO₂e. If 20% of that potential could be captured (an assumption which would reflect the constraints of financial and economic nature on the realization of large infrastructure projects, in spite of their suppressed demand), this would result in a top-down estimate of 625,193 tCO₂e.

⁶⁶ As for eco-driving activity, each year, 3,500 trucks will be added to the vehicles number of the previous year, according to the formula: vehicles (n) = vehicles (n-1) + 3,500. where n is the vehicle calculation year.

C. Emission Factors used

Typology	Value	Unit	Incertitude	Source
Plateau 5,5 tonnes, amont et combustion	0,667281453	kgeqCO2/véh.km	10%	FM6E
Benne 5,5 tonnes, amont et combustion	0,782505386	kgeqCO2/véh.km	10%	FM6E
Plateau 8 tonnes, amont et combustion	0,693405394	kgeqCO2/véh.km	10%	FM6E
Benne 8 tonnes, amont et combustion	0,797609746	kgeqCO2/véh.km	10%	FM6E
Plateau 14 tonnes, amont et combustion	0,885164272	kgeqCO2/véh.km	10%	FM6E
Benne 14 tonnes, amont et combustion	1,018569446	kgeqCO2/véh.km	10%	FM6E
Plateau 19 tonnes, amont et combustion	0,909800841	kgeqCO2/véh.km	10%	FM6E
Benne 19 tonnes, amont et combustion	1,070219073	kgeqCO2/véh.km	10%	FM6E
Citerne 19 tonnes, amont et combustion	0,899219074	kgeqCO2/véh.km	10%	FM6E
Plateau 26 tonnes, amont et combustion	1,022265280	kgeqCO2/véh.km	10%	FM6E
Benne 26 tonnes, amont et combustion	1,223054397	kgeqCO2/véh.km	10%	FM6E
Citerne 26 tonnes, amont et combustion	0,972500259	kgeqCO2/véh.km	10%	FM6E
Plateau 38 tonnes et plus, amont et combustion	1,115079768	kgeqCO2/véh.km	10%	FM6E
Benne 38 tonnes et plus, amont et combustion	1,311336284	kgeqCO2/véh.km	10%	FM6E
Citerne 38 tonnes et plus, amont et combustion	1,046450959	kgeqCO2/véh.km	10%	FM6E
Plateau 5,5 tonnes, amont et combustion	0,268136951	kgeqCO2/tonne.km	10%	FM6E
Benne 5,5 tonnes, amont et combustion	0,324630717	kgeqCO2/tonne.km	10%	FM6E
Plateau 8 tonnes, amont et combustion	0,176142336	kgeqCO2/tonne.km	10%	FM6E
Benne 8 tonnes, amont et combustion	0,208927052	kgeqCO2/tonne.km	10%	FM6E
Plateau 14 tonnes, amont et combustion	0,120591200	kgeqCO2/tonne.km	10%	FM6E
Benne 14 tonnes, amont et combustion	0,144102328	kgeqCO2/tonne.km	10%	FM6E
Plateau 19 tonnes, amont et combustion	0,099000367	kgeqCO2/tonne.km	10%	FM6E
Benne 19 tonnes, amont et combustion	0,110242474	kgeqCO2/tonne.km	10%	FM6E
Citerne 19 tonnes, amont et combustion	0,095984058	kgeqCO2/tonne.km	10%	FM6E
Plateau 26 tonnes, amont et combustion	0,082192183	kgeqCO2/tonne.km	10%	FM6E
Benne 26 tonnes, amont et combustion	0,092139289	kgeqCO2/tonne.km	10%	FM6E
Citerne 26 tonnes, amont et combustion	0,078217179	kgeqCO2/tonne.km	10%	FM6E
Plateau 38 tonnes et plus, amont et combustion	0,061030592	kgeqCO2/tonne.km	10%	FM6E
Benne 38 tonnes et plus, amont et combustion	0,067698049	kgeqCO2/tonne.km	10%	FM6E
Citerne 38 tonnes et plus, amont et combustion	0,056774158	kgeqCO2/tonne.km	10%	FM6E
Fret ferroviaire, train électrique	0,086	kgeqCO2/tonne.km	20%	FM6E
Fret ferroviaire, train diesel	0,055	kgeqCO2/tonne.km	20%	FM6E

8.3 Letters of Co-finance

المملكة المغربية

ROYAUME DU MAROC

MINISTRE DE L'EQUIPEMENT,
DU TRANSPORT ET DE LA LOGISTIQUE



وزارة التجهيز
والنقل واللوجستيك

N°: DSPCT/DCMT/133/2015

Rabat, 09 FEB 2015

Lucas Black
Office in Charge and Deputy Executive Coordinator,
UNDP-GEF,
Istanbul Regional Center, Turkey.

Subject: Co-financing for UNDP-GEF project, "Mainstreaming climate change in the National Logistics Strategy and Roll-Out of Integrated Logistics Platforms"

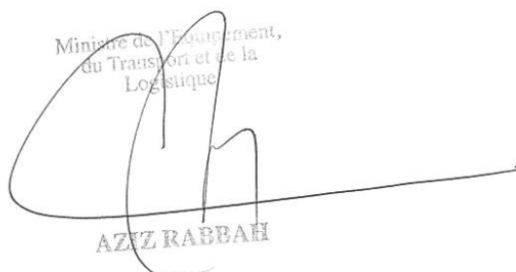
On behalf of the Ministry of Equipment, Transport and Logistics (METL) of Morocco, I am pleased to express my support and endorsement of the Global Environment Facility (GEF) project, "Mainstreaming climate change in the National Logistics Strategy and Roll-Out of Integrated Logistics Platforms", which will be implemented by this Ministry and the United Nations Development Program. The project is aligned with the work of the Ministry and complements the Ministry's activities in climate change mitigation, low-carbon development and Nationally Appropriate Mitigation Actions.

The Ministry of Equipment, Transport and Logistics will support the GEF project through a total co-financing of **US\$8,055,000** consisting of an in kind co-financing of **US\$100,000** contributing to Outcome 1 and a co-financing of **US\$7,955,000** related to the development of a road connection to the logistics area of Zenata contributing to Outcome 3.

By issuing this letter of co-finance, The Ministry of Equipment, Transport and Logistics is declaring its ownership of, and commitment to, promoting low-carbon development in the freight sector, which is part of its national strategy.

Sincerely Yours,

Ministre de l'Équipement,
du Transport et de la
Logistique



AZIZ RABBAH



N° 1007.55/15

16 FEB 2015

Lucas Black
Office in Charge and Deputy Executive Coordinator,
UNDP – GEF,
Istanbul Regional Center, Turkey.

Subject: Co-financing for UNDP-GEF project, "Mainstreaming climate change in the National Logistics Strategy and Roll-Out of Integrated Logistics Platforms"

On behalf of the Moroccan Agency for Logistics Development (AMD), I am pleased to express my support and endorsement of the Global Environment Facility (GEF) project, "Mainstreaming climate change in the National Logistics Strategy and Roll-Out of Integrated Logistics Platforms", which will be implemented by the Ministry of Equipment, Transport and Logistics and the United Nations Development Program. The project supports the efforts of the Moroccan Agency for Logistics Development to promote the adoption of the climate change mitigation context through "locking in" the mitigation potential of the Logistics Platforms from the outset.

The Moroccan Agency for Logistics Development will support the GEF project through a total co-financing of US\$3,300,000 consisting of market studies and structuring of projects related to the first logistics areas in various regions of Morocco and a study for the structuring of urban logistics that directly contribute to Outcome II of the GEF project.

The Moroccan Agency for Logistics Development thanks the Global Environment Facility for its support to this project and looks forward to commencing the collaboration.

Sincerely Yours,

Le Directeur Général de l'Agence Marocaine
de Développement de la Logistique
Younes TAZI



N°: 105-15

DATE: 06 FEB. 2015

Lucas Black
 Office in Charge and Deputy Executive Coordinator,
 UNDP-GEF,
 Istanbul Regional Center, Turkey.


Subject: Co-financing for UNDP-GEF project, "Mainstreaming climate change in the National Logistics Strategy and Roll-Out of Integrated Logistics Platforms"

On behalf of the "Société Nationale des Transports et de la Logistique (SNTL)" of Morocco, I am pleased to express my support and endorsement of the Global Environment Facility (GEF) project, "Mainstreaming climate change in the National Logistics Strategy and Roll-Out of Integrated Logistics Platforms", which will be implemented by the Ministry of Equipment, Transport and Logistics and the United Nations Development Program (UNDP). The project is aligned with, and supportive of, the work of the SNTL, notably in the context of climate change mitigation activities and low-carbon development.

The SNTL will support the GEF project through a total co-financing of **US\$8,627,532** consisting of an in kind co-financing of US\$200,000 contributing to Outcome 1 and a co-financing of US\$8,427,532 contributing to Outcome 3, in which US\$2,727,532 is related to the installation of a 1.5 MW solar PV panels on the roof top of the SNTL warehouses in Zenata and US\$5,700,000 corresponding to the development of a road connection to the logistics area of Zenata.

By issuing this letter of co-finance, The SNTL is declaring its ownership of, and commitment to, promoting low-carbon development in the freight sector, which is part of its strategy.

Sincerely Yours,


 Le Directeur Général
 Mohamed BENOUDA



ROYAUME DU MAROC



N°: .../...

DATE: xx/xx/2015

Lucas Black
Office in Charge and Deputy Executive Coordinator,
UNDP-GEF,
Istanbul Regional Center, Turkey.

Subject: Co-financing for UNDP-GEF project, "Mainstreaming climate change in the National Logistics Strategy and Roll-Out of Integrated Logistics Platforms"

On behalf of the Moroccan ^{Développement (CDG-Dév)} Caisse de Dépôt et de Gestion (CDG), through its subsidiary "CDG-Développement" for territorial development, I am pleased to express my support and endorsement of the Global Environment Facility (GEF) project, "Mainstreaming climate change in the National Logistics Strategy and Roll-Out of Integrated Logistics Platforms", which will be implemented by the Ministry of Equipment, Transport and Logistics and the United Nations Development Program. The project supports the efforts of CDG, notably in profiling mitigation opportunities at the future Zenata eco-city.

The "CDG-Développement" will support the GEF project through a total co-financing of US\$94,300,000 related to the development of Zenata eco-city mobility contributing to Outcome 2.

The "CDG-Développement" extends its thanks to the Global Environment Facility for its support to this project and looks forward to the commencement of the project.

Yours Sincerely,



ROYAUME DU MAROC



N°: ONCF/PFL/DCM/21/2015



DATE: 18/02/2015

Lucas Black
Office in Charge and Deputy Executive Coordinator,
UNDP-GEF,
Istanbul Regional Center, Turkey.

Subject: Co-financing for UNDP-GEF project, "Mainstreaming climate change in the National Logistics Strategy and Roll-Out of Integrated Logistics Platforms"


On behalf of the National Railways Office (ONCF) of Morocco, I am pleased to express my support and endorsement of the Global Environment Facility (GEF) project, "Mainstreaming climate change in the National Logistics Strategy and Roll-Out of Integrated Logistics Platforms", which will be implemented by the Ministry of Equipment, Transport and Logistics and the United Nations Development Program. The project is aligned with, and supportive of, the work of the National Railways Office, notably in the context of climate change mitigation activities and low-carbon development.

The National Railways Office will support the GEF project through a total co-financing of **US\$6,800,000** consisting of the following three projects:

- Rail transport of containers along the connection Casablanca-Marrakech with a Dry Port in Marrakech acting as an integrated bimodal (rail/road) service terminal;
- Rail transport of containers along the connection of Casablanca-Tangier with a Dry Port in Tangier acting as an integrated bimodal (rail/road) service terminal;
- Rail transport of containers along the connection of Casablanca-Fes with a Dry Port in Fes acting as an integrated bimodal (rail/road) service terminal.

These projects directly contribute to Outcome 2 of the GEF project.

The National Railways Office extends its thanks to the Global Environment Facility for its support to this project and looks forward to the commencement of the project.

Sincerely Yours, 


Directeur Général

Mohamed Rabie KHLIE



Office National des Chemins de Fer

8, bis Rue Abderrahmane El Ghafiki - Bab el Agdal MAROC - Tél. : (212) 05 37 77 47 67 - Fax. : (212) 05 37 77 48 02



Au service
des peuples
et des nations

Interoffice Memorandum

A/To: Lucas Black
Office in Charge and Deputy Executive Coordinator
UNDP-GEF
Istanbul Regional Center, Turkey

De/From: Bruno Pouezat
Resident Representative
UNDP Morocco
Rabat

BRUNO D. POUEZAT

Mars 16th, 2015

Objet / Subject : UNDP Cofinancing – GEF Projet -Transport

I hereby confirm the commitment of UNDP Morocco to contribute to the co-financing of the UNDP-GEF project "Mainstreaming climate change in the National Logistics Strategy and Roll-Out of Integrated Logistics Platforms" for an amount of USD 200,000. The project, which will be implemented by the Ministry of Equipment, Transport and Logistics (METL), is aligned with, and supportive of, the national strategy of climate change mitigation and low-carbon development.

8.4 Letter of Endorsement from GEF Operational Focal Point



GLOBAL ENVIRONMENT FACILITY
INVESTING IN OUR PLANET

NAOKO ISHII
Chief Executive Officer and Chairperson

1818 H Street, NW
Washington, DC 20433 USA
Tel: 202.473.3202
Fax: 202.522.3240/3245
E-mail: Nishii@TheGEF.org

September 12, 2013

Ms. Adriana Dinu
Deputy GEF Executive Coordinator
United Nations Development Programme
One United Nations Plaza
New York, NY 10017

Dear Ms. Dinu:

I am pleased to inform you that I have cleared the project concept detailed below for inclusion in the upcoming work program. I have also approved your request for project preparation grant.

Decision Sought:	Project Identification Form (PIF) Clearance for Work Program Inclusion and Project Preparation Grant (PPG) Approval
GEFSEC ID:	5358
Agency ID:	5181 (UNDP)
Agency(ies):	UNDP
Focal Area:	Climate Change
Project Type:	Full Size Project
Country(ies):	Morocco
Name of Project:	Mainstreaming Climate Change in the National Logistics Strategy and Roll-Out of Integrated Logistics Platforms
Indicative GEF Project Grant:	\$2,274,429
Indicative Agency Fee:	\$216,071
PPG Grant:	\$100,000
PPG Agency Fee:	\$9,500
Funding Source:	GEF Trust Fund

** Out of the above indicative Agency fee amount, Trustee will commit the first tranche (40%) of the Agency fee which is \$86,428 at the time of Council approval of the work program. The second tranche (60%) of the Agency fee which is \$129,643 will be committed at the time of CEO endorsement of the FSP.*

This PIF clearance and PPG approval are subject to the comments made by the GEF Secretariat in the attached document. It is also based on the understanding that the project is in conformity with GEF focal areas strategies and in line with GEF policies and procedures.

8.5 Environmental and Social Safeguards Screening

Annex 8.5. Social and Environmental Screening Template

The completed template, which constitutes the Social and Environmental Screening Report, must be included as an annex to the Project Document. Please refer to the [Social and Environmental Screening Procedure](#) for guidance on how to answer the 6 questions.]

Project Information

Project Information	
1. Project Title	Mainstreaming climate change in the National Logistics Strategy and Roll-Out of Integrated Logistics Platforms
2. Project Number	5358
3. Location (Global/Region/Country)	Morocco

Part A. Integrating Overarching Principles to Strengthen Social and Environmental Sustainability

QUESTION 1: How Does the Project Integrate the Overarching Principles in order to Strengthen Social and Environmental Sustainability?
Briefly describe in the space below how the Project mainstreams the human-rights based approach
<i>The project will be based on a participatory approach by integrating in the process of implementation of activities and achievement of results all stakeholders, be it from the public or private sector. In this approach, meetings and workshops will be organized to allow stakeholders express their opinions in order to design the implementation instruments in a concerted manner.</i>
Briefly describe in the space below how the Project is likely to improve gender equality and women's empowerment
<i>Given that the project aims to contribute to the achievement of one of the UNDP's Strategic Plan Outcomes, namely Outcome 4 on women's empowerment, the project will consider during the design and implementation of the activities this important aspect in order to achieve the target of having at least 10 women whose capacities are strengthened on climate change.</i>
Briefly describe in the space below how the Project mainstreams environmental sustainability
<i>The project by targeting the reduction of greenhouse gas emissions in the transportation sector is in itself an environmental and sustainable project. Furthermore, it is noted that the implementation of Multi-Flow Logistics Zones (MFLZ) should take into account environmental sustainability in line with the national legal and regulatory framework that foresees the achievement of Environmental Impact Assessment (EIA) for infrastructure projects. Thus, each MFLZ will be subject to an EIA and the environmental acceptability is to be obtained from the EIA National Committee or EIA Regional Committees who will impose the implementation of an Environmental Management Plan during the various phases of the project (i.e., construction, implementation and closing).</i>

Part B. Identifying and Managing Social and Environmental Risks

QUESTION 2: What are the Potential Social and Environmental Risks? <i>Note: Describe briefly potential social and environmental risks identified in Attachment 1 – Risk Screening Checklist (based on any “Yes” responses).</i>		QUESTION 3: What is the level of significance of the potential social and environmental risks? <i>Note: Respond to Questions 4 and 5 below before proceeding to Question 6</i>		QUESTION 6: What social and environmental assessment and management measures have been conducted and/or are required to address potential risks (for Risks with Moderate and High Significance)?
Risk Description	Impact and Probability (1-5)	Significance (Low, Moderate, High)	Comments	Description of assessment and management measures as reflected in the Project design. If ESIA or SESA is required note that the assessment should consider all potential impacts and risks.
Risk 1: Infrastructure development (roads, rail tracks, warehouses, etc.)	I = 2 P = 4	Low	Infrastructure is developed by choosing the best scenario with least impacts (alternative scenario analysis). In general, the impacts are more related to the construction period, which is short in duration. These impacts are assessed as per the legal framework of the country.	
Risk 2: Potential displacement and Resettlement of populations	I = 1 P = 1	Low	There is no displacement or resettlement of populations associated with the direct activities of the project. The project contains an investment component relating to eco-driving, vehicle testing and on-site renewable energy/energy efficiency infrastructure. It is only this infrastructure aspect that might have localized environmental impacts but no displacement of populations. The infrastructure development that are part of the Greater Casablanca Multi-Flux Logistics Platform (and associated with the National Logistics Strategy) are subject to the standard planning and EIA/EMP	

			procedures of Morocco before they are granted the relevant planning permits. This applies to all infrastructure projects in the country and therefore any future resettlement issues that might arise from new infrastructure for logistics is mitigated via adherence to these national procedures and safeguards.	
Risk 3: Consumption of energy	I = 2 P = 2	Low	Even if transport sector consumes energy (diesel), the recent measures taken in the sector are intended to reduce air pollution: improvement of diesel quality (50 ppm Norm), Euro 4 Norm of vehicles, obligatory annual technical testing of vehicles. In addition, freight transport tends to be outside of urban centers.	
	QUESTION 4: What is the overall Project risk categorization?			
	Select one (see SESP for guidance)		Comments	
	Low Risk	<input checked="" type="checkbox"/>	Measures are already in place in the country to make sure that the identified risks are assessed and managed in a satisfactory manner.	
	Moderate Risk	<input type="checkbox"/>		
	High Risk	<input type="checkbox"/>		
	QUESTION 5: Based on the identified risks and risk categorization, what requirements of the SES are relevant?			
	Check all that apply		Comments	
	Principle 1: Human Rights	<input type="checkbox"/>		
	Principle 2: Gender Equality and Women's Empowerment	<input type="checkbox"/>		

	1. <i>Biodiversity Conservation and Natural Resource Management</i>	<input type="checkbox"/>	
	2. <i>Climate Change Mitigation and Adaptation</i>	<input type="checkbox"/>	
	3. <i>Community Health, Safety and Working Conditions</i>	<input checked="" type="checkbox"/>	Specific to the construction of infrastructure (e.g., roads, railways, warehouses, etc.)
	4. <i>Cultural Heritage</i>	<input type="checkbox"/>	
	5. <i>Displacement and Resettlement</i>	<input checked="" type="checkbox"/>	Potential displacement and resettlements of population during the construction of infrastructure
	6. <i>Indigenous Peoples</i>	<input type="checkbox"/>	
	7. <i>Pollution Prevention and Resource Efficiency</i>	<input checked="" type="checkbox"/>	Consumption of fuels by road and rail freight vehicles.

Final Sign Off

<i>Signature</i>	<i>Date</i>	<i>Description</i>
QA Assessor		UNDP staff member responsible for the Project, typically a UNDP Programme Officer. Final signature confirms they have “checked” to ensure that the SESP is adequately conducted.
QA Approver		UNDP senior manager, typically the UNDP Deputy Country Director (DCD), Country Director (CD), Deputy Resident Representative (DRR), or Resident Representative (RR). The QA Approver cannot also be the QA Assessor. Final signature confirms they have “cleared” the SESP prior to submittal to the PAC.
PAC Chair		UNDP chair of the PAC. In some cases PAC Chair may also be the QA Approver. Final signature confirms that the SESP was considered as part of the project appraisal and considered in recommendations of the PAC.

SESP Attachment 1. Social and Environmental Risk Screening Checklist

Checklist Potential Social and Environmental Risks	
Principles 1: Human Rights	Answer (Yes/No)
1. Could the Project lead to adverse impacts on enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population and particularly of marginalized groups?	No
2. Is there a likelihood that the Project would have inequitable or discriminatory adverse impacts on affected populations, particularly people living in poverty or marginalized or excluded individuals or groups? ⁶⁷	No
3. Could the Project potentially restrict availability, quality of and access to resources or basic services, in particular to marginalized individuals or groups?	No
4. Is there a likelihood that the Project would exclude any potentially affected stakeholders, in particular marginalized groups, from fully participating in decisions that may affect them?	No
5. Are there measures or mechanisms in place to respond to local community grievances?	Yes
6. Is there a risk that duty-bearers do not have the capacity to meet their obligations in the Project?	No
7. Is there a risk that rights-holders do not have the capacity to claim their rights?	No
8. Have local communities or individuals, given the opportunity, raised human rights concerns regarding the Project during the stakeholder engagement process?	No
9. Is there a risk that the Project would exacerbate conflicts among and/or the risk of violence to project-affected communities and individuals?	No
Principle 2: Gender Equality and Women's Empowerment	
1. Is there a likelihood that the proposed Project would have adverse impacts on gender equality and/or the situation of women and girls?	No
2. Would the Project potentially reproduce discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?	No
3. Have women's groups/leaders raised gender equality concerns regarding the Project during the stakeholder engagement process and has this been included in the overall Project proposal and in the risk assessment?	No
3. Would the Project potentially limit women's ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and services? <i>For example, activities that could lead to natural resources degradation or depletion in communities who depend on these resources for their livelihoods and well being</i>	No
Principle 3: Environmental Sustainability: Screening questions regarding environmental risks are encompassed by the specific Standard-related questions below	
Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management	

⁶⁷ Prohibited grounds of discrimination include race, ethnicity, gender, age, language, disability, sexual orientation, religion, political or other opinion, national or social or geographical origin, property, birth or other status including as an indigenous person or as a member of a minority. References to "women and men" or similar is understood to include women and men, boys and girls, and other groups discriminated against based on their gender identities, such as transgender people and transsexuals.

1.1	Would the Project potentially cause adverse impacts to habitats (e.g. modified, natural, and critical habitats) and/or ecosystems and ecosystem services? <i>For example, through habitat loss, conversion or degradation, fragmentation, hydrological changes</i>	No
1.2	Are any Project activities proposed within or adjacent to critical habitats and/or environmentally sensitive areas, including legally protected areas (e.g. nature reserve, national park), areas proposed for protection, or recognized as such by authoritative sources and/or indigenous peoples or local communities?	No
1.3	Does the Project involve changes to the use of lands and resources that may have adverse impacts on habitats, ecosystems, and/or livelihoods? (Note: if restrictions and/or limitations of access to lands would apply, refer to Standard 5)	No
1.4	Would Project activities pose risks to endangered species?	No
1.5	Would the Project pose a risk of introducing invasive alien species?	No
1.6	Does the Project involve harvesting of natural forests, plantation development, or reforestation?	No
1.7	Does the Project involve the production and/or harvesting of fish populations or other aquatic species?	No
1.8	Does the Project involve significant extraction, diversion or containment of surface or ground water? <i>For example, construction of dams, reservoirs, river basin developments, groundwater extraction</i>	No
1.9	Does the Project involve utilization of genetic resources? (e.g. collection and/or harvesting, commercial development)	No
1.10	Would the Project generate potential adverse transboundary or global environmental concerns?	No
1.11	Would the Project result in secondary or consequential development activities which could lead to adverse social and environmental effects, or would it generate cumulative impacts with other known existing or planned activities in the area? <i>For example, a new road through forested lands will generate direct environmental and social impacts (e.g. felling of trees, earthworks, potential relocation of inhabitants). The new road may also facilitate encroachment on lands by illegal settlers or generate unplanned commercial development along the route, potentially in sensitive areas. These are indirect, secondary, or induced impacts that need to be considered. Also, if similar developments in the same forested area are planned, then cumulative impacts of multiple activities (even if not part of the same Project) need to be considered.</i>	No
Standard 2: Climate Change Mitigation and Adaptation		
2.1	Will the proposed Project result in significant ⁶⁸ greenhouse gas emissions or may exacerbate climate change?	No
2.2	Would the potential outcomes of the Project be sensitive or vulnerable to potential impacts of climate change?	No
2.3	Is the proposed Project likely to directly or indirectly increase social and environmental vulnerability to climate change now or in the future (also known as maladaptive practices)? <i>For example, changes to land use planning may encourage further development of floodplains, potentially increasing the population's vulnerability to climate change, specifically flooding</i>	No
Standard 3: Community Health, Safety and Working Conditions		
3.1	Would elements of Project construction, operation, or decommissioning pose potential safety risks to local communities?	No

⁶⁸ In regards to CO₂, 'significant emissions' corresponds generally to more than 25,000 tons per year (from both direct and indirect sources). [The Guidance Note on Climate Change Mitigation and Adaptation provides additional information on GHG emissions.]

3.2	Would the Project pose potential risks to community health and safety due to the transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?	No
3.3	Does the Project involve large-scale infrastructure development (e.g. dams, roads, buildings)?	Yes
3.4	Would failure of structural elements of the Project pose risks to communities? (e.g. collapse of buildings or infrastructure)	No
3.5	Would the proposed Project be susceptible to or lead to increased vulnerability to earthquakes, subsidence, landslides, erosion, flooding or extreme climatic conditions?	No
3.6	Would the Project result in potential increased health risks (e.g. from water-borne or other vector-borne diseases or communicable infections such as HIV/AIDS)?	No
3.7	Does the Project pose potential risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during Project construction, operation, or decommissioning?	No
3.8	Does the Project involve support for employment or livelihoods that may fail to comply with national and international labor standards (i.e. principles and standards of ILO fundamental conventions)?	No
3.9	Does the Project engage security personnel that may pose a potential risk to health and safety of communities and/or individuals (e.g. due to a lack of adequate training or accountability)?	No
Standard 4: Cultural Heritage		
4.1	Will the proposed Project result in interventions that would potentially adversely impact sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)? (Note: Projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	No
4.2	Does the Project propose utilizing tangible and/or intangible forms of cultural heritage for commercial or other purposes?	No
Standard 5: Displacement and Resettlement		
5.1	Would the Project potentially involve temporary or permanent and full or partial physical displacement?	Yes
5.2	Would the Project possibly result in economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?	No
5.3	Is there a risk that the Project would lead to forced evictions? ⁶⁹	No
5.4	Would the proposed Project possibly affect land tenure arrangements and/or community based property rights/customary rights to land, territories and/or resources?	No
Standard 6: Indigenous Peoples		
6.1	Are indigenous peoples present in the Project area (including Project area of influence)?	No
6.2	Is it likely that the Project or portions of the Project will be located on lands and territories claimed by indigenous peoples?	No
6.3	Would the proposed Project potentially affect the rights, lands and territories of indigenous peoples (regardless of whether Indigenous Peoples possess the legal titles to such areas)?	No

⁶⁹ Forced evictions include acts and/or omissions involving the coerced or involuntary displacement of individuals, groups, or communities from homes and/or lands and common property resources that were occupied or depended upon, thus eliminating the ability of an individual, group, or community to reside or work in a particular dwelling, residence, or location without the provision of, and access to, appropriate forms of legal or other protections.

6.4	Has there been an absence of culturally appropriate consultations carried out with the objective of achieving FPIC on matters that may affect the rights and interests, lands, resources, territories and traditional livelihoods of the indigenous peoples concerned?	No
6.4	Does the proposed Project involve the utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?	No
6.5	Is there a potential for forced eviction or the whole or partial physical or economic displacement of indigenous peoples, including through access restrictions to lands, territories, and resources?	No
6.6	Would the Project adversely affect the development priorities of indigenous peoples as defined by them?	No
6.7	Would the Project potentially affect the traditional livelihoods, physical and cultural survival of indigenous peoples?	No
6.8	Would the Project potentially affect the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices?	No
Standard 7: Pollution Prevention and Resource Efficiency		
7.1	Would the Project potentially result in the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?	No
7.2	Would the proposed Project potentially result in the generation of waste (both hazardous and non-hazardous)?	No
7.3	Will the proposed Project potentially involve the manufacture, trade, release, and/or use of hazardous chemicals and/or materials? Does the Project propose use of chemicals or materials subject to international bans or phase-outs? <i>For example, DDT, PCBs and other chemicals listed in international conventions such as the Stockholm Conventions on Persistent Organic Pollutants or the Montreal Protocol</i>	No
7.4	Will the proposed Project involve the application of pesticides that may have a negative effect on the environment or human health?	No
7.5	Does the Project include activities that require significant consumption of raw materials, energy, and/or water?	Yes