GEF-8 PROJECT IDENTIFICATION FORM (PIF)

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General Project Information

Project Title Green Mobility Financing Facility for Africa	
Region Regional	GEF Project ID 11671
Country(ies) Regional Africa	Type of Project FSP
GEF Agency(ies): AfDB	GEF Agency ID
Executing Partner Various industry and business support organizations in project investment countries	Executing Partner Type Others
GEF Focal Area (s) Climate Change	Submission Date 9/4/2024
Project Sector (CCM Only) Transport/Urban	
Taxonomy Focal Areas, Climate Change, Climate Change Mitigation, Sustainable Urban Systems and Transport, Technology Transfer, Financing, Deploy innovative financial instruments, Influencing models, Demonstrate innovative approache, Beneficiaries, Stakeholders, Private Sector, Sustainable Cities, Integrated Programs, Transport and Mobility, Knowledge Exchange, Capacity, Knowledge and Research, Learning, Innovation, Knowledge Generation	
Type of Trust Fund GET	Project Duration (Months) 60
GEF Project Grant: (a) 0.00	GEF Project Non-Grant: (b) 13,461,468.00
Agency Fee(s) Grant: (c) 0.00	Agency Fee(s) Non-Grant (d) 1,211,532.00
Total GEF Financing: (a+b+c+d) 14,673,000.00	Total Co-financing 547,450,000.00
PPG Amount: (e) 300,000.00	PPG Agency Fee(s): (f) 27,000.00
PPG total amount: (e+f) 327,000.00	Total GEF Resources: (a+b+c+d+e+f) 15,000,000.00

Project Tags

CBIT: No NGI: Yes SGP: No Innovation: No

Project Summary

Provide a brief summary description of the project, including: (i) what is the problem and issues to be addressed? (ii) what are the project objectives, and if the project is intended to be transformative, how will this be achieved? iii), how will this be achieved (approach to deliver on objectives), and (iv) what are the GEBs and/or adaptation benefits, and other key expected results. The purpose of the summary is to provide a short, coherent summary for readers. The explanation and justification of the project should be in section B “project description”.(max. 250 words, approximately 1/2 page)

1. Africa’s rapid urbanization and increasing vehicle ownership have created unsustainable transport systems, contributing significantly to GHG emissions and air pollution. Without substantial interventions, the continent’s vehicle count is expected to more than double by 2040, further exacerbating environmental challenges.

2. The Green Mobility Financing Facility for Africa (GMFA) project aims to transform urban mobility in six pilot countries by promoting green mobility solutions in public transport through private investment. Key interventions include the deployment of electric buses (e-buses), electric 2-3 wheelers (E2-3Ws), and the establishment of charging infrastructure. These measures will reduce fossil fuel dependency, cut emissions, and promote zero-emission technologies. The project will address financial and technical barriers through tools like credit enhancement, project finance structuring, and blended finance loans.

3. Building on the groundwork laid by GEF-7 & GEF-8 Global Mobility Programme in Africa, led by UNEP and implemented by DBSA, the GMFA advances the transition from grant-based assistance to private sector mobilization. This Facility seeks to unlock private capital by leveraging AfDB’s GMFA investment window with GEF Non-Grant Investment to scale e-mobility on the continent beyond initial grants. The GMFA will be implemented with limited delegation of investment authority to the implementing agency as described in the GEF Blended Finance Global Program and Non-Grant instrument policy update GEF/C.63/12, the AfDB to seek concurrence from GEFSEC in each underlying projects for CEO approval. The GMFA is expected to deliver significant Global Environmental Benefits (GEBs), including a reduction of 9.5 million tonnes of CO2 equivalent over lifespan of the vehicle. Additionally, the project will enhance public health by reducing air and noise pollution, improve energy security by cutting oil imports, and foster economic growth through job creation and improved mobility. It aligns with multiple SDGs and supports national Nationally Determined Contributions (NDC) targets under the Paris Agreement.

Indicative Project Overview

Project Objective

The GMFA project aims to transform urban mobility in six initial countries to test and expand to the African continent by promoting green mobility solutions for public transport by attracting private investment. The key objectives are to reduce GHG emissions through the deployment of electric buses (e-buses), electric 2-3 wheelers, (E2-3W) and associated charging infrastructure, enhance zero emission, and decrease dependence on fossil fuels. This transformative impact will be achieved by addressing financial and technical barriers through the provision of credit enhancement instruments, technical assistance, and capacity-building initiatives for private operators. This proposal builds upon the groundwork laid by the GEF-7, which financed key initiatives under the UNEP Global Mobility Programme. These initiatives have been instrumental in enhancing our understanding of e-mobility technologies, including e-buses, charging infrastructure, and e- 2-3 wheelers with battery swapping systems. The insights gained from these GEF-7-financed projects have informed the design and strategic direction of the Green Mobility Facility for Africa (GMFA), enabling us to scale these technologies effectively across the continent and ensure their long-term sustainability and impact. The approach includes establishing a partnership with UNEP for the enabling environment with supportive policies, creating viable business models, and GEF NGI will focus mobilizing private sector investment. GMFA's financial instruments with concessional loan from the GEF will help mitigate risks and reduce capital costs, encouraging the adoption of electric vehicles (EVs) across the continent.

Project Components

Component 1: Technical Assistance Window: Formulation and establishment of the enabling conditions

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing ($)	Co-financing ($)
750,000.00	2,200,000.00

Outcome:

Establishment of an enabling environment for green mobility market

Output:

Output 1.1: Gender responsive measures are integrated in the value chain of the sector

Output 1.2: Business and economic models created to facilitate project structuring and financing

Output 1.3: End-users awareness on green mobility is raised though communication and visibility of the projects

Output 1.4: GMFA operationalized and scaled up

Component 2: Investment Window: Implementation of the financial instrument

Component Type	Trust Fund
Investment	GET
GEF Project Financing ($)	Co-financing ($)
12,461,468.00	545,000,000.00

Outcome:

Increased penetration and adoption of green transportation in African countries resulting in GHG reduction

Output:

Financial instruments are in place to support green mobility and related charging infrastructure

M&E

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing ($)	Co-financing ($)
250,000.00	250,000.00

Outcome:

Output:

Component Balances

Project Components	GEF Project Financing ($)	Co-financing ($)
Component 1: Technical Assistance Window: Formulation and establishment of the enabling conditions	750,000.00	2,200,000.00
Component 2: Investment Window: Implementation of the financial instrument	12,461,468.00	545,000,000.00
M&E	250,000.00	250,000.00

Subtotal	**13,461,468.00**	**547,450,000.00**
Project Management Cost		
Total Project Cost ($)	**13,461,468.00**	**547,450,000.00**

Please provide justification

PROJECT OUTLINE

A. PROJECT RATIONALE

Briefly describe the current situation: the global environmental problems and/or climate vulnerabilities that the project will address, the key elements of the system, and underlying drivers of environmental change in the project context, such as population growth, economic development, climate change, sociocultural and political factors, including conflicts, or technological changes. Describe the objective of the project, and the justification for it. (Approximately 3-5 pages) see guidance here

1. Africa is the world's fastest urbanizing continent [1]. Travel demand in major cities continues to grow, in line with their economic and population growth. In countries such as South Africa, Kenya, Rwanda, Uganda, Ethiopia, and Nigeria, the vehicle park is expected to grow from 25 million vehicles in 2022 to an estimated 58 million by 2040, driven by urbanization [2]. The current transportation approaches in Africa are unsustainable and lead to unsustainable sprawl. Without proper interventions, Africa is on track to generate greenhouse gas (GHG) emissions by 2050, which is approximately three to six times higher than in scenarios consistent with the Paris Agreement [3].
2. Even though motorized transport volumes in Africa are the lowest among world regions; car ownership rates are rising, with some countries experiencing growth of 250% or more between 2005 and 2015[4]. In some African cities, up to 80% of the population relies on paratransit (informal transport), and some minibus taxi fleets have grown more than 5% annually [5]. Paratransit contributes to urban air pollution because the vehicles are often old and poorly maintained [6].
3. Transport emissions in Sub-Saharan Africa increased by 75% from 2000 to 2016 to a level of 156 million tonnes (Mt) CO_2, while transport emissions in Northern Africa increased by 95% during the same period (though at a lower absolute level of 135 Mt in 2016). Total transport CO_2 emissions increased in major economies of Africa between 2000 and 2016, including 161% in Algeria, 153% in Ghana, 123% in Kenya, 73% in Egypt, 40% in South Africa, and 19% in Nigeria [7]. Hence, the Nationally Determined Contributions (NDCs) of 75% of countries in Africa highlight transport as a mitigation source. In 2018, nine African cities made commitments to cut carbon emissions to zero by 2050, requiring low carbon transport [8].
4. Electric vehicles (EVs) emit no tailpipe pollutants, although the power plant producing the electricity may emit them, hence the importance of the carbon intensity of the grid. Performance benefits: Electric motors provide quiet, smooth operation and stronger acceleration and require less maintenance than internal combustion engines (ICEs).
5. The Green Mobility Financing Facility for Africa (GMFA) has carefully selected six initial countries for its implementation, representing a diverse range of development levels, energy grid stability, and renewable energy production. This selection includes countries like Kenya, known for its robust renewable energy generation, and South Africa, which faces significant energy challenges. Additionally, the GMFA targets countries with varying levels of industrial development. South Africa, with its established automotive industry, requires focused efforts to transition to green

mobility, addressing both environmental goals and job sustainability. On the other hand, countries like Senegal need to develop assembly skills, which are crucial for building local capacity and fostering a sustainable e-mobility industry. This diverse selection of countries will serve as models that can be replicated across the continent, driving a broader transition to sustainable mobility solutions in Africa.

6. The GMFA tailor made financial instruments for private operators to net-zero carbon emission vehicles through project preparation grant to ensure adequate structuring and collaboration as well as learnings from Global e-mobility GEF-7 and GEF-8 projects in 10 countries in Africa through UNEP executing technical assistance, policy support, and capacity-building in those overlapping countries.

7. Table 1 below provides the GHG emission in the transport sector for each of the pilot countries selected for the initial GMFA countries. The Baseline GHG emission for the transport sector in 2015 and the impact of the GHG emission projection by 2030 in the sector if the GMFA did not exist. The sources used for the data are the Updated Nationally Determined contributions and the IRENA's most recent biennial country reports.

Table 1 GHG emissions in GMFA pilot countries

Country	Transport sector GHG Baseline Emission	Transport sector GHG Emission Projection 2030 BAU	Source
Kenya	67 MTCO2e in 2015	120 MTCO2e by 2030	Second National communication (2015)
Morocco	10,45 MTCO2 in 2015	17,1 MTCO2 by 2030	NDC
Nigeria	43,89 MTCO2 in 2018	47,565 MTC02	Nigeria NDC Updated NDC (2021)
Rwanda	0.69 MTCO2e in 2015	1.74 MTCO2e	Updated Nationally Determined Contribution (2020)
Senegal	2900 GgCO2 in 2015	7414.37 GgCO2 in 2030	CDN (2020) and IRENA
South Africa	47.6 MTCO2 in 2010	114 MTCO2e in 2030	South Africa Department of Transport (2018)

8. To understand the most-likely outcome should the GMFA not be pursued to conclusion, it is necessary to appreciate the market barriers (see Project Description). GMFA will address the high perceived risk, high capital costs, high collateral requirements and tenor mismatch by providing credit enhancement instruments, while it addresses the lack of capacity of the host countries to assess and engage green mobility projects through the TA (Technical Assistance) component. In the absence of the GMFA, these existing market barriers will continue to inhibit the successful deployment of green mobility at scale, resulting amongst others in sprawled cities where the population will continue using high polluting vehicles. Public policy instruments in the Facility's countries are being used to try to directly help promote green mobility but are not considered enough for it to happen at scale without support from the private sector (e.g., thanks to concessional finance, de-risking instruments and capacity building that will be conducted within the GMFA).

9. By supporting the deployment of green vehicles, GMFA is expected to provide benefits by improving economic variables in urban cities such as commercial and business improvement. Projects financed under this program will directly contribute to economic development through three channels: 1) time saving for consumers 2) cost saving for consumers and 3) increased safety resulting from a safer, cleaner and reliable means of transportation and a reduced pressure on the currently very overcrowded and inefficient road infrastructure; contributing to sustainable urban mobility in reducing motorization and improving the management of transport systems in African cities. The projects will contribute to reduce air pollution, noise and other associated environmental costs facing many African cities. Furthermore, the program contributes significantly to sustainable development goals (SDG) 3 ("good

health and well-being"), SDG goal 7 ("affordable and clean energy"), SDG goal 9 ("industry, innovation, and infrastructure"), SDG goal 11 ("sustainable cities and communities"), and SDG 13 ("climate action"); 4) jobs during the manufacturing, assembling, importing and operation periods. There will be capacity building and sensitization to ensure that proposed mass transit system technologies are accepted socially and culturally; ensuring that gender equality is maximized in terms of number of employees, trainings. Furthermore, financed projects will facilitate economic activities of women and other groups due to less time spent in traffic. Besides, GMFA will also contribute to several Global Environmental Benefits (GEBs) such as: the greenhouse gas (GHG) emission reduction of 9.5 million tCO2 equivalent over the lifespan of the vehicle, as explained in the Core Indicators section below of this report.

10. **Adaptation co-benefits**. Climate observations and projected changes in the 6 targeted countries include rising temperatures and evaporation rates, increased inter-seasonal and unpredictable rainfall patterns, more severe dry seasons, and rising sea levels. This leads to increased droughts and water scarcity, floods, landslides, storms, desertification, forest degradation and health impacts in the countries. Climate change will likely exacerbate health issues related to respiratory infections (already responsible for 19% of deaths in Nigeria) as air pollution is expected to worsen with rising temperatures. By shifting the fuel to low carbon and efficient urban public transportation, the GMFA is expected to provide adaptation co-benefits by: i) increasing economic and educational opportunities, and enabling the creation of new livelihood strategies, diversifying and increasing income streams; ii) improving health by switching from harmful fossil-based transport solutions with clean technology energy solutions, thereby reducing air pollution; and iii) providing, reliable and clean modes of transportation energy, reducing dependence oil import that is sensitive to climate change. Depending on opportunities in the countries, GMFA may provide adaptation co-benefits to have an iv) improved, safer, cleaner mode of transport to work and go to school (for men and women) v) improved quality of life and reduce noise related health problems as EVs are quieter than traditional vehicles and produce less pollution, particularly in urban areas.
11. Considering that most projects target urban cities that are climate-vulnerable with high temperatures and flooding, adaptation benefits are expected as a result of GMFA. The GMFA is a mitigation programme, as opposed to crosscutting, given it is not possible to quantify adaptation impact of rolling stock of e-mobility at this stage given that underlying projects are unknown at the time of submission of the funding proposal and lack of science and data.
12. Increasing the access of a population to clean, reliable, means of public transport is expected to strengthen the capacity and resilience through economic, social, and environmental co-benefits. The GMFA can unlock additional income-generating activities related to green mobility, new businesses and foster innovative and economic growth thus improving the people's socio-economic resilience impacted by the sector. The women and other marginalized groups such as young girls, children and the elderly will have improved safe access to low-emission public transport. By promoting the use of EVs, air and noise pollution can be reduced, hence improving public health.

13. **Background context:** The Green Mobility Financing Facility for Africa (GMFA), initiated by the African Development Bank (AfDB) in 2022 when project developers were approaching the Bank to seek investment. This market has been growing in other continents; hence the Bank developed a market assessment across six pilot countries in Africa to understand the key barriers, including fragmented information, policy gaps, and the absence of financial instruments necessary to attract private investment. The countries chosen for their diverse economic development and focus on transport in their NDCs. It was clear that this sector had high potential and still in early stages on the continent.

14. Although donors and bilateral partners have shown interest in case-by-case support, this fragmented funding approach limits the ability to scale efficiently. To address these challenges, the AfDB has started to mobilize USD 2,45 million for the technical assistance window, which is helping South Africa with its Just Transition Transport Plan and Senegal in expanding EV deployments beyond Dakar's e-BRT. Since the AfDB has been trying to raise concessional finance to address the high capital costs, long payback periods, and perceived risks continue to deter in order to expand private sector investments.
15. To unlock the sector's potential, GEF concessional finance is essential together with ADB window co-financing to attract other financiers. It will activate GMFA's investment window, providing concessional loans, and credit lines to de-risk investments and mobilize private sector co-financing. This funding is necessary to overcome high CAPEX demands and enable GMFA to act agilely and efficiently, filling critical gaps in the current financing landscape without market distortion. The AfDB has been in constant communication with UNEP and DBSA. Hence, strengthening partnership through GEF financing will further support the policy alignment and capacity-building needed for sustainable green mobility across the continent.

[1] 8SSATP (2021). Transnational Report. The challenge of national policies in Côte d'Ivoire, Ethiopia, Guinea, Ghana, Kenya, Nigeria, Rwanda and Senegal.

Available at: https://www.ssatp.org/sites/ssatp/ les/publication/SSATP_Transnational-Report_8Countries_ENG_DIGITAL_v5.pdf

[2] McKinsey (2022). Power to move: Accelerating the electric transport transition in sub-Saharan Africa

[3] Fransen, T., et. al. 2019. "Enhancing NDCs: Opportunities for Transport." Working Paper. Washington, DC: World Resources Institute. Available online atwww.wri.org/ publication/enhancing-ndcs-transport

[4] SLOCAT (2021), Tracking Trends in a Time of Change: The Need for Radical Action Towards Sustainable Transport Decarbonization, Transport and Climate Change Global Status Report – 2nd edition, www.tcc-gsr.com

[5] D. E. Agbiboa, ed. (2018), Transport, Transgression and Politics in African Cities. The Rhythm of Chaos, Routledge, London, https://www.taylorfrancis.com/books/ edit/10.4324/9781351234221/transport-transgression-politics-african-cities-daniel-agbiboa

[6] V. K. Phun and Y. Tetsuo (2016), "State of the art of paratransit literatures in Asian developing countries", Asian Transport Studies, Vol. 4/1, pp. 57-77, Eastern Asia Society for Transportation Studies, https://doi.org/10.11175/eastsats.4.57

[7] Based on SLoCaT calculations of EDGAR, (2017). EDGAR v4.3.2_FT2016. European Commission, Joint Research Centre (JRC)/PBL Netherlands Environmental Assessment Agency. Available at: http://edgar.jrc. ec.europa.eu/overview.php?v=CO2andGHG1970-2016

[8] Slocat .2018b. Transport and SDGs. https://slocat.net/sustainable-development-goals-transport/. Accessed 13/01/2021

B. PROJECT DESCRIPTION

Project description

This section asks for a theory of change as part of a joined-up description of the project as a whole. The project description is expected to cover the key elements of good project design in an integrated way. It is also expected to meet the GEF's policy requirements on gender, stakeholders, private sector, and knowledge management and learning (see section D). This section should be a narrative that reads like a joined-up story and not independent elements that answer the guiding questions contained in the PIF guidance document. (Approximately 3-5 pages) see guidance here

1. The Green Mobility Financing Facility for Africa (GMFA) is a flagship project for the AfDB. It is a Financing Facility, to position itself to attract private investment in the sector, with the overarching objective to unlock the market barriers to support the emergence of green mobility in urban areas of Africa by fostering low-emission efficient public transport. The Facility consists of (i) Technical Assistance (T.A.) window for working with UNEP and DBSA on enabling policies and capacity building as well as identifying ready projects and the GEF non- grant instrument is to finance project preparation financial structuring for viability of private investment and (ii) an investment window for providing financial instruments required to structure strong transactions. The GMFA will start with the 6 pilot countries but are not limited to: Kenya, Morocco, Nigeria, Rwanda, Senegal, and South Africa. It intends to expand and replicate to other countries on the continent. There are major developments in the transport sector and the will to mainstream green mobility, thus leading these countries to include green mobility solutions as part of their institutional strategies. Moreover, the selected countries were chosen for their various levels of energy consumption to ensure that the business models could be adapted and replicable. A close collaboration with UNEP and DBSA executing GEF 7 and GEF 8 projects on e-mobility will provide systematically identification of ready-projects that correspond to AfDB bank criteria.
2. Green Mobility Barriers in Africa. Despite market growth globally, better understanding of technologies and improved policies, there remain challenges related to access to capital that are hindering the deployment at scale of Electric Vehicles (EVs). While momentum is building especially with the support of GEF-7 and GEF-8 projects e-mobility projects on the continent, Africa faces some unique challenges in its electric mobility transition, including, in some cases, unreliable electricity supply, up-front costs, and the dominance of used vehicles. Currently, vehicles are financed with commercial banks, informal financing with high interest rates. The transition to a innovative technology results in multiple financial barriers such as:
    I. High Perceived Risk and Upfront Investments:
        - Developers struggle to secure sufficient funding for green mobility infrastructure, which demands significant upfront costs.
        - Solution: GMFA will provide concessional loans to reduce financing risks, improving the bankability of projects.
    II. Limited Availability of Long-term Finance:
        - Most financial institutions are unable to offer loans with the extended tenors required for electric vehicle (EV) investments, increasing capital costs.
        - Solution: GMFA will offer long-tenor financing and mobilize funds to match the nature of EV investments.
    III. Mismatch between CAPEX and OPEX Savings:
        - High CAPEX investments in EVs often deter investors, despite the potential for lower operational costs through energy and maintenance savings.

- Solution: GMFA will bridge this gap with credit enhancement instruments and result-based financing, incentivizing private sector participation.

IV. Lack of Tailored Financial Instruments for SMEs and Startups:
- Small operators lack access to credit and financing products, particularly in countries like Kenya, Rwanda and Nigeria where commercial use of 2-3 wheelers dominates.
- Solution: GMFA's investment window will provide specialized financial instruments, including lines of credit through financial intermediary with result-based financing for startups and SMEs.

V. Limited Capacity to Develop Bankable Projects:
- Developers face difficulties in preparing projects that meet bankability standards due to knowledge and capacity gaps.
- Solution: GMFA's technical assistance window will offer project preparation support and develop viable business models tailored to local market needs

VI. Reliance on Fossil Fuels and Associated Market Risks:
- Public transportation remains reliant on fossil fuels, with financial barriers hindering the adoption of electric alternatives.
- Solution: GMFA will promote renewable-powered charging infrastructure, reducing carbon emissions and mitigating grid emissions risks.

3. **Rationale**. Green Mobility is at early stage on the continent, hence requires CAPEX financing to develop that sector. Moreover, many countries face challenges deploying EVs due to a lack of charging infrastructure. The GMFA initiative aims to address these barriers by providing financial instruments for EVs and charging infrastructure, essential for a successful EV market. Using a combination of concessional loans blended with commercial loans and grants, GMFA seeks to build capacity, develop incentives to support the switch to e-mobility, design policies, and establish viable business models and financial schemes to ensure a smooth transition towards electric mobility. The Facility's upstream activities are considered as Technical Assistance (T.A) with a grant of USD 3,45 million under Component 1, which includes enabling the environment, developing business models and supporting project preparation, and establishing coordination mechanisms and partnerships with GEF-7 and 8 e-mobility projects to attract private investment for electric vehicles. Downstream activities under Component 2 proposes de-risking instruments to unlock commercial capital and reduce overall project capital costs involve developing financial instruments worth USD 183 million such as concessional and blended loans, would be incremental in attracting private financing at project level whereas USD 136 million would come as form as equity from the project developers/sponsors and the AfDB will be the arranger to attract an indicative USD 240 million , to implement 15 electric vehicle projects (e-buses and e- 2-3 wheelers) and their charging infrastructure in six countries (refer to Table 2 below) . Refer to the map in annex C which presents the indicative pipeline project location.

4. The GMFA is designed with two core components to strategically address the key barriers to e-mobility in Africa.

5. **Component 1: Formulation and establishment of the enabling conditions.** This component focuses on creating a robust enabling environment for green mobility to attract private sector investment and the activities are structured as follows:

- **Activity 1.1: Partnership and Coordination on GEF-7 and GEF-8 E-mobility Projects in Africa** aims to foster an enabling environment for green mobility by building on existing the

GEF-7 and GEF-8 child project on the continent. A close collaboration with UNEP is required as it is the leading GEF agency in Africa coordinating on the GEF Grant CCM STAR on E-mobility Programme, GMFA will leverage the results and strategies developed in these countries to identify the pipeline of private developers and how to unlock private investment. This activity aims to provide a common approach in the overlapping GMFA countries such as in South Africa (implemented by DBSA) and in Senegal and Rwanda (implemented by UNEP) as well as best practices that can be adapted for the other GMFA countries (Kenya, Morocco, Nigeria). This approach will enable:

(i) Building on Policy and Incentives developed: By building on the policy work results to incentivize e-mobility in Senegal, Rwanda, and South Africa, GMFA aims to build on effective strategies that unlock private sector financing in e-mobility investments and adequate financial instruments and design business models. This process involves creating adaptable process frameworks that can serve as models for other GMFA countries, establishing a robust foundation for attracting private investment and a regional enabling environment.

(ii) Knowledge Sharing Across Regions: The project will build on accumulated knowledge at continental and regional levels, identifying key trends and effective measures that can be applied across GMFA countries. This will include consolidating knowledge products, such as business models for e-2 wheelers and e-buses as well as project structuring studies. Resources that will be disseminated via UNEP's e-mobility platform (https://emobility.tools/) to ensure broad accessibility.

(iii) Common Aspects and Cross-Country Application: The identified commonalities in the e-mobility sector in Senegal, Rwanda, and South Africa such as the gender aspect, stakeholder engagement will be explored for broader applicability within the GMFA without duplication of activities. This shared approach will provide a consistent foundation while allowing flexibility for each country's unique requirements.

- **Activity 1.2: Design tailored business and economic models** for e-bus and E-2/3 wheelers adapted to each country's context as well as provide **project preparation.**

This activity focuses on designing customized business models and providing project preparation support to enhance technical knowledge and address perceived risks in green mobility projects. The aim is to develop tailored solutions that can scale green mobility and make projects bankable. Leveraging the African Development Bank's expertise in structuring private sector investments, the Bank ensures that projects are viable, bankable, and adapted to the specific needs of the country and clients.

6. This component 1 sets the stage for private sector involvement by creating an enabling environment that reduces the risks and barriers to entry for e-bus and E-2-3 wheeler investments. The activities include the development of supportive policies and incentives tailored to the private sector's needs, along with the creation of business models that are attractive and financially viable. Through collaboration with UNEP and DBSA, the GMFA ensures that knowledge and expertise are shared effectively, promoting an integrated approach that enhances the confidence of private investors. This component is designed to lead to a behavioral shift within the private sector, encouraging long-term commitments to green mobility by demonstrating the economic and environmental benefits.

7. **GEF funding Request for component 1** is USD 1 million which is earmarked for project structuring, business development and M&E and AfDB has already mobilized USD 2,45 million in grants for the technical assistance window from two internal trust funds (FAPA and SEFA) and external bilateral

fund KOAFEC. During the Project Preparation Grant (PPG) phase, the modalities and implementation framework between UNEP, DBSA and AfDB will be developed to ensure that the collaboration with is carefully crafted to build on the ongoing work to avoid double counting.

8. **Component 2: Implementation of Financial Instruments** builds on the GEF-7/8 efforts in the pilot countries by establishing the upstream conditions needed to incentivize the development of green mobility. The GMFA will provide support in project structuring to identify appropriate financing instruments, ensuring that subprojects are both technically and commercially viable. This component aims to mobilize about USD 12.5 million in concessional finance from the GEF-8 NGI Window to blend in with the Bank finances from own accounts (up to USD 169 million), adhering to the principle of minimum concessionality to prevent market distortion. The concessional tranche provided by GEF will enable the Bank to leverage these resources to mobilize additional funding from other lenders such as MDBs, IFIs and the private sector with an estimation to mobilize up to USD 240 million**.** In addition to that, AfDB will crowd in additional concessional financing that could be mobilized from internally managed funds (CACF, SEFA) or from other partners (EU, JICA) to come in with tailored-made solutions to complement GEF/AfDB financial packages that will be offered to the borrowers. Table 2 below presents an indicative pipeline of 15 projects with detailed breakdown of the total project cost and an estimation of the contribution.

9. The activity designed under this component is as follows:

- **Activity 2.1 Provision of blended finance instruments tailored to green mobility projects such as concessional loans blended with commercial loans.** Concessional GEF resources will be combined with AfDB co-financing, following the principle of providing the least amount of concessionality to avoid distorting the market. The terms of use of the resources are found in Annex G.1 and G.2 tables. GMFA provides a mechanism for GEF funding to unlock commercial private capital for a specific purpose and enables large volumes of transactions in a relatively short amount of time, adding geographic coverage and supporting green mobility companies across a range of business models. The GMFA seeks a concessional loan from the GEF to invest in pari passu terms alongside with AfDB capital in order to ensure strong alignment with AfDB and the deployment of sound investment principle. The AfDB will review specific ongoing investments with the selection criteria in the selected countries when seeking concurrence of the CEO for each underlying project.

- **Underlying transactions**. The GMFA supports green mobility companies commercializing e-bus and e-2/3 wheelers for public transport in urban cities in Africa. Given the nascent stage of the sector, many companies supported are early-to growth stage businesses. The sponsors have approached the Bank for financing and preliminary discussions have been held over the design of this initiative and understand the requirements. Table 2 pipeline presents projects in the 6 targeted countries, approximately 40% e- 2-3 wheelers, 60% e-buses projects.

Table 2: GMFA Indicative Pipeline (Indicative breakdown of costs and contribution transactions, excluding TA) *

GMFA Indicative Investment Pipeline (indicative transactions, excluding TA)*								
Country	Potential sponsor/project	Green Mobility Technology	# of Projects	Estimated Total costs (USD, million)	GEF concessional finance debt contribution (USD, million)**	Indicative AfDB contribution (USD, million)	Contribution other financiers (USD, million)***	Sponsor/ Shareholder contribution (equity) (USD, million)
Kenya	Watu	e-2-3 wheelers	1	30		20	9	0
Kenya	Roam	e-2-3 wheelers	1	40		11	20	8
Kenya	Basigo	e-bus	1	19		5	10	4
Kenya	Roam	e-bus	1	35		12	10	11
TOTAL Kenya			**4**	**124**		**48**	**49**	**22**
Morocco	subnational region of Marrakech Municipality	E-bus	1	25.0		8.8	**10.8**	**5**
TOTAL Morocco			**1**	**25.0**		**8.8**	**10.8**	**5**
Nigeria	OCEL	e-bus	1	50		12	23	15
Nigeria	YAMAHA	e-2-3 wheelers	1	40		11	20	8
Nigeria	MAX	e-2-3 wheelers	1	40		11	20	8
TOTAL Nigeria			**3**	**130**	14	**34**	**63**	**31**
Rwanda	City of Kigali	e-bus	1	35		8	15	11
Rwanda	REM	e-2-3 wheelers	1	20		5	10	4
Rwanda	Ampersand	e-2-3 wheelers	1	20		5	10	4
TOTAL Rwanda			**3**	**75**		**18.2**	**35**	**19**
Senegal	Bob Eco Senegal	e-2-3 wheelers	1	30		8	15	6
Senegal	CETUD	e-bus	1	50		20	14	15
TOTAL Senegal			**2**	**80**		**28**	**29**	**21**
South Africa	Cape town Golden Arrow	e-bus	1	25		9	**8**	**8**
	DBSA	e-bus	1	100		23	45	30
TOTAL South Africa			**2**	**125**		**32**	**53**	**38**
Total			**15**	**559**	**14**	**169**	**240**	**136**

** This pipeline is indicative and will be further developed during the implementation period.*
*** the contribution of GEF in the underlying project will be as per the term sheet and will finance up to 4 projects (Annex G) and each underlying projects will go through Concurrence mechanism for CEO's Approval*
****Contribution of other Financiers are estimates and actual deployment is dependent on market opportunities and timing.*

- GMFA Blended Finance approach. The GMFA employs a blended finance approach, utilizing concessional funding to blend with Bank own accounts with the aim to de-risk projects and improve their bankability to attract commercial and private capital, thereby enabling continuous investment in green mobility while mitigating risks for private investors. This approach ensures that financial instruments remain accessible and affordable for companies in the green transport sector, providing both immediate support and fostering long-term growth in sustainable urban mobility.
The blended finance approach will ensure that projects that will benefit from this financial support will have accessible and affordable tailored-made financial solutions. The concessional blended finance will contribute to reducing the costs, making financing more attractive to private investors on the continent. GMFA's concessional funding approach is designed to unlock and catalyze further commercial finance from the private sector. This includes raising additional capital concurrently with GMFA's investment, such as equity, as well as attracting further investments during the project period. GMFA supports the development of a robust and resilient market for sustainable transport in Africa, ensuring the sector's growth on competitive terms.

10. At Due Diligence Stage of the AfDB internal approval process, AfDB will seek concurrence from GEFSEC in each proposed investment by submitting investment proposals documenting that all selection criteria are met, documentation the transaction conditions that need to be met for GEF concessional loan; the calendar/sequencing of GEF disbursement, estimated GEBs for each investment,

reflows and relevant financial aspects, Letter of Endorsement and all necessary additional information in alignment with the CEO endorsed project.

11. **Funding request from GEF for Component 2.** This proposal seeks about USD 12.5 million concessional loan from the GEF-8 Non-Grant Instrument window for component 2. A contribution from the GEF will address the critical gap in relief and recovery finance, providing risk-tolerant capital on flexible/concessional terms, which will be catalytic and unlock additional financing. AfDB's contribution of USD 169 million includes a range of potential financial instruments beyond senior commercial loans, such as Partial Credit Guarantees (PCG) and other mechanisms, depending on the project needs. The total amount of contribution has been calculated based on indicative demand pipeline projects under the GMFA, as shown in Table 2 above. The flexibility in AfDB's approach ensures that financial support can be tailored to meet the evolving requirements of these projects. The AfDB has already approved the PEN (Project Eligibility Note) for the GMFA, and the Project Concept Note (PCN) is currently under development for further processing. The Project Appraisal Report (PAR) is expected to be submitted to the AfDB Board for consideration in Q2 2025, ensuring that the necessary financial commitments are in place for the project's timely execution.

12. **Financial Additionality of GEF Funding:**

- *Concessionality and Risk Mitigation:* The GEF's concessional funding plays a critical role in addressing the high-risk profile of early-stage investments in green mobility, which AfDB loans alone cannot fully mitigate. GEF concessional finance will help de-risk investments by addressing market barriers, such as high capital expenditure (CAPEX) and long payback periods, that hinder private sector participation. AfDB's loans, while significant, do not offer the same level of concessionality and flexibility as GEF grants, making GEF funding essential for reducing financial risks and crowding in private sector investments
- *Incremental Global Environmental Benefits (GEB*): GEF funding is specifically designed to cover the incremental costs needed to achieve global environmental benefits (GEBs), which would not be possible under a purely business-as-usual scenario with AfDB loans alone. GEF's funding supports activities that go beyond the national benefits of mobility infrastructure by ensuring climate benefits such as reduced GHG emissions and enhanced policy frameworks for sustainable transport, which AfDB loans, without GEF's input, would not sufficiently address. The Annex D on GHG calculation worksheet provides the formula which calculates the secondary direct efficiency as GMFA co-financing of and the direct efficiency as GEF contribution for e-buses and e-2 wheelers

	Secondary Direct Co-financing efficiency USD/T CO2	**Direct GEF efficiency USD/T CO2**
e-buses	472.43	20.35
e-2wheelers	122.55	8.33

- *Leveraging and Scaling Impact:* While AfDB is providing substantial financing through loans, GEF's role is to leverage these funds to mobilize additional private and public sector investments. By providing concessional finance through GEF, the project can attract further co-financing, ensuring that the overall financial resources available for the GMFA are scaled up to meet the ambitious targets of the project. Annex G.1 provides the detailed calculation of the co-financing ratio every USD 1 from GEF mobilizes USD 12 from AfDB, Every USD 1 from GEF mobilizes USD 14 from the private sector, Every USD 1 from GEF mobilizes from other lenders USD 37.

13. Component 2 directly addresses the financial challenges faced by private sector operators in adopting e-buses, E-2-3 wheelers, and related charging infrastructure. By providing customized financial instruments such as concessional loans, the GMFA lowers the financial risks and barriers that often deter private investment in green mobility. The collaboration with UNEP ensures that financial strategies are aligned and that efforts are not duplicated, optimizing the use of GEF-8 funds. The requirement for private operators to bring in 25-30% equity not only strengthens the financial foundation of the projects but also ensures that these operators are deeply invested in the success of the initiatives. As these projects are implemented, they will serve as scalable models that demonstrate the viability of green mobility solutions, encouraging further private sector participation and leading to broader adoption across the continent.

14. Overall, the GMFA strategically combines these components to create a transformative impact, facilitating the transition to low-carbon transportation in Africa. By addressing both enabling conditions and financial barriers, the Facility ensures scalability and replicability, contributing to the achievement of Nationally Determined Contributions (NDCs) and Sustainable Development Goals (SDGs) across the continent.

GMFA Theory of Change

15. The theory of change diagram in Figure 1 below details how the Facility's activities lead to achieving program goals based on the barriers, activities, results, and outcomes anticipated.

16. To achieve the project's objectives, the GMFA will follow this overarching goal statement: IF the Green Mobility Financing Facility for Africa increases access to private finance for green mobility projects across the selected countries, THEN GHG emissions in the countries will be reduced contributing to the NDC targets BECAUSE transit will be largely decarbonized, and there will be an enabling environment for further growth in green mobility through replicability in other parts of Africa.

17. All activities (as defined above) are aligned to achieve the two key outcomes of the Facility: (i) Outcome 1: Establishment of an enabling environment for the green mobility market, leveraging the GEF-7/8 UNEP e-mobility program; and (ii) Outcome 2: Increased private sector investment and adoption of green mobility for public transportation in African countries, ultimately contributing to GHG emissions reduction. The activities are organized under two components: Component 1, 'Formulation and Establishment of Enabling Conditions,' and Component 2, 'Implementation of Financial Instruments,' each designed to contribute effectively towards the afore-stated outcomes.

18. Activity 1.1 will lead to Output 1 whereby the implementation framework between the UNEP, DBSA and the GMFA are operationalized, leading to (i) Policies and incentives developed by UNEP and DBSA to unlock private investment in the GMFA countries, informed by successful models from Senegal, Rwanda, and South Africa; (ii) UNEP's e-mobility online platform (https://emobility.tools/) updated with business models, guidelines, and toolkits for private developers on green mobility; and (iii) Identification of best practices for private developers that can be scaled across different contexts within the GMFA, strengthening a conducive environment for private developers in green mobility across the continent.

19. Activity 1.2 will deliver Output 2 where business and economic models have been successfully created to facilitate project structuring and financing, and Output 3 where the Pipeline of bankable green mobility projects are ready to be financed.

20. The outputs of Activities 1.1 and 1.2 will all contribute to Outcome 1 (leveraging on the GEF7/8 e-mobility programme) whereby two co-benefits are anticipated, such as an increase in job creation for both men and women and an increased measure in gender equality in Africa's green mobility.

21. Outcome 2 will be influenced by two important outputs from Activity 2.1, including Output 4 'Reduction of greenhouse gas (GHG) emissions by an estimated 9.5 million tonnes of CO_2 equivalent over the lifespan of the e-vehicles across the six pilot countries', representing the Global Environmental Benefit (GEB) achieved by GMFA, and Output 5 such that green mobility developers have received adequate finance to crowd-in private investments. Output 5 will effectively ensure the increased penetration and adoption of green public transportation in the African continent, ultimately resulting in significant GHG reductions. This outcome and these outputs specifically target countries that have targeted transport sector measures in their NDCs, building an environment for green mobility and that are seeking to scale up their investments.

22. Outcome 2, on the other hand, is anticipated to achieve two different co-benefits, namely the reduction of air and noise pollution due to the sector's decarbonization, and the improvement of commercial businesses which will leverage private investment in green mobility. Overall, the outcomes of the GMFA would not only benefit the six targeted countries, but ultimately the African continent from an economic, gender, environmental and social perspective by replicating the lessons learned on the other countries.

23. GMFA directly supports the goals of the Paris Agreement by helping countries achieve their NDC targets related to the transport sector, facilitating the transition to electric and other low-emission vehicles. It also contributes to several Sustainable Development Goals (SDGs), including SDG 3 (Good Health and Wellbeing), SDG 7 (Affordable and Clean Energy), SDG 11 (Sustainable Cities and Communities), and SDG 13 (Climate Action). One of the four global goals framing sustainable mobility in the Global Mobility Report, is to reduce both air and noise pollution from transport, and to address climate change in the transport sector through mitigation and adaptation. The 2030 Agenda does not specify a quantitative target to be reached by 2030 for green mobility. To help achieve this, the transport sector's goal is to decarbonize and decrease the current level of emissions to a low-carbon scenario by mid-century. Countries in Africa are building the momentum for the decarbonization of the transport sector and for a rapid transition to green vehicles.

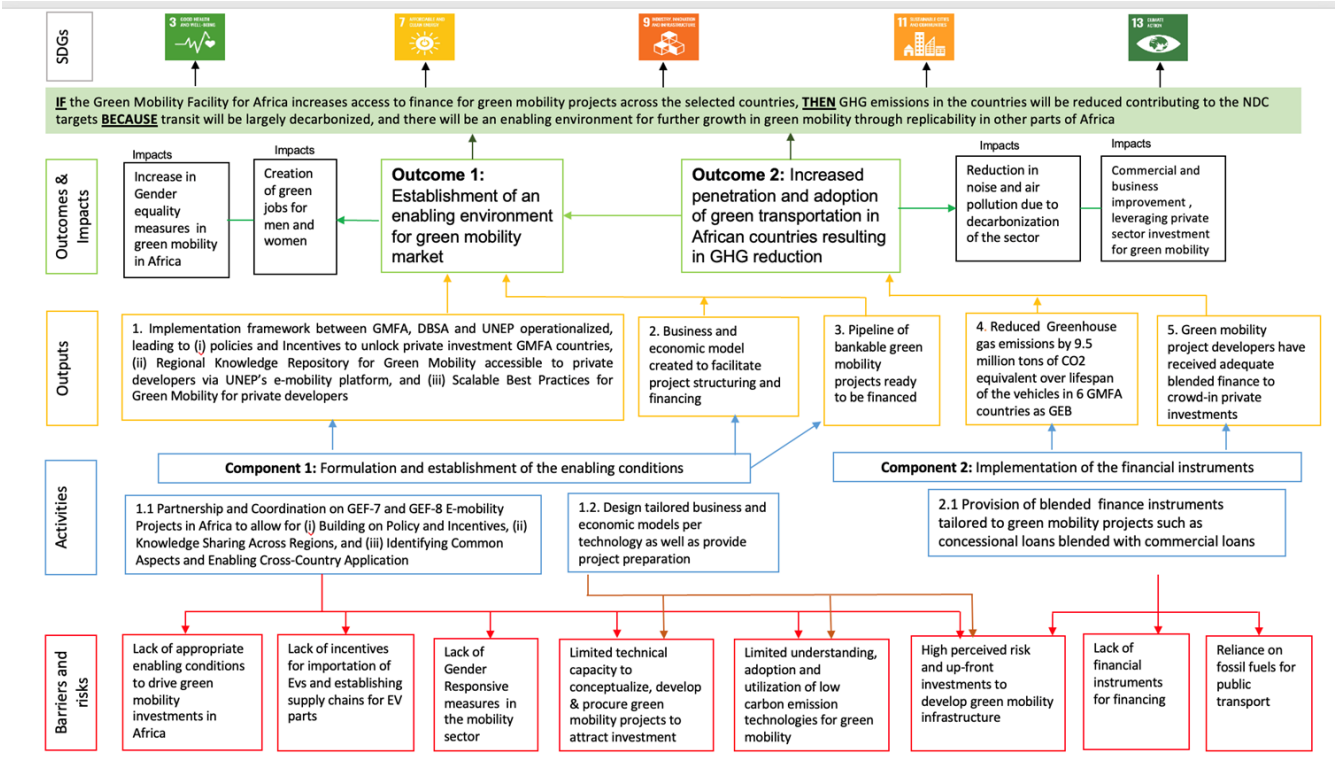
The **transformative potential** of the GMFA can be considered in terms of scalability, replicability and resilience for future changes, as follows:

24. **Scale-wise**, the facility aims to enable investments in low-carbon transport infrastructure through the development of EV and its charging infrastructure, attract private sector financing for public transport in 6 urban cities in Africa notably in the countries Kenya, Morocco, Nigeria, Rwanda, Senegal, and South Africa. The Facility will increase the penetration of green mobility transportation resulting in GHG reduction by developing financial instruments, scale incentives to import EVs and parts as well as developing new commercial and businesses in sustainable transport for potential manufacturing and/or assembling. By removing the perceived barriers for the technologies considered under the GMFA, it is expected that a larger market share of the transportation sector in the six countries will be taken up by low carbon solutions. For instance, for the E-bus systems, increasing urbanization in Dakar, Marrakech and Cape Town offers economic perspectives to bus companies willing to expand in the green mobility sector provided the technology is de-risked and economically viable. The same principle applies for E- 2-3 wheelers, which is bound to see a rapid increase in use if the charging technology becomes as viable and accessible to the general consumer base as fossil fuel-based

solutions. The increasing urban population and more accessible low carbon mobility technologies can give rise to a transformative potential in the demand for such solutions causing a shift in urban planning in the short and medium term to integrate more and more infrastructure that will support e-mobility.

25. In terms of **replicability**, the facility will identify a pipeline of opportunity for green mobility projects, train the stakeholders, and create viable business and economic models for private sector investments in electric vehicles public transportation and that will be disseminated in Africa. The Facility will share knowledge, experience, case studies and ensure capacity building as well as increase in awareness on the continent. The GMFA will provide catalytic support in removing the barriers identified in the targeted African cities. Given that electric buses and electric 2 wheelers are proven and mature technologies and have a worldwide record of long term economic, environmental, and social benefits. Once the business model is proven in each city, market interest will increase (also supported by the awareness sessions to be undertaken). With the technology transfer being gradually implemented and capacity built to support the infrastructural, financial, and operational eco systems, the roll out rate of the proposed technologies will be increased, indicating a high level of replicability.

26. **Resilience to Future Changes**: The GMFA is designed to remain resilient to changes in key drivers such as technological advancements, market shifts, and evolving policies. By utilizing flexible financial instruments like concessional loans, the project can adapt to changing market conditions, ensuring long-term viability. Capacity-building initiatives through UNEP Partnership will equip stakeholders with the skills to keep pace with new technologies in green mobility, while close collaboration with UNEP ensures that policies and regulatory frameworks evolve alongside the project. Additionally, the involvement of private sector investment fosters innovation, ensuring that the project can adjust to new developments and continue to scale across Africa.



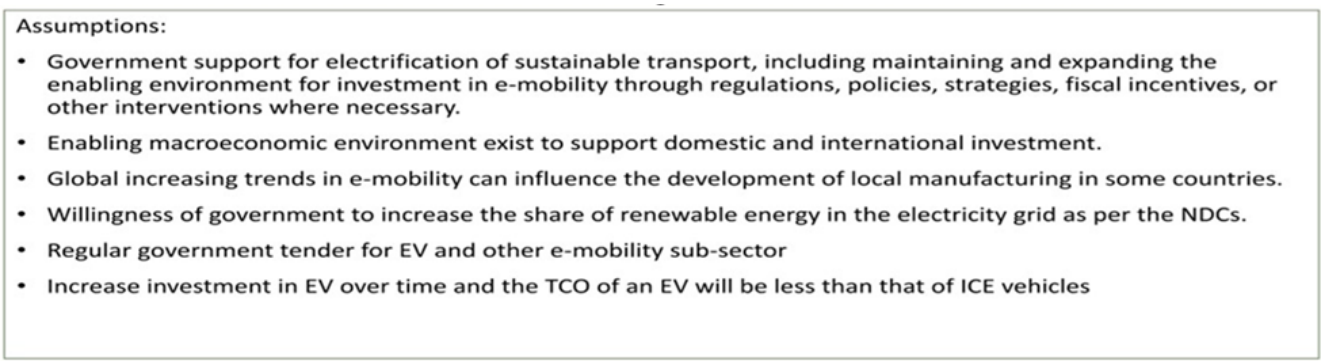


Figure 1: Theory of Change

Implementation Arrangement:

1. GEF funding will be deployed in accordance with the AfDB's policies, rules and procedures and will be subject to the implementing arrangements. The AfDB will be responsible for the overall oversight and delivery of the facility implementation, including identifying, structuring, arranging, and cofinancing transactions. AfDB will implement the GMFA following the terms and conditions agreed under the Financial Procedure Agreement with the GEF and the annex G.1 and G.2. The GMFA will be implemented with limited delegation of investment authority to the implementing agency as described in the GEF Blended Finance Global Program and Non-Grant instrument policy update GEF/C.63/12. Apart from the fact that this mechanism will ensure high alignment with the GEBs, it will support specific criteria for the selection of the subproject and will also be reviewed at GEF CEO concurrence at AfDBs due diligence stage of project preparation, which could help to accelerate negotiations on core aspects of the underlying projects.

2. With GMFA being a facility, details of underlying pipeline transactions are indicative at the proposal submission date, and pipeline development continues during the implementation phase. In addition to the African Development Bank, GEF proceeds will be channeled via the Bank through its Green Mobility Financing Facility for Africa to local financial institutions, including commercial banks and leasing companies, as well as subnational entities (i.e. regions or cities like State-Owned Enterprise) and Green Mobility companies (Fis or project developers) to execute the funded activities. Processing and implementation of the Facility will be integrated within AfDB's processes/governance structures. Each underlying project under the Facility will be processed individually by the Bank subject to AfDB's credit evaluation, due diligence, and approval procedures for committing funds to the private sector. Only those projects qualified under AfDB's internal criteria and GMFA/GEF criteria outlined will be eligible for further processing under the GMFA. As described above, at Due Diligence Stage of the AfDB internal approval process, AfDB will seek concurrence from GEFSEC in each proposed investment by submitting investment proposals documenting that all selection criteria are met, documentation the transaction conditions that need to be met for GEF concessional loan; the calendar/sequencing of GEF disbursement, estimated GEBs for each investment, reflows and relevant financial aspects, and all necessary additional information in alignment with the CEO endorsed project.

3. Additional provision:
   - Provision for the establishment of critical institutional partnerships and investment mechanisms within 12 months
   - Provisions for investment disbursement schedule following sequencing to be defined per country at the time of Concurrence.

- Provisions for Changes in schedules to be documented at the yearly reflow reporting date.
- be eligible GEF countries and submit a Letter of Endorsement by the GEF OFP ahead of the CEO concurrence.

4. For the TA grants component 1, the Bank will be the Executing Entity for project preparation and structuring as well as consultants and service providers. TA fund management and procurement will follow relevant policies and rules of the AfDB, guided by the grant agreement to be signed between the consultant/service provider and the AfDB. The AfDB will hold and manage the grant resources and make direct payment to consultants/service providers.
5. To ensure the successful delivery of the Facility, the GMFA project team will benefit from the **Coordination Mechanism** ; which will provide i) dedicated support on business development and processing of transactions, to support further development and identification of pipeline projects, ii) close collaboration on the agreed implementation framework with UNEP and DBSA iii) mobilizing co- financing from partners and local financial intermediaries and private investors, and processing the projects following AfDB's procedures for funding approval; and iv) dedicated support for monitoring and reporting, including the monitoring of project[2] and Facility-level KPIs (Key Performance Indicator) including the tracking of GHG emissions using the appropriate methodology as described below , v) producing stakeholders' reports and enhance visibility through articles, blogs, presentations during events (conferences, webinars). This role will be funded by the T.A co-financing of the facility to ensure smooth disbursement and closing transactions within the lifespan of the GMFA.
6. The operational, environmental, and financial performance targets of the underlying projects will be linked to each fund KPIs (Key Performance Indicator). The transaction documents between the underlying projects and AfDB will contain covenants requiring the projects to report on the use of funds from the Facility. The environmental and social performance and impact of the projects, and the financing mobilized through the Facility on at least an annual basis.

7. The Bank's participation in this project is essential for the commercial viability of the Project. The Bank will provide a suitable tenor condition that will aid the commercial viability and match the long-term nature of the assets and associated revenue. Other commercial lenders are not able to provide such tenors, especially across many African countries. Furthermore, the involvement of the Bank will attract other lenders in the long-term

Coordination and Cooperation with Ongoing Initiatives and Project.

Does the GEF Agency expect to play an execution role on this project?

If so, please describe that role here. Also, please add a short explanation to describe cooperation with ongoing initiatives and projects, including potential for co-location and/or sharing of expertise/staffing

1. The African Development Bank (AfDB) is set to play a crucial role in the execution of the Green Mobility Financing Facility for Africa (GMFA). As the overall overseer and implementer, the AfDB will manage the Facility's execution, including identifying, structuring, arranging, and co- financing transactions. The Bank will channel GEF resources through local financial institutions, ensuring each sub-project aligns with AfDB's rigorous evaluation, due diligence, and approval procedures.
2. The AfDB will partly act as the Executing Entity for the Technical Assistance (TA) grants component, collaborating with UNEP and other service providers. The concessional financing will be channeled through the AfDB to the private sector for the execution of selected sub-projects. The

AfDB's responsibilities include fund management, procurement, and ensuring successful disbursement and project completion. Through the GMFA, the AfDB will support low-carbon transport systems in Africa, overcoming financial and technical barriers, and enhancing private sector participation in updated Nationally Determined Contributions (NDCs) and the transport sector.

3. The AfDB's participation is pivotal to the commercial viability and long-term sustainability of the GMFA, aligning with both GEF's and AfDB's strategic goals for low-carbon development in Africa.

4. The GMFA will be implemented with limited delegation of investment authority to the implementing agency as described in the GEF Blended Finance Global Program and Non-Grant instrument policy update GEF/C.63/12. Apart from the fact that this mechanism will ensure high alignment with the GEBs, it will support specific criteria for the selection of the underlying project and will also be reviewed at GEF CEO concurrence at AfDBs due diligence stage of project preparation, which could help to accelerate negotiations on core aspects of the underlying projects.

5.

GEF/ UNEP: Global Electric Mobility Programme [1]

6. UNEP is the implementing agent for the Global Environment Facility (GEF) Global Electric Mobility Programme is supporting the shift towards electric mobility with multiple country projects to introduce and scale up the uptake of electric mobility in more than 40 low-and-middle-income countries all [2] over the world. Seventeen of these country's projects are located in Africa. The programme seeks to build capacity, develop national strategies and roadmaps to support the switch over to electric mobility, design policies and establish viable business models and financial schemes to support a smooth transition and shift towards electric mobility. And while technical assistance to introduce e-mobility in Africa is key, demonstration of technology is equally important. For this reason, the country projects integrate key demonstration projects through grants to generate know-how on the ground and to provide the much-needed experience to raise confidence in financiers.
7. The 5 components such as (i) Component 1: Knowledge creation, capacity building, planning and institutionalization; Component 2÷ Readiness for upscaling of integrated e-mobility systems; Component 3: Investment into integrated e-mobility systems and the handling of used electric vehicles, electric vehicle and battery end-of-life & circularity; Component 4: Integrated electric mobility systems awareness, advocacy, coordination and communications programme; and Component 5÷ Monitoring and evaluation.
8. Currently, three types of EVs are planned to be introduced under the Global Electric Mobility Programme in 17 African countries, as shown in Table 4.

Table 4: Type of EVs financed by the GEF Global Electric Mobility Program in Africa

Type of EVs	Countries
Electric two and three-wheelers	Ethiopia, Togo, Kenya, Rwanda, Uganda, Burundi, Madagascar, Sierra Leone, Tanzania
Electric Light Duty Vehicles	Ghana, Mauritius, Mozambique, Tunisia (with UNIDO), Côte d'Ivoire, Zambia
Zero and low emission buses	Côte d'Ivoire, Senegal, Seychelles, South Africa (with DBSA), Tanzania

9. AfDB will collaborate with UNEP to integrate the know-how on the ground of UNEP's projects and will use blended nance as de-risking instrument to provide confidence to private operators and crowd-in other commercial financiers and scale up e-mobility projects in the country.

World Bank: Powering Clean Transport in Africa (Accelerating Electric Vehicle Transition through a Regional Investment Facility)

10. The World Bank, is developing the ‘Accelerating Electric Vehicle Transition through a Regional Investment Facility’, which is proposing an institutional mechanism to support the transition to low-carbon mobility in Sub-Saharan Africa (SSA) through the establishment of a regional facility dedicated to public sector financing of electric vehicles (public transport and logistics). This facility is still in preparation and is looking for a regional bank to host its facility. This facility will focus on aggregation and harmonization efforts, utilizing a blended finance structure with a risk-sharing framework, and designing financial products to unlock affordable financing options. Additionally, the approach includes an 'ecosystems' strategy that encompasses policy support, capacity building, and collaboration with development partners to provide comprehensive financing solutions. The initiative aims to generate positive outcomes across public transport and logistics, including improvements in climate resilience, air quality, human capital, industrialization, green job creation, innovation, and financial inclusion.
11. The Facility aims to (a) Scale up demand for EVs and Create Scale, (b) Consolidate funding & financing sources, (c) Optimize de-risking instruments (d) Deepen technical assistance and (e) Monetize carbon credits. This will help in (i) Reducing vehicle CAPEX & OPEX which will contribute in reducing the burden for government subsidy, and (ii) Reducing financing cost which will make mobility service affordable.
12. The GMFA (focusing on private sector financing of EVs) is in discussion to collaborate with the World Bank (focusing on public sector financing of EVs) in common countries so as to enhance the impact of transitioning to EVs.

13. Table 5 below presents e-mobility development projects in 6 GMFA countries, there are several ongoing interventions/ projects with the aim of greening the respective transport sectors, and these are in fact complementary with the proposed GMFA.

Table 5 shows the ongoing mobility initiatives/ projects in the 6 pilot countries.

Ongoing Interventions	Source of Funding	Description	Collaborating with the GMFA
Kenya			
Growing smarter – Sustainable mobility in East Africa: An urban mobility project[1]1 (2018 - 2025)	German Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety's International Climate Initiative (IKI)	Promotion of low carbon urban mobility projects. This project is focused on the Metropolitan Region of Nairobi. It is developing a sustainable Urban Mobility Plan to improve the mobility (non-motorized transport and pedestrians' space) needs of people and businesses which will improve safety and comfort. The project focuses on non-motorized transport and pedestrian's space implemented by ITDP in partnership with UN-HABITAT	The GMFA Technical Assistance window aims at having cultural acceptance of shifting to green mobility. The ITDP and UN-Habitat will be involved in awareness campaigns. Both projects will aim at reducing urban air pollution and improving health.
Promoting electric mobility in Kenya (2022- 2026)[2]2	GIZ	The project operates in three priority areas: 1. It works to improve the regulatory framework in the country. To this end, it promotes the development of national strategies, regulations and standards for e-mobility. 2. To support training, knowledge exchanges and the coordination of stakeholders in the e-mobility sector, the project builds up the institutional capacity of key participants. 3. It also promotes pilot applications and disseminates learning	Successful e-mobility adoption in Kenya requires supportive policies and regulations. GMFA can assist in advocating for and shaping these frameworks, ensuring they encourage the growth of electric mobility through incentives, subsidies, and supportive infrastructure policies.

		experience on the topic of e-mobility and the corresponding business models.	
Introducing Measures, Pathways and Roadmaps for Optimizing Vehicle Efficiency and Electrification (IMPROVE) (2023 to 2026)[3]3	GIZ	The project operates in the following fields of action: - It identifies suitable regulatory instruments by analyzing the status quo in the country. During this process, it takes into account the availability of data, analyses the interests of local actors and describes existing regulatory approaches. - It conducts technical and socio-economic studies that can be used to draft legislation. - It forms a steering group to prepare a draft law. - It supports the project partners with the development and implementation of information and communication materials as well as participation formats.	GMFA can complement IMPROVE by supporting capacity-building initiatives that enhance the skills and knowledge of stakeholders involved in vehicle efficiency and electrification in Morocco.
Kenya —Small Vehicles E-Mobility	World Resources Institute (WRI); P4G – Partnership for	The project has the overall goal of accelerating the transition towards e-	The success of the Small Vehicles E-Mobility Project

[4]4 (in preparation)	Green Growth and the Global Goals 2030; Kenya Private Sector Alliance (KEPSA); Siemens Foundation	mobility to achieve reductions in transport sector emissions, as well as creating green jobs and industrial growth in the assembly and manufacturing of e-vehicles. The project will therefore focus on facilitating the penetration of e-2Ws and e-3Ws in peri-urban and rural areas to help the market reach a take-off point for an irreversible transformation	depends on supportive policies and regulations, such as tax incentives, subsidies, and favorable import duties for electric vehicles and components. GMFA can assist in advocating for and shaping these policies, ensuring a conducive environment for the growth of electric small vehicles in Kenya.
Morocco			
Sustainable mobility with renewable energies in Morocco (DKTI VI) [5]5 (2022 to 2027)	GIZ	The project works with Morocco's Ministry of Energy Transition and Sustainable Development (Ministère de la Transition Energétique et du Développement Durable, MTEDD) and the city of Agadir. The project develops policies and guidelines on the integration of different modes of transport, electric mobility, digitalisation and accessible mobility, amongst other things.	GMFA complements this by providing financial and technical support for the development and scaling of such green mobility projects across Africa, including in Morocco. GMFA can support capacity-building initiatives that equip Moroccan stakeholders with the skills needed to integrate renewable energy into the transportation sector effectively. This includes training in the deployment and management of renewable energy infrastructure, such as EV charging stations powered by solar or wind energy.

Introducing Measures, Pathways and Roadmaps for Optimizing Vehicle Efficiency and Electrification (IMPROVE) (2023 to 2026)[6]6	GIZ	The project operates in the following fields of action: - It identifies suitable regulatory instruments by analyzing the status quo in the country. During this process, it takes into account the availability of data, analyses the interests of local actors and describes existing regulatory approaches. - It conducts technical and socio-economic studies that can be used to draft legislation. - It forms a steering group to prepare a draft law. - It supports the project partners with the development and implementation of information and communication materials as well as participation formats.	GMFA can complement IMPROVE by supporting capacity-building initiatives that enhance the skills and knowledge of stakeholders involved in vehicle efficiency and electrification in Morocco.
Morocco (Marrakech) Living Lab[7]7	Smart Energy Solutions for Africa (SESA)	The primary objectives of this living lab are to promote and introduce electric mobility as a sustainable alternative to motorcycles, with a particular emphasis on targeting various user groups, especially female users. One of the primary goals is to address the various issues associated with densely populated cities, such as reducing waiting times for public transit, improving service	Marrakech Living Lab acts as a real-world testing ground for e-mobility solutions. The GMFA will learn from the Marrakech Living Lab to facilitate the scaling up of e-mobility projects in the country.

		quality, and enhancing reliability	
Morocco Urban Transport Project (P4R)[8]8 (2015 -2025)	World Bank	The Program Development Objective is to strengthen the capacity of urban transport institutions to plan, implement and monitor infrastructure and services, and to improve the level of service of urban transport in targeted corridors in the Program Area.	The GMFA will work with the WB on supporting green mobility service for public urban transport and will ease access to jobs and economic opportunities for the bottom forty percent of the population (that heavily relies on public urban transport), thereby increasing their levels of income and reducing their transport expenditures.
Nigeria			
Two Quality Bus Corridors (QBC)[9]9 (Jan-2022 - ongoing)	IFC	The Lagos State Government has engaged in a partnership with the International Finance Corporation (IFC) to support the development of two bus corridors in the city towards increased access to public transportation and reduction in vehicle emissions in Lagos	The GMFA will base its experience with IFC and use this as their pilot projects to scale up.
Abuja Bus Rapid Transit (BRT)[10]10 (2013-2021-completed)	AfDB and CTF	The proposed Abuja BRT Project shall provide quality, accessible and affordable mass transport system for the residents of Abuja and its suburbs which will subsequently contribute to poverty reduction, improve living standards, lead to sustainable economic growth and act as a pioneer	The GMFA will leverage knowledge from the BRT

		of private and public investment partnership in the transport sector.	
Electric-Mass Transit Buses[11]11 (2022- ongoing)	Oando Clean Energy Limited / Lagos Metropolitan Area Transport Authority	The initiative will see OCEL introducing electric buses to LAMATA's current fleet of buses. The endeavor aims to support the transformation of the State's public transport system through the development and deployment of a pathway to a carbon free mobility ecosystem within the State	
Rwanda			
Growing smarter – Sustainable mobility in East Africa: An urban mobility project[12]12 (2018 – 2025)	German Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety's International Climate Initiative (IKI)	The project supports the city of Kigali in the implementation of a rapid bus system as well as in the development of master plans to align urban and transport planning based on the principles of transit-oriented development and to plan charging infrastructure for electric buses.	The successes and challenges faced in the aforestated project in Rwanda can provide valuable insights for GMFA. Through policy development, capacity building and knowledge sharing, the GMFA can support the other project.
Urban Mobility[13]13 (2021 - 2024)	JICA	The project is aimed at improving transport mobility in the city of Kigali by promoting the use of public transportation through proper traffic management. This will ease connectivity as well as boost future sustainable development.	GMFA will expedite the implementation of the plans financed by JICA, the project will support the city of Kigali increase the number of bus stations, upgrading the existing infrastructure, and improving the quality of public transport systems.

Accelerating the Deployment of Electric Motorcycle Taxis and E-buses[14][14],[15][15] (2024 – 2029)	NAMA Facility, Rwanda Green Fund, Development Bank of Rwanda (BRD)	The project aims to catalyze the deployment of e-motorcycles by effectively substituting motos with e-motos in Kigali, thereby decarbonizing the most popular and affordable means of public transportation in the city. It seeks to activate the e-moto market by increasing the supply of e-motos and charging stations and cultivating e-moto demand and access to finance	GMFA is already working with FONERWA - the National fund for environment who is supporting the NAMA on this project. The GMFA will ensure collaboration.
Enhancing E-Mobility Charging Infrastructure for Sustainable Urban Transport (awaiting approval)	CAW/AfDB	The project aims to introduce 10 new e-buses and related charging infrastructure on the Kuti Junction roads which will support the proof-of-concept demonstrative effect on the technology.	This project is part of GMFA which will support Rwanda, through financial support, in their efforts to transition to electric buses to reduce emissions and provide the necessary infrastructure including charging stations
Accelerating the transition to electric mobility in Rwanda (concept approved in June 2024,)[16][16]	UNEP/GEF-8	The 'Accelerating the transition to electric mobility in Rwanda' project is a child project under GEF-8 "Global Programme to Support Countries to Upscale Integrated Electric Mobility Systems" project which aims at upscaling integrated e-mobility system projects including investment and to establish a global framework to address key challenges of used electric vehicles, end-of-life electric vehicles and batteries & circularity.	The GMFA will collaborate with the UNEP and GEF-8 in common countries so as to enhance the impact of introducing e- mobility in the targeted countries.

		Under this project, electric two and three-wheelers are planned to be introduced in Rwanda.	
KUTI project[17]17 (2024-2029) (appraisal in preparation, expected board Q4 2024)	AfDB / ADB window	The overall project objective of the Kigali Urban Transport Improvement (KUTI) is to enhance urban mobility, improve access to, and expand cycling and pedestrian infrastructures. It aims to improve and upgrade selected seven junctions, enhance public transport services, provide non-motorized transport facilities in urban areas and implement a multimodal transport system under the urban transport plan.	The GMFA and the KUTI project share the same area of interest as the KUTI project aims to improve the road infrastructure at 7 junctions which will be used by the potential e-buses or e- 2-3 wheelers of GMFA.
Senegal			
Dakar Bus Rapid Transit Pilot Project[18]18 (ongoing – the BRT was launched in May 2024)	World Bank, the European Bank, the Senegalese Government, and the Green Climate Fund, the European Union (EU), Emerging Africa Infrastructure Fund (EAIF),Proparco, PIDG TA	The Dakar BRT is a new public transportation project that is set up to improve mobility in and around Dakar. DFC financing to the Meridiam Infrastructure Africa Fund is supporting the project to expand mass transit in and around the city. The project will introduce more than 140 electric buses and construct new roads and garages for the fleet.	The GMFA will work with the World Bank to benefit from their experience. The GMFA is already in close collaboration on this transaction as the Dakar Bus Rapid Transit project is part of a comprehensive plan to restructure the city's transportation network by 2025.

Project SMOVE (project concept submitted and waiting for the approval)	Climate Action Window/ AfDB	The goal of the SMOVE project is to reduce dependence on fossil fuels in the transport sector, promote a transition to more sustainable and eco-friendly modes of transport, and contribute to reducing greenhouse gas emissions in this sector, through the introduction of both new and retrofitted electric buses.	The SMOVE project is part of the GMFA initiative in Senegal. The new and retrofitted e-buses from the SMOVE project will serve as proof of concept for feeder buses to Dakar's BRT system.
Supporting the Shift to Electric Mobility in Senegal[19]19 (Concept approved going to GEF council in Dec 2024)	GEF-8 through UNEP	Supporting the Shift to Electric Mobility in Senegal' project is a child project under the Global Programme to Support Countries to Upscale Integrated Electric Mobility Systems. The GEF-8 "Global Programme to Support Countries to Upscale Integrated Electric Mobility Systems" project aims at upscaling integrated e-mobility system projects including investment and to establish a global framework to address key challenges of used electric vehicles, end-of-life electric vehicles and batteries & circularity.	The GMFA will collaborate with the UNEP and GEF-8 in common countries so as to enhance the impacts of introducing e-mobility in the targeted countries.
South Africa			
South Africa's Electric Public Transport[20]20 (2021- ongoing)	BYD	In the initial phase, two electric buses were the first electric buses put into operation in South Africa and Southern Africa. Since November 2020, strict tests were conducted on the two BYD electric buses. The test outcome was outstanding and received high praise from GABS.	The GMFA will build its intervention in South Africa on the experience and data and measurement collected on the BYD projects. The bank and BYD are already in conversation on

		Currently, BYD, together with Golden Arrow, plan to introduce 120 new 65-seat electric buses (expected to be operational by December 2025). The electric buses will not only contribute to a greener environment but also provide passengers with a quieter and more comfortable travel experience.	expanding and supporting e-bus.
UYILO e-Mobility Program: Shifting the transport paradigm for South Africa (STRAPSA) (2021-2025)[21][21]	European Union and UK PACT (ICF)	The STRAPSA project targets the needs of building capacity and knowledge on electric transportation through technical assistance. The aim, for uYilo, is to provide the empowerment necessary to enhance and sustain climate actions on accelerating emission reductions within the transport sector in South Africa.	The testing if Uyilo will be key to determine which best charging model is required for South Africa. Especially with the high emission grid factor. Uyilo has smart grid system for EVs that could be interesting for South Africa.
Supporting the Just Transport Transition strategy[22][22] (2024 – 2025)	AfDB through GMFA T.A funded by SEFA	This strategy aims at transforming the country's transport sector to be more sustainable, equitable, and inclusive, while addressing the challenges posed by climate change and the need to reduce carbon emissions. This strategy is part of South Africa's broader Just Transition approach, which seeks to ensure that the shift to a low-carbon economy happens in a way that is fair and inclusive, particularly for vulnerable communities and workers who might be	This is part of the GMFA SEFA project where the Technical Assistance window is supporting the Department of Transport (DOT) in developing the Just Transport Transition strategy which includes a roadmap to develop EVs in the country.

		adversely affected by the transition.	

14. Furthermore, a AfDB representative participates to sectoral donor coordination meetings in each GMFA targeted countries to ensure that GMFA activities are strengthening intervention, ensuring no duplication and seeking collaboration whenever possible, such that the synergistic impact can be maximized during project implementation.

[1] https://www.international-climate-initiative.com/en/project/growing-smarter-sustainable-mobility-in-east-africa-18-i-356-africa-a-sustainable-mobility-in-east-africa/#:~:text=The%20project%20aims%20to%20create,areas%20for%20public%20transport%20vehicles.
[2] https://www.giz.de/en/worldwide/134808.html
[3] https://www.giz.de/en/worldwide/135026.html
[4] https://mitigation-action.org/projects/kenya-small-vehicles-e-mobility/
[5] https://www.giz.de/en/worldwide/129440.html
[6] https://www.giz.de/en/worldwide/135026.html
[7] https://sesa-euafrica.eu/morocco-living-lab/
[8] https://projects.worldbank.org/en/projects-operations/project-detail/P149653
[9] https://disclosures.ifc.org/project-detail/SII/40065/lagos-city-infra
[10] https://mapafrica.afdb.org/en/projects/46002-P-NG-D00-003
[11] https://greenenergyafricasummit.com/articles/oando-kicks-off-sustainable-transport-initiat
[12] https://www.international-climate-initiative.com/en/project/growing-smarter-sustainable-mobility-in-east-africa-18-i-356-africa-a-sustainable-mobility-in-east-africa/#:~:text=The%20project%20aims%20to%20create,areas%20for%20public%20transport%20vehicles.
[13] https://www.jica.go.jp/english/information/press/2021/20220107_30_en.html
[14] https://africa.iclei.org/project/nama-facility/
[15] https://mitigation-action.org/projects/rwanda-accelerating-the-deployment-of-electric-motorcycle-taxis-e-motos-and-e-buses/
[16] https://www.thegef.org/projects-operations/projects/11518
[17] https://www.afdb.org/en/documents/rwanda-kigali-urban-transport-improvement-kuti-project-p-rw-j00-006
[18] https://projects.worldbank.org/en/projects-operations/project-detail/P180789
[19] https://www.thegef.org/projects-operations/projects/11080
[20] https://www.byd.com/za/news-list/south-africa-electric-bus-deal.html
[21] https://www.uyilo.org.za/projects-uyilo/
[22] https://mapafrica.afdb.org/en/projects/46002-P-ZA-IA0-004

Core Indicators

Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO_2e (direct)	9500000	0	0	0
Expected metric tons of CO_2e (indirect)	0	0	0	0

Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO_2e (direct)	9,500,000			
Expected metric tons of CO_2e (indirect)				
Anticipated start year of accounting	2025			
Duration of accounting	15			

Indicator 6.2 Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO_2e (direct)				
Expected metric tons of CO_2e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

Indicator 6.3 Energy Saved (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Total Target Benefit	Energy (MJ) (At PIF)	Energy (MJ) (At CEO Endorsement)	Energy (MJ) (Achieved at MTR)	Energy (MJ) (Achieved at TE)
Target Energy Saved (MJ)				

Indicator 6.4 Increase in Installed Renewable Energy Capacity per Technology (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)

Indicator 11 People benefiting from GEF-financed investments

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	58,739			
Male	58,739			
Total	**117,478**	**0**	0	**0**

Explain the methodological approach and underlying logic to justify target levels for Core and Sub-Indicators (max. 250 words, approximately 1/2 page)

1. The GMFA Facility contributes to the GEF Project Core Indicator 6 Greenhouse gas emission mitigated and uses the indicator 6.2 emission avoided. The overall global GHG emission reduction of 9,475,416 tCO2 over the lifespan of the e-vehicles (15 y for e-buses and 8 y for E-2wheelers) for the GMFA.

2. The Facility will support private and public partners' Electric Vehicles (EVs) projects (such as e-buses and E-2wheelers) that meet AfDB's priority green and sustainable investment criteria. The Facility will provide concessional loans to project promoters including de-risking mechanisms, technical assistance, components. The partnership arrangements will vary from country to country and from project to project. The methodology differs from e-buses to E 2 wheelers. Please refer to the methodology below strictly calculated from the current direct investment and not compounded with indirect CO2 to avoid double counting of GEB from the GEF-7 and GEF-8 Grant STAR allocation mobility projects that calculate the indirect . Those 2 tables calculations were added to get the overall global GHG emission reduction of 9,475,416tCO2. GHG methodology for E-buses (refer to the worksheet- GHG emissions- E-Buses)

3. The overall approach used in the estimation of the GHG emission from introducing Electric buses is based on the CDM methodology AMS-III.C.: Emission reductions by electric and hybrid vehicles, Version 16.0 which applies to project activities introducing new electric and/or hybrid vehicles that displace the use of fossil fuel vehicles in passenger and freight transportation.

4. As per the CDM methodology, the net emission reduction yielded from the project was calculated by computing the volume of emissions avoided from the replacement of diesel with grid electricity and by subtracting the equivalent GHG emissions associated with the energy consumed from the electrical grid.

5. Table 6 shows the grid emission factor used for the six GMFA countries:

Grid emission Factor tCO2/ MWH Source: IFI Data sets

Country	Kenya	Morocco	Nigeria	Rwanda	Senegal	South Africa
Grid Emission Factor	0.54	0.729	0.526	0.712	0.87	1.07

6. GHG methodology for E-bus (refer to the Annex D: Excel worksheet- GHG emissions- section e-bus):

- As per the Greenhouse Gas Protocol 1 liter of Diesel emits on average 2.68 kg of CO2 on combustion
- Based on observations of Electric Bus Operation in Kolkata City the electricity consumption for a 9m bus is approximately 1.8kWh/km
- It is estimated that a bus covers approximately 55,000 km per year in urban traffic conditions
- It is estimated that the fuel efficiency for a 9m diesel bus is 1.58km/liter and the equivalent CO2 emissions per km is 1.71kgCO2/km (Source: GHG protocol datasets)
- Given the high emission factor of the electrical grids in South Africa and Senegal, it is expected that a certain percentage of RE, sourced independently off the grid will be required to achieve net GHG emission reduction. As per the worksheet, 30% and 10% of RE will be required as part of the charging energy mix in South Africa and Senegal respectively.
- Assuming a lifespan of e-buses of 15 years

7. Based on the above, the GHG emissions reduction associated with the GMFA project was computed using the CDM methodology AMS-III.C.: Emission reductions by electric and hybrid vehicles, Version 16.0 and yielded the following key results:

GHG methodology for E-2 wheelers (refer to the worksheet- GHG emissions- section 2 wheelers):

8. For light vehicles such as e-bikes or kick scooters, energy consumption is not yet certified with a standardized test but declared by manufacturers according to their own test protocol. A recent study has indicated that two wheelers like motorcycles and scooters have a real-world energy consumption between 6kWh/100km to 13.5 kWh/100km. The GHG protocol was used in the estimation of the GHG emission reductions arising from the use of electric 2 wheelers based on distance covered and the following assumptions were used the overall GHG emission reduction from the projects in Kenya (M-kopa) and Rwanda (Ampersand):

- According to June 2020 study by the Motorcycle Action Group, a 2-wheeler emits 0.12Kg of CO2 per km on average
- It is estimated that the distance covered by 1 motorbike in an urban setting is around 41,400 km
- It is assumed that the electric bikes will be partially recharged (50%) from green mini grids or from swap stations which will power the batteries using renewable energy with the remainder energy being sourced from the grid.
- The estimated average real world energy consumption per E-bike according to Weiss et al is 9.3 kWh/100 km
- Assuming the lifespan of an e-2 wheeler is 8 years

Based on the above and the CDM methodology, the following GHG emission reductions are expected to be achieved from e-bikes:

9. GEF Global Environmental benefits are attributed to the projects under the GMFA as part of the following categories: 1) Direct benefits; 2) Secondary direct emission benefits; and 3) Indirect benefits. These categories are in line with those defined in the GEF "Manual for Calculating Greenhouse Gas Benefits of Global Environment Facility Transportation Projects" (prepared by the Institute for Transportation and Development Policy).

10. The various mitigation contributions are calculated as follows:

- Total Direct benefits correspond to the GHG emission reductions and energy savings obtained from:

- Direct Benefits: The investments that are planned and executed during the project lifetime, i.e. the emission and energy use savings stemming from the demonstration of electric vehicles and EV supply equipment such as chargers purchased as part of the project. The methodology of calculation of direct benefits are drawn from above.

- Secondary direct benefits: emission reductions and energy savings as a result of investment in replication and upscaling. Assuming that each GMFA financed project will be replicated at least twice.

11. The Table 7 below provides the estimated Total direct tCO2.

	Direct tCO2 emission reductions	Secondary direct tCO2 emission reductions*	Total estimated direct tCO2 emission reductions
e-buses	687,926	2,063,778	2,751,704
e-2 -wheelers	1,680,928	5,042,784	6,723,712
Total	2,368,854	7,106,562	9,475,416

12. Indirect benefits correspond to the GHG reductions and energy savings obtained during and beyond the project as the result of outputs and outcomes of the project. This includes in particular the adoption of policies, capacity business models and financial mechanisms, which incentivize the scale-up of electric mobility. The indirect benefits are calculated by the GEF-7 and GEF-8 e-mobility e-mobility child projects and therefore not taken into consideration to avoid any double count the GEBs.

- Rwanda: Indirect CO2 emission mitigation at Concept stage - 750,823 tCo2eq

- Senegal: Indirect CO2 emission mitigation at Concept stage - 1,472,640 tCO2eq

- South Africa - Indirect CO2 emission mitigation at CEO Endorsement - 496,364 tCO2eq

****

Methodology for Estimating Total Passengers Using EVs

To estimate the average number of passengers benefitting form the project, we proceeded the following:

- The total number of e-buses purchased in the project is 1,675 for a total cost of USD 339 million

- The total number of e-2 wheelers purchased in the project is 45,000 for a total cost of USD 220 million

- Taking the example of Senegal BRT with CETUD, the average number of passengers transported is 300,000 for a total number of 121 e-buses (source: https://itdp.org/2024/03/22/dakar-senegals-electric-brt-leads-the-way-for-african-cities/). This gives an average number of 300,000/121= 2479 passengers per e-bus/day and a total number of 4,152,893 passengers transported per day by the 1,675 e-buses of the project

- We assume that an e-2 wheelers can accommodate two passengers and make an average of 10 trips per day. This represents 900,000 passengers transported per day for the 45,000 e-2 wheelers.
- So

 the total number of passengers transported per day by e-buses and e- 2 wheelers would be: 4,152,893 + 900,000= 5,052,893

 the total number of passengers transported per day by GEF financed e-buses and e-2 wheelers would be: (13,461,468*5,052,893)/(339,000,000 + 220,000,000) = 117,477

 Assuming 50% of women using the e-buses and e- 2 wheelers this would represent about 58,739 female passengers.

NGI (only): Justification of Financial Structure

Please describe the financial structure and include a graphic representation. This description will include the financial instrument requested from the GEF and terms and conditions of the financing passed onto the Beneficiaries.

11 1 The AfDB is requesting 1 million in grant to the GEF for project preparation and project structuring of investments as well as 12.5 million USD in concessional loans for the GMFA facility.

2. The GMFA will seek instruments to address the market and financial barriers mentioned in the Project Description section above. The GEF concessional loan will be blended with Bank and other sources of finance providing blended finance solutions to the sector~~,~~ that aim to reduce the cost of debt and help improve access to capital for green mobility businesses. Particularly for e-bus and its charging station as well as the e- 2-3 wheelers and battery swapping, the concessional blended finance solution will play a catalytic role in improving the risk profile of investments whilst making nance more accessible. TA grants will play an important role in removing market barriers lack of capacity to have bankable green mobility projects to attract investors. TA grants will flow for activities that are geared to open the market for private investments to achieve the main goal of GMFA. The figure 2 below presents the indicative estimation of USD 559 million[1][23] GMFA of the flow of funds and how it will pass onto to the beneficiaries.

[1] Indicative estimation

3. The GMFA will seek instruments to address the market barriers mentioned in the Project Description section above. The GEF concessional loan will be blended with Bank and other sources of finance providing blended finance solutions to the sector~~,~~ that aim to reduce the cost of debt and help improve access to capital for green mobility businesses. Particularly for e-bus and its charging station as well as the e- 2-3 wheelers and battery swapping, the concessional blended finance solution will play a catalytic role in improving the risk profile of investments whilst making finance more accessible. TA grants will play an important role in removing market barriers related to lack of enabling conditions and lack of capacity to have bankable green mobility projects to attract investors. TA grants will flow for activities that are geared to open the market for private investments to achieve the main goal of GMFA. The figure 4 below presents the flow of funds and how it will pass onto to the beneficiaries.

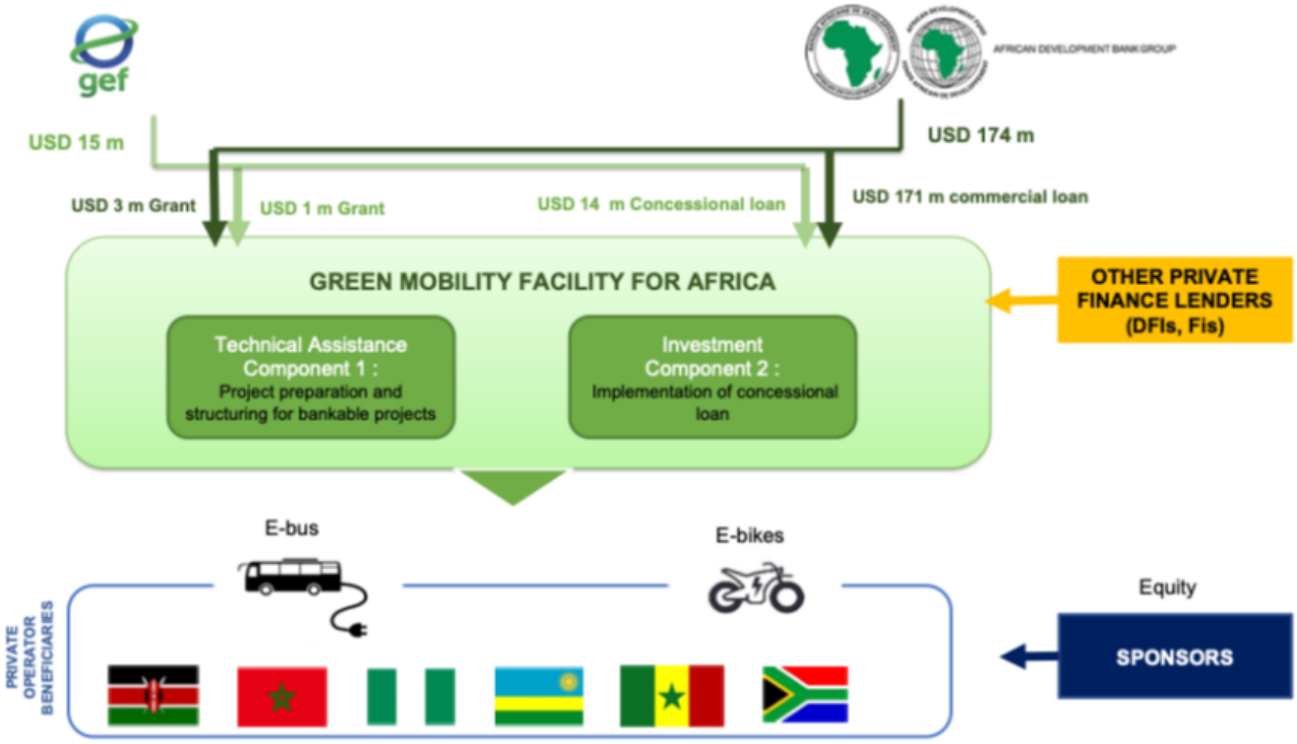


Figure 2: flow of funds passed on to private operators

4. The transition to e-mobility in Africa, particularly through the adoption of e-buses and e- 2-3 wheelers, faces substantial market barriers, including high initial costs, insufficient charging infrastructure, and a lack of confidence among private investors. Addressing these challenges requires a strategic deployment of concessional blended finance, guided by the blended finance principles. The **principle of minimum concessionality.** This approach will ensure that financial support is provided only to the extent necessary to make these projects commercially and financially viable, thus attracting private sector investments without distorting the market.

5. The proposal highlights various business models for e-bus and e-bike operators that can be tailored to different urban contexts, including leasing models, pay-as-you-go systems, and public-private partnerships. These models are designed to lower the entry barriers for operators and end-users, making e-mobility more accessible and sustainable. For instance, leasing models can reduce upfront costs for operators, while pay-as-you-go systems can make e- 2-3 wheelers affordable for lower-income beneficiaries.

6. The concessional loan from the Global Environment Facility (GEF) will play a crucial role in ensuring that passengers using electric buses and bikes pay the same fare as they would for internal combustion engine (ICE) vehicles. By providing targeted financial support, the concessional blended finance solution offsets the higher initial costs associated with electric vehicles, enabling operators to maintain competitive pricing while ensuring the commercial and financial sustainability of the project.

7. By carefully calibrating concessional blended finance solutions to support these innovative business models, the proposal aims to create a commercially viable e-mobility market that benefits a wide range of stakeholders, from operators to everyday users. The impact on beneficiaries includes not only access to cleaner, more efficient transportation but also the creation of new economic opportunities, such as jobs in vehicle maintenance, charging infrastructure, and related services. Ultimately,

this approach fosters the development of a robust e-mobility ecosystem in Africa, contributing to sustainable urban development and improved quality of life for millions of people.

8. There are 4 financing structure options identified: 3 for e-bus and charging infrastructure projects and 1 for e- 2-3 wheelers and batteries.

E-bus financing structure options:

1) Bus Operator

9. The Figure 3 below defines the elements of the business model (service flow and the cash flow) where the financing goes to one city operator which will acquire the fleet of buses.

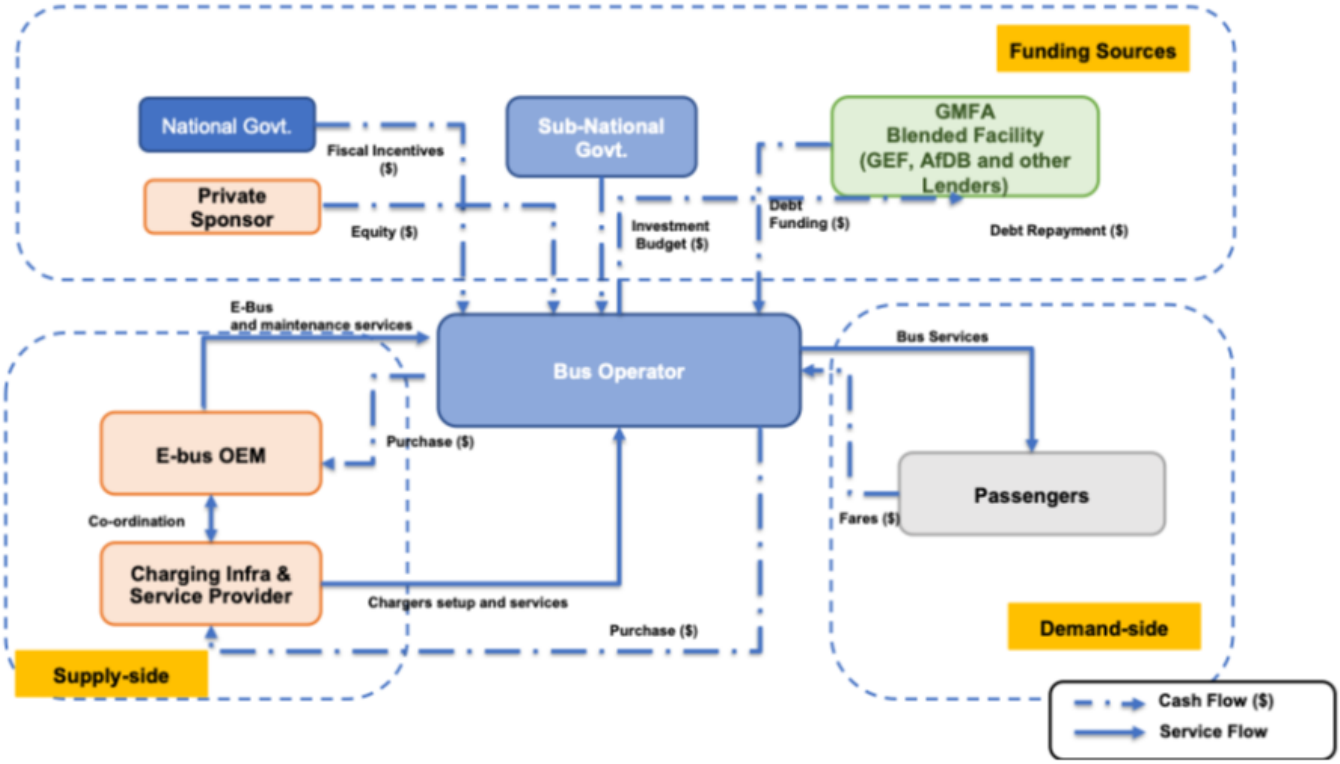


Figure 3: financing instrument through a bus operator

2) Leasing model

10. Figure 4 below shows the cash flow for a business model on the elements for the creation of an Asset Company or Special Purpose Vehicle which will acquire the fleet of buses.

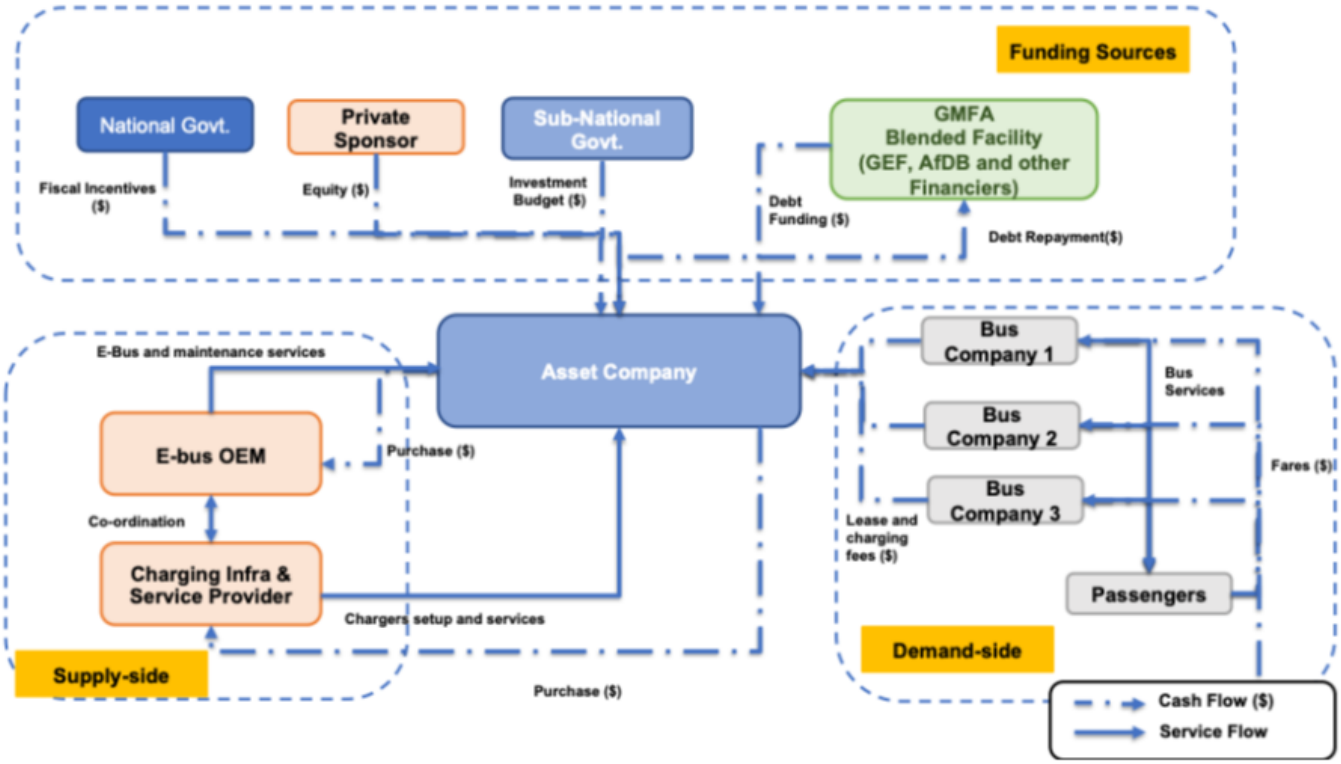


Figure 4: financing instrument through an Asset Company

3) Sub national transport company

11. Figure 5 below when the sub-national Transport Company will receive the financing and will acquire fleets of buses via various operators.

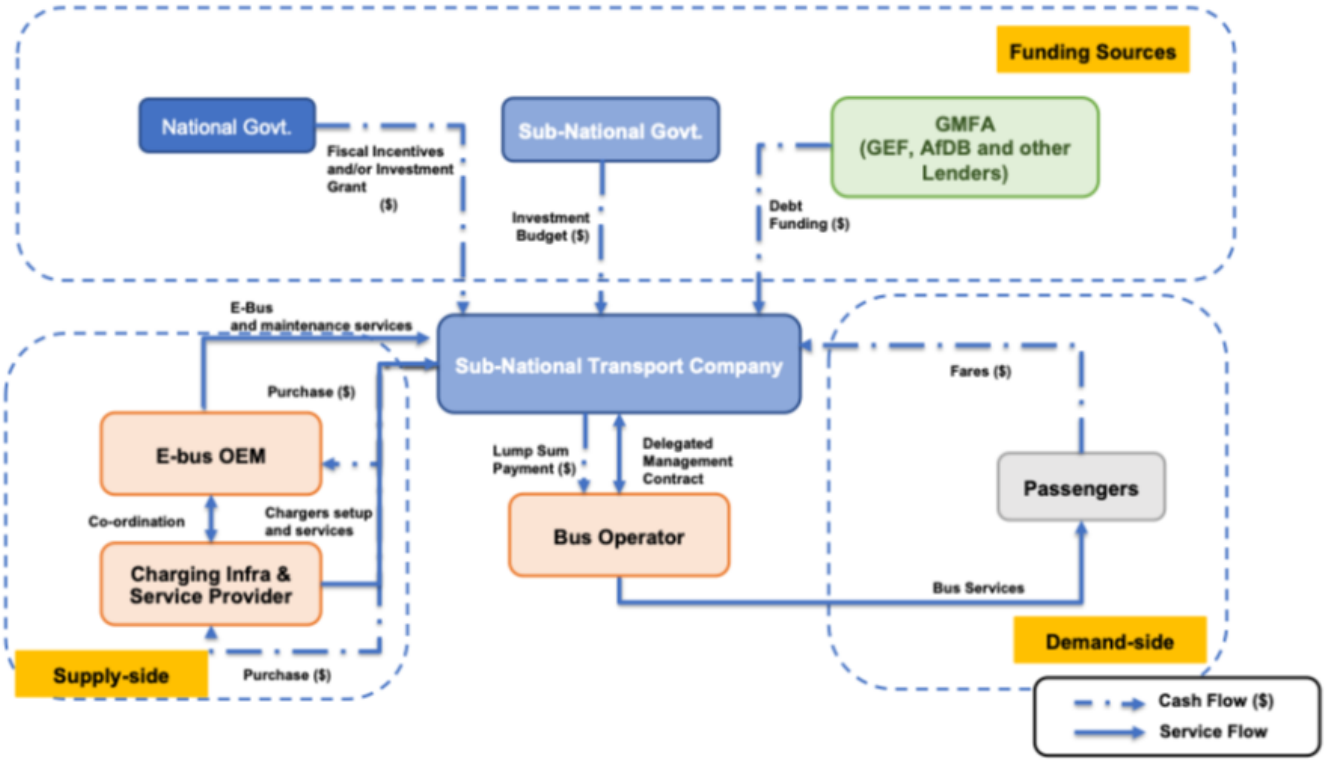


Figure 5: financing instrument through a sub-national transport company

E- 2-3 wheelers financing structure options

12. The diagram below shows models for e- 2-3 wheelers can also be financed through a financial intermediary with a senior debt as per figure below

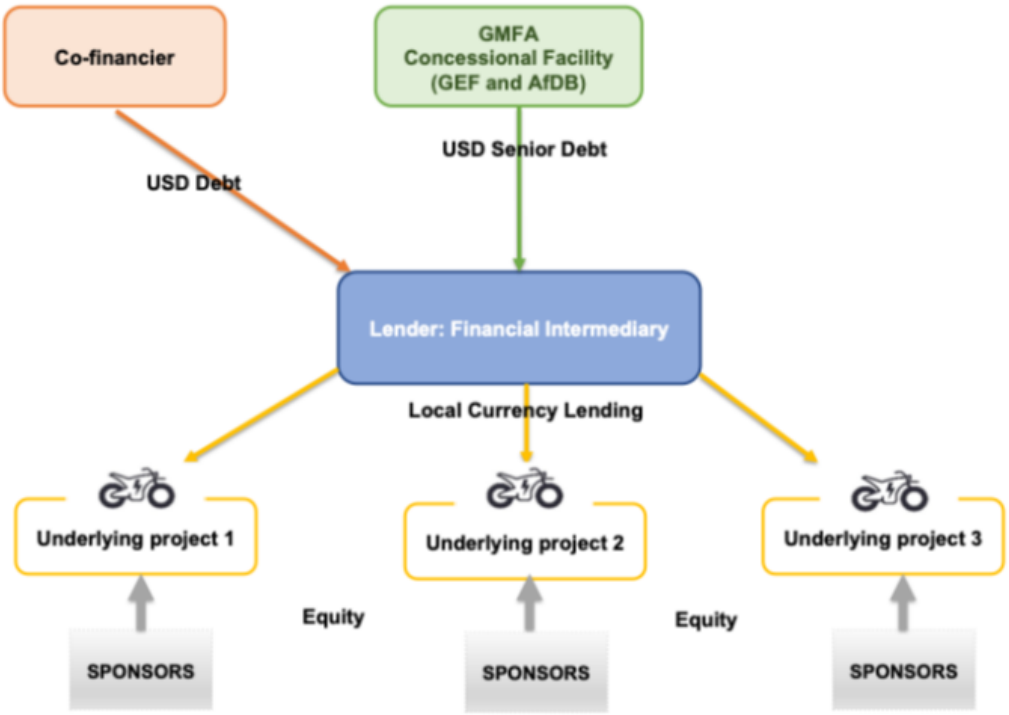


Figure 6: financing instrument through a Financial Intermediary

Key Risks

	Rating	Explanation of risk and mitigation measures
CONTEXT		
Climate	Low	● High impact climatic events (mainly storm surges and floods) disrupt pilot or other project activities, damages electric vehicles, destroys infrastructure, and affect overall project execution. Mitigation Measure: ● A full climate risk screening of each of the GMFA countries has been conducted to adopt adequate risk management measures, including through adjustment in project design.
Environmental and Social	High	● Environmental and Social risks relate to the failure to identify and assess potential impacts and implement and monitor plans and systems intended to avoid, minimize, and mitigate negative impacts. Not all underlying projects are known at inception. The beneficiaries may fail to comply with AfDB or GEF E&S requirements. Mitigation Measure: ● As an integral part of the Bank's due diligence process, potential GMFA beneficiaries, including EV companies and FIs, will be assessed based on their commitment and capacity to manage and/or improve their E&S management and performance. The ESS category of

		the projects will be confirmed based on the outcome of the E&S assessment. ● The Bank will ensure that required E&S instruments, including ESIAs/ESMPs/RAP in line with Bank's Integrated Safeguard System as well as benefiting countries E&S legislative requirements are developed prior to implementation and such reports will be received, reviewed, cleared, and disclosed by the Bank. ● The projects will also be required to obtain local ESIA approval and provide an ESMP plan to maintain compliance with AfDB, GEF and local E&S requirements prior to approval. E&S monitoring and reporting from the beneficiaries and intermediary FIs/Banks will be included as covenant to the financing agreements. The E&S category and measures will be presented ahead of concurrence.
Political and Governance	Moderate	● Leadership change can cause changes in priorities in the government priority in terms of advancing electric vehicle in the country. ● Governance fragility and political conflicts can impact country level activities. Mitigation Measure: ● Country selection with political commitment to promote electric mobility and a willingness to scale up activities. UNEP GEF 7/8 is laying the enabling the conditions to attract investment in those countries. each country's NDC has identified transport as a mitigation measure as well as country policy.
INNOVATION		
Institutional and Policy	Low	● Countries still have fuel subsidies in place which can hinder the adoption of EVs. Moreover, the countries still depend on fossil fuels for energy production. Mitigation Measure: ● A country diagnostic (as sub-activity from Component 1) has been undertaken and a workshop with the conclusion on the recommendations will be done in consortia with the local government of the GMFA countries. The policy or incentive developed in the country will be done only with validation of the government. ● Depending on the power generation mix of the country, solar panels will be used at the charging infrastructure to maximize GHG reduction impact.
Technological	Moderate	● Although e-mobility technologies have been around for quite some time around the world it is still new on the continent and there is a need to enhance the capacities of various actors in being able to fully adopt the technology Mitigation Measure: ● Support should be provided to enhance the capacities of the various relevant actors in the e-mobility space especially on the maintenance and operation side as well as end of life cycle.
Financial and Business Model	Moderate	● There are existing and proven business models for the adoption of e-mobility projects but the financing instrument available are inadequate to meet the higher capex linked with introducing e-mobility on the continent coupling the need to also provide clean energy to ensure lower emissions. Mitigation Measure: ● Provided blended finance and risk mitigation instrument to allow for an enhanced commercial viability of e-mobility, build financing intermediaries' confidence and understanding of business model in order to scale it up as technology cost goes down
EXECUTION		

Capacity	Low	● Inadequacy of the exit strategy and lack of ownership of the program after the end of the GMFA-led activities and inability to source resources to continue the program's activities in the medium/long term. Mitigation Measure: ● GMFA' s capacity building and technical assistance approach will ensure sustainability over the long term. ● In terms of project promoters, technical assistance elements will support project promoters to develop financial mechanisms and business models that can help overcome current market barriers. ● These financial mechanisms, among others, are long-term and will continue to operate on the market after the implementation of the program. ● Capacity building for promoters (output 3), will provide support for promoters to develop projects that can attract financing from different climate funding opportunities. It will further support the involvement of private sector promoters in low-carbon investments in the transport sector. This will ensure organizational strengthening and long-term capacity improvements, ultimately resulting in strengthened institutional structures to enable project promoters to continue to access green lending opportunities in the long term.
Fiduciary	Low	● Insufficient overall management of the projects Mitigation Measure: ● Roles and responsibilities of all parties involved are clearly delineated to avoid conflicts of interest and ensure accountability. ● Close monitoring is also to be carried out to ensure proper funds and project management.
Stakeholder	Low	● Lack of interest or participation from key market players/private sector. Mitigation Measure: ● Relevant market players were already consulted at the design stage of the GMFA. The Stakeholder consultation and the Engagement Plan confirms.
Other	Low	● The financial arrangements will depend on the type of vehicle/recipient. Each project will undergo AfDB's due diligence processes, with tailored instruments provided based on beneficiary capacity. Projects may access technical assistance grants from the T.A. window to enhance technical and financial viability. The GMFA will use a risk-sharing mechanism through co-financing with GEF resources to distribute risks. All projects will follow standard MDB scrutiny, including review by the Operational Committee and Credit Risk Committee, before approval.
Overall Risk Rating	Moderate	For the GMFA project, which is aimed at transformative urban mobility in six countries across Africa, various risks were evaluated across the following dimensions: • Context Risks: This includes factors like climate risks, environmental and social risks, and political and governance risks. The project specifically takes into account the diverse country contexts, including their renewable energy capabilities and existing automotive industries. Risks in this category have been partly mitigated through careful selection of countries with varied levels of renewable energy development and a mix of industrial contexts (e.g., Kenya's strong renewable energy production and South Africa's

		automotive industry). This mitigated the context risks to a manageable level. • Innovation Risks: As the GMFA relies on innovative solutions such as electric vehicles (EVs) and green public transport, the technological risks are significant. However, GEF actively promotes innovation and addresses risks related to technology and business models through strategic collaboration with UNEP and leveraging learnings from prior GEF-7 projects. This mitigation reduces innovation risks. • Execution Risks: These risks relate to institutional capacity, fiduciary management, and stakeholder engagement. The GMFA plans to work closely with local operators and leverage financial instruments like concessional loans, ensuring private sector engagement. GEF's established procedures, including environmental and social safeguard mechanisms, further help reduce these risks. Given the substantial efforts in risk mitigation across the above dimensions, the residual risks for GMFA are considered moderate. In addition, since the ESS category is the only risk that was rated high contextually (with the 9 other categories rated as moderate or low risk) , the overall risk rating for GMFA is estimated to be moderate.

C. ALIGNMENT WITH GEF-8 PROGRAMMING STRATEGIES AND COUNTRY/REGIONAL PRIORITIES

Describe how the proposed interventions are aligned with GEF- 8 programming strategies and country and regional priorities, including how these country strategies and plans relate to the multilateral environmental agreements.

Confirm if any country policies that might contradict with intended outcomes of the project have been identified, and how the project will address this.

For projects aiming to generate biodiversity benefits (regardless of what the source of the resources is - i.e., BD, CC or LD), please identify which of the 23 targets of the Kunming-Montreal Global Biodiversity Framework the project contributes to and explain how. (max. 500 words, approximately 1 page)

1. The Green Mobility Financing Facility for Africa (GMFA) aims to reduce greenhouse gas emissions by promoting electric vehicles (EVs) and sustainable transportation infrastructure, addressing the significant emissions from Africa's transportation sector. It advocates for renewable energy to power EVs and public transport, integrating these solutions into the sector. The GMFA contributes to the net zero emission through low-carbon transportation systems and infrastructure for EVs, typically more efficient than conventional vehicles. It fosters sustainable urban mobility by prioritizing public transportation, non-motorized transport, and integrated urban planning. Additionally, the GMFA supports low-carbon development pathways by providing financial and technical assistance to African countries, promoting sustainable and climate-resilient economic development.
2. The GMFA is aligned with Pillar I: of the Climate Change Focal Area to "Promote innovation, technology development and transfer, and enabling policies for mitigation options with systemic impacts" Objective 1 "Promote through the objective "CCM1-3 Scale up zero-emission mobility of people and goods". In particular, with the shift to EVs while focusing on enhancing efficiency of transport systems in the targeted countries, the creation of enabling environments through supportive policies and strengthening local capacities and the recognition of the need for integrating EV electricity demand with the electric grid and[1] ensuring that this demand is met with renewable energy sources, the GMFA aligns with the GEF-8 programming directions (paragraph 486).
3. Furthermore, GMFA aligns with GEF's advice to deliver activities that "will ensure approaches, decision-making and policies are inclusive, gender-responsive, and responsive to these differences, and aim to promote women's participation in decision-making processes and transport services" (paragraph 487) through its output 1(Policy and strategy are developed, and incentives are adopted

with gender responsive consideration) of its Component 1 (Formulation and establishment of enabling conditions).

4. Additionally, GMFA aligns with the NGI GEF-8 Global Program A 'Mobilizing Private Investment for Environmental Goals through the Blended Finance Global Program (Non-Grant Instruments)' as the facility aims to crowd-in private sector investment on 1 : 4 ratio co- financing in attracting PS through its Component 1, by creating an enabling environment, developing business models and supporting project preparation, enhancing capacity development and cultural acceptance for green mobility, and establishing coordination mechanisms and partnerships, and Component 2, by providing de-risking blended financial instruments using a combination of funding sources such as concessional senior loans.

5. Furthermore, the GMFA supports the updated Nationally Determined Contributions (NDCs) (shown in Table 8) of the six pilot countries by focusing on low-carbon transportation systems, aligning with national commitments to reduce emissions from the transport sector. By improving transportation infrastructure and promoting green mobility, the GMFA contributes to economic and social development goals, enhancing connectivity and economic opportunities while reducing travel times and ensuring gender-responsive measures. The facility assists countries in developing and implementing policies and regulatory frameworks that support green mobility.

Table 8 shows the updated NDCs related to green mobility.

Country	Updated NDC approach to Green mobility
Kenya[1] 24	• The country's updated NDC (2021) states the promotion and implementation of low carbon and efficient transportation systems as a priority mitigation activity. • The transport sector has an emission reduction potential 4.7% by 2030. In their updated NDC (2021), Kenya targets to abate GHG emissions by 32% by 2030 relative to the BAU scenario of 143 MtCO2eq; in line with their sustainable development agenda and national circumstances. • The transport sector directly accounts for about 13%. of Kenya's total greenhouse gas emissions in 2015, a number which is projected to rise to 17% of total national emissions by 2030. The transport sector will contribute to this objective by cutting emissions by at least 8% (minimum target). Low carbon and efficient transport systems is one of the priority mitigation activities. • Total estimated mitigation cost is USD 17,725 million between 2020 and 2030. Kenya commits to bear 21% (equivalent to USD 3,725 million) of the mitigation costs from domestic sources, while 79% (equivalent to USD 14,000 million) of this is subject to international support in the form of finance, investment, technology development and transfer, and capacity building.
Morocco [2]25	• The country's updated NDC (2021) states the promotion and implementation of low carbon and efficient transportation systems as a priority mitigation activity in their Plan Climat National 2030 (PCN30). Key sectors for mitigation have included transport and identified 7 actions for this sector. The aim for 2030 is to reduce energy consumption by sector; 17% for industry, 24.5% for transport, the rest is for the residential and service sector and for agriculture and sea fishing. • Key measures such as the Urban Public Transport Improvement Program: Provide large cities with high capacity means of public transport using renewable energies/ Set up an urban transport road support fund, capitalized to the tune of 200 million US dollars. • The total cost of the mitigation actions included in the NDC is estimated at USD 38.8 billion including USD 21.5 billion for contingent actions. The updated NDC presents an overall mitigation target of 45.5%

	(unconditional measures and conditions) by 2030 compared to the. It translates into absolute terms for 2030, by emissions of 77.5 Mt CO2eq if Morocco receives the necessary support to carry out all the proposed measures (unconditional and conditional).
Nigeria[3] 26	• In its updated NDC (2021), Nigeria has unconditionally pledged a 20% emissions reduction below Business. As Usual (BAU) by 2030, and a 47% conditional commitment which can be achieved with financial assistance, technology transfer and capacity building from the more advanced and more willing international partners. The estimated investment required over the implementation period (till 2030) to deliver the conditional target is estimated to be 177 billion USD. Over a period of 10 years, USD 122 billion will constitute the bulk of investments targeted at the electricity generation sector. Further significant investments are needed in energy efficiency, transport, agriculture, and oil and gas. • A range of measures in transport has been presented in the NDC such as 100,000 extra buses by 2030, BRT will account for 22,1% of passenger-km by 2035, 25% of trucks and buses using CNG by 2030, all vehicles meet EURO III emission limits by 2023 and EURO IV by 2030 amongst others.
Rwanda[4]27	• GHG emissions was 13% for the transport sector in 2015. The forecast indicates the growing contribution from fossil fuels to national emissions, arising from increasing demand for power generation, road transport and other modern energy uses. • Key measures on public transport Infrastructure bus rapid transit project and electric vehicles. The e-mobility programme plans for the phased adoption of electric buses, passenger vehicles (cars) and motorcycles from 2020 onwards, resulting in displaces conventional vehicle sales, transport fuel imports and associated GHG emissions. • Investment requirements identified for mitigation are estimated at 5,7 billion USD and 19% is for the transport sector. The proposed mitigation measures are improving Vehicle emission standards, public transport infrastructure, electric vehicles.
Senegal[5]28	• In Senegal's NDC, mitigation measures in the sector of energy includes transport. • The request in mitigation financing for the GHG is at 8,7 billion USD and this represents 1,6 billion USD for the transport sector. The priority action measures are the Multiplication of sustainable public transport (Bus Rapid Transit, Regional Express train and Promotion of hybrid cars).
South Africa[6] 29	• South Africa's updated mitigation targets for the period 2021-2025 will be an annual GHG emissions in a range from 398-510 Mt CO2-eq and 350-420 Mt CO2-eq for the period 2026-2030. • A range of green transport measures including electric and hybrid vehicles, mode shifting and the enhanced provision of safe and affordable public transport. All of these measures will be accompanied by just transition programmes to ensure that the costs of these measures to workers and communities are minimized and the benefits maximized. • The support required to reach its target is in the form of concessional finance for low carbon projects; debt restructuring; support by the international climate and development and finance community for non-fossil-fuel development in Mpumalanga and elsewhere, and infrastructure to support energy efficiency, transmission and green hydrogen in support of electric vehicles, and public transport.

1. Moreover, the GMFA directly supports the goals of the Paris Agreement by helping countries achieve their NDC targets related to the transport sector, facilitating the transition to electric and other low-emission vehicles. It also contributes to several Sustainable Development Goals (SDGs), including SDG 3 (Good Health and Wellbeing), SDG 7 (Affordable and Clean Energy), SDG 11 (Sustainable Cities and Communities), and SDG 13 (Climate Action).

2. However, the adoption of electric vehicles (EVs) in targeted countries such as Nigeria and Senegal face significant challenges due to existing fuel subsidies that make petrol cheaper, reducing the economic incentive for transitioning to electric mobility. Nigeria, which has historically subsidized fuel prices, is now [8] making efforts to remove these subsidies as part of its Energy Transition Plan, aiming for complete EV adoption by 2060 [9]. Similarly, Senegal has also decided to remove the fuel subsidies by 2025. This strategic shift will stimulate the electric mobility sector and promote sustainable transportation solutions. In contrast, South Africa, despite having limited fuel subsidies, has seen its fossil fuel subsidies triple from ZAR 39 billion (USD 2.9 billion) in 2018 to ZAR 118 billion (USD 7.5 [10] billion) in 2023, largely due to the country energy crisis linked to the global energy crisis and geopolitical events such as Russia's invasion of Ukraine. These subsidies primarily support oil and gas consumption, undermining the transition to cleaner energy sources and posing challenges to achieving climate targets. However, South Africa has committed to phasing out inefficient [11] fossil fuel subsidies through the Just Energy Transition plan to increase the use of renewable energy. The Just Energy Transition aims to accelerate the decarbonization of South Africa's economy, with a focus on the electricity system, to help it achieve the ambitious goals set out in its updated Nationally Determined Contribution emissions goals, through multiple solutions: (i) Risk Mitigation Independent Power[12] [13] Producer Procurement Program (2020)[14] , (ii) Renewable Energy Independent Power Producer Procurement Program (REI4P) , (iii) Wheeling Framework (2021) , (iv) Accelerating Coal Transition Investment Plan (2021) and so on. Moreover, the South African government are currently working on a Just Transport Transition to integrate EVs. Besides, the GMFA will contribute to reducing the imports of fossil fuels for public transport and support in the transition to low-carbon emission public transport in the targeted countries while encouraging the increased use of renewable energy through the addition of solar panels to charging infrastructure, thus ensuring that the project will contribute to a positive and significant GHG reduction impact.

[1] https://unfccc.int/sites/default/files/NDC/2022-06/Kenya%27s%20First%20%20NDC%20%28updated%20version%29.pdf
[2] https://unfccc.int/sites/default/files/NDC/2022-06/Moroccan%20updated%20NDC%202021%20_Fr.pdf
[3] https://climatechange.gov.ng/wp-content/uploads/2021/08/NDC_File-Amended-_11222.pdf
[4] https://unfccc.int/sites/default/files/NDC/2022-06/Rwanda_Updated_NDC_May_2020.pdf
[5] https://unfccc.int/sites/default/files/NDC/2022-06/CDNSenegal%20approuv%C3%A9e-pdf-.pdf
[6] https://unfccc.int/sites/default/files/NDC/2022-06/South%20Africa%20updated%20first%20NDC%20September%202021.pdf

D. POLICY REQUIREMENTS

Gender Equality and Women's Empowerment:

We confirm that gender dimensions relevant to the project have been addressed as per GEF Policy and are clearly articulated in the Project Description (Section B).

Yes

Stakeholder Engagement

We confirm that key stakeholders were consulted during PIF development as required per GEF policy, their relevant roles to project outcomes and plan to develop a Stakeholder Engagement Plan before CEO endorsement has been clearly articulated in the Project Description (Section B).

Yes

Were the following stakeholders consulted during project identification phase:

Indigenous Peoples and Local Communities:

Civil Society Organizations:

Private Sector: Yes

Provide a brief summary and list of names and dates of consultations

1. 1. AfDB has the mandate to develop a sustainable transport sector on the continent, through originating, designing, and implementing transport projects, supporting resource mobilization, and providing climate finance, as well as policy dialogue. GMFA is building from AfDB's extensive network and relationships in the sector, including mobility companies, financial institutions, sponsors and arrangers, industry organizations etc. – to identify potential projects in alignment with the facility. Furthermore, GMFA is expected to complement established efforts by the Bank in the sector.

2. Various relevant stakeholders, including private companies, Governments, and concerned local authorities, were identified and consulted at the design stage of the GMFA. A Market Assessment of each country has been developed. The Stakeholder Engagement Plan provides details on how AfDB has been engaged with each identified stakeholder during project design. Furthermore, it shows how each stakeholder contributes during the development and implementation phases of the project, including how GMFA will collaborate with them during implementation.

Government including relevant local authorities from the targeted countries

3. Under the GMFA, the governments and local authorities of the six targeted countries play crucial roles, especially in the Technical Assistance window, in ensuring the success and sustainability of the green mobility initiatives, as further detailed out in the Stakeholder Engagement Plan. Some of their responsibilities include:
   - Policy and Regulatory Frameworks: Developing and implementing supportive policies and regulations that promote green mobility solutions and ensuring that legal and institutional frameworks are conducive to the adoption of sustainable transport technologies and practices.
   - Planning and Strategizing Urban Mobility Development: Planning, constructing, and maintaining infrastructure that supports green mobility, such as electric vehicle charging stations, and integrating green mobility solutions into existing and future urban and regional transport planning.
   - Capacity Building and Training: Providing training and capacity-building programs for local authorities, transport operators, and other stakeholders and promoting awareness and education campaigns to encourage the adoption of green mobility among citizens (especially women) and businesses.

4. Additional and more specific details on relevant stakeholders at national level and their roles will be identified and mapped out at the time of project concurrence

Private Sector Engagement

5. Without private investment, developing low-carbon public transportation in Africa could be delayed, threatening environmental sustainability and the transport sector's long-term viability. The private sector has the capital and expertise to drive innovations and technologies that can place African economies on a low carbon, climate-resilient path. Countries like South Africa and Morocco have the potential to become leaders in manufacturing electric vehicles (EVs) vehicles.
6. Private sector investment also supports SMEs by creating demand for assembling or local suppliers of goods and services, such as batteries, charging stations, and maintenance services, thereby fostering business growth. Additionally, private investment promotes local sourcing, bolstering local businesses and economies, reducing transportation and logistics costs, and enhancing value chain efficiency and competitiveness.
7. The GMFA team is consulting with many private sponsor developers on the continent and outside the continent as well as financial intermediaries like international financial intermediaries, development nance institutions, regional banks, commercial banks to understand the commercial financing situation for developing the sector.
8. The GMFA has an indicative advanced pipeline of projects. The sponsors have approached the Bank for financing and preliminary discussions have been held over the design of this initiative and understand the requirements. The table above pipeline presents a total of 15 Electric vehicles projects in the 6 targeted countries, approximately 40% e- 2-3 wheelers, 60% e-buses projects:
9. The Role of Private Sector Financing Partners in Scaling the GMFA Initiative

- **Blended Finance Opportunities**: In the GMFA project, blended finance instruments can be employed to attract investment from private banks, development finance institutions (DFIs), and impact investors who are looking to support green mobility solutions like electric vehicles (EVs) and charging infrastructure.
- **Partnership with International Financial Institutions (IFIs):** IFIs such as the African Development Bank (AfDB), which is already involved in the GMFA initiative, can facilitate co-financing and provide credit guarantees, thus reducing the perceived risk for commercial banks and private investors. The role of IFIs also involves offering financial products tailored to support projects that align with environmental sustainability goals, particularly for capital-intensive infrastructure like e-bus fleets and charging stations.
- **Private Sector as Catalysts for Market Transformation**: For instance, vehicle manufacturers and energy companies could contribute through strategic investments, providing capital and expertise to scale production, infrastructure, and distribution networks for EVs. This would reduce the reliance on public sector funding and enhance project sustainability and transform the market.
- **Engagement of Local Commercial Banks**: To extend financing to small and medium enterprises (SMEs) involved in e-bus manufacturing or operating charging stations or e- 2-3 wheelers, local financial institutions can play a critical role in providing tailored financial products. This ensures that financing options reach smaller actors in the value chain who are pivotal to the overall success of the GMFA initiative.

10. The role of the private sector financing partners involves providing co-financing, investment in innovative solutions, and ensuring the financial sustainability of the project, aligned with GEF's vision of transformative market change.

International donors in the country

11. Discussing with the donors in each country financing initiative, a list of the consulted projects on the ground is developed in the Coordination section.

12. The approach explained will be followed in every country- specific project supported under this Facility and, at the stage of concurrence,

(Please upload to the portal documents tab any stakeholder engagement plan or assessments that have been done during the PIF development phase.)

Private Sector

Will there be private sector engagement in the project?

Yes

And if so, has its role been described and justified in the section B project description?

Environmental and Social Safeguard (ESS) Risks

We confirm that we have provided indicative information regarding Environmental and Social risks associated with the proposed project or program and any measures to address such risks and impacts (this information should be presented in Annex D).

Yes

Overall Project/Program Risk Classification

PIF	CEO Endorsement/Approval	MTR	TE
High or Substantial			

E. OTHER REQUIREMENTS

Knowledge management

We confirm that an approach to Knowledge Management and Learning has been clearly described in the Project Description (Section B)

Yes

ANNEX A: FINANCING TABLES

GEF Financing Table

Indicative Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	Grant / Non-Grant	GEF Project Grant($)	Agency Fee($)	Total GEF Financing ($)
AfDB	GET	Regional	Climate Change	NGI	Non-Grant	13,461,468.00	1,211,532.00	14,673,000.00
Total GEF Resources ($)						**13,461,468.00**	**1,211,532.00**	**14,673,000.00**

Project Preparation Grant (PPG)

Is Project Preparation Grant requested?

true

PPG Amount ($)

300000

PPG Agency Fee ($)

27000

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	Grant / Non-Grant	PPG($)	Agency Fee($)	Total PPG Funding($)
AfDB	GET	Regional	Climate Change	NGI	Non-Grant	300,000.00	27,000.00	327,000.00
Total PPG Amount ($)						**300,000.00**	**27,000.00**	**327,000.00**

Please provide justification

Sources of Funds for Country Star Allocation

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Sources of Funds	Total($)
Total GEF Resources					**0.00**

Indicative Focal Area Elements

Programming Directions	Trust Fund	GEF Project Financing($)	Co-financing($)
CCM-1-3	GET	13,461,468.00	547450000
Total Project Cost		**13,461,468.00**	**547,450,000.00**

Indicative Co-financing

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
GEF Agency	African Development Bank (SEFA)	Grant	Investment mobilized	1000000
GEF Agency	African Development Bank (JICA-FAPA)	Grant	Investment mobilized	1000000

Others	KOAFEC	Grant	Investment mobilized	450000
GEF Agency	African Development Bank	Loans	Investment mobilized	169000000
Private Sector	Private Sector (Sponsors)	Equity	Investment mobilized	136000000
Others	Public and Private Sector	Loans	Investment mobilized	240000000
Total Co-financing				**547,450,000.00**

Describe how any "Investment Mobilized" was identified

The anchor financier and host for the GMFA is the African Development Bank. AfDB will cofinance through its ordinary resources up to USD 171,5 million comprised of senior debt or other instruments as required by the project. The Sustainable Energy Fund for Africa (SEFA) has already committed resources to foster the GMFA Technical Assistance Window through a USD 1 million grant from SEFA. This funding supports the enabling environment, the capacity building and the project preparation to drive the GMFAThe Government of Korea is partnering with the GMFA and has already contributed USD 450,000 through Korea-Africa Economic Cooperation (KOAFEC) for the development of the proposal, indicating an ongoing commitment and laying the groundwork for further investment in green mobility initiatives. The Japan International Cooperation Agency (JICA), through the Fund for African Private Sector Assistance (FAPA), is providing a grant of USD 1 million, laying the foundation for the commencement of activities under the green mobility initiative for the enabling environment and project preparation. An indicative amount from other lenders amounted to USD 240 million (from MDBs, FIs, private lenders, other climate funds, etc…) and expected to have USD 136 million as equity from project developers. These are not inputted in the table as they will be defined in each underlying projects and submit for concurrence mechanism.

ANNEX B: ENDORSEMENTS

GEF Agency(ies) Certification

GEF Agency Type	Name	Date	Project Contact Person	Phone	Email
GEF Agency Coordinator	Ayanleh Daher Aden	9/3/2024	Mohamed Sokona		a.daheraden@afdb.org

Record of Endorsement of GEF Operational Focal Point (s) on Behalf of the Government(s):

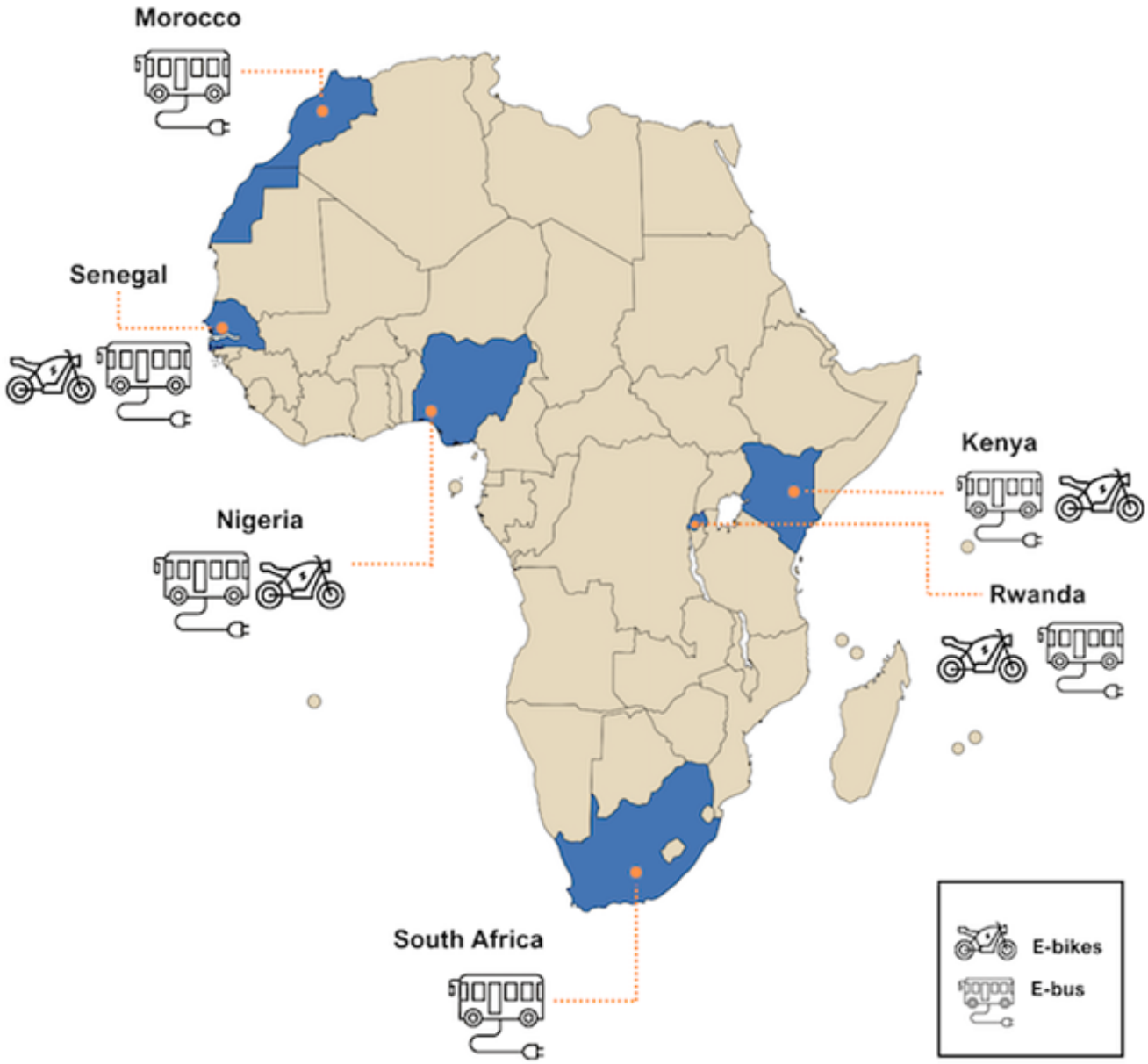
Name	Position	Ministry	Date (MM/DD/YYYY)

NGIs do not require a Letter of Endorsement if beneficiaries are: i) exclusively private sector actors, or ii) public sector entities in more than one country. However, for NGI projects please confirm that the agency has informed the OFP of the project to be submitted for Council Approval

Yes

ANNEX C: PROJECT LOCATION

Please provide geo-referenced information and map where the project interventions will take place



ANNEX D: ENVIRONMENTAL AND SOCIAL SAFEGUARDS SCREEN AND RATING

(PIF level) Attach agency safeguard screen form including rating of risk types and overall risk rating.

Title
Annex D- GMFA Gender Assessment

GEF efficiency GMFA GHG calculations Ebus and Electric 2 wheelers

Annex - GMFA Stakeholder Engagement GEF (1)

ANNEX D_ ENVIRONMENTAL AND SOCIAL SAFEGUARDS SCREEN AND RATING

ANNEX E: RIO MARKERS

Climate Change Mitigation	Climate Change Adaptation	Biodiversity	Land Degradation
Principal Objective 2	No Contribution 0	No Contribution 0	No Contribution 0

ANNEX F: TAXONOMY WORKSHEET

Pollution, Focal Areas, Climate Change, Least Developed Countries, Climate Change Adaptation, Climate finance, Private sector, Innovation, Climate Change Mitigation, Technology Transfer, Renewable Energy, Financing, Energy Efficiency, Knowledge Generation, Capacity, Deploy innovative financial instruments, Demonstrate innovative approaches, Convene multi-stakeholder alliances, Stakeholders, Type of Engagement, Partnership, Communications, Awareness Raising, Behaviour change, Private Sector, Capital providers, Individuals/Entrepreneurs, Project Reflow, Gender Equality, Gender Mainstreaming, Gender-sensitive indicators, Beneficiaries, Emissions.

ANNEX G: NGI RELEVANT ANNEXES

Please use the most up to date templates per the most recent call for proposals.

Annex G.1: Template for Indicative Financial Termsheet

Instructions. This termsheet to be submitted with the PIF/PFD should include sufficient details to allow a financial expert to understand and judge the financial viability of the proposed investments. Indicative terms and conditions should be used when specific details are not yet available. An equivalent termsheet used for internal Agency purposes is acceptable but must include sections on Currency Risk, Co-financing Ratio and Financial Additionality.

Project/Program title	Green Mobility Financing Facility for Africa
Project/Program number	11671
Project/Program Objective	The project's specific objectives are to: (i) unlock private investment in the green mobility sector through concessional blended finance mechanism, (ii) establish a green mobility industry in the six GMFA target countries to promote the transition to cleaner public transport options, , (ii) develop sustainable business models to strengthen capacity for commercially viable green mobility projects, and (iii) provide project preparation assistance to facilitate the development of bankable green mobility initiatives.

Country(ies)	Africa Region *(Kenya, Morocco, Nigeria, Rwanda, Senegal and South Africa)*
Selection Criteria	1. The investment will lead to emission reduction of GHG 2. Demonstrable developmental impact through activities focused on improving green mobility public transport, green mobility industry, GHG reduction 3. Environmental and Social Assessments (e.g., ESIA, ESMP, RAP) aligned with national, AfDB and MDB (Multilateral Development Banks) requirements 4. Compliance with national and AfDB's E&S requirements 5. Gender and climate change mainstreaming in operations 6. Compliance with AfDB policies and procedures 7. Minimum total investment cost is USD 30m, where AfDB participation not exceeding 30% of project costs 8. GEF maximum contribution USD 5m
Agency presenting the Project	African Development Bank (AfDB)
Project Financing	GMFA is expected to finance up to 15 projects for a total investment costs USD 559m. GEF is expected to participate to up to 5 projects. A. AfDB: up to USD 169,000,000 (debt) B. GEF non-grant : USD 12,461,468 (concessional debt) C. GEF grant : USD 1,000,000 (grant for technical assistance) D. SEFA grant: USD 1,000,000 (grants for technical assistance) E. FAPA grant: USD 1,000,000 (grant for technical assistance) F. KOAFEC grant : USD 450,000 (grant for technical assistance) G. Other lenders : USD 240,000,000* (debt, guarantees) H. Project developers : USD 136,000,000* (equity) Total Project Financing (A+B+C+D+E+F) : USD 184,911,468 Indicative Total Project Financing (A+B+C+D+E+F+G): USD 560,911,000*
Currency of the Financing	USD and/or EUR
Currency risk	• Limited currency risk given that loans will be provided in currencies which the Bank holds liquidity for. • The risk relies on the inability of the borrowers to secure foreign currency to pay back their debt. The Bank will apply same conditions on GEF portion as per Bank internal rules and procedures.
Co-financing ratio	**GEF leverage ratios:** GEF with AfDB 1:12 GEF with private sector 1:14 GEF with all lenders 1:37

Financial additionality and minimum concessionality of GEF resources	Financial additionality: The GEF's concessional funding is essential for mitigating the high-risk nature of early-stage green mobility investments, which AfDB loans alone cannot fully address. It reduces financial risks and attracts private sector involvement by covering incremental costs that generate global environmental benefits, including reduced GHG emissions and enhanced sustainability frameworks. By leveraging GEF's concessional finance, the project mobilizes additional public and private co-financing, ensuring that the total financial resources align with the ambitious objectives of the GMFA. Minimum concessionality: The Bank is committed to apply OECD Principles for blended finance on every project that benefits from concessional financing, including GEF cofinanced projects. This is to ensure additionality from the use of concessional funding, crowding in, minimum concessionality, sustainability and creation of new markets for e-mobility. The Bank will ensure that the level of concessionality applicable is the absolute minimum and set as per the needs of each individual project. The Bank aims to align the interest rate applicable as close as possible to its commercial rate to maximize the benefit for the private sector while ensuring there is no over subsidy to individual projects.
Use of proceeds	The proceeds of the Concessional loan will be used to blend with the AfDB finance to unlocks other co-financiers with the aim to finance e-buses and e-2-3 wheelers projects.
Financing Instruments requested from the GEFTF (other than grants)	USD 12,461,468 Concessional debt[1]30
Financing instruments requested from the GEF TF in the form of Grant for Technical Assistance	USD 1,000,000 Grant
Terms and conditions for the financing instruments from GEF	• Type of instrument: concessional debt • Interest rate: GEF pricing floor 100bps per annual • GMFA aim for the interest rate to be as close as possible to Bank commercial rate. The floor rate of 100 bps is to give flexibility to projects that may require a higher level of concessionality to make them bankable and to attract other private investors such as commercial banks as per the blended finance principles. • GEF participation not exceeding USD 5m per investment

	• AfDB will cofinance projects with a ratio of a minimum of 1:1 with GEF resources. • GEF + AfDB participation in a project will not exceed 60% of total project costs. • Maturity Date: 15 years from the date of financial closure • Pari passu to Bank financing for own account

1. Are there any eligibility/selection criteria for the projects that will benefit from concessional financing? If yes, please explain here. If not, please indicate that and why.

2. How will you ensure an adequate number of projects (relevant, eligible) for the facility to effectively disburse and generate the need reflows? Please explain

[DAA3]Please include also briefly indicate how other investments from co- financiers (especially the private sector) have been/will be raised for the facility. In addition, please brie y indicate if the concessional nancing will be deployed according to the needs of the borrowers/investees, in compliance with GMFA eligibility criteria (if there are any) and at what life-cycle stage (i.e., will it be pre-seed, early, early-growth, growth, and/or maturity?) for the borrowers/investees.

[1] That could be changed to a guarantee instrument during concurrence approval by the CEO for each individual project

Annex G.2: Reflows table

Instructions. Any financial returns, gains, interest or other earnings and remaining principal will be transferred to the GEF Trust Fund as noted in the Guidelines on the Project and Program Cycle Policy. and the GEF Non-Grant Instrument Policy.

1. Interest Rate Range: Based on the proposal of floor rate 1%, the proposed scenarios assume the application of the maximum concessionality (which will not be the case given blended finance principle and minimum concessionality principle) the lowest range of 1% interest rate and a highest range of 5% which will assume to be closer the Bank's commercial interest rate applicable on these projects. Thus, this will give an estimated indication of the bracket of the expected return given that the applicable interest rate will be defined on a case by case at project approval level.

2. Tenor Range: We used the maximum tenor applicable for NSO project at the Bank. However, we took in consideration that some projects have a lower tenor to up to 8 years. Hence, to provide a better estimated return as per tenor variation. The exact tenor will be defined at concurrence for approval.

    1. **BEST CASE SCENARIO:** in all participating countries 100% concessional loan interest repaid

BEST CASE SCENARIO	
Item	Data
GEF project Number	11671
Estimated Agency Board approval date	Q2 2025
Investment type description (financial product: debt, equity, guarantee, other)	Debt instrument for investment and grant technical assistance
Expected date for start investment	Q4 2025
Amount of investment (USD GEF funds)	Non-Grant : USD 12,461,468 Grant : USD 1,000,000
Maturity (indicate the grace period if needed)	Up to 15 years including grace period (grace will be determined at concurrence)
First repayment date	2028
Final repayment date	2044[1]31
Repayment method description	As per the reflow received from projects
Frequency of reflow payments	annually
A.Total principal amount to be paid-reflowed to the GEF Trust Fund (Please provide actual amount with assumption of exchange rate if applicable) in whole USD.	USD 12,461,468 (no default)
B.Total interest/earnings/premiums amount to be paid-reflowed to the GEF Trust Fund (Please provide actual amount with assumption of exchange rate if applicable) in whole USD.	USD 1,020,055 (1% fixed interest rate applicable - 15 years) USD 5,547,027 (5% fixed interest rate - 15 years) USD 567,275 (1% interest rate - 8 years) USD 2,963,019 (5% fixed interest – 8 years)
Total reflows to the GEF Trust Fund (Sum A + B) in whole USD	USD 13,481,523 (1% fixed interest rate applicable - 15 years) USD 18,008,495 (5% fixed interest rate - 15 years) USD 13,028,743 (1% interest rate - 8 years) USD 15,424,487 (5% fixed interest – 8 years)

2. **WORST CASE SECENARIO**: (default rate 6% which is equivalent to more than twice the Non-Performing Loans (NPL) ratio of the Bank which stood at 2.9% in 2023)

WORST CASE SCENARIO	
Item	Data

GEF project Number	11671
Estimated Agency Board approval date	Q2 2025
Investment type description (financial product: debt, equity, guarantee, other)	Debt instrument for investment and a grant technical assistance
Expected date for start investment	Q4 2025
Amount of investment (USD GEF funds)	Non-Grant: USD 12,461,468 Grant : USD 1,000,000
Maturity (indicate the grace period if needed)	Up to 15 years including grace period (grace will be determined at concurrence)
First repayment date	2028
Final repayment date	2044[2]
Repayment method description	As per the reflow received from projects
Frequency of reflow payments	annually
A.Total principal amount to be paid-reflowed to the GEF Trust Fund (Please provide actual amount with assumption of exchange rate if applicable) in whole USD.	USD 11,713,780 (default rate 6% which is equivalent to more than twice the Non Performing Loans (NPL) ratio of the Bank which stood at 2.9% in 2023)
B.Total interest/earnings/premiums amount to be paid-reflowed to the GEF Trust Fund (Please provide actual amount with assumption of exchange rate if applicable) in whole USD.	USD 958,851 (1% fixed interest rate applicable - 15 years) USD 5,214,205 (5% fixed interest rate - 15 years) USD 533,239 (1% interest rate - 8 years) USD 2,785,238 (5% fixed interest – 8 years)
Total reflows to the GEF Trust Fund (Sum A + B) in whole USD	USD 12,672,631 (1% fixed interest rate applicable - 15 years) USD 16,927,985 (5% fixed interest rate - 15 years) USD 12,247,019 (1% interest rate - 8 years) USD 14,499,018 (5% fixed interest – 8 years)

3. **MIDDLE CASE SECENARIO:** in all participating countries default rate 3% which is equivalent to the current NPL ratio of the Bank standing at 2.9% for 2023

MIDDLE CASE SCENARIO	
Item	Data
GEF project Number	11671
Estimated Agency Board approval date	Q2 2025
Investment type description (financial product: debt, equity, guarantee, other)	Debt instrument for investment and a grant technical assistance
Expected date for start investment	Q4 2025
Amount of investment (USD GEF funds)	Non-Grant: USD 12,461,468 Grant : USD 1,000,000
Maturity (indicate the grace period if needed)	Up to 15 years including grace period (grace will be determined at concurrence)
First repayment date	2028
Final repayment date	2044[2]

Repayment method description	As per the reflow received from projects
Frequency of reflow payments	annually
A.Total principal amount to be paid-reflowed to the GEF Trust Fund (Please provide actual amount with assumption of exchange rate if applicable) in whole USD.	USD 12,087,624 (default rate 3% which is equivalent to the current NPL ratio of the Bank standing at 2.9% for 2023)
B.Total interest/earnings/premiums amount to be paid-reflowed to the GEF Trust Fund (Please provide actual amount with assumption of exchange rate if applicable) in whole USD.	USD 989,453 (1% fixed interest rate applicable - 15 years) USD 5,380,616 (5% fixed interest rate - 15 years) USD 550,257 (1% interest rate - 8 years) USD 2,874,129 (5% fixed interest – 8 years)
Total reflows to the GEF Trust Fund (Sum A + B) in whole USD	USD 13,077,077 (1% fixed interest rate applicable - 15 years) USD 17,468,240 (5% fixed interest rate - 15 years) USD 12,637,881 (1% interest rate - 8 years) USD 14,961,753 (5% fixed interest – 8 years)

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Annex G.3: GEF Agency Eligibility to Administer Concessional Finance

The GEF Agency submitting the PIF or PFD will demonstrate its capacity and eligibility to administer NGI resources as noted in the NGI Policy, summarized below:

A) Ability to Accept Financial Returns and Transfer from the GEF Agency to the GEF Trust Fund

1. The African Development Bank (AfDB) Group, as a multilateral development finance institution, is dedicated to advancing the social and economic well-being of its regional member countries. Leveraging its AAA rating, the AfDB raises capital in international markets and on-lends to borrower countries at favorable terms. The Bank offers a diverse range of financial products, including loans, guarantees, equity, quasi-equity, and risk management products, tailored to meet the specific needs of its borrowers.
2. In 2023, the Bank Group's financial performance remained strong, maintaining its triple-A rating with a stable outlook from global rating agencies. Revenue from the African Development Bank (ADB) increased, respecting the Bank's robust lending activities and investment returns. The financial procedures agreement between the AfDB, the African Development Fund, and the International Bank for Reconstruction and Development as Trustee of the Global Environment Facility Trust Fund (dated June 30, 2010, and amended on June 19, 2017) outlines the Bank's commitment to return reflows to the GEF Trust Fund. As per Section 7.1 of the agreement, any reflows generated by GEF Trust Fund-financed projects will be credited to the appropriate sub-account and returned to the GEF Trust Fund upon the Trustee's request.
3. This project will be implemented with limited delegation of investment authority to the implementing agency as described in the GEF Blended Finance Global Program and Non-Grant instrument policy update GEF/C.63/12.

B) Ability to Monitor Compliance with Non-Grant Instrument Repayment Terms

4. The Financial Control Department of the AfDB is responsible for managing the financial implications of the Bank's transactions and ensuring the integrity of internal financial reports and published financial statements. This department also oversees loan administration, accounting, and fiduciary responsibilities related to disbursements for projects and programs financed by the Bank Group, ensuring effective monitoring of compliance with repayment terms for non-grant instruments.

C) Capacity to Track Financial Returns (Semester Billing and Receiving) Across Trust Funds

5. The AfDB Group maintains a robust fiduciary control framework for both its lending and non-lending operations. The Bank ensures that separate records and ledger accounts are maintained for the administration of GEF funds, allowing for precise tracking of financial returns across trust fund transactions, in addition to its normal lending operations.

D) Commitment to Transfer Reflows Twice a Year to the GEF Trust Fund

6. In accordance with Section 12.2(e) of the financial procedures agreement, the AfDB reports the dates and amounts of reflows received from GEF projects within 30 days after the end of each quarter of the GEF fiscal year (or as otherwise agreed with the Trustee). This process underpins the Bank's commitment to transferring reflows to the GEF Trust Fund twice a year, ensuring consistent and timely reporting.

E) Track-Record of Repaid Principal and Financial Returns from Private Sector Beneficiaries

7. The AfDB has a well-established track record in administering non-grant instrument (NGI) investments from the GEF, as evidenced by several active projects. These include:

- Moringa Agro-forestry Fund for Africa (non-grant) (ID 9051): $12,000,000
- AfDB-PPP Public-Private Partnership Program (ID 4929): $20,000,000, divided into:
    - o African Renewable Energy Fund (AREF), Junior Equity: $4,500,000
    - Egypt Shapoorji Solar PV 50MW, Senior Loan: $7,000,000
    - Off-Grid Fund (FEI OGEF), Equity: $8,500,000
- Investing in Renewable Energy Project Preparation under the Fund for Energy Inclusion (FEI) (ID 9043):$10,000,000
- COVID-19 Off-Grid Recovery Platform (CRP): $13,000,000 Unsecured Concessional Loan from the GEF-7 Non-Grant Instrument window, aimed at supporting energy access businesses during the pandemic and facilitating a green recovery in Africa.

These projects highlight the AfDB's capability to manage and recover investments from private sector beneficiaries, reinforcing its position as a reliable partner in executing and overseeing NGI investments.

F) Track-Record of Lending or Financing Arrangements with Public Sector Recipients

8. Since its establishment in 1964, the AfDB Group has consistently supported the socioeconomic development of its regional member countries through both lending and non-lending operations. In FY 2023, the AfDB Group committed over $7.7 billion to operations led by public sector recipients, demonstrating its extensive experience and ongoing commitment to financing arrangements with public sector entities.

Annex G.4: Management Capacity of Executing Agency and Governance Structure

For projects requesting equity instrument, structured finance, or SPVs please provide following information

1. The Bank has established several trust and special funds with partner donors' funds. These funds aim to provide concessional blended nance solutions as co-financing to Bank projects with the aim to derisk investments and improve the financial sustainability of projects. The Bank is entrusted with the funds by donors and Bank rules and procedures applies, including Bank approval processes. The Bank ensures the duty of care in the use of third-party concessional nance by implementing the blended nance

principles. Additionally, the Bank is a trusted agency for several external funds and partner donors including GEF, GCF, CIF and EU.