

Environmental and Social Review Summary

Senegal Cross Currency Swap II

This Environmental and Social Review Summary (ESRS) is prepared by MIGA staff and disclosed prior to the date on which MIGA's Board of Directors considers the proposed issuance of a Contract of Guarantee. Its purpose is to enhance the transparency of MIGA's activities. This document should not be construed as presuming the outcome of the decision by MIGA's Board of Directors. Board dates are estimates only.

Any documentation that is attached to this ESRS has been prepared by the project sponsor, and authorization has been given for public release. MIGA has reviewed the attached documentation as provided by the applicant, and considers it of adequate quality to be released to the public, but does not endorse the content.

Country:	Senegal
Sector:	Capital Markets/Infrastructure
Project Enterprise:	Agence des Travaux et de Gestion des Routes (AGEROUTE)
Environmental Category:	A
Date ESRS Disclosed:	October 27, 2014
Status:	Due Diligence

A. Project Description

The project involves MIGA providing a Non-Honoring of Sovereign Financial Obligations (“NHSFO”) guarantee to cover a proposed EUR/USD Cross-Currency Swap (“Swap”) with the Government of Senegal (“GoS”). The Swap will act as a hedge against currency risk exposure related to a US\$500 million Senegal Eurobond (“Eurobond”) issuance. Net proceeds of the Eurobond in the amount of approximately US\$300 million will be used to finance two road investment sub-projects under the GoS Emerging Senegal Plan: (i) rehabilitation and widening of the Niayes de Pikine road (“Niayes Road”) and (ii) construction of lots 2 and 3 of the AIBD-Mbour-Thies road. Construction and operation and maintenance of both sub-projects will be managed by AGEROUTE. The project follows a prior swap agreement that MIGA provided a NHSFO guarantee in 2008 with net proceeds of that prior bond used to finance construction of a portion of the Dakar-Diamniadio Toll Road (“DDTR”) to the new Dakar International Airport Blaise Diagne (“AIBD”).

Niayes Road. Sub-project is an existing road that connects traffic in and between remote areas and the suburbs of Dakar (Pikine, Thiaroye, Yeumbeul, Malika, and Keur Massar). The Niayes project includes 65 km of an urban roads network including the main Niayes Road (23 km) and 42 km of connecting roads (Rond Point Liberté VI – Pont du Stade de l’Amitié; Pont du Stade de l’Amitié – Rond Point Cambéréne; Rond Point Cambéréne – Carrefour Rue 10 a Pikine; Carrefour Rue 10 a Pikine – Poste Thiaroye (bretelle); Croisement Tally Diallo – Yeumbeul-Keur Massar). The project will rehabilitate and widen the road to the extent of the existing right of way to establish 2x2 lanes of 7 meters, a median of varying widths, and at least 3 meters for sidewalks to allow for pedestrian traffic.

AIBD-Mbour-Thies Road. Sub-project will construct 36km of new 2x2 roads to serve as a transport link between the AIBD and the two main cities of Mbour (southeast of AIBD) and Thies (northeast of AIBD), as well as 7km of new road network around the AIBD and the planned Dakar Integrated Special Economic Zone (“DISEZ”). This sub-project is being constructed in three lots. Lot 1, which has already been constructed, is a 19 km 2x2 road which connects an interchange in Thiambokh, directly adjacent to the AIBD to the east, with Somone to the south. Lot 2, which completes the southern section of the road to connect the AIBD with Mbour, connects Somone at the terminus of Lot 1 with Mbour. Lot 2 straddles the towns of Ngekhokh and Malicound and includes construction of 20km 2x2 road, 2 overpasses, 9 platform bridges, 1 underground passageway, and drainage ditches. Lot 3, a significant portion of which passes through the Thies Forest Reserve, connects the AIBD with Thies and includes construction of 16km 2x2 road, 1 overpass, 7 platform bridges, a roundabout, and drainage ditches, as well as 7km of road network connecting the AIBD and DISEZ to the sub-project and the DDTR.

B. Environmental and Social Categorization

The project is Category A under MIGA’s Policy on Social and Environmental Sustainability because of irreversible significant adverse impacts such as permanent loss of natural habitat in a forest reserve, physical and economic displacement, as well as risks and impacts resulting from construction-related pollution (air emissions, noise, runoff and erosion) and community health and safety (fugitive dust, noise, traffic and pedestrian safety) and occupational health and safety. These risks and impacts are expected to be avoided, reduced or managed in compliance with local legal and regulatory requirements, applicable Performance Standards and World Bank Group (“WBG”) General and Industry Sector Environmental, Health and Safety (“EHS”) Guidelines for Toll Roads, and the Environmental and Social Action Plan (“ESAP”).

C. Applicable Standards

While all Performance Standards are applicable to this investment, based on our current information indicates that the investment will have impacts which must be managed in a manner consistent with the following Performance Standards:

- PS1: Assessment and Management of Environmental and Social Risks and Impacts
- PS2: Labor and Working Conditions
- PS3: Resource Efficiency and Pollution Prevention
- PS4: Community Health, Safety and Security
- PS5: Land Acquisition and Involuntary Resettlement
- PS6: Biodiversity Conservation and Sustainable Management of Living Natural Resource

PS7: Indigenous Peoples is not applicable to this project as no indigenous people, as defined in PS7, have been identified within the project area of influence. PS8: Cultural Heritage is not applicable; however a chance finds procedure, will be required as part of the overall social and environmental management system for the project and implemented by the Contractor(s).

In addition, the following WBG Environmental, Health, and Safety (EHS) Guidelines are applicable to this project:

- WBG General EHS Guidelines
- WBG Industry Sector EHS Guidelines for Toll Roads

D. Key Documents and Scope of MIGA Review

MIGA's environmental and social due diligence included review of the following documents:

- *Note Complémentaire sur le Fonctionnement de l'AGEROUTE – AGEROUTE – dated June 2014*

Niayes Road

- *Etudes Techniques d'exécution et élaboration du DAO - Travaux d'élargissement de la Route des Niayes De Pikine (Tronçon : Rondpoint Liberté Vi – Pont Amitié Tronçon : Rondpoint Cambéréne – Carrefour Rue 10) – Rapport d'étude d'impact environnementale et socio-économique – dated December 2006*
- *Route des Niayes Rapport Rentabilité Economique – dated December 2006*
- *Fiche de projet pour les travaux élargissement de la route des Niayes y/c les voiries urbaines de connexion – dated July 2014*
- *Travaux d'élargissement et d'aménagement de la Route Des Niayes - Rapport Hydrologique Et Hydraulique – dated August 2011*
- *Travaux d'aménagement de la Route Des Niayes - Cahier de Clauses Techniques Particulières - Ouvrages D'art – dated December 2006*
- *Projet d'élargissement et d'aménagement de la Route des Niayes dans la région de Dakar – Du giratoire de Liberté 6 à Keur Massar - Rapport Provisoire Plan d'actions de Réinstallation – dated October 2014*

AIBD-Mbour-Thies Road

- *Etude d'Impact Environnemental et Social – Final Report – Prolongement De L'autoroute Diamniadio-Thies-Diass-Mbour – AGEROUTE – dated April 2011*
- *Plan d'Actions de Réinstallation (PAR) des travaux de construction des lots 1 & 2 – Rapport Provisoire – Projet d'Autoroute AIBD-MBOUR-THIES – AGEROUTE - dated October 2014*
- *Fiche du Projet de Construction de L'Autoroute AIBD-Mbour-Thies et Voies de Connexion à L'Aéroport et la DISEZ – AGEROUTE – dated August 2014*

In addition to the documents listed above, MIGA's due diligence included missions conducted by MIGA environment and social specialists in June and August 2014. These missions were conducted to monitor E&S performance and capacity related to the prior 2008 swap agreement and identify and assess potential projects to be financed by the Eurobond. During the missions, MIGA environment and social specialists conducted a site visit and met with project affected people related the DDTR, as well as meetings with representatives of AGEROUTE, other GoS ministries and agencies and World Bank Dakar office staff.

An environmental and social due diligence site visit is planned for the two sub-projects and this ESRS will be updated based on site visit findings. Should the updated ESRS reflect material

changes to the risks and impacts identified in this ESRS, MIGA may re-start the disclosure period.

E. Key Issues and Mitigation

PS1: Assessment and Management of Environmental and Social Risks and Impacts

Social and Environmental Assessment: Environmental and Social Impact Assessments (“ESIAs”) were prepared for both projects by AGEROUTE to GoS standards and based on the same institutional framework and methodology. Both ESIAs included the following: project description and justification, legal and regulatory requirements, social and environmental baseline, analysis of alternatives, assessment of risks and impacts, environmental and social management plan and community consultation. The impact assessment methodology for both ESIAs evaluates risks and impacts based on the following criteria: quality of effect (positive, negative), importance (minor, moderate, major), reversibility (reversible, nonpermanent, irreversible), occurrence (immediate, short term, medium term, and long term), and probability of occurrence (likely, unlikely, and unknown), and probability of avoidance (avoidable, partially avoidable, and inevitable). The ESIAs were found to be satisfactory and AGEROUTE is committed to implementing the respective Environmental and Social Management Plans (“ESMP”) consistent with the recommendations of the ESAP, requirements of PS1, applicable WBG EHS Guidelines and good international industry practice.

Management Program and Monitoring: The ESIA prepared for each sub-project includes an ESMP that identifies measures to avoid, reduce or mitigate assessed impacts. As part of its mandate, AGEROUTE is required to execute the construction and operation each sub-project in accordance with national laws and regulations for environmental protection, implement the respective ESMPs, and monitor environmental and social performance based on these requirements. AGEROUTE fulfills this mandate through delegating responsibility for these functions to a project manager and Steering Committee. The Steering Committee is delegated by the office of the Prime Minister who oversees the Ministry of Infrastructure and Land Transport under which AGEROUTE sits. The Steering Committee has been established and has the responsibility for project management and implementation, including procurement, appointment and oversight of the construction Contractor(s) and independent environmental consultant. A project manager per sub-project is then designated the responsibility for proposing a project team comprised of representatives of units within AGEROUTE, representatives of other national and local government entities, and external experts and stakeholders as needed. The Steering Committee and project manager regularly report to the Director General of AGEROUTE on progress and is dissolved at the completion of construction of each sub-project.

The construction Contractor(s) will be appointed through an open tender process with the Request for Proposals (“RFP”) including all stated specifications and requirements related to construction of the roads. These requirements will include compliance with national laws and regulations related to environmental protection, labor and health and safety, as well as implementation of the ESMPs and compliance with the Performance Standards and WBG EHS Guidelines. These environmental and social requirements are subsequently passed through to the respective construction contracts with oversight by the Steering Committee and project manager.

The appointed independent environmental consultant works under the supervision of the Environmental and Social Unit of AGEROUTE and is responsible for monitoring, advising on

corrective measures, and reporting monthly to the project manager and Steering Committee on the environmental and social performance of the sub-project in accordance with national laws and regulations, the ESMPs and requirements of the construction contract. The independent environmental consultant for the AIBD-Mbour-Thies Road is Louis Berger – SC Afrique – GIC who were appointed in August 2011 to monitor construction of the DDTR and all 3 lots of the AIBD-Mbour-Thies Road. The independent environmental consultant for the Niayes Road project has not yet been selected.

Organizational Capacity and Training: AGEROUTE's mission is to implement construction works, rehabilitation and maintenance of roads, bridges and other structures as well as the management of the national road network. Due to the organizational structure of AGEROUTE delegating implementation, monitoring and reporting on environmental and social management to non-permanent Steering Committees who implement these requirements through Contractor(s) and independent environmental consultants, AGEROUTE has two full-time permanent staff in its Environmental and Social Unit responsible for managing environmental and social risks in projects in collaboration with the unit in charge of liberation of rights-of-ways for road projects and social issues. This unit is composed of three (3) legal experts and one urban landscape engineer. An Environmental and Social Management Framework related to road construction and maintenance operations that fulfill management systems requirements under PS1 will be developed for AGEROUTE as a requirement of the ESAP. The ESMF will provide environmental, social and resettlement action plans, institutional arrangements and identified capacity building needs necessary for mitigating potential adverse risks and impacts of each sub-project.

Capacity building is a priority for AGEROUTE, as a result the Agency will develop an institutional capacity-building and training plan which will also be required as part of the ESAP.

PS2: Labor and Working Conditions

AGEROUTE will require all Contractor(s) to comply with GoS laws and regulations related to labor standards and health and safety, as well as the requirements of PS2 and WBG EHS Guidelines which will be included in the RFP and contract documents. Senegal has ratified all ILO conventions core labors standards. Contractor(s) will be expected to prepare human resources policies and procedures in compliance with PS2 as part of the ESAP, which should include provisions related to working conditions and terms of employment, workers' organizations, non-discrimination and equal opportunity, retrenchment, grievance mechanism and prohibitions against child and forced labor. The recruitment of local labor is prioritized.

AGEROUTE has committed through the RFP and construction contracts to ensure that appropriate measures are adopted to protect the health and safety of workers, including appropriate training and installation of proper signage, requiring provision of appropriate personal protective equipment (helmets, eye protection, gloves, safety shoes), sensitizing workers on workplace safety requirements, promotion of the principles of individual and collective prevention of accidents at work. First aid kits will be provided and made readily available with an appropriate number of trained first aid responders available for each shift, as well as designated clinics staffed by medical personnel. Accidents and injuries will be recorded and regularly reported by the independent environmental consultant.

PS3: Resource Efficiency and Pollution Prevention

Pollution risks and impacts are expected to be avoided, reduced or mitigated through implementation of measures provided in the ESMP and in compliance with PS3 and the WBG EHS Guidelines.

Niayes Road. The following risks and impacts were assessed in the ESIA as major during construction: air emissions, erosion and sedimentation, and solid and liquid waste management. Air emissions / fugitive dust control measures and other emissions are expected to result from road construction. Mitigation measures provided in the ESMP include providing construction workers with dust masks; reducing risk of flight of dust during transport of materials by covering with tarpaulins; and regular watering of road platforms and deviations to reduce dust from flying all over.

To control for erosion and sedimentation from materials sourcing areas and site preparation activities, the measures which will be implemented as part of the ESMP include: measuring the depth of the groundwater from worksites, installation of drainage and surface contouring, channeling runoff into the existing sewerage network, and implementation of a quality control system to monitor groundwater.

For solid and liquid waste management the ESMP stipulates implementation of a management system to handle waste oils (liquids, solvents, bitumen) that may contaminate the soil during or at the end of the project by having in place watertight receptacles to collect liquid waste. There will also be on-site absorbents to guard against spills of toxic products on the floor. Urgent measures will be taken for decontamination of contaminated soil, when an accident occurs. Specific sites will be identified by riverbanks for washing of vehicles or equipment that may contain polluting products, the area will be equipped with a system to retrieve this used waste water. Another mitigation measure which will be put in place is the rehabilitation of loan sites where materials were sourced or rebuild them for useful and safe use. Measures to decontaminate (physical and/or chemical) special waste (battery, oil filter, etc.) before disposal will also be put in place. A management system (collection, transportation and landfill) banal solid waste which may or may not be contaminated will be implemented.

AIBD-Mbour-Thies Road. Significant adverse risks and impacts identified as major are related to potential soil and surface water pollution resulting from accidental spills and discharge of hydrocarbons; surface water degradation resulting from soil erosion and storm water runoff; increased risk of wildfires resulting from uncontrolled burning of waste; and air pollution resulting from fugitive dust emissions. Measures to avoid, reduce, or mitigate these risks and impacts are provided in the ESMP as follows.

Measures to mitigate risks and impacts related to soil and groundwater pollution include: collecting oils and other toxic products in suitable tanks; setting up public latrines at construction sites; installation of drainage control channels and culverts, particularly in urban areas; storing bituminous products on a cement platform; clearing and repairing drainage ditches and channels adjacent to businesses and dwellings; and disposal of solid waste (household and construction waste) in authorized locations. Additionally, the design of the drainage works will be integrated to ensure continuation of natural surface water flows. Measures to mitigate risks and impacts related to fugitive dust include watering work surfaces, provision of dust masks for workers and local residents, information and awareness of local population prior to starting works, health monitoring of workers and local people, and regular monitoring.

PS4: Community Health, Safety and Security

Community health and safety risks and impacts are expected to be avoided, reduced or mitigated through implementation of measures provided in the ESMP and in compliance with PS3 and the WBG EHS Guidelines. Key risks and impacts assessed as major for both the Niayes Road and AIBD-Mbour-Thies Road sub-projects include noise, traffic, and transmission of communicable disease (HIV/AIDS).

Noise impact will be mitigated through avoidance by conducting works during day time hours and locating worksites to avoid noise impacts to sensitive receptors, particularly schools. Impacts on traffic flow, congestion, safety and quality of life will be mitigated through mandating reduced vehicle traffic speed through active work zones, installation of signage, installation of pedestrian bridges accessible to people with disabilities, conducting public safety awareness campaigns and implementation of a traffic control plan in collaboration with the Directorate of Roads.

To address any potential negative impacts on communities from communicable disease, a public awareness campaign on HIV/AIDS and other sexually transmitted diseases will be implemented. Displays/slogans with preventive measures to take to guard against HIV/AIDS as well as sensitization for voluntary and confidential AIDS testing will be initiated.

Security Arrangements: During non-working hours, construction machinery, fuel and other materials will be guarded by private un-armed security guards.

PS5: Land Acquisition and Involuntary Resettlement

Physical and economic displacement is expected and AGEROUTE has prepared preliminary Resettlement Action Plans (“RAPs”) consistent with PS5 requirements for both sub-projects. Risks and impacts related to expropriation of land, loss of structures, loss of income generating crops and livelihood impacts are expected to be mitigated through implementation of the RAPs. Final RAPs will be required as part of the ESAP. Because AGEROUTE prepared the RAPs for both sub-projects according to PS5 requirements and will be responsible for implementation, both RAPs share common elements.

Eligibility for compensation is based on a deadline established by a survey to be conducted which would identify the qualifying criteria. A threshold of at least 80 m² was set to allow an impacted owners residing in the right of way to relocate to the remainder of their land after obtaining compensation for the portion of land that would be acquired. Compensation is provided exclusively in cash on the basis of an assessment of quality of assets, structures and current market price. AGEROUTE and its committee on the liberation of rights-of-way are responsible for the coordination of all these activities in relation to external partners such as the Governor and administrative services. The RAPs include grievance mechanism for redress. Monitoring will be conducted by AGEROUTE to ensure that implementation of the RAPs are consistent with the established timeline, national law and PS5 requirements. AGEROUTE, with the assistance of the task group, will be responsible for the internal monitoring of the implementation of the RAPs. Key indicators to be monitored include compensation payment to different categories of project affected people; assistance provided to displaced persons; community engagement and consultation; adherence to grievance and redress procedures including the number of complaints registered, number of complaints resolved, and the average time to resolution.

Baseline information of project affected people for the two sub-projects are as follows:

Niayes Road. The road works will require the displacement of several concessions, households, and places of business. The project area extends over a territory consisting of 3 municipalities in Dakar namely Guediawaye, Pikine, and Central Dakar with an estimated population of over one million inhabitants. The socio-economic survey conducted between September and October 2014 identified 246 plots are impacted by the Niayes road project containing 551 households, out of which 180 are household owners, 369 tenants (renters) and 2 hosted households. The principal activities in the area are general trade services and artisanal crafts, thus explaining the large number of places of business which can be found in the households (924 in concession) and on other available surrounding areas (for example, the unauthorized 546 business which exist outside of concession spaces). In total there are 2267 places of business in the Project area.

AIBD-Mbour-Thies Road. Designed with a 100m right of way and inclusive of interchanges, land acquisition for the planned 36 km of new road totals 361 ha. This includes 165 parcels of farm land, 23 parcels of non-agricultural land, 41 parcels of forest plantation, 53 parcels of fruit tree plantation, 3 industrial sites and 10 residences, with physical and economic displacement expected to over 200 project affected people. A completed baseline of project affected people will be provided in the final RAP.

PS6: Biodiversity Conservation and Sustainable Management of Living Natural Resource

AIBD-Mbour-Thies Road. Lot 3, which connects AIBD with Thies, passes through the Thies Forest Reserve for over 9 km resulting in permanent impacts to over 90 ha of natural habitat. The 11,600 ha Thies Forest Reserve (Forêt Classée de Thiès) was originally created by a decree of Governor General of French West Africa in 1934 is located between the rural communities Keur Mousseu and Ndiass. Activities such as logging, burning of vegetation, hunting, and removal of vegetation are prohibited, however limited grazing has been allowed. The ESIA identified the area as a key hydrological resource for ecosystem services, however while in the past the habitat was lush with trees, shrubs and bushes, it is presently a highly degraded bush land which does not meet the PS6 criteria for critical habitat. Identified flora (Acacia, Eucalyptus), fauna (Grivet, Bushback, Spotted hyena, Jackal) and avifauna (Common guinea fowl, Red-billed hornbill, and Woodland kingfisher) are all IUCN Red List Least Concern.

Mitigation measures provided in the ESMP include integrated design of drainage works to preserve perennial surface water flows on the Thies Forest Reserve plateau to protect this ecosystem service, as well as preparation and implementation of a reforestation plan, which will be required as part of the ESAP and be aligned with PS6 requirements. The reforestation plan will include coordination with the Forest Department to implement measures reduce land degradation and degradation of the Thies plateau watershed, as well as a forest management program to offset the impact to the forest reserve through restoration of an equal area forest areas. Restoration activities will include identification of target tree species, identification of an appropriate site, developing a schedule for implementation and monitoring, identification of partner organizations for implementation and monitoring; and development of an implementation and monitoring budget.

F. Environmental Permitting Process and Community Engagement

In compliance with the environmental assessment process in Senegal, the ESIA's were publicly disclosed for comments by the "Direction de L'Environnement et des Etablissements Classés"

("DEEC") as well as other stakeholders. The ESIA's were approved and the environmental permits are in the process of being issued by DEEC.

AGEROUTE conducted public consultations to obtain approval for the two sub-projects as required under the GoS regulations. Socio-economic surveys were undertaken to identify the people impacted by the projects. Ongoing consultation, engagement and socialization are planned as part the ESMP to mitigate potential environmental and social risks. Expected benefits of the sub-projects include: increased transport access and commerce, increased capacity for enhanced traffic flow, and improved quality of life. Based on the outcomes of the consultation and positive project benefits, the project has obtained broad community support which will be confirmed during the planned site visit.

G. Availability of Documentation

- *Etudes Techniques d'exécution et élaboration du DAO - Travaux d'élargissement de la Route des Niayes De Pikine (Tronçon: Rondpoint Liberté Vi - Pont Amitié Tronçon: Rondpoint Cambéréne - Carrefour Rue 10) - [Rapport d'étude d'impact environnementale et socio-économique](#) – dated December 2006*
- *Projet d'élargissement et d'aménagement de la Route des Niayes dans la région de Dakar – Du giratoire de Liberté 6 à Keur Massar – [Rapport Provisoire - Plan d'actions de Réinstallation](#) – dated October 2014*
- *Etude d'Impact Environnemental et Social – Final Report – [Prolongement De L'autoroute Diamniadio-Thies-Diass-Mbour – AGEROUTE](#) – dated April 2011*
- *Plan d'Actions de Réinstallation (PAR) des travaux de construction des lots 1 & 2 – [Rapport Provisoire Report – Projet d'Autoroute AIBD-MBOUR-THIES – AGEROUTE](#) - dated October 2014*

The above listed documentation is available electronically as PDF attachments to this ESRS at www.miga.org.