



Additional Financing Appraisal Environmental and
Social Review Summary
Appraisal Stage
(AF ESRS Appraisal Stage)

Date Prepared/Updated: 10/19/2023 | Report No: ESRSAFA628



I. BASIC INFORMATION

A. Basic Project Data

Country	Region	Borrower(s)	Implementing Agency(ies)
Mauritania	WESTERN AND CENTRAL AFRICA		
Project ID	Project Name		
P181311	Decentralization And Productive Intermediate Cities Support Project Af		
Parent Project ID (if any)	Parent Project Name		
P169332	Decentralization and Productive Intermediate Cities Support Project		
Practice Area (Lead)	Financing Instrument	Estimated Appraisal Date	Estimated Board Date
Urban, Resilience and Land	Investment Project Financing	10/17/2023	11/30/2023
Estimated Decision Review Date	Total Project Cost		
10/3/2023	26,250,000		

Public Disclosure

Proposed Development Objective

The development objectives of this operation are to (i) improve access to local services in selected localities; and (ii) strengthen the capacities of Local Governments to plan and manage local public services.

B. Is the project being prepared in a Situation of Urgent Need of Assistance or Capacity Constraints, as per Bank IPF Policy, para. 12?

No

C. Summary Description of Proposed Project Activities

The proposed Mauritania Decentralization and Productive Intermediate Cities Support Project Additional Financing (Moudoun, P181311) is being prepared under the IDA Crisis Response Window (CRW) for a total cost of US\$25.0 million. The AF will maintain the original PDOs of the parent project to: “(i) improve access to local services in selected localities; and (ii) strengthen the capacities of Local Governments to plan and manage local public services.” Similarly, Component 2: Strengthening Decentralization and Local Government Capacity; Component 3: Project Management; and Component 4: CERC will remain the same.



Component 1: Improving Access to Infrastructure and Services for Economic Development will be restructured to include a new Subcomponent 1.3 : Urban Flood Risk Reduction and Resilient Recovery. Investment activities of Subcomponent 1.3 will be primarily focused on the intermediate cities that were mostly affected by the 2022 floods—Kaédi and Rosso. Studies and technical assistance will also be carried out in other cities that show great vulnerability. Subcomponent 1.3 includes three types of activities: (a) Development of urban planning instruments and technical flood risk management studies and tools; (b) Completion of priority investments for sustainable flood risk reduction; and (c) Provision of technical assistance and critical materials to strengthen institutional capacity to manage the sector and prepare for and respond to disasters.

a. Development of urban planning instruments and technical flood risk management studies and tools (US\$5.0 million). A series of urban planning instruments and technical studies for long-term interventions in the sector focused on strengthening the coping abilities of cities to existing urban and climate challenges and future ones that will arise with new urban extensions. Urban planning tools will be simplified and will consider climate change (i.e., climate risk-sensitive urban planning, including flood and heat-risk informed zoning, etc.), following the principles enshrined under the new urban Code that was adopted by the Councils of Ministers on October 12, 2023— as supported by an upcoming development policy operation. Activities include: (i) urban masterplans (schéma directeur d'aménagement urbain, SDAU) to operationalize the new urban Code; (ii) flood-related data collection for urban agglomeration – for example Digital Terrain Models using Light Detection and Ranging (LiDAR) – to support national observation and climate change projection efforts looking at the next 50 years; and (iii) flood prevention and urban resilience plans for the forthcoming 50 years focused on urban resilience.

b. Completion of priority investments for sustainable flood risk reduction (US\$18.0 million). Deriving from the abovementioned studies and tools and considering climate change projections for Mauritania, priority investments are a combination of grey, blue and green infrastructure for building back better, including technical studies, primarily in the two cities of Kaédi and Rosso. Activities include: (i) cleaning/dredging of the existing stormwater and drainage system; (ii) city cleaning in general (including retention ponds); (iii) construction of flood-resilient landfill and support to a functioning SWM system in Kaédi; (iv) rehabilitation of non-operational pumping stations to mitigate climate risk; (v) feasibility studies/works for the reinforcement of dikes to make protected areas resilient to climate change; (vi) rehabilitation of the existing stormwater facilities and drainage system to increase the capacity of the network and reduce the entry of waste and sand; and (vii) nature-based solutions (NBS), including rehabilitation or creation of infiltration ponds, green and blue corridors, rehabilitation of wetlands, greenfield flood protection measures. Depending on preliminary technical studies findings and resulting final estimates, rapid civil works to strengthen the urban resilience in other cities could also be financed based on needs. Investments will be prioritized based on efficiency and efficacy criteria as well as E&S requirements including citizen engagement and will be further detailed in the Project Operations Manual.

c. Provision of technical assistance and critical materials to strengthen the institutional capacity to manage the sector and prepare for and respond to disasters (US\$2.0 million). Activities include: (i) TA and critical materials to ensure efficient SWM by municipalities (e.g., anti-littering campaign/community health and safety), operations and maintenance (O&M) of the drainage systems by the ONAS and municipalities and risk-sensitive/climate resilience urban development to prevent the further encroachment of settlements in hazard areas and/or to facilitate adaptive measures to mitigate future flood damages; and (ii) support for basic emergency management equipment (e.g., Search and Rescue) based on the identified needs and gaps.



D. Environmental and Social Overview

D.1 Overview of Environmental and Social Project Settings

The Additional Financing (AF) project activities will be implemented in two cities: Rosso (Trarza) and Kaedi (Gorgol) under the 7 wilayas (Trarza, Brakna, Gorgol, Assaba, Guidimakha, Hodh el Gharbi and Hodh Ech Chargui) concerned by the parent project. These areas are near to the Senegalese and Malian borders. The Senegal River, an international waterway, forms the border with the Republic of Senegal. The project's intervention cities have been established in consultation with the Mauritanian Government based on their potential to extend their services to a broader territory and population. For that reason, the South of Mauritania, where more than a third of the urban population lives and where the poverty rates remain the highest, was selected. Rosso, in the West, and Kiffa in the center, are by far the most dynamic cities in the project's area. Selibaby at the central South and Aioun at the East will complement a good coverage of this large territory. Most of the project area falls within the Sahelo-Saharan zone, apart from the extreme south, which forms the Senegal River valley. Everywhere vegetation is suffering from the combined effects of drought and human activities. The fauna and its natural habitat are gradually disappearing.

D.2 Overview of Borrower's Institutional Capacity for Managing Environmental and Social Risks and Impacts

The central project coordination unit (PCU) at the Ministry of Economy and Industry will also be responsible for implementing the AF activities and ensuring ESF compliance. This central PCU is currently coordinating the parent project activities, except subcomponent 1.2, which is being implemented by SOMELEC through a sub-PCU. Given the large geographical extent of the project area, a regional PCU was established in the city of Kiffa to support project implementation in the regions of Assaba, Guidimagha, Hodh Ech Chargui, and Hodh El Gharbi. Project activities in the city of Rosso are being supervised by the central PCU in Nouakchott. This PCU and the SOMELEC sub-PCU are responsible for environmental and social risk management and ESF compliance for their respective activities to. Local governments are responsible for investment project preparation and implementation, with the technical support of the central and the regional PCUs. The central PCU is staffed with an environmental specialist, a social/ gender specialist. The SOMELEC sub PCU is staffed with an environmental specialist, a social and Gender specialist. These specialists were recruited for the full project period and need for capacity-building in environmental and social risk management.

The last environmental and social performance rating (May 2023) of the parent project was Moderately Satisfactory due to delays in preparing E&S instruments and gaps noted in the implementation of occupational health and safety (OHS) by contractors responsible for the civil works. The gaps are being addressed through an action plan that is being closely followed up with the PCU. Improvements have been noted in the quality of some environmental and social studies, with the recent use of consultants from the sub-region.

II. SUMMARY OF ENVIRONMENTAL AND SOCIAL (ES) RISKS AND IMPACTS

A. Environmental and Social Risk Classification (ESRC)

Substantial

A.1 Environmental Risk Rating

Substantial

Public Disclosure



Environmental risk rating remains substantial, given the nature and small to medium-scale of activities and their related risks and impacts. The parent project activities involve construction of 2 waste management facilities, construction/rehabilitation of urban roads, rehabilitation of markets, activities to improve rural and urban electrification, and a rapid investment program focused on city enhancements (rehabilitation of public squares, building of city gates, greening of public spaces, etc.). In addition to the activities of the parent project, the AF activities could include rehabilitation of 20 kilometers of stormwater drainage networks in Rosso and Kaedi, nature-based solution including rehabilitation or creation of infiltration ponds, rehabilitation of pumping stations in Rosso and construction a waste management facility in Kaedi. The size and the location of this landfill are not known yet, but the size should be smaller than the one planned for Rosso (as part of the parent project) because Kaedi is less crowded. During the construction phase, potential risks and impacts are mainly related to (i) resource efficiency (water, energy and raw material use); (ii) alteration of air quality by dust rising during construction/rehabilitation of urban roads, and rehabilitation of stormwater drainage networks (iii) sound pollution due to noise and vibration from moving of construction vehicles and machinery; (iv) soil and water resources contamination due to poor management of hazardous and nonhazardous wastes , (v) occupational and community health and safety due to the civil works in urban areas. In the operational phase (i) leachate and runoff from waste management facilities that can contaminate soil and water resources; (ii) mismanagement of waste from rehabilitated market, which could lead to community health and safety issues, (iii) urban communities' exposure to road safety risks, and (iv) drainage wastewater during the dry season that could affect the water quality of the Senegal River. This risk to the Senegal river is the main new risk introduced by the AF. In addition to these risks and impacts that could be caused by the project's activities, environmental and social management remains weak.

A.2 Social Risk Rating

Substantial

On the social side, the AF project activities are likely to generate some social impacts including some limited acquisition of land for civil works under component 1.2 and the CERC, working conditions (including foreign labor influx as some Wilayas are near to Mali and Senegal frontiers) , limited opportunities for civil society feedback and engagement, and lack of inclusive service delivery and participation. Kaedi and Rosso being located at the Senegal-Mauritania frontiers, this could lead to worsened labor influx. In terms of security, the two cities are not in the security risk zone. The project will be in the urban/peri-urban areas and the preliminary SEA/SH risks assessment rating is moderate. An action plan has been developed and approved by the bank. This action plan, which is currently being implemented, will be extended to the AF activities.

B. Environment and Social Standards (ESSs) that Apply to the Activities Being Considered

B.1 Relevance of Environmental and Social Standards

ESS1 Assessment and Management of Environmental and Social Risks and Impacts

Relevant

Similar to the parent project, activities financed by the AF are expected to improve access to local services in selected localities by building/rehabilitating urban infrastructure (such as urban roads, markets, public squares), eliminating illegal waste dumps, solving the problem of flooding in urban areas, etc. and strengthening the Local Government capacity to plan and manage local public services and flood control/management . However, small scale infrastructure construction and rehabilitation, may generate some environmental and social (E&S) risks and impacts. As part of the AF, the project intends to rehabilitate existing stormwater drainage networks with outlet into the Senegal River which is a modified habitat. During the dry season, drain water is essentially wastewater. Measures to avoid/mitigate risks of

Public Disclosure



pollution to the Senegal River will be incorporated into the ESIA for the rehabilitation of the stormwater drainage system and the pumping station. For the parent project, the Borrower prepared, consulted upon, and disclosed all required environmental and social risks management instruments (ESMF, RPF, SEP, LMP), and established a grievance mechanism. The ESMF, RPF and SEP are being updated to cover the AF. The ESMF defines screening mechanisms and monitoring procedures for the identification and management of potential adverse environmental and social impacts from proposed project activities. In addition to the E&S framework documents, site-specific ESIA's are being prepared by the client as part of the parent project, and two of them were approved by the World Bank and disclosed. The ESIA for the Rosso Technical Landfill Center and the ESIA for the Rosso temporary waste disposal facility were disclosed on the World Bank website Aug. 01, 2023, and on May 29, 2023, respectively. The ESIA for the Kiffa Technical Landfill Center and the ESIA for the new Adel Bagrou town hall were disclosed on the WB website on October 13, 2023. Other such as the ESIA's for the urban road network are in advance draft and should be approved and disclosed soon. The draft ESIA's for urban roads indicate that specific RAPs will be required. If confirmed, these will be prepared, disclosed, and implemented before the start of civil works. The ESMF and subsequent ESIA's include measures to avoid, minimize or compensate for the identified E&S risks identified.

To address, prevent and manage the potential impacts and risks related to the process of improving the capacity of local governments to prepare and implement urban master plans, the TOR for development of the Urban Master Plans will include provision for assessment and management of environmental and social risks and impacts proportionate to the potential risks and impacts and set out the principles, rules, guidelines, and procedures to prepare site specific E&S instruments as needed.

For civil works, E&S clauses are imbedded in bidding documents to ensure that contractors follow up on environmental and social due diligence and to mitigate the anticipated negative risks and impacts. Day-to-day supervision of the implementation of E&S measures is carried out by the supervising engineer (Bureau de contrôle), staffed with E&S specialists. The Moudoun PCU, as well as the SOMELEC PCU, each include an environmental specialist and a social specialist (mostly focused on Gender). Moudoun PCU will need to be reinforced with a social specialist with a strong background in resettlement. Capacity building for all stakeholders will be prioritized for the next 12 months.

If the CERC is triggered, the project can further induce some effects that entail environmental and social concerns. Any CERC activity that requires an E&S study, the said study must be prepared, approved and the E&S risk management measures related to the works incorporated into the tender documents.

ESS2 Labor and Working Conditions

Relevant

The construction and rehabilitation work that will be financed by the AF are expected to require a large and diverse workforce that may include foreign workers from Mali and Senegal given the geographical proximity. While the Borrower is committed to sourcing as much local labor as possible, this labor influx could generate some social risks for the local communities. The LMP prepared and disclosed for the parent project will be used to manage these risks. It contains provisions for adequate terms and conditions of work, explicit prohibition of child and forced labor and measures to protect community workers. All workers including those hired into the PCU will be required to sign a standard Code of Conduct. The worker GRM established for the parent project will be used for the AF activities.

Regarding the community workers, the LMP provides information for the treatment of the labor on a voluntary basis and how they will have access to the grievance redress mechanism for projects workers included in the LMP and have access to the general project GRM. The LMP describes the roles and responsibilities for monitoring such workers.

Public Disclosure



Occupational Health and Safety (OHS): To ensure the health and safety of workers during the construction, tender documents require companies to provide a health and safety plan as part of their company's ESMP. The plan will include procedures on incident investigation and reporting, recording and reporting of non-conformances, emergency preparedness and response procedures and continuous training and awareness to workers.

However, construction activities can cause the influx of some workers, which can lead to adverse social impacts (gender-based violence, sexual exploitation, communicable diseases) on local communities. As the initial SEA/SH risk is moderate, site specific ESIA's already developed and in process include SEA/SH assessment and where needed, measures to prevent and mitigate potential SEA/SH risks involving project workers will be included in contractor and worker contracts and codes of conduct. The Labor Management Procedures requested in ESS2 includes measures to ensure that the health and safety of workers are given adequate attention. In addition, for each construction site, the specific environmental and social assessment will recommend the necessary measures to restrict community access to the construction site during the entire work period.

ESS3 Resource Efficiency and Pollution Prevention and Management

Relevant

Pollution prevention and management. During construction, air quality could deteriorate by smoke from heavy vehicles and construction machinery, dust from vehicle traffic, excavation, cuttings and embankment work. There is also the risk of soil and water pollution from construction waste and accidental spills of hazardous substances such as hydrocarbons. There is also the risk of soil and water resources pollution associated with the commissioning of some infrastructures. The ESIA's developed under the parent project include measures to minimize the impacts of dust (sprinkling) and emissions (maintenance of site vehicles and machinery), measures to prevent soil and water pollution (containment structures to prevent hydrocarbons leaking into the ground) and robust sealing systems in the waste management infrastructures to reduce pollution risks to soil and water resources. Regarding the risk of pollution from drainage wastewater during the dry season, measures to avoid/mitigate risks of pollution to the Senegal river will be incorporated into the ESIA for the rehabilitation of the stormwater drainage system and the pumping station. The other ESIA's to be prepared (as part of both the parent project and the AF) will also assess pollution risks and propose appropriate mitigation measures.

Raw materials. Construction and rehabilitation of infrastructures like urban roads and landfills involve water and energy use. The ESIA will assess the potential cumulative impacts of water use on neighboring communities make use of relevant measures in the EHS to optimize energy use and implement mitigation measures. Infrastructure works also involve construction materials such as sand, gravel, clay extracted from the natural environment. These should be sourced from authorized quarries near the sites. In case of new quarry openings, the ESIA for the Rosso landfill recommends appropriate measures for opening new quarry, efficient extraction and use of raw materials, and closure measures (as per EHS). They are included in the environmental and social clauses of the tender documents to enable the contractor to prepare a quarry reclamation and closure plan.

ESS4 Community Health and Safety

Relevant

Project activities related to waste management and rehabilitation of existing drainage networks that will be financed by the AF are expected to contribute to improving community health. And where the AF includes construction of new buildings and structures that will be accessed by members of the public, the Borrower will consider the incremental risks of the public's potential exposure to operational accidents or natural hazards, including extreme weather events. Where technically and financially feasible, the Borrower will also apply the concept of universal access to the design and construction of such new buildings and structures. Additional risks to the community are identified in site specific

Public Disclosure



ESIAs include traffic and road safety (particularly during construction) or community exposure to nuisances (such as dust, noise or bad odors due to landfill management and shallow waters) and public health issues (such as spread of malaria and waterborne diseases) the production of quantities of waste (household and biomedical). During operation and in dry season, drainage water discharged into the Senegal river could pose health and safety risk to communities supplied with drinking water from the river. Measures to avoid/mitigate risks of pollution to the Senegal river will be incorporated into the ESIA for the rehabilitation of the stormwater drainage system and the pumping station.

ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

Relevant

To address the potential risks related to the activities to be financed under the AF, the RPF prepared and disclosed on December 30, 2019, for the parent project was reviewed to confirm that it also covers these potential risks. These risks include construction of communal or inter-municipal infrastructures such as access roads, drainage, urban road, regional markets, infrastructures for youth, management of solid and liquid waste that could require some land acquisition and involuntary resettlement and temporary restrictions on access to homes and businesses. Component 4, Contingency Emergency Response may also finance some civil works and require some limited involuntary resettlement. The updated version for the RPF has been disclosed in the country on October 12th, 2023, and the Bank external website on October 13, 2023. For all sub-projects, environmental and social assessments including E&S screening will be required and ESMPs and Resettlement Action Plan(s) (RAPs) will be prepared as needed and implemented prior to the beginning of works. Given the nature of the project, however, all efforts will be made to avoid or minimize negative impacts on personal property and assets.

ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

Relevant

Project intervention sites are not located in the vicinity of legally protected areas. However, the Senegal River, which is a modified habitat, could be affected. Wastewater flows into the stormwater drainage system to be rehabilitated. In the dry season, from November to June, the water drained is essentially wastewater, which could affect the Senegal River. The ESIA for the rehabilitation of the drainage system and the pumping station will includes measures to avoid or minimize pollution risks to the Senegal River.

ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities

Not Currently Relevant

This standard is not considered relevant as there are no Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities currently identified in the project area. Should the presence of indigenous communities be confirmed through further screening during implementation, the necessary assessments, consultations and instruments will be undertaken per the requirements of this standard.

ESS8 Cultural Heritage

Relevant

In Mauritania, there are cultural heritage sites in all cities throughout the country. The screening questionnaire provided in the ESMF includes questions to exclude activities that may have adverse impacts on any known tangible or intangible cultural heritage. In addition, due to potential impacts on cultural heritage associated with excavation during civil works, the ESMF includes provisions for “Chance Finds” to guide the identification and management of any



chance finds. The potential for cultural heritage will be part of the TOR for any ESIA's and "Chance finds" provisions will be included in any ESMPs and reflected in the contractor's contracts.

ESS9 Financial Intermediaries

Not Currently Relevant

The Project will not involve financial intermediaries

ESS10 Stakeholder Engagement and Information Disclosure

Relevant

During preparation of the parent project, the Borrower engaged in meaningful consultations with all stakeholders, paying particular attention to the inclusion of vulnerable and disadvantaged groups (including the elderly, persons with disabilities, female-headed households, orphans and refugees). Key stakeholders consulted during the SEP preparation included Ministry of Economy and Finance (MEF), the Ministry of Health Action (MAS), the Ministry of National Education (MEN), the Ministry of Food Security (MSA), the Ministry of Housing and Urbanism and Land Development, Ministry of Hydraulics and Sanitation (MHA), the Ministry of Social Affairs for Children and Families (MASEF), the Ministry of Environment and Sustainable Development (MEDD), the Ministry of Rural Development (MDR), the Ministry of Decentralization and Local Development (MDDL), the Ministry of Employment, Youth and Sports (MEJS), Wali, Hakem, Communes and Municipalities, women associations and youth groups.

As part of the process to update the SEP for the AF, complimentary meetings with stakeholders in the new project areas were held between the 8th and 15th June 2023. The new stakeholders identified include: the Directorate General of Housing and Urban Planning (DGHU) at the level of the Ministry of Housing, Urban Planning and Regional Planning; the National Sanitation Office in Nouakchott, the Barak project at TAAZOUR, the NGO: Medicos Del Mundo; the Youth Association of Medina Rosso; the Tamwil Project at TAAZOUR, the Directorate of Environmental Assessment and Control, the Wali of Gogol and Hakim of Kaédi, the Directorate of Protection and Restoration of Species and Environments in Kaédi, the Regional Directorate of Social Affairs, Children and Women in Kaédi; the Regional Directorate of Health Action in Kaédi; the Wali of Trarza, the Municipality of Rosso, the Regional Directorate of Social Affairs, Children and Women in Rosso; the Regional Delegation of Housing and Urban Planning and Spatial Planning in Rosso; the Regional Delegation of the Ministry of Environment and Sustainable Development in Rosso; the Directorate of Sanitation at the level of the Ministry of Hydraulics and Sanitation.

A GRM is currently operational and functional in the initial project area that includes four levels in the 7 regions covered: i) at the local level (in the town or village) under the supervision of the mayor of the Commune; (ii) at the Department level (Moughataa) under the supervision of the Hakem; (iii) at the regional level (the Wilayas); and (iv) finally at the National level. Its implementation will continue based on the action plan integrated in the updated SEP to consider the sectors, regions and villages covered. The updated SEP has been disclosed in the country on October 12th, 2023, and the Bank external website on October 13, 2023.

The ESMF identified during consultations with women the existence of GBV cases mainly in villages. A Family Disputes Unit chaired by the Regional Coordinator of MASEF exist to manage cases, but it must be said that the context of the country (Islam) calls for amicable resolution of any problem that arises. The sub-projects to be implemented by the AF project will exacerbate SEA/SH's risk. Thus, the management of SEA/SH deserves special attention and requires a specific study on the mechanism for managing gender-based violence (GBV). Also, the Moudoun project will specifically support Family Litigation Unit in technical and logistical capacity for the psychological, social, economic and legal care of victims of SEA/SH.

Public Disclosure



B.2 Legal Operational Policies that Apply

OP 7.50 Projects on International Waterways

Yes

This policy applies given potential drainage to Senegal river in Rosso and Kaedi.

OP 7.60 Projects in Disputed Areas

TBD

B.3 Other Salient Features

Use of Borrower Framework

No

The project will not rely on the Borrower’s environmental and social Framework, but will comply with relevant national legal and regulatory requirements.

Use of Common Approach

No

Not Applicable

C. Overview of Required Environmental and Social Risk Management Activities

C.1 What Borrower environmental and social analyses, instruments, plans and/or frameworks are planned or required during implementation?

- ESIA for the Kaedi landfill
- ESIA for the rehabilitation of the drainage system and the pumping station in Rosso
- ESIA for the rehabilitation of the drainage system in Kaedi

Public Disclosure

III. CONTACT POINTS

World Bank

Task Team Leader: Nahida Sinno

Title:

Urban Development Specialist

Email: nsinno@worldbank.org

IV. FOR MORE INFORMATION CONTACT



The World Bank
1818 H Street, NW
Washington, D.C. 20433
Telephone: (202) 473-1000
Web: <http://www.worldbank.org/projects>

V. APPROVAL

Task Team Leader(s):	Manaf Touati, Nahida Sinno, Jonas Ingemann Parby
ADM Environmental Specialist:	Medou Lo
ADM Social Specialist:	Cheikh Hamallah Diagana
Practice Manager (ENV/SOC)	Maria Sarraf Cleared on 19-Oct-2023 at 12:26:14 EDT
Safeguards Advisor ESSA	Nathalie S. Munzberg (SAESSA) Concurred on 19-Oct-2023 at 13:21:54 EDT