L'île de Saint-Louis at the Tipping Point Due to LNG Extraction and Climate Vulnerability

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Situated on the northwest coast of Senegal, L'île de Saint-Louis has been a UNESCO World Heritage site since 2000. Décision 24 COM X.C.1 of the World Heritage Committee inscribed L'île de Saint-Louis under the Outstanding Universal Value (OUV) cultural criteria (ii) and (iv) for its conservation of 19th century structures and urban layout, as a „cultural and economic centre that has influenced the whole of West Africa".[1] Its architectural legacy reflects a pivotal chapter in colonial and postcolonial history, sustained to date by its residents, with each generation of the local community contributing through restoration efforts, adaptive reuse of historic buildings, and preservation of traditional craftsmanship.

The coastal island city now faces escalating environmental and socioeconomic threats linked to climate change and the development of the Great Tortue Ahmeyim (GTA) Liquid Natural Gas (LNG) Project and related infrastructure, the first of a series of planned large offshore LNG projects. The project's scale and rapid development have raised serious concerns about its environmental and socio-economic impacts. With the operationalization of GTA Phase I, these threats now directly imperil the marine ecosystem and the artisanal fishing economy, compromising livelihoods of the site's inhabitants and thus its architectural integrity as an inhabited living cultural heritage site (Fig. 1).

Fig. 1: Saint-Louis fishermen protesting the restricted access of Diattara with the platform visible from the shoreline.
Source: Anonymous, shared by Action Solidaire International

The Greater Tortue Ahmeyim Project

The Greater Tortue Ahmeyim Project, tied for the third largest LNG terminal in Africa, aims to tap into an estimated 15 trillion cubic feet of recoverable natural gas resources, with an annual target of 2.5 million metric tons[2] of LNG primarily for export (Fig. 2).

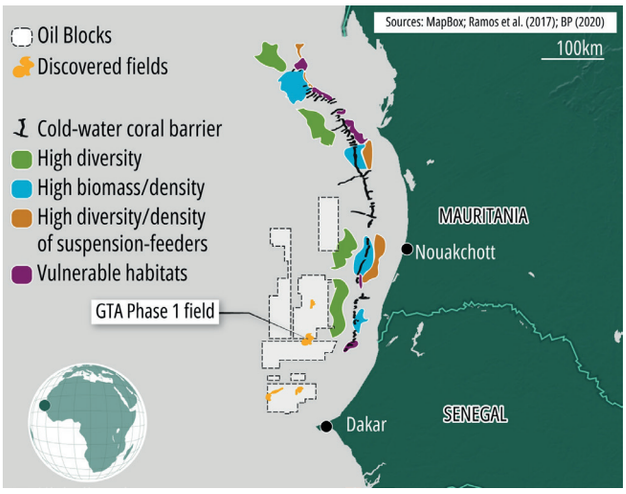

Fig. 2: BP's Greater Tortue Ahmeyim (GTA) Project and world's largest cold deep-water coral reef.
Map: Mongabay

2015 – The discovery of natural gas in an ultra-deep offshore reserve straddling Senegal and Mauritania.
2016 – The Société des Pétroles du Sénégal (Petrosen), the Société Mauritanienne des Hydrocarbures et de Patrimoine Minier (SMHPM), Kosmos Energy with a 26.8% share[3], and BP — currently the project's operator and majority stakeholder with a 56% share[4] — formally joined the initiative.
2017 – BP project engineering and planning.
2018 – FID (Final Investment Decision)5 and Phase I initiation.
January 2025 – Production began.
February 2025 – First gas leak detected from the GTA A02 well.
2026 and beyond – Phase I estimated to produce 2.3 million tonnes of LNG annually for more than 20 years[6] with plans for Phase II.

The series of pipelines that transport gas and LNG was constructed through the world's largest deep water coral reef, home to over 150[7] species. The project's rapid development has raised serious concerns about its environmental and socio-economic impacts on Saint-Louis' fishing communities which rely on the Langue de Barbarie peninsula. The gas leak in February 2025 confirms concerns not only about the surrounding GTA field ecosystem, but also about the lack of transparency concerning the local Senegalese artisanal fishermen who told Mauritanian media[8] that they had not been informed.

Lack of provisions: threats to cultural and natural heritage

The Direction de l'Environnement et des Établissements Classées (DEEC) requested Senegal's Ministry of the Environment to provide an independent opinion of Environmental and Social Impact Assessment (ESIA) for the GTA Project. The Netherlands Commission for Environmental Assessment (CNEE), however, concluded that the characterization of the impacts in the report had not been "sufficiently exploited," and presented relevant, albeit incomplete, environmental information.

According to Law no. 2023-15 of August 02, 2023 of the Environmental Code, an impact assessment is a pre-project study to assess the environmental impact of development, construction, or equipment installation. The social dimension of the impact assessment enables risk evaluation and mitigation planning. However, the shortcomings in the ESIA identified by CNEE, particularly in analyzing marine, coastal, and socio-economic vulnerabilities, made it difficult to gauge impact severity and mitigation measures[9].

Fishermen face pirogue and vessel collisions, loss of artisanal fishing equipment, and restricted access to fishing zones. Gas exploration in this area will overburden the region in its resources, potentially leading to conflicts over the usage of space and fishing resources and concerns about industrial privatization.[10] The development of fisheries policies and access rights, often defined through complex mechanisms like quotas, frequently exclude artisanal fishermen.

Existing Threats to the Historic Fishing Communities of the Langue de Barbarie

The Langue de Barbarie is a long, narrow peninsula that runs parallel to L'île de Saint-Louis and officially described as a buffer zone or an "integral component of the State Party's commitment to the protection, conservation and management of the World Heritage property[11]" (Fig. 3).

A quarter of the population of Saint-Louis – fishermen and their families – reside in the three major districts on the Langue de Barbarie: Guet Ndar, Ndar-Toute, and Goxumbathie. According to UN Habitat, the city of Saint-Louis is the most threatened by sea-level rise in Africa.[12] Coastal erosion has reshaped the facades, leading to the loss of homes and businesses. The rising sea levels intensify intrusion of saltwater into freshwater sources and agricultural lands, threatening food security in the region, while flooding has displaced residents, particularly in low-lying areas.

Intensified competition with foreign fishing vessels and declining fish stocks have compelled many fishermen to migrate illegally to Europe by pirogue — a journey that is frequently fatal. Entire families experience heightened economic vulner-

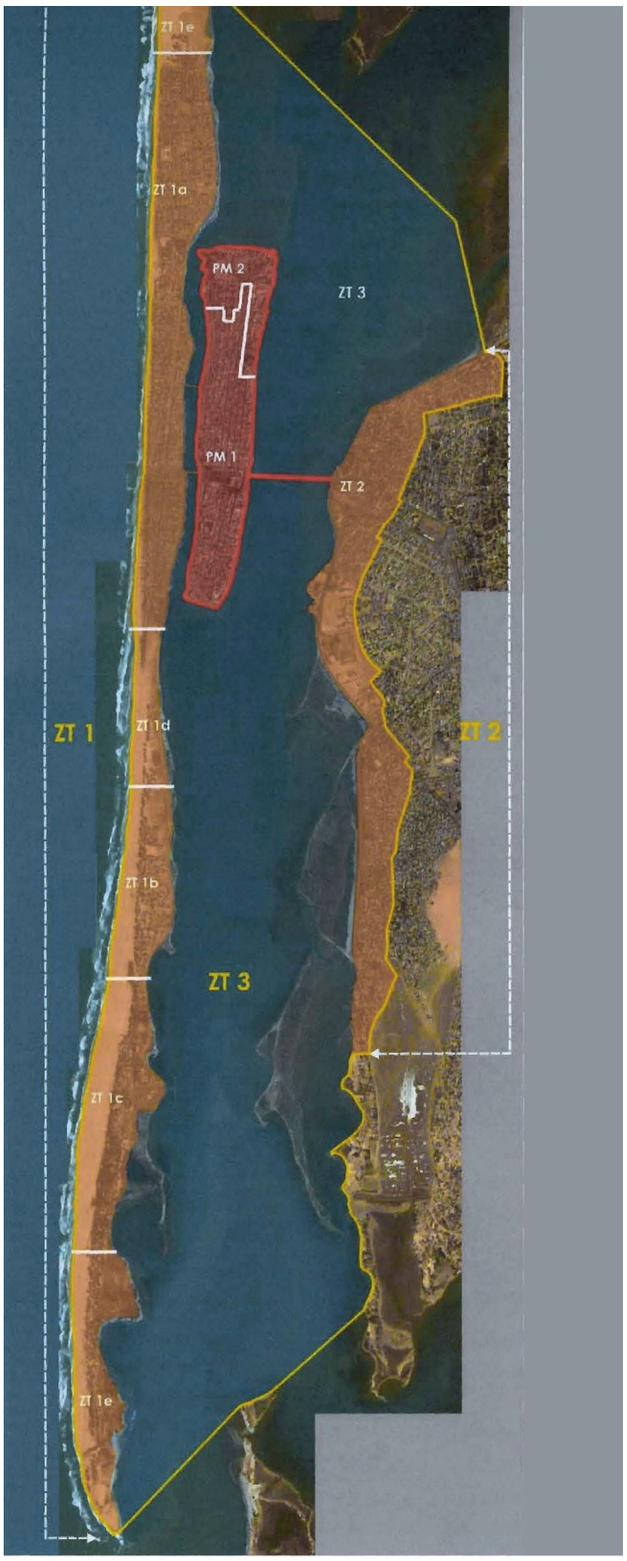

Fig. 3: The protected perimeter and zones of the Island of Saint-Louis World Heritage property, with a proposed buffer zone extension.
Map: Elisabeth Blanc, Alain Coulon, Suzanne Hirsch, Chéhrazade Nafa, Marie-Noël Tournoux, Delphine Deleneuville and Clément Vertaille / UNESCO

ability, manifesting in various socio-economic challenges such as declining household incomes, food insecurity, limited access to education and healthcare, and reliance on prostitution[13] which was particularly exacerbated by the gas activities. The compounded impacts, related to the GTA Project and climate change, are mutually intensifying.

Loss of access to the Diattara fishing zone

Diattara is one of the most vital fishing zones for the fishermen of the Langue de Barbarie using line nets (félé-félé), measuring 10 kilometers from the shore and 35 meters deep (Fig. 4).

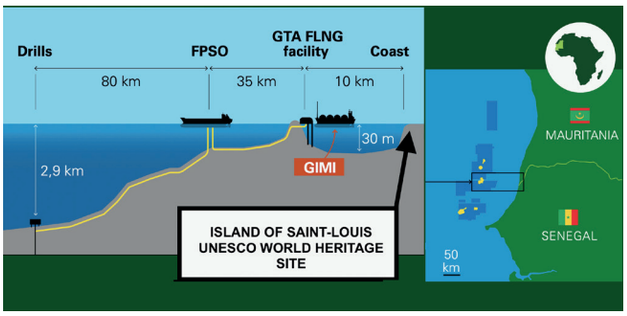

Fig. 4: Diagram of the GTA Field with a supplementary indication relevant to the proximity of Langue de Barbarie. Source: BP GTA Gazette Newsletter 2024

The installation of the GTA continental hub was constructed upon the Diattara fishing zone and remains visible from the shoreline, drastically changing the coastal landscape. The platform restricts the fishermen particularly from Goxxu Mbacc and Guet-Ndar by a 500m security cordon[14], two districts that play a dynamic role in processing fish. Unlike other fishing communities within the GTA Project's restricted area, the fishermen of Langue de Barbarie are predominantly engaged exclusively in fishing within the restricted zone.[15] Due to loss of fishing grounds and destruction by trawlers, out of twenty or so fishing grounds, "only three are still considered productive." The Diattara ecosystem supports Thiof fish used in Thiebou Jenn, the national dish of Senegal. Fish constitutes almost 70% of the animal protein people consume in Senegal,[16] aggravating the risk of food insecurity. Still in its early stages, the GTA Project has caused issues that threaten integral parts of Saint-Louis' society.

Place, patrimoine, and provenance

The inscribed L'île de Saint-Louis World Heritage site, along with its buffer zones, do not focus solely on the 19th-century architecture as a historical crossroads between the African and European continents, but are home to hundreds of thousands of people and rich biodiversity. Diattara is more than a fishing zone; it is a living cultural symbol of Saint-Louis that sustains fishermen's livelihoods, supplies ingredients to cultural dishes, and preserves traditional fishing practices. The GTA Project threatens both the tangible and intangible cultural heritage of Saint-Louis, endangering its city's infrastructure and intensifying social inequalities. "The architect's work lies in the creation of meaningful places that help man to inhabit. Taking this intangible heritage into account and its enhancement can then enable greater ownership of the project and participation by the inhabitants of the Saint-Louis commune".[17]

Local communities must be empowered not just as beneficiaries but as active stewards and protectors of their heritage, shaping conservation efforts in ways that reflect their lived experiences and priorities for future generations. Engaging both international and local stakeholders is imperative to prevent the acceleration of the irreversible devastation by the GTA Project. The loss of access and potential permanent damage to Diatarra will have negative cascading effects creating a larger financial gap between the tourism sector, the fishing communities, and the architectural integrity of Saint-Louis. Without fostering a true sense of ownership among the people of Saint-Louis, preservation will remain an abstract goal rather than a collective mission.

Conclusion

As activities progress, we call upon the World Heritage Centre to request that the State Parties thoroughly revisit the recommendations made in Decision 45 COM 7B.131 in 2023 regarding the GTA project. The Decision urged for the continuation of the consultations with the World Heritage Centre and the

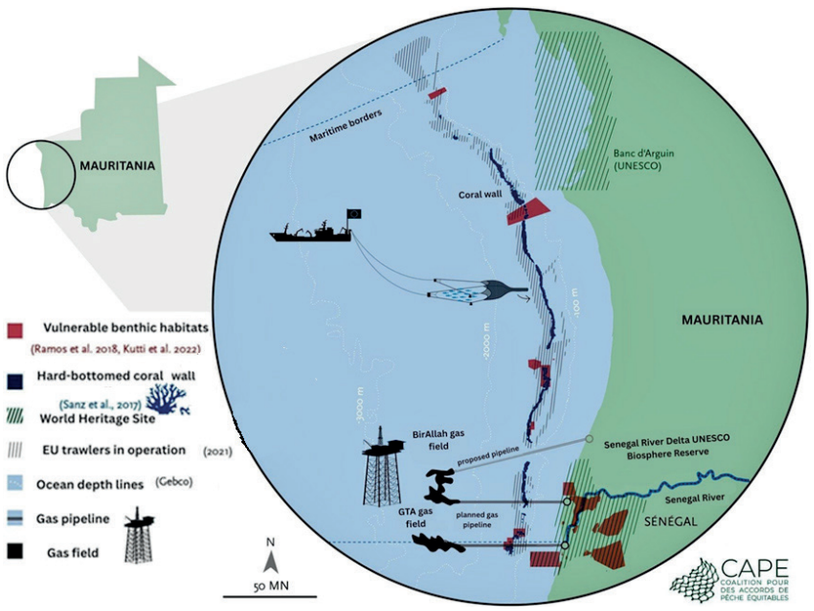

Fig. 5: Vulnerable benthic habitats in the vicinity of the Island of Saint-Louis and Banc d'Arguin World Heritage properties. Graphic: Coalition pour des Accords de Pêche Équitables

Advisory Bodies with BP Petroleum, initiated in January 2021. The meeting provided an opportunity to discuss maritime traffic, coastal erosion studies and the link with the Senegalese Integrated Coastal Management Programme, and the impact on other World Heritage properties in the area[18] (Fig. 5).

The Decision requested that the State Party could provide more information on their ecological and heritage commitments and "provide its full support to raise awareness among all government bodies involved of the heritage prerogatives to protect the property and which could be impacted by this project".[19] The Committee requested the State Party to submit the ESIA to the World Heritage Centre for evaluation[20] by the Advisory Bodies which was submitted in 2023 and has the necessity to be revisited with a more current, in-depth analysis.

In the aftermath of the gas leak, all stakeholders must be held accountable and engage in clear, ongoing communication. Substantial structural deterioration has occurred on the coastlines of the Langue de Barbarie, but direct consequences have yet to arise on L'île de Saint-Louis. This warrants the reiteration for protection measures regarding the city's infrastructure not only from climate change impacts but from GTA Project impacts on the community. We urge the World Heritage Centre to request the State Parties to invite a monitoring mission to visit the Langue de Barbarie and L'île de Saint-Louis with particular concern regarding the coastal and architectural integrity.

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