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Mr. Lazare Eloundou Assomo
Director
UNESCO World Heritage Centre
l.eloundou-assomo@unesco.org

Mrs. Musonda Mumba
General Secretary
The Ramsar Convention on Wetlands
mumba@ramsar.org

Mr. Tim Badman
Director
IUCN World Heritage Programme
tim.badman@iucn.org

URGENT ALERT: Liquefied Natural Gas (LNG) Infrastructure Threatens the Outstanding Universal Value of the "Islands and Protected Areas of the Gulf of California" World Heritage Site and Ramsar Wetlands.

The undersigned organizations respectfully submit this urgent alert to bring immediate attention to the serious threats posed by the rapid expansion of LNG infrastructure in the Gulf of California region. These developments jeopardize the Outstanding Universal Value of the "Islands and Protected Areas of the Gulf of California" World Heritage Site, as well as the ecological integrity of several Ramsar-designated wetlands. Urgent action is required to prevent irreversible damage to biodiversity, ecosystems, and the communities that depend on them.

The Gulf of California, a globally significant marine ecosystem spanning over 1,500 kilometers[1], is home to unique habitats and species, including migratory whales, sea turtles and millions of shorebirds[2]. It is vital not only for wildlife but also for the cultural heritage and livelihoods of local communities. In 2005, UNESCO designated the "**Islands and**

[1] NIX RK. *The Gulf of California*. Arizona State University. Available at: http://activetectonics.asu.edu/BAJA/gulf_cal.pdf ; IUCN-SSC-WCPA Marine Mammal Protected Areas Task Force. '*Gulf of California IMMA'*. Available at: https://www.marinemammalhabitat.org/factsheets/gulf-of-california-imma/.

[2] According to National Geographic Mapmaker´s tool, the GC is an area of high marine biodiversity; See HORVATH E. (2024), *Marine Biodiversity*, National Geographic Society. Available at: https://education.nationalgeographic.org/resource/mapmaker-marine-biodiversity/.

Protected Areas of the Gulf of California" as a World Natural Heritage site due to its rich biodiversity and outstanding natural beauty[3].

We urge swift and decisive action to prevent irreversible harm to this irreplaceable natural treasure. Concretely, we request that you call on Mexico to provide access to all relevant information on proposed LNG projects in the Gulf and to ensure rigorous environmental impact assessments, including a Strategic Environmental Assessment of all proposed developments for the Gulf, among other urgent measures. Protecting the Gulf is a responsibility of global importance.

I. Introduction

1. The Gulf of California: Ecological and Cultural Significance

The Gulf of California (GC) is a region of remarkable ecological diversity. The GC hosts nearly 1,000 islands, including Ángel de la Guarda, Tiburón and Rasa. Its wide and deep mouth creates unique ocean currents distinct from the open sea[4].

The "Islands and Protected Areas of the Gulf of California" includes 244 islands, islets and coastal areas, as well as 12 protected natural areas[5]. Since 2019, it has been on the List of World Heritage in Danger due to the imminent extinction of the vaquita marina (*Phocoena sinus*), primarily threatened by illegal fishing practices[6]. Additionally, the Gulf contains 29 Ramsar wetlands of international importance that contribute to its overall ecological significance[7].

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[3] United Nations Educational, Scientific and Cultural Organization (UNESCO) (2005). *Islas y Áreas Protegidas del Golfo de California*. World Heritage Site Reference: 1182ter, https://whc.unesco.org/es/list/1182.

[4] MAKAROV, V. et. al. (2003). *Corrientes básicas barotrópicas en el Golfo de California.* Centro Interdisciplinario de Ciencias Marinas, Ciencias Marinas 29(2): 141.

[5] The protected areas are the following: 1) El Área de Protección de Flora y Fauna Islas del Golfo de California/ *Islands of the Gulf of California Flora and Fauna Protection Area*; 2) La porción marina de la Reserva de la Biosfera Alto Golfo de California y Delta del Río Colorado/ *Marine portion of the Upper Gulf of California and Colorado River Delta Biosphere Reserve*; 3) El Parque Nacional Zona Marina del Archipiélago de San Lorenzo/ *San Lorenzo Archipelago Marine Zone National Park*; 4) La Reserva de la Biosfera Isla San Pedro Mártir/ *Isla San Pedro Mártir Biosphere Reserve*; 5) El cinturón marino y costero de la Reserva de la Biosfera El Vizcaíno/ *Marine and coastal zone of El Vizcaíno Biosphere Reserve*; 6) El Parque Nacional Bahía de Loreto/ *Bahía de Loreto National Park*; 7) El Área de Protección de Flora y Fauna Balandra/ *Balandra Flora and Fauna Protection Area*; 8) El Parque Nacional Cabo Pulmo/ *Cabo Pulmo National Park;* 9) El Área de Protección de Flora y Fauna Cabo San Lucas/ *Cabo San Lucas Flora and Fauna Protection Area*; 10) El Parque Nacional Isla Isabel/ *Isla Isabel National Park*; 11) La Reserva de la Biosfera Islas Marías/ *Islas Marías Biosphere Reserve*; and, 12) El Parque Nacional Islas Marietas/ *Islas Marietas National Park*.

[6] UNESCO (2019). *World heritage Convention Decision 43 COM 7B.26: Islands and Protected Areas of the Gulf of California (Mexico) (N 1182ter*), Baku, Azerbaijan. https://whc.unesco.org/en/decisions/7490.

[7] Comisión Nacional de Áreas Naturales Protegidas (CONANP). *Humedales de México.* https://conanp.gob.mx/conanp/dominios/ramsar/lsr.php.

1.1. Biodiversity and Endemism

The GC is considered one of the richest marine ecosystems on Earth[8], home to over 8,000 animal species, including 4,900 invertebrates and 1,000 fish species[9]. Due to its biodiversity and ecological processes, Jacques-Yves Cousteau famously called it the "Aquarium of the World"[10]. It shelters six of the world's seven marine turtle species and 39% of the world's cetacean species, such as the vaquita (*Phocoena sinus*), humpback whale (*Megaptera novaeangliae*), sperm whale (*Physeter macrocephalus*), and blue whale (*Balaenoptera musculus*)[11]. Among the sea turtles found in the Gulf are the loggerhead (*Caretta caretta*), black turtle (*Chelonia agassizii*), hawksbill (*Eretmochelys imbricata*), olive ridley (*Lepidochelys olivacea*), and leatherback (*Dermochelys coriacea*), which rely on its waters and beaches as critical feeding and nesting grounds[12].

The GC also provides critical habitats for migratory birds traveling the Pacific Flyway, such as the Snow Goose (*Anser caerulescens*), Northern Pintail (*Anas acuta*), American Avocet (*Recurvirostra americana*), and Long-billed Curlew (*Numenius americanus*), which depend on these wetlands for wintering, feeding and stopovers during migration[13]. Particularly important are endangered species such as the Reddish Egret (*Egretta rufescens*, threatened) and the Black-bellied Whistling Duck (*Dendrocygna autumnalis*)[14].

The Ramsar Site "Laguna Santa María–Topolobampo–Ohuira" in the state of Sinaloa exceeds the criteria for designation as an International Site under the Western Hemisphere Shorebird Reserve Network, supporting over 100,000 shorebirds. With further surveys, it could qualify as a Hemispheric Site by hosting over 500,000 individuals[15]. Due to its ecological value, it has been designated a *Priority Wetland for Shorebirds in Mexico* and an *Area of Continental Importance for Ducks, Geese, and Swans in North America*[16].

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[8] FELGER, R.S., Wilder, B.T., Romero-Morales, H. (2013). *Plant Life of a Desert Archipelago: Flora of the Sonoran Islands in the Gulf of California*. University of Arizona Press, Tucson.

[9] CALMUS, T., Búrquez, A., Martínez Yrízar (2017). *El Golfo de California: Un océano joven, región megadiversa, vínculo entre tectónica y ecología*. Universidad Nacional Autónoma de Nuevo León, Año 20, No. 85.

[10] Secretaría de Medio Ambiente y Recursos Naturales (SEMARNAT) (2018). *Golfo de California, el acuario del mundo*. https://www.gob.mx/semarnat/es/articulos/golfo-de-california-el-acuario-del-mundo-166100.

[11] CALMUS, T., Búrquez, A., Martínez Yrízar (2017). *El Golfo de California: Un océano joven, región megadiversa, vínculo entre tectónica y ecología*. Universidad Nacional Autónoma de Nuevo León, Año 20, No. 85.

[12] CONANP (2022). *Programa Nacional de Conservación de Tortugas Marinas*, pp. 27-41.

[13] The Ramsar Convention (2011). *Information Sheets on Ramsar Wetlands: Laguna Santa María–Topolobampo–Ohuira*. https://rsis.ramsar.org/ris/2025?language=en.

[14] Pacific Birds Habitat Joint Venture, *The Flyways*. https://pacificbirds.org/birds-flyways/the-flyways/

[15] ENGILIS, A. JR., et. al. (1998). *Shorebird Surveys in Ensenada Pabellones and Bahia Santa Maria, Sinaloa, Mexico: Critical Winter Habitats for Pacific Flyway Shorebirds.* Wilson Bull, 110(3), p. 339.

[16] Ducks Unlimited de México (DUMAC) (2007). *28 humedales para las aves acuáticas en México*. Mundo Dumac. http://www.dumac.org/dumac/habitat/.

1.2. Coastal Communities: Cultural Heritage and Sustainable Livelihoods

The coastal communities of the GC are home to nearly 11 million people, with a population that is approximately 50% women and 26% under the age of 15[17]. These communities include Indigenous peoples such as the *Cucapá, O'otham, Comca'ac or Seri, Yoreme* and *Yoreme-Mayo*[18]. Their traditional knowledge and practices—such as artisanal fishing and shellcraft—are deeply embedded in the region's cultural identity and play a vital role in the stewardship of coastal ecosystems[19].

The GC's economy relies heavily on fishing, aquaculture and tourism. Fishing provides jobs for around 50,000 people and dominates national fleets for shrimp, tuna and sardine[20]. The area also exports nearly half of Mexico's lobster catch, generating approximately USD 35 million annually[21]. Tourism is a major economic driver, contributing over USD 2.4 billion in the state of Baja California Sur alone, with activities like whale watching, diving and sport fishing generating millions in additional revenue[22]. Additionally, the GC supports economically significant waterfowl hunting, as ducks and geese migrate from the United States (U.S.) and Canada.

II. General Overview of the LNG Projects and the Governance Challenges

The U.S. is the world's leading exporter of LNG, with exports expected to double by the end of the decade. Most of this gas is extracted through fracking from the Permian Basin, located in Texas and New Mexico. Mexico offers a strategic location for export infrastructure as the proposed liquefaction terminals in the Northwest part of the country would enable LNG to be shipped across the GC to Asian markets. Presently, we have identified four LNG projects that are planned for the GC region, which are described in more detail below.

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[17] Instituto Nacional de Estadística y Geografía (INEGI) (2020). *Censo de Población y Vivienda*. https://www.inegi.org.mx/programas/ccpv/2020/.

[18] LUQUE AGRAZ, D., Gómez, E. (2007). *La Construcción de la Región del Golfo de California desde lo Ambiental y lo Indígena*, Revista de Sociedad, Cultura y Desarrollo, enero-abril, año/Vol.3, Número 1, Universidad Autónoma Indígena de México, Mochicahui, El Fuerte, Sinaloa, pp. 83-116.

[19] BOEGE, Eckart (coord.) (2024). *Etnografía del patrimonio biocultural de las regiones y territorios indígenas de México*. Vol. I. Regiones bioculturales del Noroeste de México. CDMX: Secretaría de Cultura, INAH.

[20] DOODE-WONG (2001). *El Golfo de California: surgimiento de nuevos actores sociales, sustentabilidad y región,* Estudios Sociales, Revista de Investigación del Noroeste, vol. XI no. 21 enero-Julio, CIAD, pp. 25 - 56.

[21] Comisión Nacional de Acuacultura y Pesca (CONAPESCA) (2017). *Pesquería de Langosta, de gran valor para México*. https://shorturl.at/Ehssu.

[22] Figures reported by the Ministry of Tourism of Baja California Sur in the year 2022. See Ministry of Tourism and Economy http://sig.bcs.gob.mx/seip/app/estadistica_inf_estra_tur.htm.

Figure 1. Map of Proposed LNG Projects in the Gulf of California. (Source: *DAN and Earth Insight*)
Note: The map includes only proposed LNG projects with export components. Proposed liquefaction projects intended solely for domestic use are not shown.

1. Sonora LNG Terminal ("Terminal de GNL de Sonora" / "Saguaro Energía") and "STGN Sierra Madre (Frontera-Puerto Libertad)" Pipeline

The U.S.-based company Mexico Pacific Holdings, L.P. (Mexico Pacific), plans to build the Sonora LNG Terminal—referred to in official Mexican documents as "*Terminal GNL de Sonora*", and known as "*Saguaro Energía*"—in Puerto Libertad, located in the municipality of Pitiquito, in the state of Sonora, Mexico. The facility is authorized by the U.S. Department of Energy (DOE) to export 621 billion cubic feet per year (Bcf/yr) of LNG to non-Free Trade Agreement (non-FTA) countries. An additional export volume of 291.22 Bcf/yr to non-FTA countries is currently pending DOE approval[23].

[23] The 621 Bcf/yr authorization to export LNG to non-FTA countries was granted by the U.S. Department of Energy (DOE) in 2018 under DOE/FE Order No. 4312 (Docket 18-70-LNG), *Opinion and Order Granting Long-Term, Multi-Contract Authorization to Export U.S.-Sourced Natural Gas by Pipeline to Mexico for Liquefaction and Re-Export in the Form of Liquefied Natural Gas to Non-Free Trade Agreement Countries* (December 14, 2018), available at: https://www.energy.gov/sites/prod/files/2018/12/f58/ord4312.pdf. This authorization was later amended to extend the export term through 2050 under DOE/FECM Order No. 4312-A (June 3, 2022), available at:

Additionally, through its affiliate Transportadora de Gas Sierra Madre, S. de R.L. de C.V., the company proposes the STGN Sierra Madre (Frontera-Puerto Libertad) pipeline project. This pipeline would span over 800 kilometers, with a 48-inch (121 cm) diameter, crossing 16 municipalities in the states of Chihuahua and Sonora to deliver gas to the LNG terminal, from where it would be exported across the GC[24].

1.1. Timeline and Current Status

Mexico Pacific was initially granted an Environmental Impact Authorization (EIA) in 2006 to a different company, which had planned to build a regasification terminal designed to receive LNG to process the fuel and send it to the U.S. through pipelines[25]. Relying on that permit, Mexico Pacific later requested its modification to build and operate a liquefaction terminal instead[26]. This modification—approved without requesting a new Environmental Impact Statement (EIS)—is concerning, given that liquefaction and regasification facilities involve fundamentally different infrastructure, industrial processes and environmental impacts. For instance, liquefaction terminals emit higher levels of greenhouse gases (GHGs) and toxic pollutants than regasification terminals and pose greater explosion risks due to the use of refrigerants such as propane and ethylene[27]. Consequently, a new and comprehensive environmental impact assessment should have been conducted to account for the significant change in the nature of the project. Notwithstanding, this did not occur.

On March 2, 2023, the STGN Sierra Madre (Frontera-Puerto Libertad) pipeline's Regional Modality Environmental Impact Statement (EIS-R) and a Risk Study (*Estudio de Riesgo)* were published in the ASEA Gazette No. ASEA/09/23[28]. Following a citizen's request, the National Agency for Industrial Safety and Environmental Protection of the Hydrocarbons Sector (ASEA)—the federal authority responsible for overseeing environmental compliance and operational safety in hydrocarbon-related activities—authorized the public consultation process beginning on March 17, 2023. However, maps and geographic coordinates were redacted, preventing the public from determining the exact location of the infrastructure. The project was ultimately approved on November 8, 2023. Additional environmental impact

https://www.energy.gov/sites/default/files/2022-06/ord4248A_4312A_2050ext.pdf. In a separate proceeding (Docket 22-167-LNG), Mexico Pacific requested additional authorization to export 425.57 Bcf/yr of U.S.-sourced natural gas: 134.35 Bcf/yr for pipeline export to Mexico and 291.22 Bcf/yr for re-export as LNG. These volumes were authorized by DOE in April 2023 under DOE/FECM Order No. 4995, *Order Granting Long-Term Authorization to Export Natural Gas to Mexico and to Other Free Trade Agreement Nations*, available at: https://www.energy.gov/sites/default/files/2023-05/ord4995.pdf. However, the portion of the request seeking authorization to re-export the 291.22 Bcf/yr of LNG to non-FTA countries remains under DOE review.

[24] MEXICO PACIFIC. *El Gasoducto Sierra Madre*. https://mexicopacific.com/es/gasoducto-sierra-madre/.

[25] SEMARNAT (November 16, 2006). *Oficio SGPA/DGIRA/DDT/226.06*.

[26] ASEA (August 9, 2018). *Oficio ASEA/UGI/DGGPI/1629/2018*.

[27] This conclusion is derived from anticipated emissions of the Saguaro Energía regasification terminal and reported emissions from a similar sized liquefaction in Darwin, Australia. The liquefaction terminal has 600 times the NOx emissions, 150 times the carbon monoxide emissions and 8000 times the Volatile Organic Compounds (VOCs). Australian Government: Department of Climate Change, Energy, the Environment and Water, National Pollutant Inventory: 2021/2022 report for SANTOS LIMITED, Darwin Liquefied Natural Gas Plant - Wickham, NT https://ntepa.nt.gov.au/__data/assets/pdf_file/0009/1211040/epl217-02-santos-dlng-annual-environmental-monitoring-report-2022.pdf.

[28] ASEA (March 30, 2023). *Gaceta Ecológica ASEA/13/2023*, Ciudad de México.

assessments have also been submitted for related infrastructure works in the Puerto Libertad area, including support facilities and site preparation activities.
On March 13, 2025, the Mexican Navy Ministry (SEMAR) published in the *Diario Oficial de la Federación* a concession granted to Mexico Pacific Land Holdings, S. de R.L. de C.V., and Mexico Pacific Permits Holdings, S. de R.L. de C.V., for the construction and operation of a private LNG port terminal in Puerto Libertad[29]. The project includes an L-shaped auxiliary dock, a main pier with two LNG berths, a dock for smaller vessels and an 800-meter turning basin[30]. The infrastructure spans over 74,000 m² and involves an estimated investment of nearly 4 billion pesos.[31]

Although construction of the project had already begun, it is currently suspended pending the resolution of five constitutional "*amparo"* lawsuits[32].

These developments have raised significant alarm among a wide range of stakeholders. On July 2, 2024, more than 30 civil society organizations sent a formal letter to Mexican President Claudia Sheinbaum expressing serious concerns about the project[33]. Similar concerns were later echoed by 40 scientists, oceanographers and photographers from the National Geographic Society[34]. Throughout 2024 and 2025, additional civil society groups—including the Natural Resources Defense Council (NRDC)—addressed letters to the project developer and associated actors, emphasizing the substantial environmental and social risks involved[35]. These communications underscored the legal, ecological, social and reputational liabilities associated with advancing large-scale LNG infrastructure in such a highly sensitive and biodiverse region[36].

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[29] Secretaría de Gobernación (SEGOB) (March 13, 2025). *Diario Oficial de la Federación*, https://dof.gob.mx/nota_detalle.php?codigo=5751771&fecha=13/03/2025#gsc.tab=0.

[30] Idem.

[31] Diario Oficial de la Federación (March 13, 2025). *TÍTULO de Concesión que otorga la Secretaría de Marina a favor de las personas morales México Pacific Land Holdings, S. de R.L. de C.V. y México Pacific Permits Holdings, S. de R.L. de C.V., para la construcción, equipamiento, uso, aprovechamiento y explotación de una instalación portuaria de uso particular para el manejo de gas natural licuado en Puerto Libertad, Estado de Sonora*, pp. 8 and 17. https://dof.gob.mx/nota_detalle.php?codigo=5751771&fecha=13/03/2025#gsc.tab=0.

[32] An *amparo* lawsuit in Mexico is a judicial action that seeks the protection of the human rights explicitly guaranteed by the Mexican Constitution or by applicable international treaties. An *amparo* complaint can only be filed when there is an action or omission by a government agency which violates such human rights.
See SEMARNAT (March 19, 2025). *Semarnat informa que en la presente Administración no se ha emitido autorización ambiental para el proyecto Saguaro*. https://www.gob.mx/semarnat/prensa/semarnat-informa-que-en-la-presente-administracion-no-se-ha-emitido-autorizacion-ambiental-para-el-proyecto-saguaro?idiom=es-MX.

[33] ESPINOSA, Verónica (July 6, 2024), *Alertan a Sheinbaum sobre proyectos de gas que afectarían al Golfo de California.* Proceso. https://www.proceso.com.mx/nacional/estados/2024/7/6/alertan-sheinbaum-sobre-proyectos-de-gas-que-afectarian-al-golfo-de-california-332366.html.

[34] SANTAMARINA, Verónica (October 25, 2024). *Denuncian que el proyecto Saguaro es una grave amenaza para las ballenas.* Animal Político. https://animalpolitico.com/tendencias/estilo-de-vida/proyecto-saguaro-amenaza-balleas.

[35] REYNOLDS, Joel (June 10, 2025). *Mexico Pacific's Saguaro LNG: Wrong Project, Wrong Place*. Natural Resources Defense Council. https://www.nrdc.org/sites/default/files/2024-12/nrdc-open-letter-to-mexico-pacific-ceo.pdf.

[36] URBÁN RAMÍREZ, J., et al. (2025). *Impacto del Proyecto Saguaro Energía GNL a los cetáceos del Golfo de California. Resumen Ejecutivo*. Programa de Investigación de Mamíferos Marinos. Universidad Autónoma de Baja

2. AMIGO (*American Mexican Integrated Gas Operations*) LNG Terminal

LNG Alliance Pte Ltd (Singapore) and Epcilon LNG LLC (U.S.) intend to develop the AMIGO LNG terminal in the port city of Guaymas, located in the municipality of Guaymas, in the state of Sonora. The project aims to export 395 Bcf/yr of LNG, targeting Asian markets[37]. The gas will be sourced from the Permian Basin in the U.S. and —purportedly— transported via existing pipeline infrastructure. The 150-acre site features deepwater ocean access, allowing the berthing of all LNG vessel types up to 265,000 m^3 [38].

The project received authorization from DOE on December 8, 2020, under Docket No. 20-31-LNG, granting long-term export rights to both Free Trade Agreement (FTA) and non-FTA countries[39].

While it has secured this export authorization in the U.S., the project remains in the design phase and has not yet been submitted for environmental impact assessment in Mexico. However, on March 31, 2025, AMIGO LNG, S.A. de C.V. submitted to ASEA a request for a General Land-Use Change Authorization, registered under log number 09/DSA0047/03/25. As far as we know, this request remains pending and has not yet been resolved or authorized.

3. Vista Pacífico LNG Terminal and Corredor Norte Pipeline

Sempra, a U.S.-based energy infrastructure company with operations across North America, is proposing—through Vista Pacífico LNG, S.A.P.I. de C.V.—to build the Vista Pacífico LNG terminal in the port of Topolobampo, located in the municipality of Ahome, in the state of Sinaloa, with authorization to export 240 Bcf/yr of LNG[40]. The project involves the installation of a floating LNG unit with supporting infrastructure, moored to a jetty

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California Sur; and Instituto Climático de México (ICM) (2025). *Análisis de emisiones de GEI de ciclo de vida del proyecto de exportación de GNL, Saguaro Energía*. https://www.iniciativaclimatica.org/analisis-de-emisiones-de-gei-de-ciclo-de-vida-del-proyecto-de-exportacion-de-gnl-saguaro-energia/.

[37] DOE (December 8, 2020). *FE Docket No. 20-31-LNG, DOE/FE Order No. 4629*, *Opinion and Order Granting Long-Term Authorization to Export Natural Gas to Mexico for Liquefaction, and to Re-Export U.S.-Sourced Natural Gas in the Form of Liquefied Natural Gas from Mexico to Free Trade Agreement and Non-Free Trade Agreement Nations*, p. 55. https://www.energy.gov/sites/prod/files/2020/12/f81/ord4629.pdf.

[38] LNG ALLIANCE (2024). *Amigo LNG*. https://www.lngalliance.com/projects-7.

[39] DOE, Office of Fossil Fuel (December 8, 2020). *Docket No. 20-31-LNG. Opinion and Order Granting Long-Term Authorization to Export Natural Gas to Mexico for Liquefaction, and to Re-Export U.S.-Sourced Natural Gas in the Form of Liquefied Natural Gas from Mexico to Free Trade Agreement and Non-Free Trade Agreement Nations*. https://www.energy.gov/sites/prod/files/2020/12/f81/ord4629.pdf.

[40] DOE (April 9, 2021). *FE Docket No. 20-153-LNG, DOE/FE Order No. 4688, Order Granting Long-Term Authorization to Export Natural Gas to Mexico and to Other Free Trade Agreement Nations*, p. 11. https://www.energy.gov/sites/default/files/2021-04/ord4688.pdf.

platform.[41] The total project footprint spans 74 hectares and lies within the boundaries of Ramsar Site No. 2025: "Santa María–Topolobampo–Ohuira" [42].

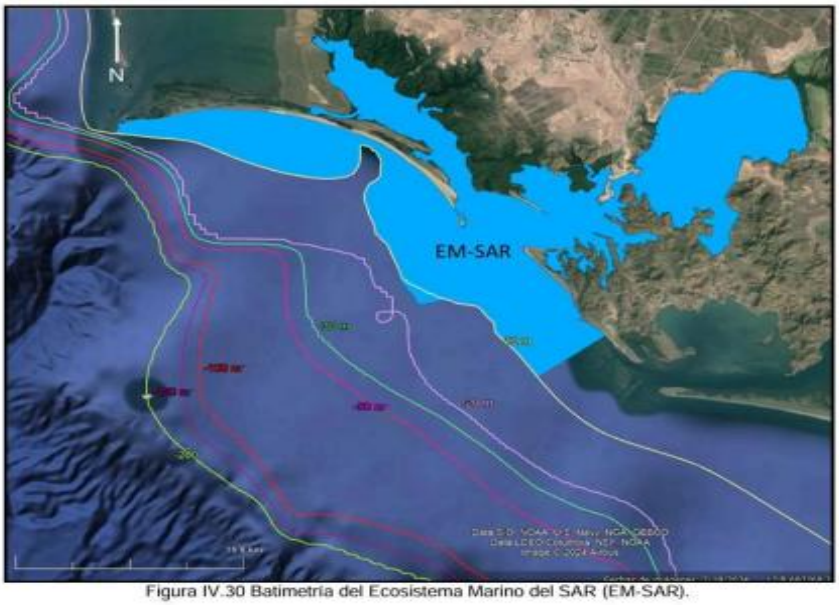

Figura IV.30 Batimetría del Ecosistema Marino del SAR (EM-SAR).

Figure 2. Map of the Regional Marine Environmental System (EM-SAR, for its initials in Spanish) as presented in the Vista Pacífico LNG EIS-R. This map provides the general territorial context of the project but does not show the precise location of the infrastructure or its relation to the Ramsar site boundaries. (Source: *Vista Pacifico LNG EIS-R*)[43]

To supply 240Bcf/yr of gas, the company Gasoducto Corredor Norte, S.A.P.I. de C.V. plans to build the Corredor Norte pipeline, with a 30-inch (76 cm) diameter and a total length of 81 km—75.4 km on land and 5.6 km offshore—crossing the municipalities of Ahome and El Fuerte in Sinaloa[44]. The pipeline would connect to the Vista Pacífico LNG marine platform and form part of the Guaymas–El Oro transportation system.

3.1. Timeline and Current Status

On September 23, 2024, Vista Pacífico LNG, S.A.P.I. de C.V. submitted an EIS-R and a Risk Study to ASEA[45]. The project was published in ASEA Gazette No. ASEA/39/2024 on

[41] Vista Pacífico LNG. *EIS-R*, p. I-1. https://shorturl.at/JIVXm.

[42] Although the exact location of the Vista Pacífico LNG project is redacted in the EIS-R, the document explicitly states that the project is located within Ramsar Site No. 2025 "Santa María–Topolobampo–Ohuira", affecting 21.90 hectares of the project's marine area. See Vista Pacífico LNG. *EIS-R*, pp. 107, 240, 259 and 742. https://shorturl.at/JIVXm.

[43] Vista Pacífico LNG. *EIS-R*, Chapter IV, p.188. https://shorturl.at/JIVXm.

[44] Vista Pacifico LNG. *EIS-R*, p. II-3. https://shorturl.at/JIVXm; Gasoducto Corredor Norte. *EIS-R,* p. V-1. http://104.209.210.233/gobmx/repositorio/DIAGNOSTICO_DE_ACCESIBILIDAD/MIA/25SI2024G0039/ER.pdf

[45] ASEA (September 26, 2024). *Gaceta Ecológica ASEA/39/2024*. http://104.209.210.233/gobmx/repositorio/DIAGNOSTICO_DE_ACCESIBILIDAD/DE/GACETA/2024/GACETA_39-2024.pdf.

September 26 and is currently under review. Following this, on October 10, residents of Topolobampo formally requested a public consultation on the project[46].

According to applicable regulations, the EIS must be prepared using the best available techniques and methodologies and must incorporate the most effective prevention and mitigation strategies[47]. Project proponents are required to transparently disclose potential impacts to both authorities and communities, recognizing that environmental protection and ecological balance are essential for both human and ecosystem health and are fundamental rights.

However, the exact coordinates and site layout were redacted from the publicly available EIS-R, making it impossible to determine the precise location of the project—either in general terms or in relation to the Ramsar site boundaries.

Moreover, the EIS-R contains incomplete and insufficient baseline data. For example, the air quality assessment is based on a single day of measurements—September 7, 2024—and relies on data from an online weather forecasting website (www.meteoblue.com), which does not capture long-term or seasonal variability[48]. The lack of rigorous long-term data and the absence of cumulative impact analysis across projects in the GC significantly undermine the reliability of the assessments. Without transparent, science-based evaluations, there is no foundation for accountability or effective mitigation, placing ecosystems and communities at greater risk.

In the absence of a comprehensive environmental impact assessment, critical information on regional ecosystems, air and soil quality and cumulative impacts remain unknown. Furthermore, the EIS-R omits any information or analysis regarding the navigation routes that LNG carriers would follow within the GC, making it impossible to evaluate the potential impacts of maritime traffic on this sensitive area.

On the same date—September 23, 2024—as the Vista Pacific LNG filing, Gasoducto Corredor Norte, S.A.P.I. de C.V. also submitted an EIS-R and a Risk Study for the associated natural gas transportation system[49]. The project was published in the same Gazette and remains under evaluation[50]. As with the LNG terminal, the exact location of the pipeline has been redacted from the publicly available EIS, making it impossible to determine its precise route.

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[46] *Public consultation request letter dated October 10, 2024.*

[47] Ley General del Equilibrio Ecológico y la Protección al Ambiente (LGEEPA) (1998). Article 35. https://www.diputados.gob.mx/LeyesBiblio/pdf/148_300123.pdf.

[48] Vista Pacífico LNG. *EIS-R*, table IV.43, section IV.2.1.1.2. https://shorturl.at/JIVXm.

[49] Gasoducto Corredor Norte (2024). *Executive Summary.* http://104.209.210.233/gobmx/repositorio/DIAGNOSTICO_DE_ACCESIBILIDAD/MIA/25SI2024G0039/Resumen_Ejecutivo.pdf; *EIS-R.* http://104.209.210.233/gobmx/repositorio/DIAGNOSTICO_DE_ACCESIBILIDAD/MIA/25SI2024G0039/ER.pdf

[50] ASEA (September 26, 2024). *Gaceta Ecológica ASEA/39/2024*. http://104.209.210.233/gobmx/repositorio/DIAGNOSTICO_DE_ACCESIBILIDAD/DE/GACETA/2024/GACETA_39-2024.pdf.

4. GNL Cosalá Liquefaction Plant

GNL Cosalá, S.A. de C.V., proposes the construction and operation of a two-phase LNG plant with a total processing capacity of 146 million Nm³ per year. The project would be located on a 35.8-hectare site in the municipality of Mazatlán, in the state of Sinaloa[51], and would cover a developed area of 180,296.77 m². It would use propane-based pre-cooling liquefaction technology[52]. Once liquefied, the gas would be stored in four vertical LNG tanks, each with an effective capacity of 200 m³, for a total of 800 m³[53].

Although not designed for export, the GNL Cosalá plant constitutes yet another LNG project proposed in the GC region. Together with the previously described export-oriented terminals, it highlights the broader trend of increasing gas infrastructure development in an area of exceptional ecological, social and cultural sensitivity.

4.1. Timeline and Current Status

The proposed project was published in ASEA Gazette No. ASEA/38/2024 on September 19, 2024 and is currently under evaluation. On October 3, 2024, members of the local community requested a public consultation on the project[54].

III. Environmental Impacts Caused by LNG Infrastructure, Operation and Maritime Transport

This section outlines some of the main environmental impacts associated with the construction, operation and maritime transport activities linked to the proposed LNG projects in the GC region.

1. Impacts on the Atmosphere and Climate

Natural gas is composed primarily of methane (CH_4), a greenhouse gas up to 80 times more potent than carbon dioxide (CO_2) over a 20-year period, nearly 30 times more potent over a 100-year period and responsible for approximately 30% of global warming since the pre-industrial era[55]. While burning fossil gas releases less carbon dioxide than coal or oil,

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[51] GNL Cosalá, S.A. de C.V. *Construcción y operación de planta de licuefacción de GNL de la Empresa GNL Cosalá, S.A. de C.V., ubicada en fracción 2 del predio rústico Casas Viejas, El Habal, C.P. 82277, municipio de Mazatlán, Sinaloa*. *Modalidad Particular y Estudio de Riesgo*, Resumen Ejecutivo, p. II-2. http://104.209.210.233/gobmx/repositorio/DIAGNOSTICO_DE_ACCESIBILIDAD/MIA/25SI2024G0034/Resumen_Ejecutivo.pdf.

[52] Ibid, pp. II-1 and 7.

[53] Idem.

[54] *Public consultation request letter dated October 3, 2024.*

[55] United Nations Environment Programme (UNEP) and Climate and Clean Air Coalition (2021). *Global Methane Assessment: Benefits and Costs of Mitigating Methane Emissions*. Nairobi UNEP, p. 11. https://www.ccacoalition.org/sites/default/files/resources/2021_Global-Methane_Assessment_full_0.pdf.

significant amounts of methane are emitted during its production and transportation over its lifecycle. The oil and gas industry is a major source of methane emissions worldwide. Upstream and midstream methane emissions alone account for nearly 40% of the total greenhouse gas footprint of the U.S.-exported LNG and the overall greenhouse gas footprint for LNG as a fuel source is 33% greater than that of coal when analyzed using a 20-year global warming potential (GWP20)[56]. These findings challenge the assumption that fossil gas is a cleaner transition fuel. Methane also contributes to harmful ground-level ozone formation.

A recent life-cycle analysis of the GHG emissions of the "*Terminal GNL de Sonora*" project reveals the potential contribution of new LNG infrastructure to global climate change[57]. The study estimated emissions from gas production in the Permian Basin of the U.S., its transport in pipelines to Sonora, processing into LNG and maritime transport to China for use in gas-fired power plants[58]. In total, the study estimated that the project will add up to 73 $MtCO_2e$ per year, or the same GHG emissions as 17.4 million lightweight vehicles driving for a year[59].

This additional gas on the market comes at a time when the Intergovernmental Panel on Climate Change (IPCC) warns that keeping the 1.5° C goal will require "deep, rapid, and, in most cases, immediate GHG emissions reductions" across "all sectors this decade"[60]. To meet net zero targets by 2050, the International Energy Agency estimates that demand for fossil gas must *decrease* by up to 8% per year between 2030 and 2040[61].

The life-cycle report on "*Terminal GNL de Sonora*" concludes that the project "could represent a barrier to climate efforts" because "it could potentially displace the installation of up to 37.7 GW of wind capacity or 54.4 GW of solar capacity"[62]. This missed opportunity would "represent 11% and 7% of the capacity required [from each respective technology] to reach the International Energy Agency's net zero emissions scenario"[63]. The project's long-term climate harms could be even greater. The report does not consider the other LNG export projects slated to export U.S. gas from Mexico's Northwest coast[64], which could further setback global mitigation goals. As a result, the report recommends that the developer

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[56] HOWARTH, R.W. (2024). *The greenhouse gas footprint of liquefied natural gas (LNG) exported from the United States.* https://www.research.howarthlab.org/publications/Howarth_LNG_assessment_preprint_archived_2023-1103.pdf.

[57] Instituto Climático de México (ICM) (2025). *Análisis de emisiones de GEI de ciclo de vida del proyecto de exportación de GNL Saguaro Energía*. https://www.iniciativaclimatica.org/analisis-de-emisiones-de-gei-de-ciclo-de-vida-del-proyecto-de-exportacion-de-gnl-saguaro-energia/.

[58] Ibid, p. 12.

[59] Ibid, p. 6.

[60] Intergovernmental Panel on Climate Change (IPCC) (2023). *Summary for Policymakers, Climate Change (2023): Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*, p. 20. https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_FullVolume.pdf.

[61] International Energy Agency (IEA) (2023). *World Energy Outlook 2023*.

[62] ICM (2025). *Análisis de emisiones de GEI de ciclo de vida del proyecto de exportación de GNL, Saguaro Energía*. p. 6.

[63] Ibid, p. 30.

[64] Ibid, p. 5.

conduct a full accounting of the total GHG emissions from the "*Terminal GNL de Sonora*" project[65]. In light of the project's scale and the urgency of the climate crisis, the study notes that "it will be necessary to find alternatives to stop the expansion of the use of fossil fuels or to promote the accelerated development of carbon-free sources" [66].

For maritime transport, natural gas is cooled to -160°C, reducing its volume 600 times and converting it into LNG[67]. LNG is transported by high-powered methane carriers that can hold up to 260,000 m³ of liquefied gas. The global LNG fleet includes approximately 701 vessels, most of which are less than 30 years old[68].

Unlike pipeline gas, LNG is more expensive due to its complex supply chain, which includes extraction, liquefaction, shipping, regasification and final distribution[69]. The LNG industry emits an estimated 2.3 gigatonnes of CO_2 annually—around 5% of global GHG emissions—excluding significant methane leaks across its value chain, particularly during maritime transport and infrastructure operations[70].

2. Impacts on Water and Marine Ecosystems

Liquefaction plants require vast amounts of seawater for cooling processes, which is typically discharged back into the ocean mixed with chemicals and industrial waste, degrading water quality and harming marine ecosystems[71].

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[65] ICM (2025). Análisis de emisiones de GEI de ciclo de vida del proyecto de exportación de GNL, Saguaro Energía. p. 32.

[66] Idem.

[67] UNEP and Climate and Clean Air Coalition (2021). *Global Methane Assessment: Benefits and Costs of Mitigating Methane Emissions*. Nairobi: UNEP, p. 6. https://www.ccacoalition.org/sites/default/files/resources/2021_Global-Methane_Assessment_full_0.pdf.

[68] DEL VALLE GUERRERO, A. L. (2014). *El gas natural licuado y su impacto en la circulación de la energía. Análisis multiescalar*. Revista Transporte y Territorio, núm. 11, Universidad de Buenos Aires Buenos Aires, Argentina, p. 9.

[69] ARIAS, J. M. (2006). *Gas natural licuado, tecnología y mercado*. Trabajo de investigación, Instituto Argentino de la Energía. pp. 12-34.

[70] GILBERT, A. Q., Sovacool, B. K. (2017). *US Liquefied Natural Gas (LNG) Exports: Boom or Bust for the Global Climate?*. Energy, 141, 1671– 1680.

[71] By way of illustration, Shell's Prelude FLNG facility will draw 50 million liters of cold water from the ocean every hour to help cool the natural gas. See Dana Energy, LNG. https://www.danaenergy.com/liquefied-natural-gas-lng/.

Additionally, LNG carriers release ballast[72] and bilge water[73], which often contains invasive species and pathogens that can disrupt local biodiversity when unloaded at ports or in open seas[74].

3. Impacts on Sea Turtles, Marine Mammals and Associated Species

The construction and operation of LNG terminals, along with the associated increase in maritime traffic across the GC, raise serious concerns for endangered marine species. Due to the location and scale of the proposed projects, potential navigation routes—although not disclosed in recent environmental filings—could intersect with ecologically sensitive areas. As previously mentioned, the EIS-R for Vista Pacífico LNG omits information on shipping routes, making it impossible to determine the potential impact of the project.

The 2006 EIS for the "Terminal GNL de Sonora" regasification project included some information on potential shipping routes. Although this refers to a different type of project and is now outdated and inadequate for evaluating current proposals, it gives a rough idea of the types of maritime routes LNG carriers might follow in the region and the sensitive ecosystems they could affect. Its inclusion here is **solely for illustrative purposes** and does not imply any validation of the information contained in the 2006 EIS—much less of the current export project, which has not been subject to a new and project-specific environmental impact assessment despite the fundamental differences in infrastructure, industrial processes and environmental impacts and risks.

These hypothetical routes would pose significant risks to endangered marine species, including sea turtles and cetaceans, among others. For example, LNG vessels following such paths would affect five species of sea turtles: Loggerhead (*Caretta caretta),* leatherback *(Dermochelys coriacea*), hawksbill *(Eretmochelys imbricata*), olive ridley *(Lepidochelys olivacea*) and green turtle *(Chelonia mydas*)[75]. Due to the large size and limited maneuverability of LNG vessels, these turtles are at high risk of ship strikes, which could lead to fatalities for these vulnerable animals.

Similarly, three endangered whale species—fin whale (*Balaenoptera physalus),* humpback whale *(Megaptera novaeangliae)* and blue whale *(Balaenoptera musculus*)—would be impacted by both ship collisions and underwater noise pollution. These impacts could affect over 25% of their populations in some cases[76]. Cetaceans such as whales and orcas rely on

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[72] Ballast water serves to maintain the ship's balance and consists of flooding a special tank inside the hull with seawater; the volume of ballast is proportional to the size of the ship and cargo.

[73] Bilge water is an explosive mixture according to International Maritime Organization standards and is made up of salt water, cooling water, fuel oil and lubricating oil, as a result of ship cleaning and sewage discharges.

[74] GONZÁLEZ L. P., Salamanca Giménez, A. (2013). *Contaminación biológica del mar por el agua de lastre de los buques y medios para evitarla*. Grupo de Medio Ambiente y Desarrollo Sostenible, Asociación de Ingenieros Navales y Oceánicos de España, p. 6.

[75] All species mentioned are listed under Mexico's NOM-059-SEMARNAT-2001 as endangered, with some also protected under *CITES Appendix I*.

[76] PEYNADOR, C. (2006). *Informe Técnico sobre afectaciones de Saguaro Energía.*

echolocation, communication and coordinated hunting to survive[77]. Underwater noise from shipping and industrial activities disrupts these vital behaviors, forcing them to alter feeding, migration and habitat use. A well-documented case in British Columbia showed orcas abandoning their habitat for six years due to dredging noise[78]. Additionally, noise and chemical pollution harm fish behavior and reproduction, threatening food chains and regional biodiversity[79].

The Mexican Society for Marine Mammalogy has warned that expanding LNG terminals could severely impact marine mammals through noise pollution, increased ship traffic and collisions—one of the leading causes of whale deaths globally[80]. Alarmingly, 92% of whale habitats overlap with global shipping lanes, yet less than 7% have proper protections[81]. In this regard, the Vista Pacífico LNG EIS-R itself acknowledges the presence of marine mammals near the project site and recognizes that vessel traffic poses a potential impact to these species[82].

A recent study published in January 2025 by the *Universidad Autónoma de Baja California Sur* (Autonomous University of Baja California Sur) analyzed the potential impacts of methane tanker traffic in the GC, using the 2006 EIS for the "Terminal GNL de Sonora" regasification project as a point of reference. The study concluded that "LNG tanker traffic through the GC threatens to become the main cause of death of large whales [in the Gulf] due to collisions"[83]. The project would affect 30 different species of whales and dolphins, particularly resident, migratory and abundant species such as the fin whale, blue whale, humpback whale, sperm whale, orca, Risso's dolphin and short-finned pilot whale[84]. As a result of the project's impacts, the report also concludes that "[t]he GC [Gulf of California] would cease to be a suitable area for the reproduction and feeding of migratory species that depend on the region"[85].

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[77] TYACK, P., Miller, E.H. (2002). *Vocal communication in whales and dolphins*. In Slater, P. J. B., Bradbury, J. W. S., M. S. A. (eds.), cited in MAREA, *Evaluación de los posibles impactos del proyecto de gas natural licuado en ballenas y delfines del Golfo de California.*

[78] WEILGART, L. (2007). *The impacts of anthropogenic ocean noise on cetaceans and implications for management*. Canadian Journal of Zoology, 85(11), 1091-1116, cited in MAREA, *Evaluación de los posibles impactos del proyecto de gas natural licuado en ballenas y delfines del Golfo de California.*

[79] CANDOLIN, U., Rahman T., (2023). *Behavioral responses of fishes to anthropogenic disturbances: Adaptive Value and Ecological Consequences*. Fish Biology. 2023;103:773–783.

[80] SOMEMMA (2024). *Comunicación dirigida a Alicia Bárcena, Secretaría de Medio Ambiente y Recursos Naturales.* https://drive.google.com/file/d/1UEcmIz8sTIZRc6sAKZQJDXlGTwzWrehp/view?usp=sharing.

[81] NISI, A. C., Welch, H., Brodie, S., Leiphardt, C., Rhodes, R., Hazen, E. L., Abrahms, B. (2024). *Ship collision risk threatens whales across the world's oceans*. Science, 386(6724), 870-875. https://www.science.org/doi/10.1126/science.adp1950.

[82] Vista Pacifico LNG, *EIS-R*, pp. III-19, IV-234. IV-261.

[83] URBÁN RAMÍREZ, J., et al. (2025). *Impacto del Proyecto Saguaro Energía GNL a los cetáceos del Golfo de California. Resumen Ejecutivo*. Programa de Investigación de Mamíferos Marinos. Universidad Autónoma de Baja California Sur, p. 34.

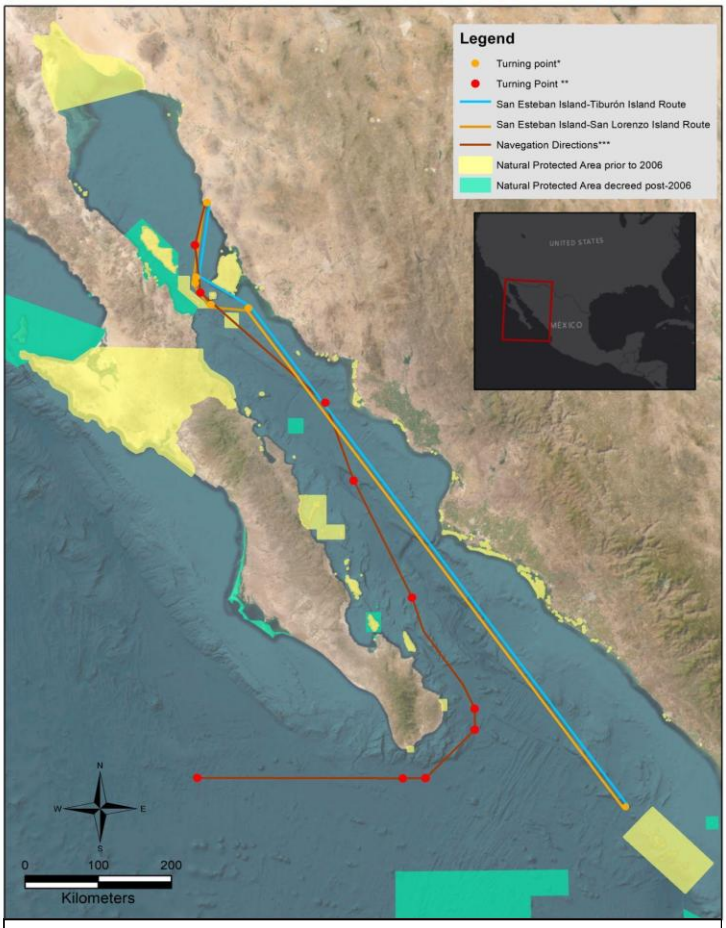
[84] Ibid, p. 3.

[85] Ibid, p. 33.

Furthermore, the study criticizes the reliance on the 2006 EIS—originally prepared for a regasification project—as the basis for authorizing the current liquefaction terminal. It argues that the information used to assess impacts and define mitigation measures is "outdated, erroneous and inconsistent in some respects"[86] and the proposed LNG shipping routes through the Gulf are deemed inadequate for mitigating or avoiding collisions and acoustic disturbances to cetaceans[87]. The authors also emphasize that the developer must consider that areas of high diversity, abundance and regions critical for whales (breeding, rearing and feeding grounds) are not compatible with this type of project[88].

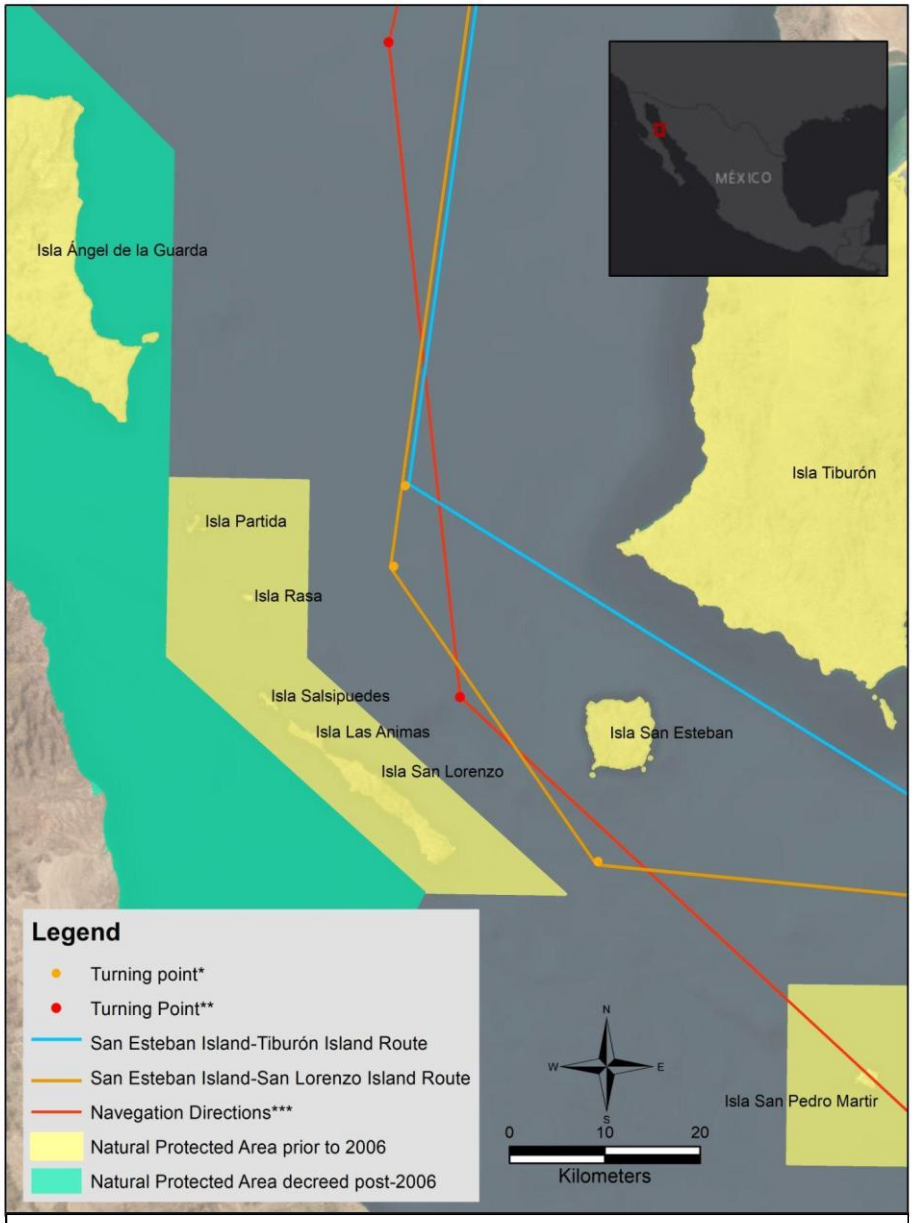
Another serious concern related to LNG maritime transport is the risk of accidental spills. LNG releases can cause fires, explosions, or hazardous LNG vapor clouds, threatening both marine and coastal ecosystems. The GC lacks adequate infrastructure to respond to such emergencies. Furthermore, LNG spills could lead to rapid water temperature drops, lethal to marine life.

[86] URBÁN RAMÍREZ, J., et al. (2025). Impacto del Proyecto Saguaro Energía GNL a los cetáceos del Golfo de California. Resumen Ejecutivo. Programa de Investigación de Mamíferos Marinos. Universidad Autónoma de Baja California Sur, p. 33.
[87] Idem.
[88] Ibid, p. 34.



* These turning points are described as coordinates in the invalid EIS and the incorrectly issued environmental impact authorization, both from 2006.
** These points are based on navigation directions contained in the annex of the outdated and invalid 2006 EIS.
*** This navigation route was traced based on the navigation directions in the annex of the outdated and invalid 2006 EIS.

Figure 3. Potential maritime routes of LNG carriers, based on information included in the 2006 EIS for the "Terminal GNL de Sonora" regasification project and its annex titled "Assessment of the feasibility of navigating large vessels in the Sea of Cortez" (*own translation*). These routes are shown solely for illustrative purposes and do not imply any validation of the information contained in the 2006 EIS—much less of the current export project, which has not been subject to a new and project-specific environmental impact assessment despite the fundamental differences in infrastructure, industrial processes and environmental impacts and risks. (Source: *own elaboration*)



* These turning points are described as coordinates in the invalid EIS and the incorrectly issued environmental impact authorization, both from 2006.
** These points are based on navigation directions contained in the annex of the outdated and invalid 2006 EIS.
*** This navigation route was traced based on the navigation directions in the annex of the outdated and invalid 2006 EIS.

Figure 4. Potential maritime routes of LNG carriers, based on information included in the 2006 EIS for the "Terminal GNL de Sonora" regasification project and its annex titled "Assessment of the feasibility of navigating large vessels in the Sea of Cortez" (*own translation*). These routes are shown solely for illustrative purposes and do not imply any validation of the information contained in the 2006 EIS—much less of the current export project, which has not been subject to a new and project-specific environmental impact assessment despite the fundamental differences in infrastructure, industrial processes and environmental impacts and risks. (Source: *own elaboration*)

4. Impacts on Critical Wetlands and Migratory Birds

The northwestern region of Mexico is a vital stopover and wintering ground for migratory and shorebird species across the Pacific Flyway. Ramsar Site No. 2025 Lagunas de Santa María–Topolobampo–Ohuira is among Mexico´s most critical wetlands for migratory waterfowl. Identified by Ducks Unlimited de México (DUMAC) as one of four key sites supporting 60% of the country's wintering duck populations, it hosts significant numbers of species such as the Green-winged Teal, Northern Pintail and American Wigeon[89]. Ranked ninth among 28 priority wetlands and fourth in importance for wintering aquatic birds, the site plays a vital role in the conservation of migratory species at a hemispheric scale.

During the 2021–2022 season, over 1.37 million shorebirds were recorded in the region—17% of the total in northwestern Mexico. Ohuira and Santa María alone hosted over 236,000 individuals[90]. Santa María supports 69% of Mexico's Snowy Plover population and 17% of American Oystercatchers. Bahía de Ohuira also shelters significant shares of Marbled Godwit, Avocet, Oystercatcher and Willet populations[91].

One of the most pressing threats to this site is the proposed Vista Pacífico LNG project, which directly overlaps 21.9 hectares of Ramsar Site No. 2025, with additional terrestrial facilities located just 0.49 km west[92]. Its area of influence extends across over 9,000 hectares of marine and 25 hectares of terrestrial ecosystems, all within the hydrological influence of the Sinaloa rivers.

The construction, operation and maritime transport associated with LNG liquefaction terminals pose serious risks to wetland ecosystems through dredging, land-use change and water and air pollution. These activities degrade the quality and function of wetlands, directly impacting the shorebirds and migratory species that depend on them.

The proposed Vista Pacífico LNG project threatens the ecological character of Ramsar Site No. 2025. Its own EIS-R confirms the presence of key shorebirds in the terrestrial area, recognizing it as high-quality habitat for species like Willet, American Avocet, Marbled Godwit and American Oystercatcher[93].

One of the proposed shipping routes identified in the 2006 EIS for the "Terminal GNL de Sonora" regasification project would traverse highly sensitive areas, such as San Pedro Mártir Island (*Isla San Pedro Mártir*), a critical seabird habitat that hosts Mexico's largest colony

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[89] The Ramsar Convention. *Informative*. https://rsis.ramsar.org/RISapp/files/RISrep/MX2025RIS.pdf?language=en.

[90] CARMONA, R., Danemann, G., Ayala, V., Arce, N. (2022). *Estado de las aves acuáticas del Noroeste de México*. Pronatura Noroeste y Universidad Autónoma de Baja California Sur. Ensenada, Baja California, p. 5.

[91] Wetlands were prioritized based on two main criteria: (1) the number of shorebird species present at each site that represent more than 5% of their estimated global population and (2) the total abundance of shorebirds observed. Using this methodology, Bahía Ohuira was identified as a priority site due to its significant contribution to global shorebird populations.

[92] Vista Pacifico LNG. *EIS-R*, Chapter III, p. 7.

[93] Vista Pacifico LNG. *EIS-R*, pp. 139, 161, 171 and 174.

of Blue-footed Boobies, possibly the world's largest colony of Brown Boobies, one of the largest Brown Pelican colonies in the country and one of the Gulf of California's largest colonies of Red-billed Tropicbirds. Its isolation and steep cliffs offer safe nesting conditions, while its proximity to highly productive waters—along the migration route of the Pacific sardine—attracts additional birdlife. In total, 17 seabird species and 10 shorebird species have been recorded using the island for feeding and resting.

Additionally, the potential navigation route would also pass near Rasa Island (*Isla Rasa*)—home to around 95% of the global breeding populations of Heermann's Gull (Larus heermanni) and Elegant Tern (Thalasseus elegans)—. Any industrial accident in this vicinity could result in irreversible ecological damage[94].

IV. UNESCO, IUCN and Ramsar: Key Guardians of the Gulf of California's World Heritage and Wetlands

We respectfully urge the **UNESCO World Heritage Committee** and the **Ramsar Secretariat** to call on Mexico to:

- **Provide all planning documents and authorizations** related to existing and proposed LNG projects in the Gulf of California before any potentially irreversible decisions are taken, to ensure the protection and integrity of the site.
- **Conduct a Strategic Environmental Assessment (SEA)** in accordance with international standards, addressing cumulative, synergistic and residual impacts. This SEA must include a dedicated chapter on the site's Outstanding Universal Value (OUV) and be submitted to the World Heritage Committee and the Ramsar Secretariat[95].
- **Ensure rigorous Environmental Impact Assessments (EIAs)** for all development projects in or near the site[96].
- **Apply the preventive and precautionary principles** for all the development projects in or near the property.
- **Enhance international cooperation** with other Ramsar and World Heritage sites along the Pacific Flyway, ensuring that climate adaptation measures do not cause further degradation of wetlands[97].

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[94] VELARDE, E., Wilder, Benjamin T., Felger, Richard S., Ezcurra, E. (2014). *Floristic diversity and dynamics of Isla Rasa, Gulf of California - A globally important seabird island*. Botanical Sciences, 92(1), 89-101.

[95] UNESCO, *Convention concerning the Protection of the World Cultural and Natural heritage Intergovernmental Committee for the Protection of the World Cultural and Natural Heritage. Forty-sixth session New Delhi, India 21 – 31 July 2024 Item 7A of the Provisional Agenda: State of conservation of the properties inscribed on the List of World Heritage in Danger*. https://whc.unesco.org/document/206891 p.93-95.

[96] The Ramsar Convention (2008). *Resolution X.17: Environmental Impact Assessment and Strategic Environmental Assessment: updated scientific and technical guidance*; and (1999). *The Ramsar Convention and impact assessment: strategic, environmental and social*. IUCN (2013). *IUCN World Heritage Advice Note on Environmental Assessment: Environmental Assessment & World Heritage*.

[97] The Ramsar Convention (2008). *Resolution X.24: Climate change and wetlands*.

We call on the **World Heritage Committee** to:

- **Provide technical and expert support** for these assessments.
- **Recommend that Mexico conduct a comprehensive SEA for all LNG projects** in the Gulf of California[98].
- **Urge the phase-out of LNG operations in and around World Heritage properties**.
- **Call on Mexico to deny approvals for new or expanded LNG projects; revoke existing authorizations; and withhold support for fossil fuel infrastructure in ecologically sensitive areas.**

We call on the **Ramsar Secretariat** to:

- **Remind Mexico of its obligations under the Ramsar Convention** to protect the ecological character of designated wetlands[99].
- **Urgently update its national wetland inventory and assess the condition of the Gulf of California wetlands;** particularly the Bahía de Ohuira–Topolobampo–Santa María Ramsar Site, as well as San Pedro Mártir Island, and Bahía de los Ángeles, and surrounding wetlands, which is a potential navigation route for LNG carriers [100].
- **Request a detailed report** from Mexico on the current status and risks facing particularly the Bahía de Ohuira–Topolobampo–Santa María Ramsar Site, as well as San Pedro Mártir Island, and Bahía de los Ángeles.
- **Recommend** Mexico to impose **a moratorium on LNG-related development in the area** until a thorough Strategic Environmental Assessment is completed.

We call on the **IUCN** to:

- **Issue updated technical guidance** on the incompatibility of LNG projects with World Heritage and Ramsar sites protection.
- **Advise UNESCO and Ramsar on the urgent need to apply the precautionary principle** in the Gulf of California.
- **Provide on-the-ground support to assess environmental threats** to the site's biodiversity and integrity.

We call on the **World Heritage Committee, the Ramsar Secretariat and the IUCN** to:

- **Undertake an on-site advisory visit** to assess the potential impacts of the proposed LNG projects on the World Heritage and Ramsar values of the Gulf of California.

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[98] IUCN (2013). *IUCN World Heritage Advice Note on Environmental Assessment: Environmental Assessment & World Heritage*.

[99] The Ramsar Convention, Articles 3 and 8.

[100] The Ramsar Convention (2002). *Resolution VIII.6: A Ramsar Framework for Wetland Inventory*; and (2005). *Resolution IX.1, Annex E: An Integrated Framework for wetland inventory, assessment and monitoring (IF-WIAM).*

Comparable precedents—including Spain's Doñana National Park[101], Germany's Wadden Sea, and Australia's Great Barrier Reef—have led to calls for Strategic Environmental Assessments and the suspension of fossil fuel projects that pose threats to Ramsar and World Heritage values[102].

As a UNESCO World Heritage site, that also includes several Ramsar sites, the Gulf of California must be off-limits to LNG infrastructure. These developments are clearly incompatible with the World Heritage Convention, Ramsar obligations, and UNESCO's climate and sustainability principles[103]. Fossil fuel infrastructure in such ecologically critical areas undermines global efforts to conserve biodiversity and protect irreplaceable natural heritage.

Our concerns are based on scientific and technical evidence, not on media reports. As civil society actors, we have reached out to Mexican authorities and project developers, urging them to reconsider the harmful expansion of LNG infrastructure in this fragile region.

Even though the UNESCO draft resolution 47 COM 7A.5.Add emphasizes the need for an Environmental and Social Impact Assessment (ESIA) to evaluate the potential effects of the Saguaro Energía project on the OUV of the property, the resolution addresses only this specific project in Puerto Libertad, Sonora, without considering the full range of proposed developments[104]. **To ensure an accurate and comprehensive assessment, it is essential to include all relevant projects proposed in the GC in the recommendation to carry out an ESIA so that cumulative, synergistic, and residual impacts are evaluated.**

The Gulf is already under severe stress from climate change, collapsing fisheries, and biodiversity loss. Approving new fossil fuel developments would only accelerate its degradation. **Immediate action is needed to uphold Mexico's international commitments and safeguard this irreplaceable World Heritage site and Ramsar wetlands**.

Should you have any questions regarding the information presented in this alert, please do not hesitate to contact us.

Respectfully,

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[101] The Ramsar Convention (2020). *Ramsar Advisory Mission N°95 Doñana, Spain (Ramsar Site N°234)*. https://www.ramsar.org/sites/default/files/documents/library/ram95e_donana.pdf.

[102] VAN MERM, R. (2018). *World Heritage and Environmental Assessments, An IUCN perspective*. IUCN World Heritage Programme.

[103] UNESCO (November 3, 2023). *Updating of the Policy Document on climate action for World Heritage*, WHC/23/24.GA/INF.8, Paris.

[104] UNESCO. Intergovernmental Committee for the Protection of the World Cultural and Natural Heritage. *World Heritage Convention, Item 7A of the Provisional Agenda: State of conservation of the properties inscribed on the List of World Heritage in Danger*, WHC/25/47.COM/7A.Add, p. 11.

Alejandro Olivera
Senior Scientist and Mexico Representative
Center for Biological Diversity

Fernando Ochoa
Executive Director
Defensa Ambiental del Noroeste
Centro Mexicano para la Defensa del Medio Ambiente, A.C.

Jacob Kopas
Senior Attorney, International Program
Earthjustice

Jeffrey Jacoby
Deputy Director
Gulf South Fossil Finance Hub

Joel Reynolds
Senior Attorney, Nature
Jamie Y. Lee
International Climate Specialist
Natural Resources Defense Council

Rebekah Sale
Executive Director
Property Rights and Pipeline Center

Tyson Slocum
Energy Program Director
Public Citizen, Inc.

Roddy Hughes
Organizing Strategist
Jasmine Vazin
Senior Campaign Representative
Beyond Dirty Fuels Team
Sierra Club

Zac Trahan
Interim Co-Executive Director
Texas Campaign for the Environment

CC.- Mauro Rosi. Chief, Latin America and the Caribbean Unit, UNESCO.
Rochelle Roca. Program Specialist, Latin America and the Caribbean Unit, UNESCO.
Rachel Allen. Regional Advisor for the Americas, The Ramsar Convention.
Mizuki Murai. Senior Programme Coordinator World Heritage, IUCN.