ExxonMobil has extensive experience operating in a wide range of challenging physical environments around the world.

Before pursuing a new development, the Company uses data from measurements and advanced computer modeling to assess the full range of potential environmental, socioeconomic and health risks associated with potential operations. It also consults with the public through community meetings and other outreach, and it works with regulators to share information and maintain alignment. This process gives the Company a comprehensive understanding of potential impacts, which it uses to implement measures to avoid environmental, socioeconomic and health risks, reduce them, or remedy the impacts.

When considering physical environmental risks, including risks for production, refining and petrochemical facilities, the Company evaluates the type and location of current and planned facilities. As an example, changes in patterns of waves, wind or ice floes can affect offshore facilities; while onshore facilities could be vulnerable to sea level rise, changes in storm surge, flooding, changes in wind and seismic activity, or geo-technical considerations. The Company conducts environmental assessments before building and operating facilities to ensure that protective measures and procedures are in place.

ExxonMobil’s scientists and engineers are industry experts across a variety of disciplines. Through their active participation and leadership in industry groups, they advise and gather insights to inform and improve industry standards, which in turn are adopted to enhance ExxonMobil’s standards and procedures and industry practices such as the American Society of Civil Engineers’ Climate-Resilient Infrastructure: Adaptive Design and Risk Management manual of practice [66].

Industry standards such as American Society of Civil Engineers (ASCE 7)[67] Minimum Design Loads and Associated Criteria for Buildings and Other Structures, are used along with historical experience and additional factors to cover a range of uncertainties. After construction of a facility, the Company monitors and manages ongoing facility integrity, through periodic checks of key aspects of the structures.
For example, the Gulf Coast Growth Venture, a new petrochemical manufacturing facility near Corpus Christi, Texas, is compliant with both San Patricio County and national standards (ASCE 7). Storm water handling is a risk factor associated with the facility, so the design includes basins to retain excess storm water to supplement the capacity of the municipal water system. The design, construction and operations of petrochemical facilities are highly regulated by the Texas Commission on Environmental Quality. Company representatives have held hundreds of outreach meetings with local organizations, chambers, government agencies, civic groups and neighborhoods and have addressed comments and concerns raised during the permitting process. More information on the Texas Commission on Environmental Quality permitting process can be found on its website. (68)

Once facilities are in operation, the Company maintains disaster preparedness, response and business continuity plans. Detailed, well-practiced and continuously improved emergency response plans are tailored to each facility to help ExxonMobil prepare for unplanned events, including extreme weather. Periodic emergency drills are conducted with appropriate government agencies and community coalitions to help heighten readiness and minimize the impacts of such events. Strategic emergency support groups are established around the world to develop and practice emergency response strategies and assist field responders. Regardless of the size or complexity of any potential incident, each ExxonMobil facility and business unit has access to readily available trained responders, including regional response teams, to provide rapid tactical support.