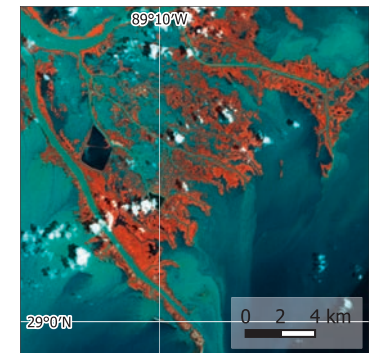
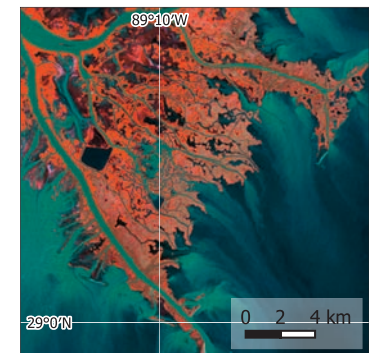


7. The Mississippi River catchment basin covers a large part of the area of the United States.

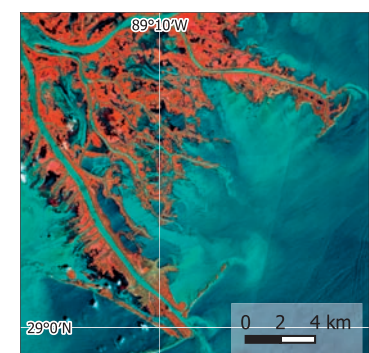
9. Satellite images acquired since 1985 illustrate the dynamics of the Mississippi River delta.



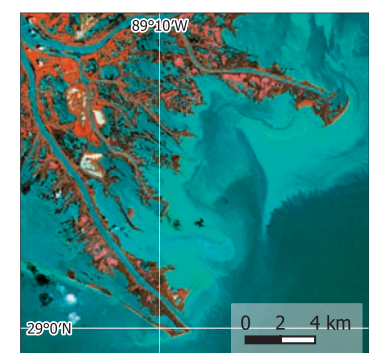
9a. Data: Landsat 4, 1985-05-04.



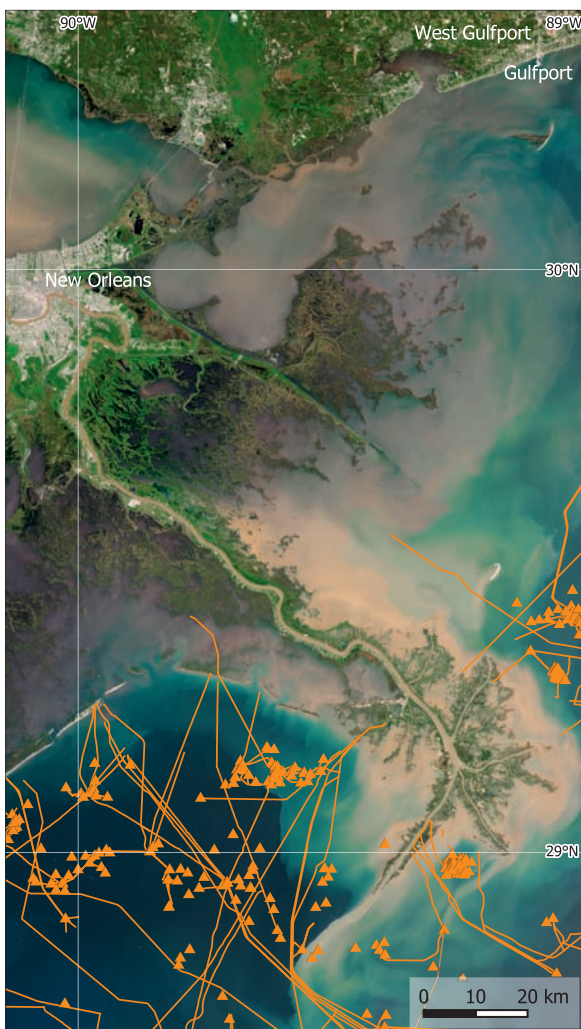
9b. Data: Landsat 5, 1995-07-19.



9c. Data: Sentinel-2, 2017-05-08.



9d. Data: Sentinel-2, 2023-05-12.



Oil production infrastructure

▲ Oil rig

— Pipeline

### Mississippi Delta

Land use changes in the Mississippi catchment and its delta have altered both landscape and hydrology, with implications for the environment and the human population. About 80% of the original wetlands in the Mississippi River Delta have been lost due to land conversion for agriculture, urbanisation, and infrastructure development.

Around 60% of the sediment load carried by the Mississippi River is now trapped behind dams, reducing sediment delivery to the delta and exacerbating land subsidence. Urbanisation along the river has fragmented natural habitats and increased impervious surfaces, leading to higher runoff volumes and flood risks in downstream areas. The city of New Orleans, located in the Mississippi delta, is particularly vulnerable to flooding, with over 40% of its land below sea level.

The oil industry is an important economic driver in the region, with offshore drilling platforms, refineries, and petrochemical plants dotting the coastline. This industry poses environmental risks, including habitat destruction, pollution, and the potential for oil spills. The 2010 Deepwater Horizon oil spill, for example, released an estimated 4.9 million barrels of oil into the Gulf of Mexico.

Hurricanes are a recurring threat to the Mississippi delta. Hurricane Katrina in 2005 and Hurricane Harvey in 2017 caused billions of dollars in damages and loss of life. Wetland loss and coastal erosion have reduced natural barriers protecting the coast, leaving communities increasingly vulnerable to storm surges and flooding.

8. A dense network of offshore drilling platforms and oil pipelines has been installed to exploit the rich oil reserves in the Gulf of Mexico. Data: Sentinel-2, 2023-04-22.