Image: Gulf of Kutch, India

September 4 2020

Credit: contains modified Copernicus Sentinel data (2020), processed by ESA,

The Copernicus Sentinel-2 mission takes us over the Gulf of Kutch—also known as the Gulf of Kachchh—an inlet of the Arabian Sea, along the west coast of India.

The Gulf of Kutch divides the Kutch and the Kathiawar peninsula regions in the state of Gujarat. Reaching eastward for around 150 km, the gulf varies in width from approximately 15 to 65 km. The area is renowned for extreme daily tides which often cover the lower lying areas—comprising networks of creeks, wetlands and alluvial tidal flats in the interior region.

Gujarat is the largest salt producing state in India. Some of the white rectangles dotted around the image are salt evaporation ponds which are often found in major salt-producing areas. The arid climate in the region favors the evaporation of water from the salt ponds.

Just north of the area pictured here, lies the Great Rann of Kutch, a seasonal salt marsh located in the Thar desert. The Rann is considered the largest salt desert in the world.

The Gulf of Kutch has several ports including Okha (at the entrance of the gulf), Māndvi, Bedi, and Kandla. Kandla, visible on the northern peninsula in the left of the image, is one of the largest ports in India by volume of cargo handled.

The gulf is rich in marine biodiversity. Part of the southern coast of the Gulf of Kutch was declared Marine Sanctuary and Marine National Park in 1980 and 1982 respectively—the first marine conservatory established in India. The park covers an area of around 270 sq km, from Okha in the

south (not visible) to Jodiya. There are hundreds of species of coral in the park, as well as algae, sponges and mangroves.

Copernicus Sentinel-2 is a two-satellite mission. Each satellite carries a high-resolution camera that images Earth's surface in 13 spectral bands. The mission's frequent revisits over the same area and high spatial resolution allow changes in water bodies to be closely monitored.

Provided by European Space Agency

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