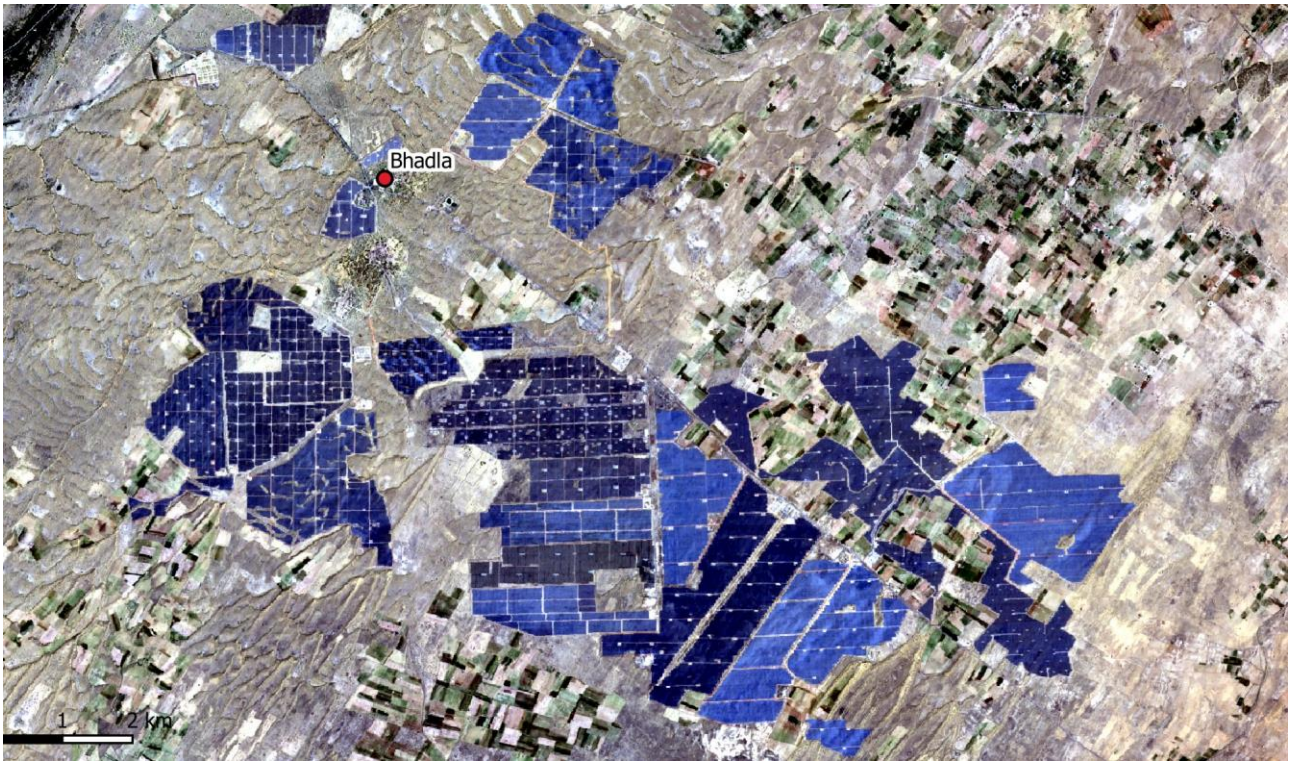
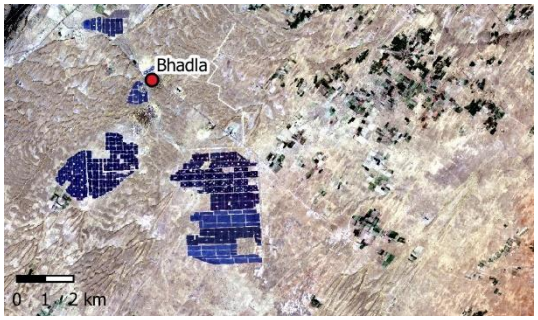
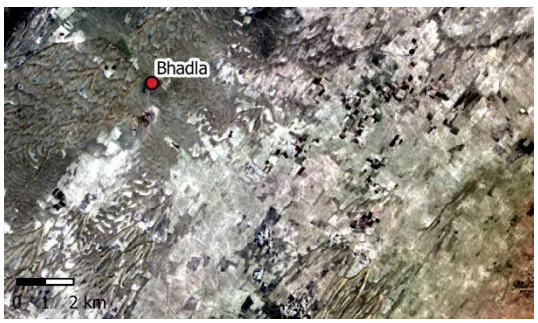


Sentinel-2, 2022-03-11



Sentinel-2, 2018-03-12



Landsat8, 2013-03-30

The Bhadla Solar Park located in the Thar Desert in Rajasthan, India, is one of the largest solar power plants in the world, providing a total capacity of 2245 megawatts (MW). The project is located near the village of Bhadla, which is situated about 200 kilometers northeast of the city of Jodhpur.

The project was launched in 2015 as part of the Indian government's plan to increase the country's renewable energy capacity. The aim of this plan is to reduce India's dependence on fossil fuels, which are a major contributor to air pollution and greenhouse gas emissions.

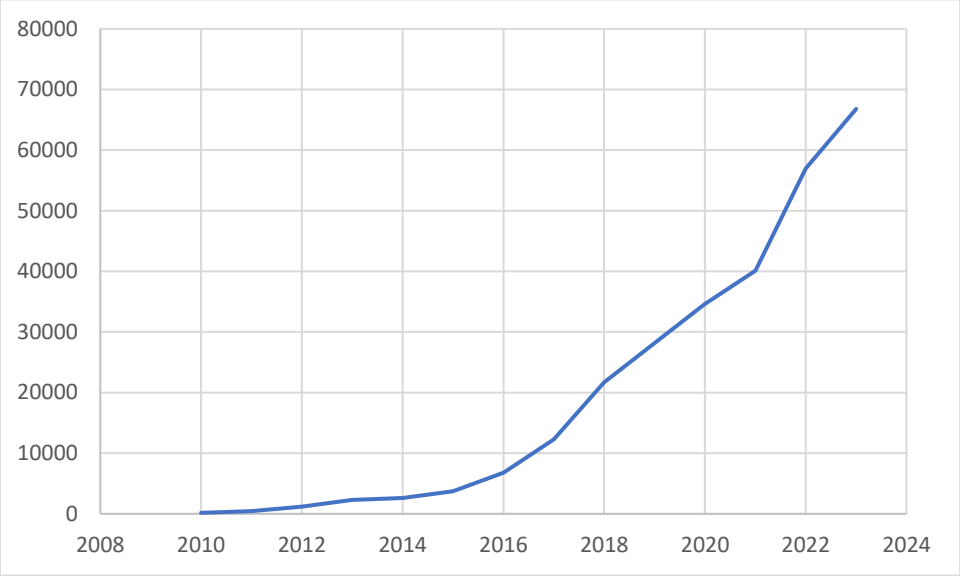
The project was implemented by the state-owned National Thermal Power Corporation (NTPC) and is spread over an area of 57 square kilometers. The plant uses both photovoltaic and concentrated solar power technologies to generate electricity. The photovoltaic panels cover an area of more than 40 km², while the remaining area is used for concentrated solar power technology. The Bhadla Solar Power Plant generates electricity to power about 1.3 million homes and reduces carbon emissions by about 4 million tons per year.

The sequence of satellite images gives an impression, how quickly this huge power plant was installed.

Exercises

- ***Satellite Map:***
  - Looking at the satellite image maps, try to identify the solar power plant, agricultural areas, and barren land.
  - In which period was the construction of the power plant started?
  - Try to compare the area of the solar power plant (57 km²) with that of your hometown.
  - Green areas in the satellite images are covered with vegetation. What types of vegetated areas do you expect in this environment (e.g. pastures, crop fields, …)?
  - Think about the role of energy for our society. What is it needed for? Where does the energy for your hometown come from?

Additional Material



Development of the total installed solar power capacity in India (in MW)

Links and Sources:

- https://solargis.com/blog/best-practices/sentinel-2-satellite-maps-because-we-value-up-to-date-information - Use of Copernicus satellite data for monitoring the progress of large-scale construction projects