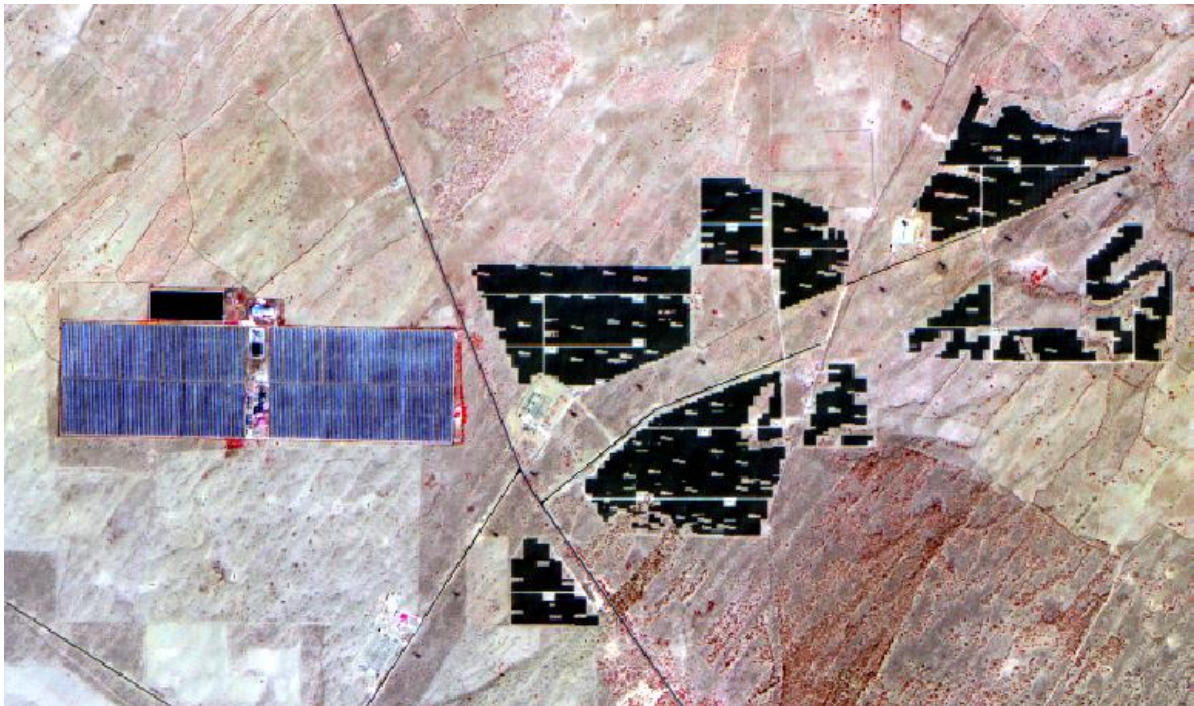


Solar power plants extracted across Rajasthan from R2A LISS IV data using Artificial Intelligence model .

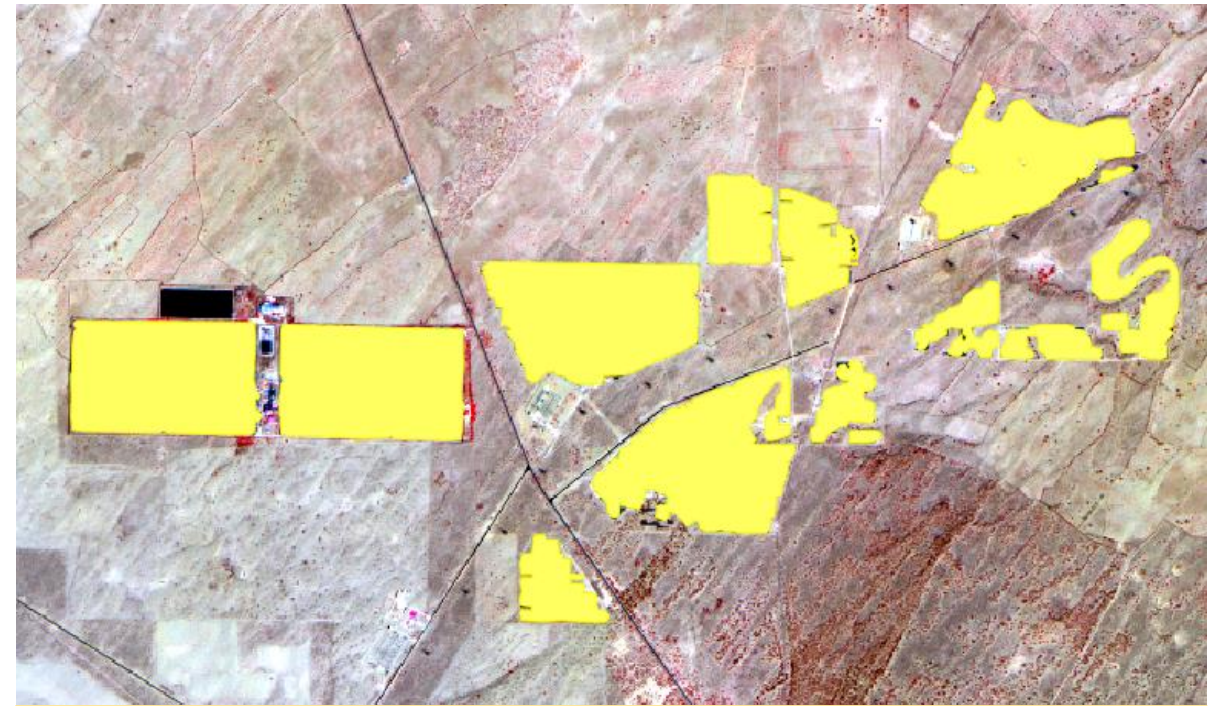
### Description

Solar power plants are extracted for Indian states (Gujarat, Madhya Pradesh, Rajasthan and Karnataka) using artificial intelligence based deep learning neural network for year (Jan-April) 2023. Indian Remote sensing (IRS) Resourcesat-2A LISS IV satellite data is used with 5m ground spatial resolution and three spectral bands green, red and NIR. This work is carried under TDP- 202302021, title “Deep learning Based Solar Plants Identification using high-resolution remote sensing data”. It is available in “New and Renewable Energy Applications” under VEDAS. Available at <https://vedas.sac.gov.in/renewable-energy/index.html>



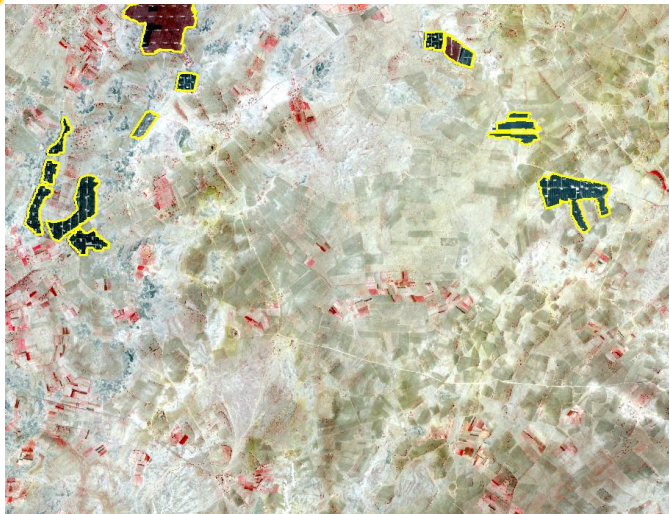


Resourcesat-2A LISS-IV FCC satellite data, 24<sup>th</sup> April, 2023

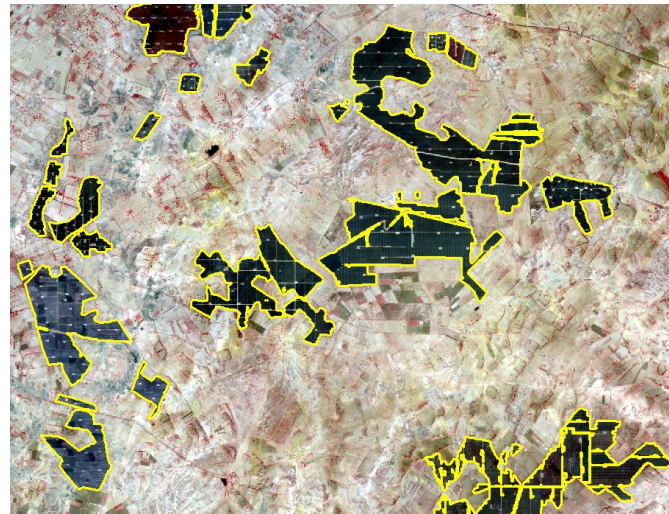


Solar Panels extracted using AI-Deep learning, 24<sup>th</sup> April, 2023

## Temporal Change of Solar Plants in Gujarat, Madhya Pradesh and Rajasthan from year 2018 to 2023



Extracted Solar Panels in 16<sup>th</sup> March, 2018

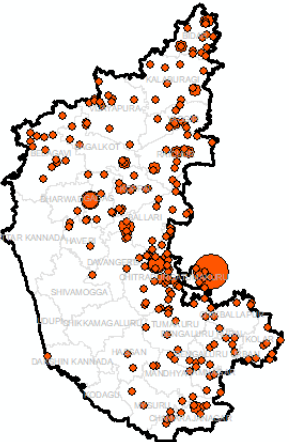
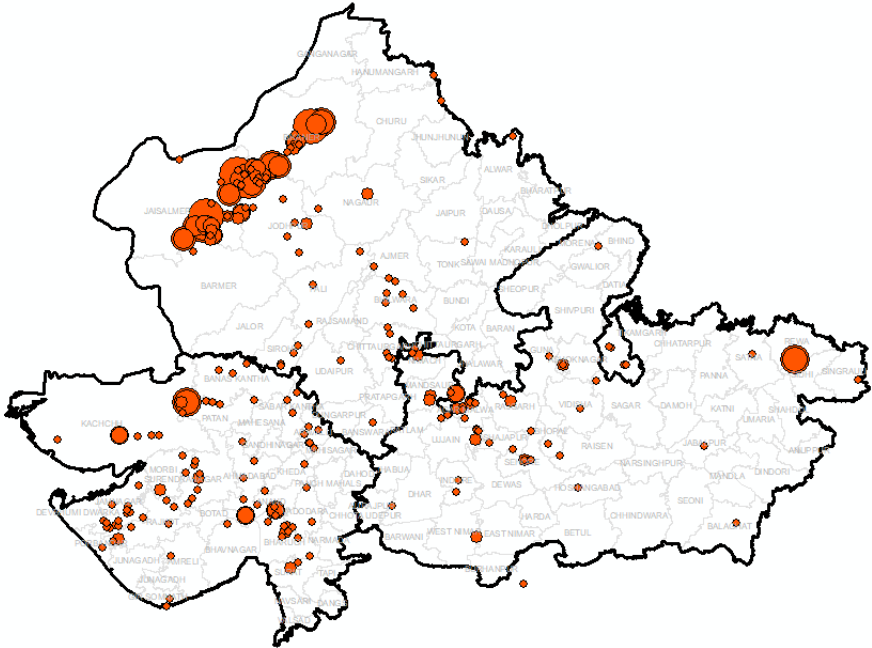


Extracted Solar Panels in 24<sup>th</sup> April, 2023

*Temporal change analysis of Solar Plants for the Rajasthan state from year 2018 till 2023 is done using Resourcesat-2A LISS-IV data. It is found that in past five years solar power plants inventories in Rajasthan are increased nearly 6.3 times, 2.5 times in Gujarat, 1.5 times in Madhya Pradesh and 1.25 times in Karnataka.*



# Area-wise distribution of Solar Plants extracted via AI Deep Neural Network



Solar Planta area (hectare)

