

A stagnant haze pollutes the Ganges and Indus valleys, India & Pakistan

Sentinel-3 OLCI FR acquired on 30 October 2022 from 04:49:01 to 05:31:08 UTC

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Sentinel-5P TROPOMI CO & AER_AI acquired on 05 November 2022 from 08:57:49 to 09:02:49 UTC

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Keyword(s): Atmosphere, air quality, health, agriculture, fire, Himalaya range, India, Pakistan



[2D Layerstack](#)

Fig. 1 - S5P TROPOMI (30.10.2022-05.11.2022) - CO - Carbon Monoxide emissions caused by stubble burning in Northern India & Pakistan [3D view](#)

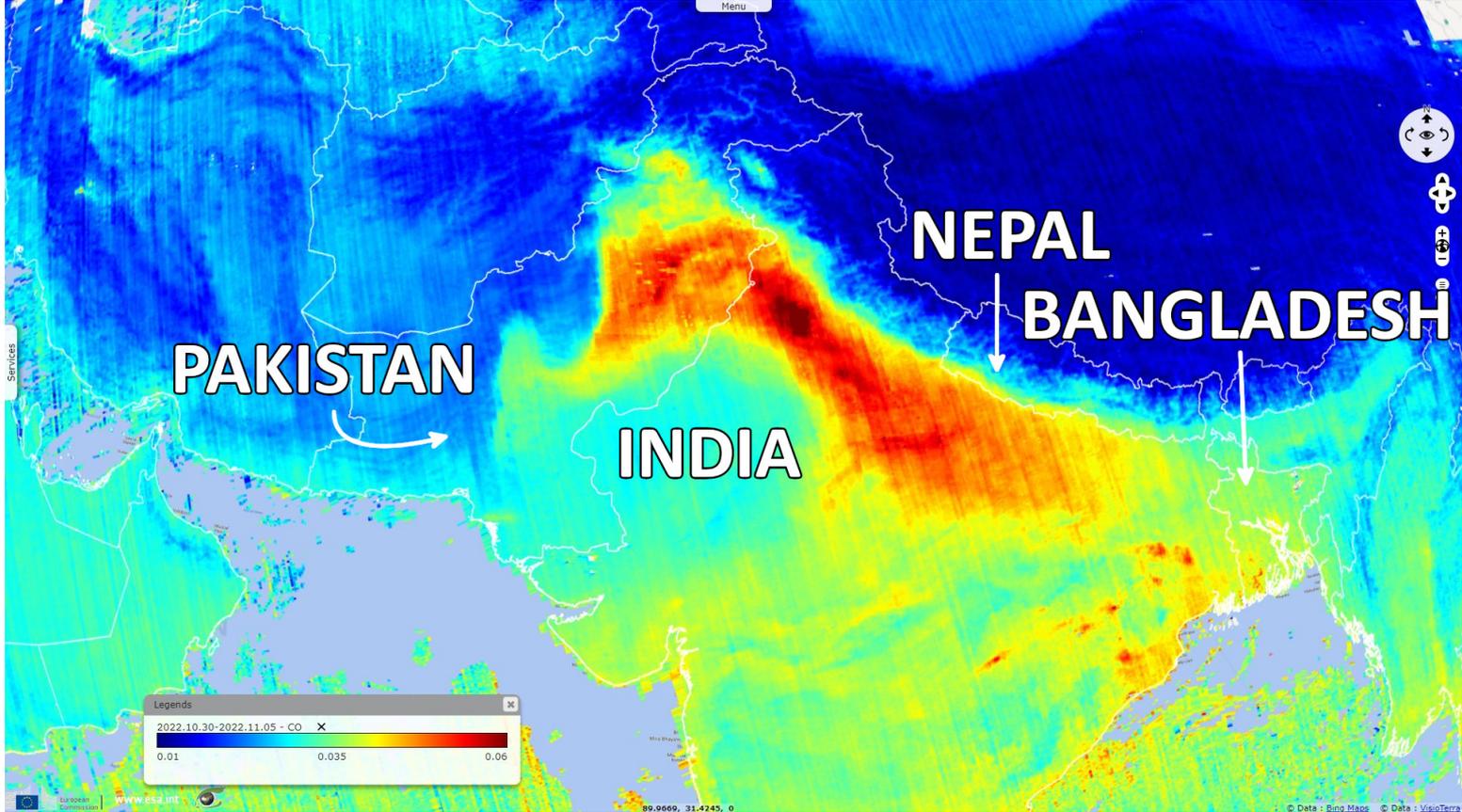
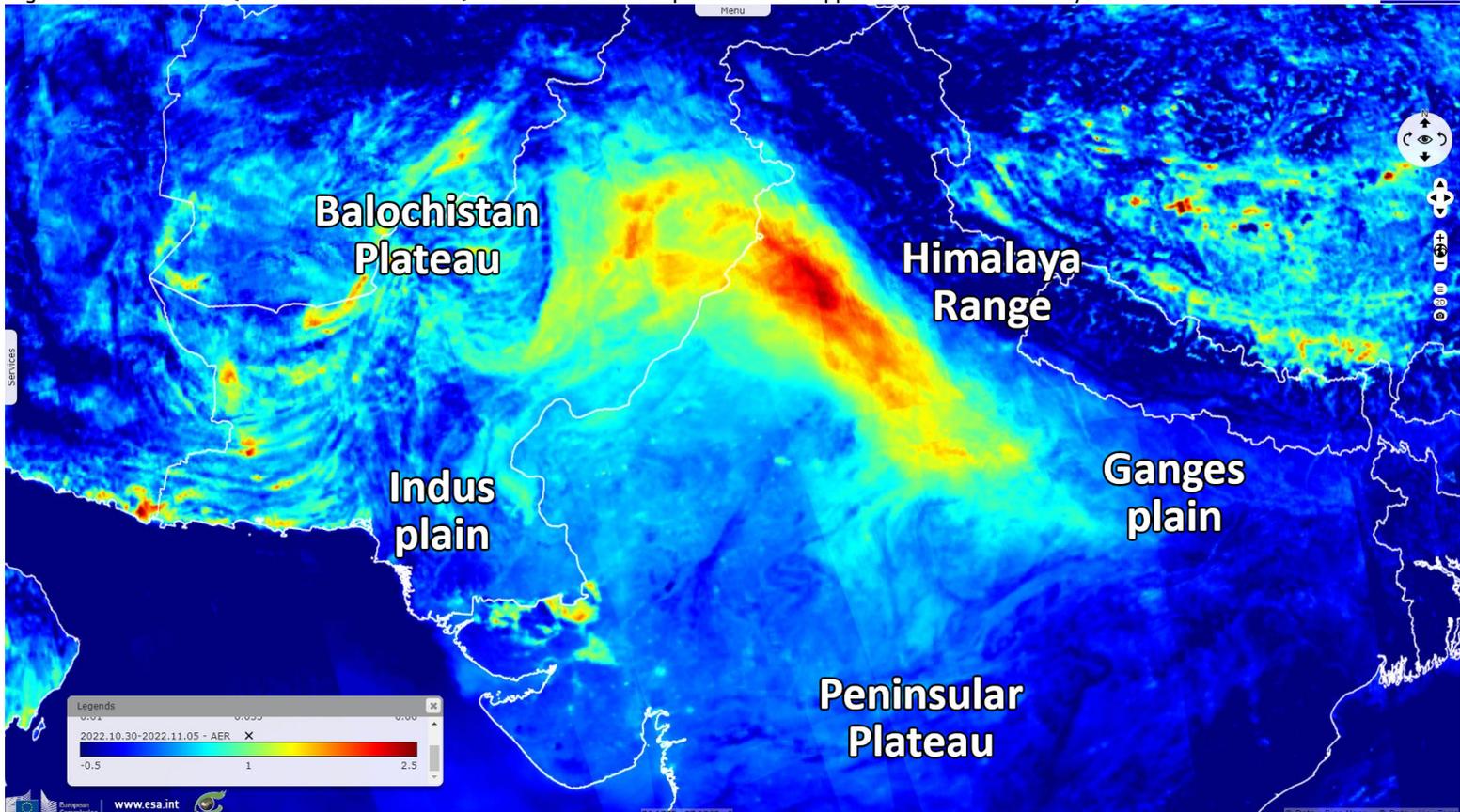
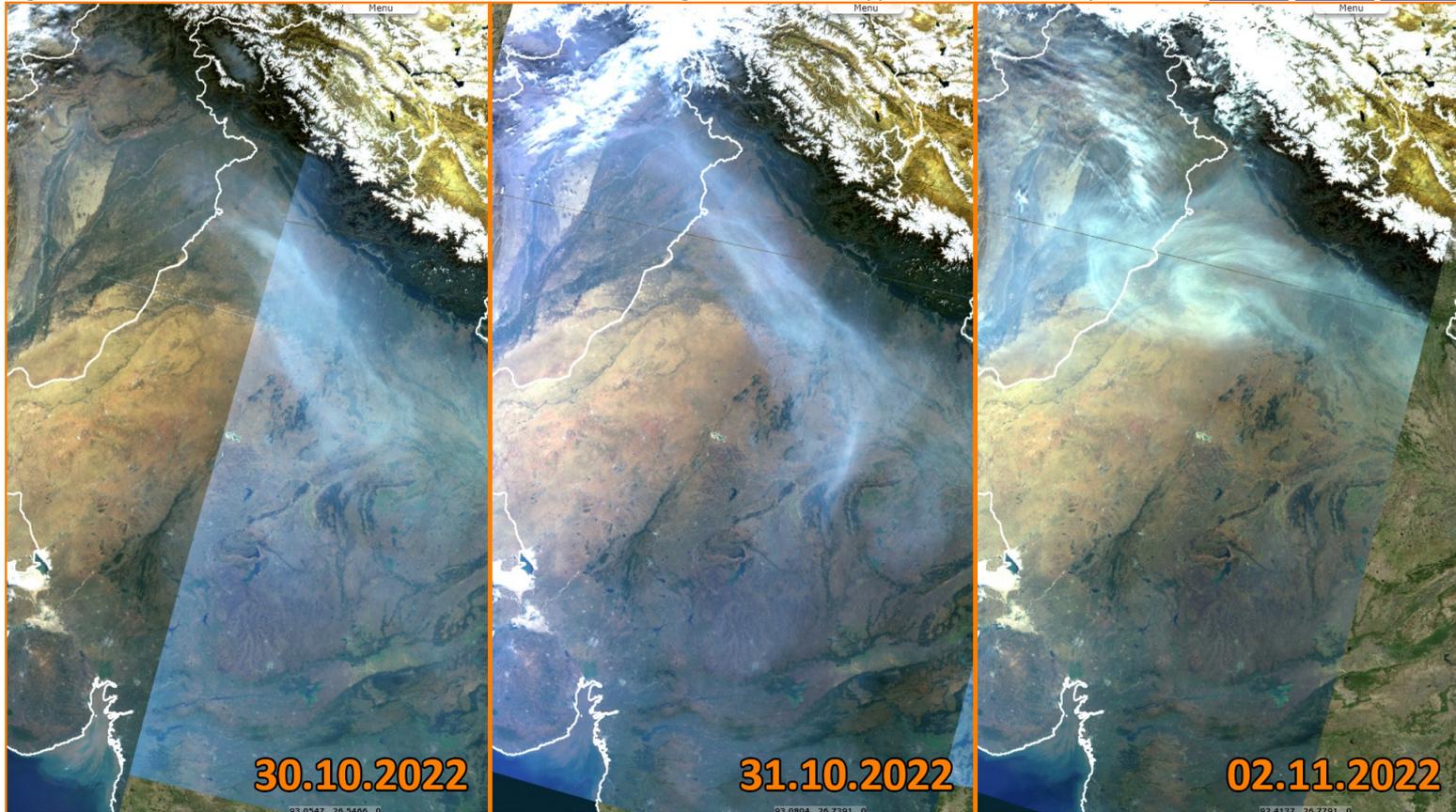


Fig. 2 - S5P TROPOMI (30.10.2022-05.11.2022) - AER - The aerosol particles are trapped between the Himalaya and the Peninsular Plateau. [3D view](#)



During the winter season, most Indian cities within the Indo-Gangetic Plain experience harsh pollution. Weather conditions & agricultural practices cause severe levels of air quality index. The post-monsoon meteorological conditions favor more stable atmosphere rendering the pollutants to accumulate and reside longer in the atmosphere leading to severe levels of pollution.

Fig. 3 - S3 OLCI (30.10.2022 / 31.10.2022 / 02.11.2022) - The burning of rice stubble happens before wheat is planted. [3D view](#) [3D view](#) [3D view](#)



The common farming system in the Indo-Gangetic Plain is the rice-wheat rotation system. In the Punjab region, rice is usually planted in the summer season, around May/June, and harvested around October/November. On the other hand, wheat is normally planted during the winter, mostly in December and harvested during the summer of the subsequent year, around April/May.

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