The map is showing an agricultural area located in west part of the capital city of Kiev.

Since the begining of the conflict in 2022, the area is located in an "hostile" zone opposing both sides. The map has for objective to show the agricultural activity of the area for the year 2022.

The images are corresponding to composite images of NDVI (Normalized Difference Vegetation Index) over the agricultural season between January and end of August of each year.

Vegetation is use here as a proxy to define the agricultural activity, the composite image is structured as so : respectively high vegetation response in end of season in red (June - September), middle of season in green (April -June) and begining of season in blue (January - April). The method is named as 3 times scan, giving the possibility to identify active / abandonned fields. Darker fields signified no or minimum vegetation evolution between each part of the season, letting the hypothesis that the defined field is not exploited. In the contrary, red fields are corresponding to high vegetation response in the end of the season, letting the hypothesis that it is following a "normal" agricultural trend with a maximum value in the end of season.

Most of the image is showing a high response in blue, this blue zone is corresponding to a forest area, non considered as agricultural, nevertheless it is influencing the vegetation analysis evolution trend for the year 2022. Concerning the fields with see a mix of response at different time, but overall the number of agriculture fields is quite low. There area was limited due to cloud covering, cropland changes is then hypothetical.

The area is corresponding to  $\sim$ 500km<sup>2</sup> of agricultural fields, the identification of low activity fields (hypotheticaly abandonned) is measured at  $\sim$ 115km<sup>2</sup> in 2022. Corresponding to  $\sim$ 20% of the area with low agricultural activity.

The map and results were developed in the context of the project SR4C3. Given information are extracted from satellite data, accuracy of the analysis depends on the quality of the images. Ground verification is necessary for validation purposes.

## **LOCATION**



## **SOURCES**

Dataset : Sentinel-2 Acquisition : Temporal serie of 2022 Institution : European Space Agency

