

README FILE

Products: Irrigation Map over Catalonia

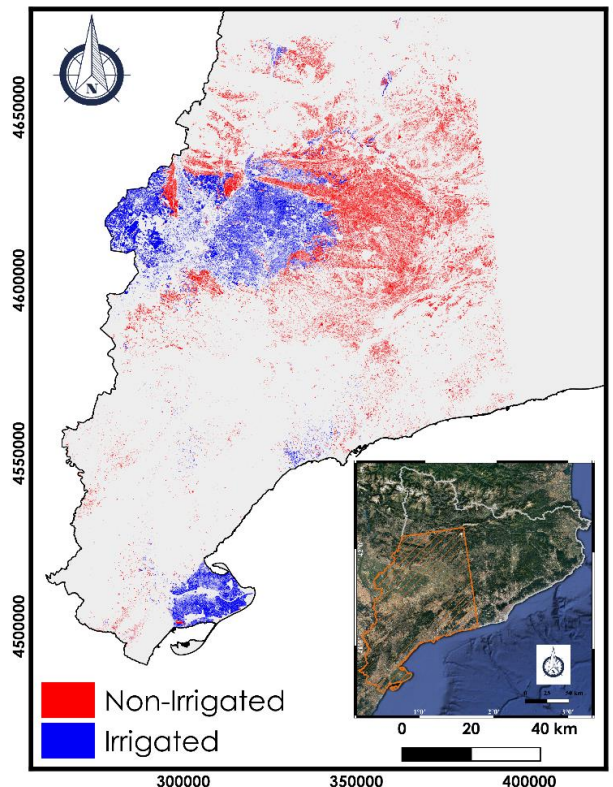
Presentation:

An irrigation map over an important part of Catalonia region of Spain have been realized over the year 2018. This map have been obtained using the Sentinel-1 multi-temporal data (September 2017 and December 2018). The classification is based on the Convolutional Neural Network approach.

The classification of irrigated/non-irrigated parcels have been realized only over winter and summer agricultural plots.

The limits of the parcels used are defined using the SIGPAC (Geographical Information System for Agricultural Parcels) database :

=><http://agricultura.gencat.cat/ca/serveis/cartografia-sig/aplicatius-tematics-geoinformacio/sigpac/descarregues/>.



The SIGPAC database provides us also with the land cover and the irrigation information over the parcels. The precision of the obtained map reaches 94% when compared to the terrain database of SIGPAC data.

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Format:

The irrigation map is provided in two formats:

- Vector "Shapefile": Value **1** for Irrigated plot and **0** for Non-Irrigated plot
- Raster GeoTIFF file

The projection system of the provided data (vector and raster) is **ETRS89/ UTM zone 31N**

(EPSG 3043)

Date of data:

Sentinel-1: Temporal Series from September 2017 – December 2018

SIGPAC data: 2018

References

Bazzi, H.; Baghdadi, N.; Ienco, D.; El Hajj, M.; Zribi, M.; Belhouchette, H.; Escorihuela, M.J.; Demarez, V. Mapping Irrigated Areas Using Sentinel-1 Time Series in Catalonia, Spain. *Remote Sens.* 2019, 11, 1836.

The logo for INRAE, consisting of the letters 'INRAE' in a white, sans-serif font on a teal rectangular background.The logo for Theia, featuring a stylized eye icon with an orange pupil and black outlines, followed by the word 'Theia' in a black, sans-serif font.