

## Feedback from ESA Education Resource Office Earth Observation Working Group relating to the CCI Climate from Space visualization tool

We must take into consideration that the users (teachers/ students) will have limited EO experience. For this reason, we believe that the interfaces should help the user understand (in an easy and quick way, otherwise the user will feel demotivated to explore the tool) what there is to see.

- a) Add a pop-up box with a short explanation for the different representations/products.
- b) Include a legend explaining the significance of the colour/scale of colours in the different representations, once the image is shown on the screen.
- c) Add switch on/switch off reference layer on top of the satellite image This would help with the navigation.

### General

- a) There are few products, (true colour, false colour and NDVI for Landsat X and Sentinel-2). It would be great to include others, for example to give information about contamination, agricultural terrains, geology (different kind of soils) across time. These options appear in the Sentinel hub app for sentinel 2, but it would be great to have them here as well, including further satellites, to increase the timeline.
- b) Possibility to have a second route to access the data. There is now one route/menu: choose a satellite, a date and a color representation. A theme-based menu could be offered next to this route. We would advise not to mix these menus as that might be confusing.

### Small comments

- a) The visualisation of the image in some cases (Landsat...) is not very stable. It does not work until you zoom in to cover less than a certain area. But if you zoom out, the visualisation may be there for a while. The user interface jumps sometimes presenting/not presenting the visualisation. It would be better to visualise always (independent of the zoom), when a certain area image is selected.
- b) When downloading a tiff image, a box appears indicating "Tiff is generating. Please wait to finish". But it stays there when the process is done and needs to be closed manually.

## Making comparisons

One of the greatest educational strengths in the use of satellite images lies in the opportunities they give to compare images. In general, we suggest that the applications be able to support the ability to make the following comparisons:

- comparison in time (this year/5 years ago, summer/winter/...)
- comparison in place (spring in Spain, Netherlands and Norway)
- comparison in perspective (view from earth/view from above. what can you learn from one viewpoint and what from the other)
- comparison of two or more spectral bands

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at the scales we see are always the same.

## To go further

Possibility to export the data as Google Earth file: KMZ. This will open possibilities to visualise easily the image in Google Earth, which is an important tool to use, especially at low levels.

Possibility to download a georeferenced tiff image (this option is now available only after registration and for a trial period of one month; after that is necessary a subscription plan) . This open option to work with GPSs and GIS at upper secondary.