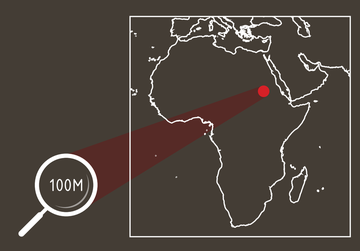
Food and Agriculture Organization of the United Nations

FAO WaPOR NATIONAL LEVEL MAP (100M)

MEASURING WATER PRODUCTIVITY GEZIRA IRRIGATION SCHEME, SUDAN

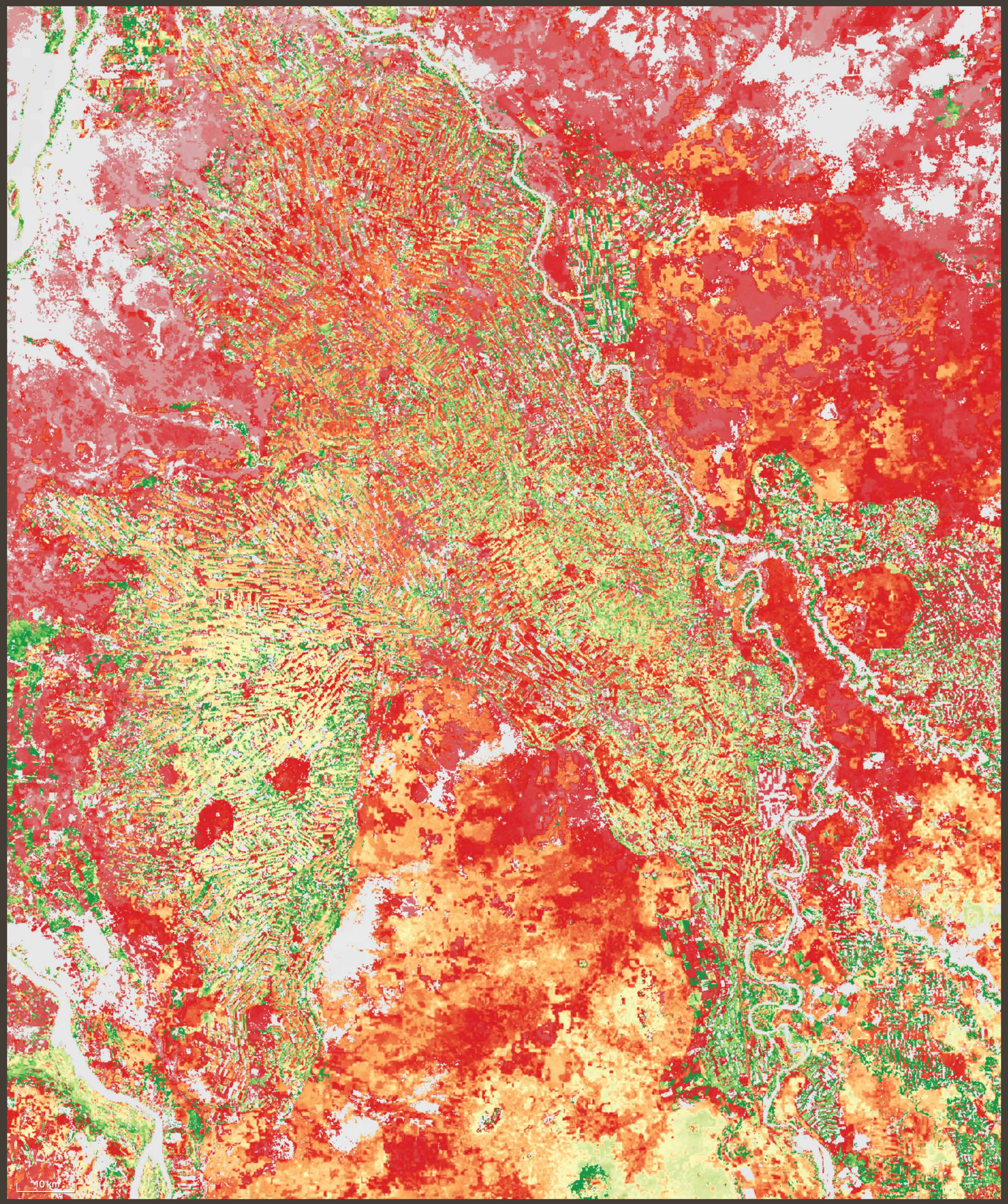


This map shows the **water productivity** of the Gezira scheme in Sudan.

The yellow-green patches in this map represent fields that yield at least 1 kilogram of product for every cubic metre of water consumed (1 m^3 = 1000 l), while the orange-red fields are comparatively underperforming. Spatial variation of water productivity supports more efficient targeting of interventions. In other words, with WaPOR it is possible to assess, for example, how many kilograms of wheat can be produced with 1 cubic metre of water in a given area, with the current conditions. It can also be used to set locally relevant targets for increasing efficient use of inputs.

Legend

- 0 kg/m3
- 0.5 kg/m3
- 0.75 kg/m3
- 1 kg/m3
- 1.5 kg/m3
- >2 kg/m3



This photo shows what the situation on the ground may look like for farmers in the red areas of the map. The low water productivity of these areas may be due to a combination of limited access to water and sub-optimal agronomic practices.

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Water productivity is defined as the quantity or value of output in relation to the quantity of water beneficially consumed to produce this output. In agriculture, it can be expressed as the amount of product (biomass or yield) per unit of water consumed by the crop (evapotranspiration).

$$\text{WP} = \frac{\text{BIOMASS}}{\text{EVAPOTRANSPIRATION}}$$

WATER PRODUCTIVITY

This photo represents how the green areas of the map may look like on the ground. These areas are considered to have high water productivity, with low amounts of water consumed per crop produced. In order to improve red areas on the map, green areas can be analysed and referenced as successful sustainable practices that could be scaled up.

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All maps: wapor.maps.fao.org

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