

Name:

Water productivity.

Definition:

It is the crop yield (kg) per irrigation water applied (m³). Irrigation water application is the controlled application of water (in m³/ha) for agricultural purposes through manmade systems to supply water requirements not satisfied by rainfall.

Method of calculation:

For the calculation of the indicator, irrigation water applied and crop yield on each irrigation plots taken into account.

The value of this indicator is calculated as e:

$$- \text{Indicator} = \frac{\sum_i \frac{CY_i}{WC_i} \times A_i}{A_t}$$

Where:

CY_i: Crop yield (kg/ha) on each plot

WC_i: irrigation water applied (m³/ha) on each plot

A_i: Area assigned to the crop/plot (ha).

A_t: Total area considered (ha).

Interpretation:

The indicator reflects the production obtained using irrigation water. Some crops use water more efficiently.

Information source:

Data obtained in a farmers survey.

CY_i: crop yield (kg/ha) on each plot.

WC_i: Irrigation water applied (m³/ha) on each plot.

A_i: Area assigned to the crop / plot.

A_T: Total area considered (ha).

Bibliography and references:

OECD - Organization for Economic Co-operation and Development (2001): Environmental indicators for agriculture. Methods and Results, Volume 3. Paris.