

Wikiprint Book

Title: [udg/ecommerce/EndUserNeeds/ImpactModels](#)

Subject: TracMeteo - [udg/ecommerce/EndUserNeeds/ImpactModels](#)

Version: 12

Date: 08/16/2022 10:08:21 PM

Table of Contents

EUPORIAS WP23 Impact Models for impact predictions

3

EUPORIAS WP23 Impact Models for impact predictions

- AQUATOOL: It is a Water Management Tool with different modules (SIMGES, OPTIGES, SIMRISK). [?Model URL: http://www.upv.es/aquatool/index_E.html](http://www.upv.es/aquatool/index_E.html)
- MORDOR: It is a hydrological model for catchments in France.
- E-HYPE: This model simulates water flow and substances on their way from precipitation through soil, river and lakes to the river outlet. The catchment is divided into sub-basins, which in turn are divided into classes depending on land use, soil type and elevation. This Pan-European hydrological model with high resolution is operational in the SMHI production environment. It is operational to deliver real-time and forecast hydrological and nutrient data from the entire European coastline. [?Model URL: http://www.smhi.se/en/2.575/Hydrology/european-hydrological-predictions-for-the-environment-1.12711](http://www.smhi.se/en/2.575/Hydrology/european-hydrological-predictions-for-the-environment-1.12711)
- VIC (Variable Infiltration Capacity model): It is a hydrological impact model. [?Model URL: http://www.hydro.washington.edu/Lettenmaier/Models/VIC/index.shtml](http://www.hydro.washington.edu/Lettenmaier/Models/VIC/index.shtml)
- CGMS (Crop Growth Modelling System): Is a detailed crop model with representation of specific crop varieties. [?Model URL: http://www.marsop.info/marsopdoc/cgms92/5_en.htm](http://www.marsop.info/marsopdoc/cgms92/5_en.htm)
- LPJm1: This model will be used for hydrological impacts and agricultural impacts. [?Model URL: http://www.pik-potsdam.de/research/projects/lpjweb](http://www.pik-potsdam.de/research/projects/lpjweb)
- JULES: The Joint UK Land Environment Simulator. It is a community land surface model that has evolved from the Met Office Surface Exchange Scheme (MOSES).

All these Impact Models require different variables with different temporal frequencies as input data:

| Variables | Time Frequency | Impact Models | Optional for |
|------------------------------------|--|-------------------------|--------------|
| Surface temperature | Daily | GSS, HI, Hyl, HDD, UDIC | |
| Surface temperature | Instantaneous at 7am, 2pm and 9pm (local time) | PET | |
| Surface temperature | Instantaneous at noon local standard time or daily maximum | FWI | |
| Minimum temperature | Daily | T<-17°C, CI | |
| Maximum temperature | Daily | HI | |
| Dew point temperature | Daily | UDIC | |
| Wind Speed | Monthly mean | CFU | |
| Wind Speed | Instantaneous at 7am, 2pm and 9pm (local time) | PET | |
| Wind Speed | Instantaneous at noon local standard time or daily mean | FWI | |
| Surface moisture | Daily | UDIC | |
| Precipitation accumulated over 24h | Instantaneous, Daily | FWI | |
| Precipitation | Daily | GSP, Hyl | |
| Relative Humidity | Instantaneous at noon local standard time or daily mean | FWI | |
| Relative Humidity | Instantaneous at 7am, 2pm and 9pm (local time) | PET | |
| Short wave radiation flux | Instantaneous at 7am, 2pm and 9pm (local time) | PET | |
| Long wave radiation flux | Instantaneous at 7am, 2pm and 9pm (local time) | PET | |
| Cloudiness (in octas) | Instantaneous at 7am, 2pm and 9pm (local time) | PET | |