

# Datenbankfelder

Die unterstrichenen Wörter sind Gruppierungen. Die eigentlichen Felder sind die nicht unterstrichenen Wörter. Die Fett gedruckten Wörter sind die möglichen Eingaben. (Fast) Jede Eingabe hat einen entsprechenden Erklär text (nicht hier angegebe).

## General

### Basic information

- Model Name  
[text]
- Sector [single choice, erweiterbar]  
**biomes/forestry, agriculture, water, energy, agro-economic modelling, permafrost, coastal infrastructure, health**
- Region [multiple choice]  
**global, regional: [optional text]**
- Contact person: *kann mehr als eine sein*
  - Name  
[text]
  - Email address  
[text]
  - Institute  
[text]
- Model version
  - Model version  
[text]
- Reference paper
  - Main reference  
[text]
  - Other references *kann mehr als eine sein*  
[text]
- Short model description  
[text]

### Technical Information

- Resolution:
  - Spatial resolution [single choice, erweiterbar]  
**0.5°x0.5°, other: [text]** *ist nicht unbedingt eine Zahl*
  - Temporal resolution of input data
    - Climate variables (daily data was provided) [single choice, erweiterbar]  
**daily, monthly, annual, other: [text]**
    - CO2 (annual data was provided) [single choice, erweiterbar]  
**annual, other: [text]**
    - Land use/land cover (annual data was provided) [single choice, erweiterbar]  
**annual, other: [text]**
    - soil (time-constant data was provided) [single choice, erweiterbar]  
**constant, other: [text]**
- Input Data

- Climate data sets **used [multiple choice, erweiterbar]**  
**Princeton, WATCH, WFDEI, ...**
- Climate variables **[multiple choice]**  
**daily mean temperature (tas), daily maximum temperature (tasmax), daily minimum temperature (tasmin), total precipitation (pr), snowfall (prsn), surface air pressure (ps), relative humidity (rhs or hurs), long wave downwelling radiation (rlds), short wave downwelling radiation (rsds), near-surface wind magnitude (wind), eastward near-surface wind (u), northward near-surface wind (v), bottom temperature, top temperature, salinity, O2, pH, currents, primary production, other: [text]**
- Socio-economic input variables **[multiple choice, erweiterbar]**  
**population, GDP, other: [text]**
- Soil dataset  
**[text]**
- Additional input data sets  
**[text]**
- Exceptions to protocol
  - Did you have to overrule any settings prescribed by the protocol in order to get your model running?  
**[text]**
- Spin-up
  - Did you spin-up your model? **[boolean, kein Default, fängt unausgefüllt an]**  
**Yes/no**
  - Spin-up design  
**[text]**
- Natural vegetation
  - How are areas covered by different types of natural vegetation partitioned?  
**[text]**
  - Do you simulate your own (dynamic) natural vegetation? If so, please describe  
**[text]**
  - If you prescribe natural vegetation cover, which dataset do you use?  
**[text]**
- Management
  - What specific management and autonomous adaptation measures did you apply?  
**[text]**
- Extreme events
  - Key challenges for model in reproducing impacts of extreme events  
**[text]**
- Anything else?
  - Anything else necessary to reproduce and/or understand the simulation output  
**[text]**
- Comments
  - Additional comments  
**[text]**

## Water

- Technological progress
  - Does your model account for GDP changes and technological progress? If so,

- how?
  - [text]**
- Soil
  - How many soil layers are there?
  - [text]**
- Water use
  - What types of water use can your model include?
  - [text]**
  - For the global water model varsoc and pressoc runs, which water sectors did you include?
  - [text]**
- Routing
  - How do you route runoff in your model?
  - [text]**
  - What routing data do you use?
  - [text]**
- Land-use
  - What effects of land-use change does your model include?
  - [text]**
- Dams & Reservoirs
  - How are dams and reservoirs implemented
  - [text]**
- Calibration
  - Was the model calibrated?
  - Yes/No**
  - Which years were used for calibration?
  - [text]**
  - Which dataset was used for calibration?
  - [text]**
  - **How** many catchments was the calibration carried out?
  - [text]**
- Vegetation
  - Do you account for CO2 fertilisation? **[boolean, kein Default, fängt unausgefüllt an]**
  - Yes/No**
  - How is vegetation represented?
  - [text]**
- Methods
  - Potential evapotranspiration
  - [text]**
  - Snow melt
  - [text]**

## Biomes/Forestry

### Model output specifications

- Output format
- [text]**
- Output per PFT?
- [text]**

- **Things** to consider, when calculating basic variables such as GPP, NPP, RA, RH from your modeling  
[text]

## Key model processes

- Dynamic vegetation?  
[text]
- Nitrogen limitation?  
[text]
- CO<sub>2</sub> effects  
[text]
- Light interception  
[text]
- Light utilization  
[text]
- Phenology  
[text]
- Water stress  
[text]
- Heat stress  
[text]
- Evapo-transpiration approaches  
[text]
- Differences in rooting depth  
[text]
- Root distribution over depth  
[text]
- Permafrost  
[text]
- Closed energy balance?  
[text]
- Coupling/feedback between soil moisture and surface temperature  
[text]
- Latent heat  
[text]
- Sensible heat  
[text]

## Causes of mortality in vegetation models

- Age  
[text]
- fire  
[text]
- drought  
[text]
- insects  
[text]
- storm  
[text]
- stochastic random disturbance

- **[text]**
- other
- **[text]**
- remarks
- **[text]**

## NBP components

- Fire
- **[text]**
- Land-use change
- **[text]**
- Harvest
- **[text]**
- Other processes
- **[text]**
- Comments
- **[text]**
- Comments
- **[text]**

## Plant Functional Types (PFTs)

- List of PFTs
- **[text]**
- Comments
- **[text]**

## Marine Ecosystems & Fisheries

- Defining features
- **[text]**
- Spatial scale
- **[text]**
- Spatial resolution
- **[text]**
- Temporal scale
- **[text]**
- Temporal resolution
- **[text]**
- Taxonomic scope
- **[text]**
- Vertical resolution
- **[text]**
- Spatial dispersal included
- **[text]**
- FishBase used for mass-length conversion
- **[text]**

# Agriculture

## Key input and Management

- Crops  
[text]
- Land coverage  
[text]
- Planting date decision  
[text]
- Planting density  
[text]
- Crop cultivars  
[text]
- Fertilizer application  
[text]
- Irrigation  
[text]
- Crop residue  
[text]
- Initial soil water  
[text]
- Initial soil nitrate and ammonia  
[text]
- Initial soil C and OM  
[text]
- Initial crop residue  
[text]

## Key model processes

- Lead area development  
[text]
- Light interception  
[text]
- Light utilization  
[text]
- Yield formation  
[text]
- Crop phenology  
[text]
- Root distribution over depth  
[text]
- Stresses involved  
[text]
- Type of water stress  
[text]
- Type of heat stress  
[text]
- Water dynamics  
[text]

- Evapo-transpiration  
[text]
- Soil CN modeling  
[text]
- CO2 Effects  
[text]

## Methods for model calibration and validation

- Parameters, number and description  
[text]
- Calibrated values  
[text]
- Output variable and dataset for calibration validation  
[text]
- Spatial scale of calibration/validation  
[text]
- Temporal scale of calibration/validation  
[text]
- Criteria for evaluation (validation)  
[text]

## Energy

### Model & method characteristics

- Model type  
[text]
- Temporal extent  
[text]
- Temporal resolution  
[text]
- Data format for input  
[text]

### Impact Types

- Energy demand (heat & cooling)  
[text]
- temperature effects on thermal power  
[text]
- Weather effects on renewables  
[text]
- Water scarcity impacts  
[text]
- Other (agriculture, infrastructure, adaptation)  
[text]

### Output

- Energy demand (heating & cooling)  
[text]
- Energy supply  
[text]

- Water scarcity  
[text]
- Economics  
[text]
- Other (agriculture, infrastructure, adaptation)  
[text]

## Further information

- Variables not directly from GCMs  
[text]
- Response function of energy demand to HDD/CDD  
[text]
- Definition and calculation of variable potential and load factor  
[text]
- Biomass types  
[text]
- Maximum potential assumption  
[text]
- Bioenergy supply costs  
[text]
- Socio-economic input  
[text]