

Scenario simulation of discharge and erosion Terou (IMPETUS dataset ID = 509)

General information

Dataset name: Scenario simulation of discharge and erosion Terou (IMPETUS dataset ID = 509)
Created on: 2007-10-01

Contact(s)

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Period

Date begin (yyyy-mm-jj): 2000-01-01
Date end (yyyy-mm-jj): 2025-12-31

Project(s)

IMPETUS

Data description

Abstract

Results of simulations of discharge and erosion for the Terou Igbomakoro catchment for climate and landuse change scenarios considering preliminary modelling results from IMPETUS A1 (H.Paeth) and IMPETUS A3 subprojects (M.Judex/HP Thamm). The simulations were performed with the model software SWAT2003 (Soil Water Assessment Tool) using the calibrated and validated model from L. Sintondji (2005) as a basis for scenario analysis. Parameter, Attribute list: precipitation, total discharge, sediment yield, erosion rate, evapotranspiration, surface runoff, baseflow, soil water. Dataset created by IMPETUS subproject A2.

No information about Data Lineage; Data Consistency: REMO precipitation data tends to overestimate precipitation in April, Mai, October, There erosion rates for the climate scenario have to be interpreted very carefully; No information about Data Completeness; No information about Positional Accuracy; Data Completeness: This work has been foremost a methodological work using preliminary results from other IMPETUS working groups, Later a similar procedure will be applied to the whole Upper Oueme catchment using improved modelling results from other IMPETUS subprojects

Observing strategy

Modelling has the advantage to be able to calculate a range of realistic future scenarios. In this case the SWAT model is used to derive effects of landuse and climate change on hydrological and erosive processes in the Upper Oueme catchment. The here presented results of scenario analysis can be considered as a proof that the SWAT model is suitable for scenario analysis. It's foremost a methodological work using preliminary results from other IMPETUS working groups.

Geographic information

Ouémé Upper Catchment (HVO)

Location name:	Ouémé Upper Catchment (HVO)
West bounding coordinate (°):	1.2056
East bounding coordinate (°):	3.0008
North bounding coordinate (°):	10.3814
South bounding coordinate (°):	8.6763

Térou

Location name:	Térou
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IMPETUS_509

Location name:	IMPETUS_509
West bounding coordinate (°):	1.09
East bounding coordinate (°):	1.5
North bounding coordinate (°):	9.72
South bounding coordinate (°):	8.95

Measured parameters

Hydrological modelling

Parameter name:	hydrological modelling
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Precipitation

Parameter name:	precipitation
Parameter keyword:	Atmosphere > Precipitation

Baseflow

Parameter name:	baseflow
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Erosion

Parameter name: Erosion
Parameter keyword: Land Surface > Erosion/Sedimentation > Erosion

Runoff

Parameter name: Runoff
Parameter keyword: Terrestrial Hydrosphere > Surface Water > Runoff

Soil water

Parameter name: soil water
Parameter keyword: Land Surface > Soils

Evapotranspiration

Parameter name: Evapotranspiration
Parameter keyword: Atmosphere > Atmospheric Water Vapor > Water Vapor Processes > Evapotranspiration

Data use information

Use constraints: Please inform the Point of Contact if you use the data for publication
Data policy: IMPETUS data policy
Database: IMPETUS
Original data format(s): Excel, ArcView Shape