Supplemental Material for "How soil erosion model conceptualization affects soil loss projections under climate change"

Introduction

This supplemental material provides the figure and table obtained from a literature review on the impact of climate change on soil erosion. The literature review focused on studies with a catchment size > 10 km^2. From these studies the soil erosion models were recorded and reordered into three soil erosion model forcing classes, i.e. precipitation, runoff and precipitation + runoff.

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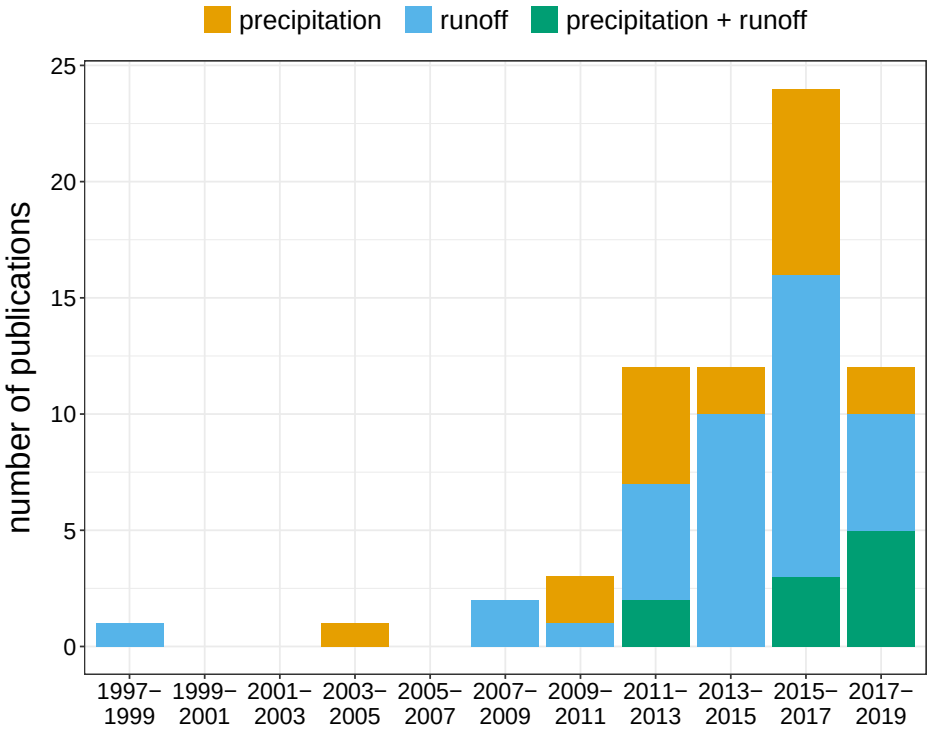

Figure S1. Number of publications of climate change impact assessments on soil erosion in the period 1994-2018 with a catchment size > 10 km^2, specified per soil erosion model forcing (precipitation, runoff and precipitation + runoff).

Table S1: Publications of climate change impact assessments on soil erosion with a catchment size > 10 km^2.

Reference	Catchment size (km^2)	Precipitation time step	Soil erosion model	Soil erosion model forcing
Amanambu et al. (2019)	528000	yearly	RUSLE	precipitation
Eekhout and de Vente (2019)	15978	daily	SPHY-MMF	precipitation + runoff
Op de Hipt et al. (2019)	126	daily	SHETRAN	precipitation + runoff
Shrestha et al. (2018)	26181	daily	SWAT (MUSLE)	runoff
Chen et al. (2018)	7685	daily	SWAT (MUSLE)	runoff
Dahl et al. (2018)	12138	daily	SWAT (MUSLE)	runoff
Eekhout et al. (2018)	15978	daily	SPHY-MMF	precipitation + runoff
Op de Hipt et al. (2018)	126	daily	SHETRAN	precipitation + runoff
Teng et al. (2018)	2300000	monthly	RUSLE	precipitation
Thang et al. (2018)	7500	daily	SWAT (MUSLE)	runoff
Wang et al. (2018)	645300	sub-daily	VIC-WEPP	precipitation + runoff
Azari et al. (2017)	7138	daily	SWAT (MUSLE)	runoff
Giang et al. (2017)	9000	daily	SWAT (MUSLE)	runoff
Gupta and Kumar (2017)	380	yearly	RUSLE	precipitation
Kim et al. (2017)	149.42	daily	SWAT (MUSLE)	runoff
Li and Fang (2017)	7366	daily	TETIS	runoff
Pheerawat and Udmale (2017)	3428	daily	EI30	precipitation
Ren et al. (2017)	7725	daily	SWAT (MUSLE)	runoff
Yu et al. (2017)	132000	daily	SWAT (MUSLE)	runoff
Zhou et al. (2017)	1861	daily	SWAT (MUSLE)	runoff
Adem et al. (2016)	1654	daily	SWAT (MUSLE)	runoff
Azari et al. (2016)	7138	daily	SWAT (MUSLE)	runoff
Azim et al. (2016)	1043	daily	SHETRAN	precipitation + runoff
Bussi et al. (2016)	927	daily	INCA	precipitation + runoff
Carvalho-Santos et al. (2016)	252	daily	SWAT (MUSLE)	runoff
Correa et al. (2016)	34544	monthly	RUSLE	precipitation
Gould et al. (2016)	36000	daily	VIC-WEPP	precipitation + runoff
Hoomehr et al. (2016)	1026	daily	EI30	precipitation
Kourgialas et al. (2016)	215	monthly	RUSLE	precipitation
Mondal et al. (2016)	20558	monthly	RUSLE	precipitation
Nerantzaki et al. (2016)	5350	daily	SWAT (MUSLE)	runoff
Parajuli et al. (2016)	7660	daily	SWAT (MUSLE)	runoff
Rodríguez-Blanco et al. (2016)	16	daily	SWAT (MUSLE)	runoff
Rodriguez-Lloveras et al. (2016)	429	daily	TETIS	runoff
Trisurat et al. (2016)	112	NA	USLE	precipitation

Zare et al. (2016)	343	monthly	RUSLE	precipitation
Mondal et al. (2015)	20561	monthly	USLE	precipitation
Nerantzaki et al. (2015)	130	daily	SWAT (MUSLE)	runoff
Paroissien et al. (2015)	75	daily	STREAM	runoff
Pohlert (2015)	124614	daily	PESERA	runoff
Serpa et al. (2015)	11	daily	SWAT (MUSLE)	runoff
Simonneaux et al. (2015)	225	sub-daily	STREAM	runoff
Bussi et al. (2014)	1532	daily	TETIS	runoff
Giang et al. (2014)	22798	daily	SWAT (MUSLE)	runoff
Khoi and Suetsugi (2014)	7500	daily	SWAT (MUSLE)	runoff
Litschert et al. (2014)	144000	yearly	RUSLE	precipitation
Ramos Iensen et al. (2015)	504	daily	SWAT (MUSLE)	runoff
Bangash et al. (2013)	4957	yearly	USLE	precipitation
Burris and Skagen (2013)	780000	yearly	RUSLE	precipitation
Kazimierski et al. (2013)	180000	yearly	EPM	precipitation
Maina et al. (2013)	114822.4	monthly	RUSLE	precipitation
Mukundan et al. (2013)	891	daily	SWAT (MUSLE)	runoff
Nunes et al. (2013)	405	sub-daily	MEFIDIS	precipitation + runoff
Perazzoli et al. (2013)	30.74	daily	SWAT (MUSLE)	runoff
Plangoen et al. (2013)	1532	monthly	RUSLE	precipitation
Shrestha et al. (2013)	26181	daily	SWAT (MUSLE)	runoff
Coulthard et al. (2012)	186	sub-daily	CEASAR	runoff
Principe (2012)	27700	daily	SWAT (MUSLE)	runoff
Zhang et al. (2012)	40765	daily	RHEM	precipitation + runoff
Hoomehr et al. (2011)	1026	daily	EI30	precipitation
Phan et al. (2011)	2941	daily	SWAT (MUSLE)	runoff
Maeda et al. (2010)	850	monthly	RUSLE	precipitation
Marshall and Randhir (2008)	28500	daily	SWAT (MUSLE)	runoff
Nunes et al. (2008)	2778	daily	SWAT (MUSLE)	runoff
Zhang et al. (2005)	752443	yearly	EI30	precipitation
Hanratty and Stefan (1998)	3400	daily	SWAT (MUSLE)	runoff

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