land

MDPI

Article

Spatial Modeling of Soil Erosion Risk and Its Implication for Conservation Planning: The Case of the Gobele Watershed, East Hararghe Zone, Ethiopia

Gezahegn Weldu Woldemariam[1,*], Anteneh Derribew Iguala[2], Solomon Tekalign [2] and Ramireddy Uttama Reddy [2]

Table S1. Mean annual Rainfall (mm) obtained from National Metrological Agency (NMA) from 1999 to 2015 and Rainfall erosivity (R) factor.

Stations	Easting	Northing	Altitude (meter)	Rainfall (mm)	R Factor
Babile	206981.00	1019910.00	1678	785.61	433.25
Bedeno	789485.00	1008638.00	2232	1253.01	696.41
Boku	179517.00	1009277.00	1706	709.63	390.27
Fiq	204156.22	912963.80	1210	666.53	366.73
Girawa	812770.65	1010524.43	2404	990.01	549.82
Haramaya	172365.73	1038392.16	2046	742.85	409.30
Harer	182732.61	1030077.11	1977	694.99	382.58
Kersa	812949.02	1046429.85	2043	844.80	466.30
Kombolcha	183294.13	1045081.00	2148	744.29	409.73
Kulubi	793726.65	1044098.62	2258	955.83	528.45
Legehida	755850.50	876600.82	1367	731.24	402.84
Majo Weldiya	755850.50	964589.29	1363	1104.79	612.56

Table S2. Attributes of Soil units and calculated soil erodiblity (K factor) value of Gobele watershed, East Hararghe Zone, Ethiopia.

Soil Units	Area (ha)	ms(sand) Topsoil %	Silt(m_{silt}) Topsoil %	Clay(mc) Topsoil %	O_{rgC} Topsoil %	f_{csand}	f_{cl-si}	forg	f_{hisand}	K_{usle}	K
Dystric Cambisols	121450.35	0.32	0.30	0.37	0.33	0.48	0.79	0.99	1.00	0.37	0.36
Haplic Xerosols	16015.44	0.55	0.21	0.24	0.04	0.46	0.80	1.00	1.00	0.37	0.36
Eutric Cambisols	1891.49	0.36	0.37	0.26	0.01	0.47	0.85	1.00	1.00	0.40	0.33
Eutric Nitosols	47616.50	0.684	0.11	0.21	0.60	0.45	0.72	0.98	1.00	0.32	0.42
Eutric Regosols	20856.09	0.683	0.15	0.17	0.50	0.45	0.80	0.99	1.00	0.36	0.37
Humic Cambisols	29803.86	0.548	0.21	0.25	0.53	0.46	0.79	0.99	1.00	0.36	0.37

© 2018 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (http://creativecommons.org/licenses/by/4.0/).