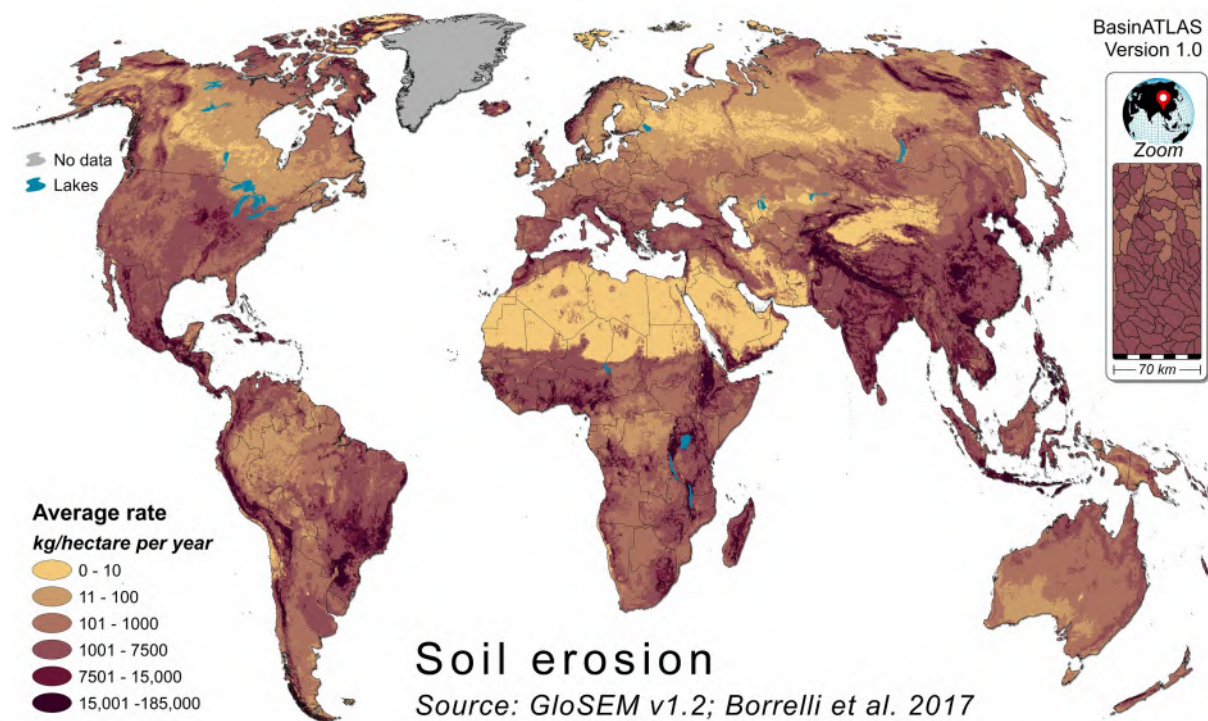


Category	Soils & Geology	ID-S08	>>> Back to Attribute List
Attribute	Soil Erosion		
Source data	RUSLE-based Global Soil Erosion Modelling platform (GloSEM) v1.2		
	Citation: Borrelli et al. 2017	Native format: 250-m grid	Units: kg/hectare per year
Column name	ero_kh_{xoo} (for syntax options of suffix {xoo} see next lines)		
	Spatial extent {x}: {s} in sub-basin {u} in total watershed upstream of sub-basin pour point		
	Dimension {oo}: {av} average		
	Existing suffixes {xoo}: sav uav		



Data description	GloSEM erosion estimates were produced with a high resolution (250 × 250 m) global potential soil erosion model, using a combination of remote sensing, GIS modelling and census data. The long-term annual soil erosion rates were estimated using an improved large-scale version of the Revised Universal Soil Loss Equation (RUSLE) model. RUSLE belongs to the so-called detachment-limited model types where the soil erosion (expressed as a mass of soil lost per unit area and time) due to inter-rill and rill erosion processes is given by the multiplication of six contributing factors. Consistent with the predictive capacity of the model, soil displacement due to processes such as gullying and tillage erosion is not estimated.
Reference	Borrelli, P., Robinson, D.A., Fleischer, L.R., Lugato, E., Ballabio, C., Alewell, C., Meusburger, K., Modugno, S., Schütt, B., Ferro, V., Bagarello, V., Van Oost, K., Montanarella, L., Panagos, P. (2017). An assessment of the global impact of 21st century land use change on soil erosion. <i>Nature Communication</i> , 8, 2013.
Website	https://doi.org/10.1038/s41467-017-02142-7
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Additional information	GloSEM was developed for the reference years 2001 and 2012 to assess the 21st century human-induced soil erosion by water erosion at a global scale. HydroATLAS provides data for the year 2012. Original GloSEM erosion grid contains NoData pixels (mostly in deserts and within open water surfaces such as lakes) which were set to zero for HydroATLAS calculations.