Level of expertise required	High
Synergies with other indicators	
Connection with SDGs	13
Opportunities for participatory data collection	
Additional information	
References	Cruden D.M., Varnes D.J. (1996). Landslide Types and Processes. Special Report, transportation Research Board, National Academy of Sciences, 247, 36-75.

6.40 Erosion risk

Project Name: OPERANDUM (Grant Agreement no. 776848)

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Erosion risk (soil loss estimate)	**Natural and Climate Hazards**
Description and justification	Soil erosion is among the most challenging and continuous environmental problems in the world and can take form of erosion by water (usually surface runoff) or wind. The displaced soil travels away from the point of origin and can create additional risks to life and property. Soil erosion is one of the main and original risks the NBS were employed to mitigate against.
Definition	The likelihood of a site/plot of soil to lose the uppermost layer due to the agents of water, wind, etc. Usually measured as the volume of lost soil per unit of time.
Strengths and weaknesses	+: relatively standard methods exist for estimation; databases exist for preliminary assessment. -: lack of data on the erosion risk of man-made or engineered soil surfaces and NBS
Measurement procedure and tool	(Revised) Universal Soil Loss Equation is used to calculate the soil loss per unit of time. The calculation involves consideration of soil type, climatic parameters (rainfall), and methods of soil cultivation (not necessarily NBS).

Scale of measurement	Meso (field) to macro/global (regional, continental)
Data source	
Required data	Soil parameters, vegetation parameters, climatic parameters
Data input type	Numerical, quantitative
Data collection frequency	Once as a baseline, sporadically thereafter throughout the life of the NBS
Level of expertise required	Intermediate to high
Synergies with other indicators	Runoff rate, percolation rate, water flux, slope stability (FoS) , soil type, rainfall (precipitation), throughflow, stemflow
Connection with SDGs	11,13,15,17
Opportunities for participatory data collection	yes
Additional information	
References	Wischeimer, W. H. and Smith, D. D.: 1965, Predicting Rainfall Erosion Losses from Cropland East of Rocky Mountains, U.S. Department of Agriculture, Agricultural Handbook, No. 282, Washington, D.C. Panagos, P. Et al. 2015. The new assessment of soil loss by water erosion in Europe. Environmental Science & Policy 54 (438-447).