

No.	Author	Original location	Data requirements	Equation	Other studies that utilised similar methods
1	Wischmeier and Smith (1978)	USA	Slope length and angle	$LS = \left(\frac{\lambda}{72.6}\right)^m \times [65.41 \times \sin^2\theta + (4.56 \times \sin\theta) + 0.065]$ $\lambda$ : slope length (ft) $\Theta$ : angle of slope $m$ : dependent on the slope – 0.5 if slope > 5 % – 0.4 if slope is between 3.5 % and 4.5 % – 0.3 if slope is between 1 % and 3 % – 0.2 if slope is less than 1 %	Thailand (Eiumnoh, 2000; Merritt et al., 2004); Vanuatu (Dumas and Fossey, 2009); Iran (Bagherzadeh, 2014)
2	Renard et al. (1997)	USA	Slope length and angle	$L = \left(\frac{\lambda}{72.6}\right)^m$ $m = \frac{\beta}{1+\beta}$ $\beta = \frac{\left(\frac{\sin\theta}{0.0896}\right)}{[3.0 \times (\sin\theta)^{0.8} + 0.56]}$ If slope is less than 9 %: $S = 10.8 \times \sin\theta + 0.03$ If slope is greater or equal to 9 %: $S = 16.8 \times \sin\theta - 0.50$ But if the slope is shorter than 15 ft: $S = 3.0 \times (\sin\theta)^{0.8} + 0.56$ $\lambda$ : slope length (ft) $\Theta$ : angle of slope $m$ : dependent on the slope – 0.5 if slope > 5 % – 0.4 if slope is between 3.5 % and 4.5 % – 0.3 if slope is between 1 % and 3 % – 0.2 if slope is less than 1 %	Philippines (Schmitt, 2009); China (Li et al., 2014); Thailand (Nontananandh and Changnoi, 2012); Turkey (Ozsoy et al., 2012)
3	David (1988), based on work by Madarcos (1985) and Smith and Whitt (1947)	Philippines, but based on work from the USA	Slope rise in percent	$LS = a + b \times S_L^{4/3}$ $a = 0.1$ $b = 0.21$ $S_L$ : slope (%)	Philippines (David, 1988)
4	Morgan (2005) but previously published in earlier editions	Britain	Slope length and gradient in percent	$LS = \left(\frac{l}{22}\right)^{0.5} (0.065 + 0.045s + 0.0065s^2)$ $l$ : slope length (m) $s$ : slope steepness (%)	India (Nakil and Khire, 2016; Sinha and Joshi, 2012); Greece (Rozos et al., 2013)
5	Moore and Burch (1986) as cited in Mitasova et al. (1996) Desmet and Govers (1996); Mitasova et al. (2013);	USA	Upslope contributing area per unit width, which can be approximated through flow accumulation, cell size, slope	$LS = (m + 1) \left(\frac{U}{L_0}\right)^m \left(\frac{\sin\beta}{S_0}\right)^n$ $U$ ( $\text{m}^2 \text{m}^{-1}$ ): upslope contributing area per unit width as a proxy for discharge $U = \text{flow accumulation} \times \text{cell size}$ $L_0$ : length of the unit plot (22.1) $S_0$ : slope of unit plot (0.09) $\beta$ : slope $m$ (sheet) and $n$ (rill) depend on the prevailing type of erosion ( $m = 0.4$ to $0.6$ ) and $n$ (1.0 to 1.3)	Philippines (Adornado and Yoshida, 2010; Adornado et al., 2009); Sri Lanka (Jayasinghe et al., 2010); China (Chen et al., 2011); Iran (Zakerinejad and Maerker, 2015); Jordan (Farhan and Nawaiseh, 2015); Morocco (Raissouni et al., 2016); New Zealand (Fernandez and Daigneault, 2016). Similar methods from Moore and Burch (1986): India (Jain and Das, 2010); Portugal (Ferreira and Panagopoulos, 2014); Greece (Jahun et al., 2015); India (Nakil and Khire, 2016). Similar methods from Desmet and Govers (1996): USA (Boyle et al., 2011); Turkey (Demirci and Karaburun, 2012); Philippines (Delgado and Canters, 2012).