Equation number and name	Formula	Abbreviations	Reference	Comments	Calibrated in this study
Eq. (1): Hamon	Version 1: $\mathrm{PE}\,[\mathrm{mm\,day^{-1}}] = 13.97\left(\frac{N}{12}\right)^2 \rho_\mathrm{s}$ Version 2: $\mathrm{PE}\,[\mathrm{mm\,day^{-1}}] = \left(\frac{N}{12}\right)^2 \exp\left(\frac{T}{16}\right)$	– N maximum possible daylight hours [h] – ρ_s saturated vapour density [$\mathrm{g\,m^{-3}}$] – T average temperature [°C]	Version1: Hamon (1961) Version 2: Oudin et al. (2005)	Originally developed for the USA. Version 2 was used in this study.	YES
Eq. (2): McGuinness–Bordne	$\mathrm{PE}\,[\mathrm{mm\,day^{-1}}] = \frac{1}{\lambda} S_0 \left(\frac{T+5}{68}\right)$	– λ latent heat of vaporisation [$\mathrm{MJ\,kg^{-1}}$] – T temperature [°C] – S_0 extraterrestrial radiation [$\mathrm{MJ\,m^{-2}\,day^{-1}}$]	McGuinness and Bordne (1972) Oudin et al. (2005)	Originally developed for the USA. Oudin et al. (2005) version used in this study.	
Eq. (3): Blaney–Criddle	$\mathrm{PE}\,[\mathrm{mm\,day^{-1}}] = kT\,p_\mathrm{d}$ with $p_d = 100\frac{N_d}{\sum_{i=1}^{365} N_i}$	– p_d mean daily percent of annual daytime hours for day d – T mean air temperature – k monthly consumptive use coefficient. – The coefficients k depends on crop, location and season	Blaney and Criddle (1950)	Originally developed to estimate the irrigation requirements of crops in western USA.	
Eq. (4): Kharrufa	$\mathrm{PET}\,[\mathrm{mm\,day^{-1}}] = 0.34\left(100 \cdot \frac{\mathrm{DL}}{365\times 12}\right) \cdot T_\mathrm{a}^{1.3}$	– DL day length [$\mathrm{h\,day^{-1}}$] – T_a air temperature [°C]	Kharrufa (1985)	Originally developed for arid regions.	
Eq. (5): Oudin	$\begin{cases} \mathrm{PE}\,[\mathrm{mm\,day^{-1}}] = \frac{1}{\lambda} S_0 \left(\frac{T+5}{100}\right) & \text{if } T > -5° \\ \mathrm{PE}\,[\mathrm{mm\,day^{-1}}] = 0 & \text{if } T \leq -5° \end{cases}$	– λ latent heat of vaporisation [$\mathrm{MJ\,kg^{-1}}$] – T temperature [°C] – S_0 extraterrestrial radiation [$\mathrm{MJ\,m^{-2}\,day^{-1}}$]	Oudin et al. (2005)	Version of McGuinness–Bordne equation calibrated for catchments in Australia, USA and France, and which was assessed as the best temperature-based PE equation following a review of various PE methods for use as input to hydrological models (Oudin et al., 2005).	NO
Eq. (6): MOHYSE	$\mathrm{PET} = \frac{4.088}{\pi} \cdot \omega \cdot \exp\left(\frac{17.3 T_\mathrm{a}}{238 + T_\mathrm{a}}\right)$	– ω the sunset hour angle [rad] – T_a air temperature [°C]	Fortin and Turcotte (2006)	Developed in Quebec.	
Eq. (7): Thornthwaite	$\mathrm{PE}'\,[\mathrm{mm\,month^{-1}}] = 16\left(\frac{\mathrm{DL}}{360}\right)\left(\frac{10T_\mathrm{a}}{I}\right)^K$ $a = 0.49239 + 0.01792I - 7.71 \times 10^{-5} I^2$ with $I = \sum_{m}^{12} \left(\frac{T_\mathrm{m}}{5}\right)^{1.514}$ annual heat index	– T_a air temperature [°C] – T_m mean temperature of month m [°C]	Thornthwaite (1948)	Thornthwaite correlated mean monthly air temperature with PE as determined by water balance studies in valleys of east-central USA.	