Let $\{\varepsilon_n\}_{n=1}^{\infty}$ be a sequence of positive real numbers, such that $\lim_{n\to\infty} \varepsilon_n = 0$. Find

$$\lim_{n\to\infty} \frac{1}{n} \sum_{k=1}^{n} \ln\left(\frac{k}{n} + \varepsilon_n\right),$$

where ln denotes the natural logarithm.