$$G_{CH4} = \sum_{x=S}^{T-1} \left\{ W_x \times MCF \times DOC \times DOC_F \times F \times \frac{16}{12} \times \left(e^{-k(T-x-1)} - e^{-k(T-x)} \right) \right\} \qquad \text{(Eq. HH-1)}$$