

$$F_E(j)_{k \rightarrow l} = \frac{\int_{t=k-j}^{l-j} a_{GHG} * C_{GHG}(t) dt}{\int_{t=0}^{100} a_{CO_2} * C_{CO_2}(t) dt}$$

Where:

$F_E(j)_{k \rightarrow l}$  = Radiative effect of the emission of one tonne of GHG of type x during a reporting period from k to l ( $k \rightarrow l$ ) as a fraction of the radiative effect of the same quantity of CO<sub>2</sub> over 100 years;

$a_x$  = Instantaneous radiative forcing by unit mass of GHG of type x (here x= CO<sub>2</sub>) present in the atmosphere, the value of variable  $a_{CO_2}$  being 5.35 W m<sup>-2</sup> kg<sup>-1</sup>;

$C_{GHG}(t)$  = Atmospheric mass loading of a GHG at time t of type x or residual fraction of a type x GHG flow as a function of period of time t;

$C_{CO_2}(t)$  = Atmospheric mass loading of a GHG at time t of type CO<sub>2</sub> or residual fraction of a CO<sub>2</sub> type GHG flow as a function of period t, calculated using equation 18;

j = Year of GHG emission—by default, the year begins at 0 with the planting of seedlings or sowing of seeds;

k = Start of reporting period;

l = End of reporting period;

t = Period of time from the start of the GHG flow to the end of the reporting period (sequestration) or 100 years (emission).