

EX4//calculate the emission of Methane from solid waste in a region their population (10144200), production of waste per day equal to 0.5 kg / person. Day, Fraction of MSW disposed to landfill 0.8, Methane correction factor=0.74, Fraction of Carbon releases as Methane=0.5, DOC=0.21, DOCf=0.77, Recovered Methane per Year=0.

	A	B	C	D	E
	Population whose Waste goes to SWDSs (Urban or Total) (persons)	MSW Generation Rate (kg/capita/day)	Annual Amount of MSW Generated (Gg MSW)	Fraction of MSW Disposed to SWDSs (Urban or Total)	Total Annual MSW Disposed to SWDSs (Gg MSW)
			$C = (A \times B \times 365) / 1000$		$E = (C \times D)$
1998	10144200	0.5	1851.32	0.8	1481.05

	STEP 1		STEP 2		STEP 3				STEP 4		
	A	B	C	D	E	F	G	H	J	K	L
	Total	Methane	Fraction of	Fraction of	Fraction of	Conversion	Potential Methane	Realised	Gross	Recovered	Net Annual
	Annual MSW Disposed to SWDSs (Gg MSW)	Correction Factor (MCF)	DOC in MSW	DOC which Actually Degrades	Carbon Released as Methane	Ratio	Generation Rate per Unit of Waste (Gg CH ₄ /Gg MSW)	(Country-specific) Methane Generation Rate per Unit of Waste (Gg CH ₄ /Gg MSW)	Annual Methane Generation (Gg CH ₄)	Methane per Year (Gg CH ₄)	Methane Generation (Gg CH ₄)
YEAR							$G = (C \times D \times E \times F)$	$H = (B \times G)$	$J = (H \times A)$		$L = (J - K)$
1998	1481.0532	0.74	0.21	0.77	0.5	16/12	0.11	0.08	118.15	0	118.15

STEP4	
M (1-Oxidation Correction Factor for Methane)	N Net Methane generation
1-OX	LxM
1	118.15