

**Table A1** Estimation of construction cost and O&M cost

		Tear	Estimated result	Remarks	Source	
Construction cost	incineration	1990	1,842 million baht for 600 t day <sup>-1</sup> × 500/600 t day <sup>-1</sup> =1,535 million baht for 500 t day <sup>-1</sup>	Used estimation of 1990 JICA study (1,842 million baht for 600 t day <sup>-1</sup> )	Japan International Cooperation Agency (1991) The study on Bangkok Solid waste management Final report.	
		2000	788million baht for 250 t day <sup>-1</sup> × 600/250 t day <sup>-1</sup> = 1,891million baht for 500 t day <sup>-1</sup>	Used actual expense of Phuket incinerator (788million baht for 250 t day <sup>-1</sup> )		Greenpeace Southeast Asia – Briefing Paper: Incinerators in Thailand: Profile of Koh Samui incinerator
		2012	900million baht for 500 t day <sup>-1</sup>	Used cost estimation of C&G (900million baht for 500 t day <sup>-1</sup> )		The Nation (2013) C&G to spend Bt900 million building a waste-to-energy plant in Bangkok, April 22
	Composting	1990	370million baht for 1000 t day <sup>-1</sup> × 500/1000 t day <sup>-1</sup> =185million baht for 500 t day <sup>-1</sup>	Used estimation of 1990 JICA study (370million baht for 1000 t day <sup>-1</sup> )	Japan International Cooperation Agency (1991) The study on Bangkok Solid waste management Final report.	
		2000	370million baht for 1000 t day <sup>-1</sup> × 500/1000 t day <sup>-1</sup> × 1.555 =287million baht for 500 t day <sup>-1</sup>	Used estimation of 1990 JICA study (370million baht for 1000 t day <sup>-1</sup> ) and cumulative inflation rate from 1990 to 2000 (55.5%)		
		2012	1,780,000 baht t <sup>-1</sup> day <sup>-1</sup> × 500 t day <sup>-1</sup> =890million baht for 500 t day <sup>-1</sup>	Used estimation of Pacific Consultants (1,780,000 baht t <sup>-1</sup> day <sup>-1</sup> )		Pacific Consultants (2012) Report of New Mechanism Feasibility Study for Waste Management Activities in Thailand, FY 2011.
	Landfill	1990	194.7 baht t <sup>-1</sup> × 140 thousand t year <sup>-1</sup> =27million baht year <sup>-1</sup>	According to 1990 JICA study, unit cost for construction of landfill is: land purchase 87 baht t <sup>-1</sup> + civil work 96 baht t <sup>-1</sup> + water treatment facility 11 baht t <sup>-1</sup> + Control office is 0.5 baht t <sup>-1</sup> + Weigh bridge 0,2 baht t <sup>-1</sup> =194.7 baht t <sup>-1</sup>	Japan International Cooperation Agency (1991) The study on Bangkok Solid waste management Final report.	
		2000	364.1 baht t <sup>-1</sup> × 140 thousand t year <sup>-1</sup> =51million baht year <sup>-1</sup>	Estimated based of estimation of unit cost in 1990 JICA study and increase unit cost according to the increase of land price, wage, inflation rate.  Increase of land price from 1990 to 2000 is 1.70 times Increase of wage is 2.06 times cumulative inflation rate from 1990 to 2000 is 55.5% Then, unit cost is land purchase 87 baht t <sup>-1</sup> × Increase of land price (1.70) + civil work 96 baht t <sup>-1</sup> × Increase of wage (2.06) + water treatment facility 11 baht t <sup>-1</sup> × cumulative inflation rate (1.555)+ Control office is 0.5 baht t <sup>-1</sup> × cumulative inflation rate (1.555)+ Weigh bridge 0,2 baht t <sup>-1</sup> × cumulative inflation rate (1.555)=364.1 baht t <sup>-1</sup>		
		2012	574.8baht t <sup>-1</sup> × 140 thousand t year <sup>-1</sup> =80million baht year <sup>-1</sup>	Estimated based of estimation of unit cost in 1990 JICA study and increase unit cost according to the increase of land price, wage, inflation rate/ Increase of land price from 1990 to 2012 is 2.21 times Increase of wage is 3.75 times cumulative inflation rate from 1990 to 2000 is 115.0% Then, unit cost is land purchase 87 baht t <sup>-1</sup> × Increase of land price (1.70) + civil work 96 baht t <sup>-1</sup> × Increase of wage (2.06) + water treatment facility 11 baht t <sup>-1</sup> × cumulative inflation rate (2.150) + Control office is 0.5 baht t <sup>-1</sup> × cumulative inflation rate from (2.150) + Weigh bridge 0,2 baht t <sup>-1</sup> × cumulative inflation rate(2.150) =574.8baht t <sup>-1</sup>		
O&M cost	incineration	1990	713 baht t <sup>-1</sup> × 140 thousand t year <sup>-1</sup> =100 million baht year <sup>-1</sup>	Used estimation of 1990 JICA study (713 baht t <sup>-1</sup> )	Japan International Cooperation Agency (1991) The study on Bangkok Solid waste management Final report.	

		2000	$94,500 \text{ thousand baht year}^{-1} \text{ for } 300 \text{ t day}^{-1} \times 500/300 \text{ t day}^{-1} \div 1.383 = 114 \text{ million baht year}^{-1}$	Used estimation of Pacific Consultants (94,500 thousand baht year <sup>-1</sup> for 300 t day <sup>-1</sup> ), multiplied by ratio of capacity and divided it by cumulative inflation rate from 2000 to 2012 (38.3%)	Pacific Consultants (2012) Report of New Mechanism Feasibility Study for Waste Management Activities in Thailand, FY 2011.
		2012	$94,500 \text{ thousand baht year}^{-1} \text{ for } 300 \text{ t day}^{-1} \times 500/300 \text{ t day}^{-1} = 158 \text{ million baht year}^{-1}$	Used estimation of Pacific Consultants (94,500 thousand baht year <sup>-1</sup> for 300 t day <sup>-1</sup> ) and multiplied by ratio of capacity	
	Composting	1990	$337,636 \text{ thousand baht year}^{-1} \times 500/2500 \text{ t day}^{-1} \div 2.115 = 32 \text{ million baht year}^{-1}$	Used estimation of Pacific Consultants (337,636 thousand baht year <sup>-1</sup> for 2,500t day <sup>-1</sup> ), multiplied by ratio of capacity and divided it by cumulative inflation rate from 1990 to 2012 (115.0%)	
		2000	$337,636 \text{ thousand baht year}^{-1} \times 500/2500 \text{ t day}^{-1} \div 1.383 = 49 \text{ baht year}^{-1}$	Used estimation of Pacific Consultants (337,636 baht year <sup>-1</sup> for 2,500t day <sup>-1</sup> ), multiplied by ratio of capacity and divided it by cumulative inflation rate from 2000 to 2012 (38.3%)	
		2012	$337,636 \text{ thousand baht year}^{-1} \times 500/2500 \text{ t day}^{-1} = 68 \text{ baht year}^{-1}$	Used estimation of Pacific Consultants (337,636 baht year <sup>-1</sup> for 2,500t day <sup>-1</sup> ) and multiplied by ratio of capacity	
	Landfill	1990	$76 \text{ baht t}^{-1} \times 140 \text{ thousand t year}^{-1} = 11 \text{ million baht year}^{-1}$	Used estimation of 1990 JICA study (76 baht t <sup>-1</sup> )	Japan International Cooperation Agency (1991) The study on Bangkok Solid waste management Final report.
		2000	$76 \text{ baht t}^{-1} \times 1.555 \times 140 \text{ thousand t year}^{-1} = 17 \text{ million baht year}^{-1}$	Used estimation of 1990 JICA study (76 baht t <sup>-1</sup> ) and cumulative inflation rate from 1990 to 2000 (55.5%)	
		2012	$76 \text{ baht t}^{-1} \times 2.150 \times 140 \text{ thousand t year}^{-1} = 23 \text{ million baht year}^{-1}$	Used estimation of 1990 JICA study (76 baht t <sup>-1</sup> ) and cumulative inflation rate from 1990 to 2012 (115.0%)	