

*Sustainable Low-Carbon Scenario Development*

# 'Nakornnont Green Growth & Low Carbon City'

*Nonthaburi, Thailand*



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# General information : Nonthaburi Municipality

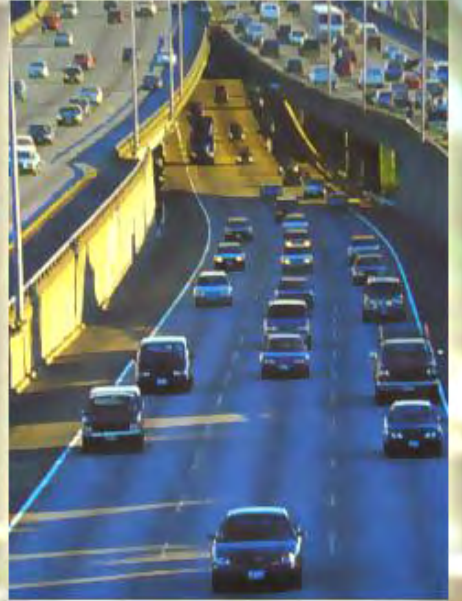
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Area : 38.9 sq.kms.

Population : 259,419

Household : 114,487





Increasing of  
Infrastructure  
*and*  
Population



# Reduce ,Reuse & Recycle Program



Waste segregation

Composting plant

: 104 t/d

: 5 t/d



Infectious waste

: 405 t/y



Composting : Takakura Method



Bio-fertilizer plant

: 40 m<sup>3</sup>/d



# Reduce ,Reuse & Recycle Program



Plastic & Foam  
: 1,414 Kg./m



Hazardous waste : 11,300 Kg./y

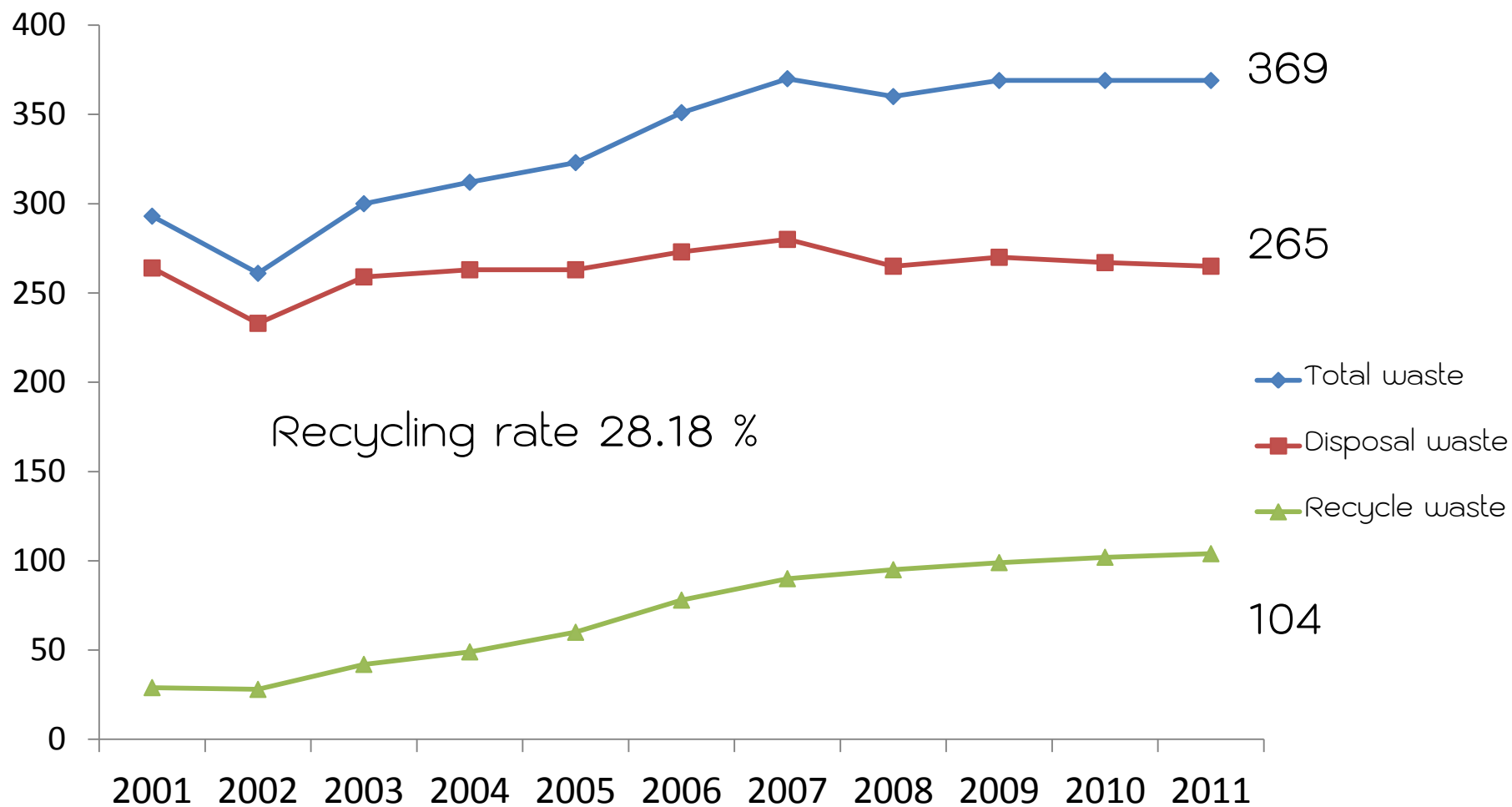




# Waste from Electrical & Electronic Equipment (WEEE)



# Total waste generation, Total Waste collection and Recycling rate in Municipality , 2001-2011 (t/d)





# GHGs Emission Reduction



Bicycle parking 500 units



Carpool



Mass Rapid Transit





# Renewable Energy



Solar cells : 150 Kilowatt /day

Date	Decrease Emission (Kg)			Save	
	CO <sub>2</sub> e	SO <sub>2</sub> e	NO <sub>2</sub> e	Tree	Crude Oil (Liter)
January 2011	3,202.34	1,296.43	1,296.43	10.01	1,771.62
February 2011	2,120.40	858.42	858.42	10.68	1,173.06
March 2011	1,705.00	690.25	690.25	8.59	943.25
April 2011	2,041.04	826.29	826.29	10.28	1,129.15
Total	9,068.78	3,671.39	3,671.39	39.56	5,017.08



# Increasing Green Area

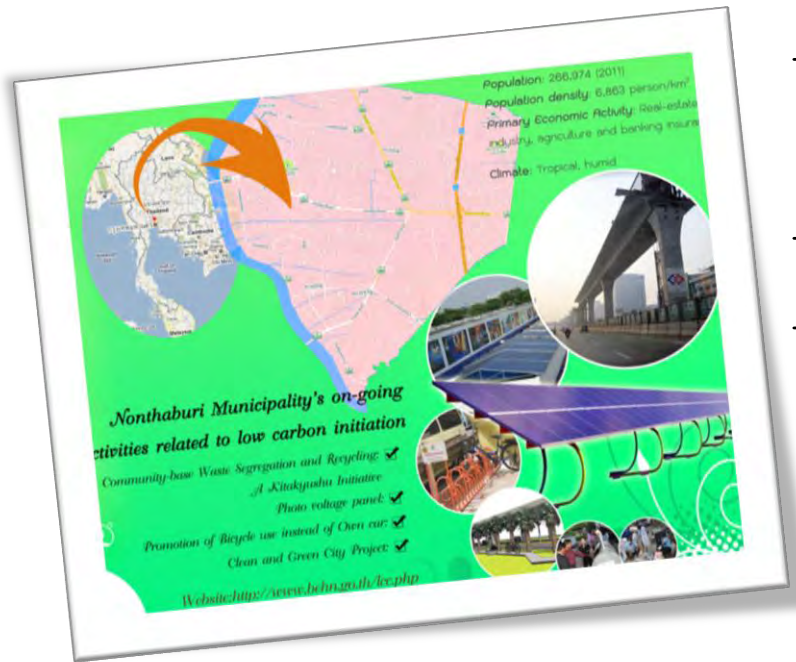




# Action towards Resource-efficient and Low Carbon Cities in Asia

Cooperation between

- French Environment and Energy Management Agency (ADEME)
- Asian Institute of Technology (AIT)
- Nonthaburi Municipality



The screenshot displays the 'Freight' section of the Bilan Carbone software. It includes a detailed table for 'Internal road freight, transport owned' and 'Internal road freight, vehicles km'. A pop-up window prompts the user to enter the vehicle model and year.

Fuel		Recap	Recap	Cons	kg eq. C per tonne	Cons	kg eq. C per kWh PCI	Cons	kg eq. C per upstream
		Emissions kg eq. C	Emissions kg eq. CO2	(tonnes)		(kWh)	(kWh)	(tonnes)	
Diesel oil		1,825,073	4,191,821	31			0.08	0.02	90
Paraffin for land engines		34,280	76,636	142	375		0.072	0.032	142
All fuel		0	0	75	375		0.08	0.074	74
Boat/motor	ADME/EGEM/PAWC	0	0				0.033		369
EMV/Raymond	ADME/EGEM/PAWC	0	0				0.029	0.004	230
<b>Total</b>		<b>1,725,156</b>	<b>4,158,471</b>						

Vehicle category		Recap	Recap	Vehicle owned	kg eq. C/km	kg eq. C/km	kg eq. C/km	kg eq. C/km	kg eq. C/km	% of journey	% max PC
		Emissions kg eq. C	Emissions kg eq. CO2	or control?	manufact	upstream	combustion	empty	loaded	empty	loaded
< 1.5 t petrol		0	0	0	0.003	0.003	0.003	0.005	0.005	20%	25%
1.5 - 2.5 tonnes petrol		0	0	0	0.010	0.011	0.007	0.017	0.005	20%	20%
2.6 - 3.5 tonnes petrol		0	0	0	0.002	0.003	0.130	0.002	0.130	20%	25%
semi-tractor		0	0	0	0.003	0.024	0.225	0.034	0.332	21%	51%
<b>Total</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.255</b>	<b>0.034</b>	<b>0.332</b>	<b>21%</b>	<b>51%</b>

Bilan Carbone Tools

# Think Globally, Act Locally

