

NONTHABURI (THAILAND)

General information:

Area:	39 km ²
Population:	0.27 million
National GDP per capita:	USD 6,402
Total income:	THB 331.3 million (USD 7.7 million)

Solid waste generation

Total generation:	320 ton/day (292 ton/day collected)
Waste generation per capita:	1.08kg/person · day

Solid waste management

Collection rate:	90% (frequency = twice a week)
Recycling:	5-10%, separation at source by community
Expenditure:	In 2001, the total expenditure was THB 70.6 million (USD 1.6 million), a rate of 23.2% in the total expenditure of all municipal departments.

Major challenges and strategies:

Challenges facing Nonthaburi Municipality include the lack of a waste disposal site coupled with the increasing amount of waste. The separation of waste at source is not in practice, and geography of the city makes it difficult to collect approximately 10% of waste. Nonthaburi has adopted the following strategies: reduction of solid waste by increasing recycling, public awareness and community based initiatives in recycling and composting, enforcement of user charges, and strengthening managerial skills through training.

To achieve these strategies, Nonthaburi is currently carrying out a one-year pilot activity under the Kitakyushu Initiative in two pilot areas in the Municipality with the following objectives:

- (1) Maximize recycling by 20% and minimize waste by 30%
- (2) Study of appropriate models for community involvement in solid waste management
- (3) Promotion of public participation and local coordination, as well as capacity building

Community participation is promoted through meetings, public relations, and door-to-door advocacy. The main objective is to improve separation at source and disposal of solid waste and recycling, respectfully, in marked bins on designated days. The Municipality provides collection trucks and staff for this purpose. In the pilot activity, households pay user fees of THB 20/month for solid waste; designated plastic bags are currently provided free-of-charge for recyclable materials. The collection staff and communities share the income generated from the sale of recycled materials.

After six months, the amount of recyclable materials has increased from 65.7 kg/day to 174.2 kg/day, to reach an average rate of 22.1% (initial rate was 5.3%). Composting activities are also being carried out in conjunction with recycling activities. The commercialisation of composting will soon bring additional revenue for collection staff and communities. The expansion of these types of activities to other communities within the Municipality is also an overall objective for Nonthaburi.

This type of pilot activity can be easily transferred to other cities with the political will to enhance community participation and introduce user charges. As in the case of Nonthaburi, the results of small-scale activities can be demonstrated to other communities to establish citywide activities.