

Kitakyushu Initiative for a Clean Environment

Workshop-Training on Organic Waste Composting: Resource Recovery for a Sustainable

Solid Waste Management

10-12 March 2009

Century Park Hotel, Bangkok, Thailand

P R O G R A M M E

10 March 2009: Workshop on Organic Waste Composting

Ayuttaya Room, Century Park Hotel

Session 1: Opening Session	
08:30-9:00	Registration
9:00-9:55	Kitakyushu Initiative Network: Outline of the Workshop-Training by Mr Toshizo Maeda- Institute for Global Environmental Strategies (IGES)
	Welcome Remarks by Bangkok Metropolitan Administration (BMA)
	Kitakyushu Initiative for a Clean Environment Programme Presentation by Mr. Lorenzo Santucci- United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP)
	City-to-City Cooperation: Kitakyushu City's Composting Project with Bangkok Metropolitan Administration by Kitakyushu City
09:55-10:10	Coffee Break
Session 2: Addressing Organic Waste Composting for Sustainable Solid Waste Management	
10:10-12:00	Solid Waste Management and Composting Initiatives in Surabaya City, Indonesia by Mr. Dedik Irianto Surabaya City, Indonesia
	Organic Composting: Methods and Concepts by Mr. Koji Takakura, JPec, Japan
	Solid Waste Management and Composting Initiatives in Metropolitan Bangkok by Bangkok Metropolitan Administration (BMA)
	Policy implication of composting practices by Ms. Kullacha Chanakuang Pollution Control Department (PCD), Thailand
	Social and Economic Benefits of Organic Composting by Mr. Toshizo Maeda- IGES
	Summary and Discussion
12:00-13:00	LUNCH
Session 3: Showcase of Composting Practices in Thai Cities	
13:00-14:30	Solid Waste Management and Composting Initiatives in Nonthaburi Municipality, Thailand
	Solid Waste Management and Composting Initiatives in Sankampaeng Municipality,

	Thailand
	Solid Waste Management and Composting Initiatives in Sriratcha Municipality, Thailand
	Solid Waste Management and Composting Initiatives in Nakhon Ratchasima (Korat) Municipality, Thailand
	Solid Waste Management and Composting Initiatives in Phitsanulok, Thailand
	Discussion
14:30-14:45	Coffee Break
Session 4	Showcase of Composting Practices in Other Countries
14:45-16:00	Solid Waste Management and Composting Initiatives in Bago City, Philippines
	Solid Waste Management and Composting Initiatives in Sibuluan City, Malaysia
	Solid Waste Management and Composting Initiatives in Kathmandu City, Nepal
	Discussion
	Site Visit
16:00-17:30	Din Daeng Composting Centre
	Reception
18:30- 21:00	Reception Dinner hosted by Bangkok Metropolitan Administration at Sukothai Room, Century Park Hotel

Hands-on Training on Takakura Method of Composting
11-12 March 2009, Ayuttaya Room, Century Park Hotel
Lecturer: Mr. Koji Takakura, JPec, Japan

Course Outline:

This training course will provide the theoretical as well as practical training of Takakura Composting Method, which was applied in Surabaya City, Indonesia. Participants of this 2-day training course are expected to learn the concepts and theories of composting and skill for operating compost centres. After the completion of the training course, participants are required to take a written exam before receiving the formal training certificate.

Background:

Takakura Method is a rapid technique (requires 1-2 weeks) of compost production. It is ideal in tropical areas and can be operated in small places. One tonne of organic waste can be processed inside a 100 square metre area and can produce 200-250 kilograms of compost products per day or 6-7 tonnes in one month.

This technique does not require the use of foreign enzymes, instead local materials such as fermented foods, fruit and vegetable peels, rice bran and rice husks can be utilized as raw materials to ferment seed compost. Shredder is the only mechanical input that is needed to cut the organic materials into smaller pieces in order to accelerate the fermentation process. The operation cost is lower and production rate is higher compared to other methods, in general.

Another advantage of Takakura Method is its applicability at a household level. More than 20,000 households are practicing household composting in Surabaya using various types of baskets made of plastic, bamboo or rattan which contain the seed compost. A similar practice has been introduced by BMA in some districts of Bangkok and some households have started practicing household composting.

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08:30-9:00	Registration
9:00-12:00	Lecture (in a seminar room) 1. Introduction of Takakura method (1) Basic concept of composting 1) Why produce compost? 2) Compost production by utilising organic waste as a resource 3) Compost production for plants' growth 4) Understanding the condition of cultivated soil 5) Simple evaluation of cultivated soil (in-house experiment)

	<ul style="list-style-type: none"> (2) Basic techniques of composting <ul style="list-style-type: none"> 1) What is compost? 2) Difference of compost and fertiliser 3) Good quality compost and its functions (with in-house experiment) 4) Required conditions for compost production 5) Management of compost production (3) Fermentation microorganism <ul style="list-style-type: none"> 1) Collection of fermented microorganism 2) Culturing fermented microorganism
12:00-13:00	Lunch
13:00-17:00	<p>On-site training (at Din Daeng Composting Centre)</p> <ul style="list-style-type: none"> 2. Practical application of the concepts to compost production <ul style="list-style-type: none"> (1) Collection of fermented microorganism in Bangkok (2) Culturing fermented microorganism (3) Hands-on compost (4) Controlling the condition of the fermentation process for compost

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9:00-12:00	<p>Lecture (in a seminar room)</p> <ul style="list-style-type: none"> 3. Quality evaluation of compost products <ul style="list-style-type: none"> (1) Evaluation techniques (2) A simple evaluation method by using plant seeds 4. Applying compost <ul style="list-style-type: none"> (1) Using compost in an efficient way (2) Difference of compost and fertiliser 5. Summary and discussions <ul style="list-style-type: none"> (1) Discussion on failed cases of compost production (2) Discussion on failed cases of compost application
12:00-13:00	Lunch
13:00-14:30	<ul style="list-style-type: none"> 6. Examination 7. Issuing Certificates
15:00-17:00	<p>On-site training (at Din Daeng Composting Centre)</p> <ul style="list-style-type: none"> 8. Additional trainings for compost production <ul style="list-style-type: none"> (1) Observing the progress of compost fermentation (2) Controlling the condition of the fermentation process for compost (3) Observing the results of germination test