Identification of Factors Influencing the Acceptance of Waste Bank Project : The Case Study of Tangerang City, Indonesia

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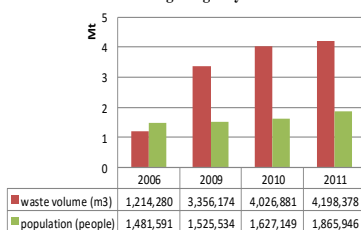*n-yoshik@fc.ritsumei.ac.jp

Background

Solid Waste Managemtent in Indonesia

- Rapid increase of municipal solid waste caused from population & income growth
- Recycling rate is quite low and should promote recycling system to reduce final disposal

Comparison between population and waste volume in Tagerang City

	2006	2009	2010	2011
waste volume (m3)	1,214,280	3,356,174	4,026,881	4,198,378
population (people)	1,481,591	1,525,534	1,627,149	1,865,946

Waste Bank System in Indonesia

- Waste Bank collects recyclables (Organic and Inorganic) with payment to particlants' "Account" and sell the m to firms
- This mechanism, is not only giving garbage and getting money but also attracting the attention of community to aware about their garbage.

What is the key factors to promote peoples' participation?

Waste Bank

Methodology

Target Area

Tangerang City, Indonesia (A city next to Jakarta)
16 Waste Bank in Tangerang City

Survey

- **Interview to Waste Bank officers**
- **Quetionnaire Survey to 96 users in two Waste Bank**
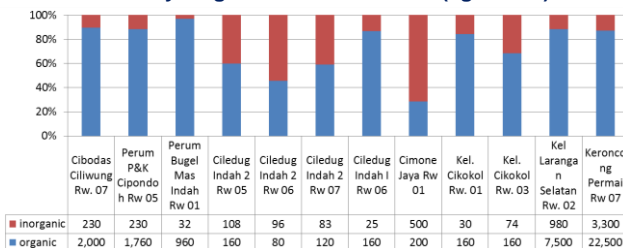**(with yellow circles in map above)**

Multiple Regression Analysis to find factors affecting acceptance of waste bank project

Aspects	Variables	Categories
Acceptance of waste bank project	Acceptance of separating waste	
Factors which influence the acceptance of waste bank project	Economic incentive	(1) Strongly agree -(5)Strongly disagree
	Distribution of recycle product	
	Season	
	Social interaction	
	Acceptance	
	Commitment	
	Leadership	
	Regulation	
	Organization	
	Monitoring & evaluation	

Results and Discussion

Current status of Waste Bank
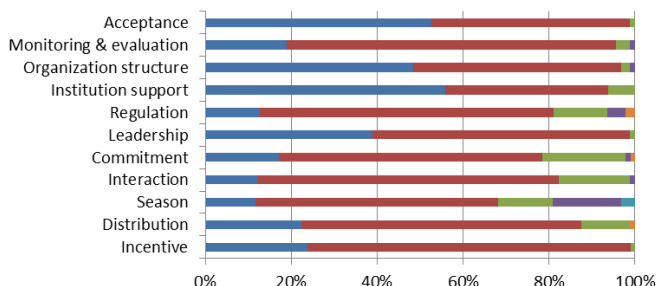
- **Amount of recycling in each Waste Bank (kg/Month)**

	Cibodas Ciliwung Rw. 07	Perum P&K Cipondoh Rw 05	Perum Bugel Mas Indah Rw 01	Ciledug Indah 2 Rw 05	Ciledug Indah 2 Rw 06	Ciledug Indah 2 Rw 07	Ciledug Indah I Rw 06	Cimone Jaya Rw 01	Kel. Cikokol Rw. 01	Kel. Cikokol Rw. 03	Kel Larangan Selatan Rw. 02	Keroncong Permai Rw 07
inorganic	230	230	32	108	96	83	25	500	30	74	980	3,300
organic	2,000	1,760	960	160	80	120	160	200	160	160	7,500	22,500

- **Characteristics of Waste Bank Participants**

		Age					
		Under 30	30s	40s	50s	60s	over 70
Occupation	Employee	1	1	2	2	1	
	Entrepreneur		1	2	3		
	Housewife	3	11	27	23	4	1
	Other		1		2		
	Retired				1		
Gender	Female	3	14	30	30	4	1
	Male	1	1	2	3	1	

- **Result of Questionnaire**

■Strongly Agree ■Agree ■Partly Agree ■Disagree ■Strongly disagree ■I don't know

Result of multi-regression analysis to determine factors

Incentive, leadership and institutional support are main factors influence the acceptance of waste bank project

- *Incentive*: Price of sorted garbage
- *Leadership*: Waste Bank leader's activity
- *Institution*: Governmental support to Waste Bank project

Promote institutional support on Waste Bank management is most important factor to increase peoples' participation

Multi-regression analysis result

Model	Standardized Coefficients Beta	t	Sig.
(Constant)		.044	.965
incentive	.287	2.723	.008**
distribution	-.137	-1.281	.204
leadership	.199	2.042	.044*
institution	.357	3.759	.000**
organization	.090	.877	.383
monitoring	.018	.183	.855

Recommendations

A. Dissemination about waste bank project to all of stakeholders
B. Increasing the incentive of waste selling
C. Strength the leadership of waste bank officers
   e.g. Making a forum or meeting
D. Strength the institutional support of waste bank project
   e.g. Providing the same rule for all waste bank project

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