

## Supplementary Material (SM)

## Why Should Different City Characteristics Customize the Rate of Pollution Charge? Evidence of Factors Affecting Willingness-to-pay for Wastewater Management in Thailand

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### SM 1 Description of variables used in estimating WTP for water quality improvement in Bangkok

Variable name	Description
<b>Bangkok</b>	
Age	Teenage group who are 19 year-old or lower
Age (1)	Early adulthood group who are 20-40 year-old
Age (2)	Adulthood group who are 41-60 year-old
Age (3)	Elderly group who are older than 60 year-old
WWserv	The respondents perceived that their houses are in WWT service area
WWserv (1)	The respondents perceived that their houses are not in WWT service area
WWserv (2)	The respondents do not know whether their houses are in WWT service area
Housesize6	Household which consist of 6 members or greater number
Singlehouse	Respondents who live in detached house type
Waterbill250	Household which has water tariff greater than 250 Baht/month
ImpLev4.0	Respondents high water pollution impact (1) (4 out of 5 scale)
WaterSaving	Respondents will save water consumption once WW charge is applied
WaterSaving (1)	Respondents will not save water consumption once WW charge is applied
WaterSaving (2)	Respondents will decide to save or not save water consumption once WW charge is applied depending on WW charge rate
Bachelor	Respondents who receive bachelor's degree or higher
Inc15000	Respondents who earn greater than 15,000 Baht/month or greater
<b>Pattaya</b>	
Gender	Male
Ownership	Respondents who live in their own houses and own the property
Ownership(1)	Respondents who live in their own house but not own the property
Ownership(2)	Residents who rent houses
BillRes	Respondents who in charge for water tariff bill
KNW_4.2	Respondents who have knowledge about wastewater management higher than average score
Waterbill_400	Household which has water tariff greater than 400 Baht/month
Diploma	Respondents who earns diploma or greater level of education
WWser (Yes)	The respondents who know their houses are in WWT service area
Fam size 5	Household which consist of 5 members or greater number
Fam size 5(1)	Household which consist of 1 member
Fam size 5(2)	Household which consist of 2 members
Fam size 5(3)	Household which consist of 3 members
Fam size 5(4)	Household which consist of 4 members
WaterSaving	Respondents will save water consumption once WW charge is applied
WaterSaving(1)	Respondents will not save water consumption once WW charge is applied
WaterSaving(2)	Respondents will decide to save or not save water consumption once WW charge is applied depending on WW charge rate
<b>Tha Rae</b>	
Famsize_8	Household which consist of 8 members or greater number
KNW score_4.0	Respondents who have knowledge about wastewater management higher than average score
WWser DK	Adulthood group who are 41-60 year-old
Imp score_3.2	Respondents high water pollution impact (1) (4 out of 5 scale)
Edu lower than m 3	Respondent who earns educational degree less than secondary school (less than 9 years of schooling)
Edu (1) m3-m6	Respondent who earns educational degree in high school (12 years of schooling)
Edu (2) certificate up	Respondent who earns educational degree in certificate or higher (more than 12 years of schooling)

**SM 2** Variable description of factors influencing WTP pay-out level

Variable name	Description
<b>Bangkok</b>	
WWser_Yes	The respondents perceived that their houses are in WWT service area
Waterbill400up	Household which has water tariff greater than 400 Baht/month
WatSav_Yes	Respondents will save water consumption once WW charge is applied
Famsize_5up	Household which consist of 5 members or greater number
House renter	Respondents who rent houses for living
<b>Pattaya</b>	
WWser_Yes	The respondents perceived that their houses are in WWT service area
Waterbill250	Household which has water tariff greater than 250 Baht/month
WatSav_Yes	Respondents will save water consumption once WW charge is applied
ImpLev4.0	Respondents high water pollution impact (1) (4 out of 5 scale)
<b>Tha Rae</b>	
Inc25000	Respondents who earn greater than 25,000 Baht/month or greater
Inc15000up	Respondents who earn greater than 15,000 Baht/month or greater
M3_lower	Respondent who earns educational degree less than secondary school (less than 9 years of schooling)