

インド共和国

インド共和国
バラナシ市環境改善に関する
情報収集・確認調査
ファイナルレポート
(別冊資料)

平成 28 年 2 月
(2016 年)

独立行政法人
国際協力機構 (JICA)

国際航業株式会社
一般財団法人 下水道事業支援センター

環境
JR
16-031

ANNEX A 住民・事業者意識調査
質問調査票および調査結果

Data Collection and Clarification Study on Improvement of Environment in Varanasi City
Questionnaire for Household Survey

[Respondent must be an adult member of the household, ideally the head of the household or their spouse. Interviewers should spend a few minutes building rapport with the respondent.]

उत्तरदाता एक वयस्क सदस्य होना चाहिए। आदर्श रूप से घर का मुखिया या उसका पति/पत्नि। साक्षात्कर्ता उत्तरदाता के साथ तालमेल बनाने के लिए कुछ मिनट लगाएँ।

My name is _____ and I am working with a Delhi-based research institute named CMS. We are gathering information about people's knowledge and experience with household sanitation. We do not plan to build any facilities such as toilets, wells etc. but we in collaboration with Japanese researchers plan to write a report on the basis of this information. /

मेरा नाम _____ है और मैं दिल्ली की एक शोध संस्था सी.एम.एस के साथ काम कर रहा/रही हूँ। हम घरेलू स्वच्छता के बारे में लोगों के ज्ञान और अनुभव के बारे में जानकारी एकत्र कर रहे हैं। हमारी किसी शौचालय बनाने की योजना नहीं है लेकिन जापान के शोधकर्ताओं के साथ मिलकर इस जानकारी के आधार पर रिपोर्ट बनाने की योजना है।

You will understand more about our work during our discussion. You can ask me to explain anything you don't understand at any time during our conversation, and you are free to end the conversation at any time. All information you provide will be kept confidential, that is, your name or other identification will not be reported along with your answers to the questions. /

चर्चा के दौरान आप हमारे काम के बारे में अधिक जान जायेंगे। यदि आपको कोई भी बात समझ नहीं आती है तो हमारी बात-चीत के दौरान किसी भी समय आप पूछ सकते हैं और चाहे तो किसी भी समय बात-चीत बंद कर सकते हैं। आप के द्वारा दी गयी संपूर्ण जानकारी गुप्त रखी जायेगी जैसे की आपका नाम या दुसरी पहचान आपके जवाबों के साथ रिपोर्ट नहीं की जायेगी।

Are you able to answer a few questions for us? It will take about 1 hour. /

क्या आप हमारे कुछ प्रश्नों के जवाब देने में सक्षम हैं? इसमें एक घंटा लगेगा।

(Please make sure that the respondent was not interviewed previously by JICA Toilet Study.)

यह सुनिश्चित कर ले कि उत्तरदाता पहले रॉउड में शामिल नहीं थे।

Section A: Interview Identification/उत्तरदाता की पहचान

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
1	Questionnaire number/ प्रश्न पत्र संख्या		
2	Block name/ ब्लॉक का नाम		For Rural
3	GP name/ ग्राम पंचायत का नाम		
4	Village name/ गाँव का नाम		
5	Local government's name/ स्थानीय सरकार का नाम		For Urban
6	Ward name/ वार्ड नम्बर		
7	Date of Interview/ साक्षात्कार की तिथि	7.1 dd _____, mm _____, 2015 7.2. Start time/शुरु करने का समय: _____ End time/समाप्त करने का समय: _____	
8	Interviewername/ साक्षात्कार का नाम		
9	Supervisor/सुपरवाइजर का नाम		
10	Checked by/जाँचकर्ता का नाम		

Respondent Information /उत्तरदाता की जानकारी

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
11	What is your name?/आपका नाम क्या है?		
12	How old are you? / आप कितने वर्ष के हो?		
13	What is your relationship to the head of the household?/ /आपके परिवार के जो मुखिया हैं वह आपके क्या लगते हैं?	Self/स्वमं	1
		Spouse/पति / पत्नी	2
		Son/daughter/बेटा / बेटी	3
		Others Specify _____ अन्य स्पष्ट करें	
14	What is the respondent's sex? उत्तरदाता का लिंग क्या है?	Male/पुरुष	1
		Female/महिला	2
15	What is the sex of the household head?/ जो परिवार का मुखिया है वह पुरुष है या महिला? <i>[Enter sex even if the respondent is the head of household]/ अगर उत्तरदाता घर का मुखिया है तो भी यह सवाल पूछें</i>	Male/पुरुष	1
		Female/महिला	2
16	What is the occupation of the head of the household? /परिवार के मुखिया क्या काम करते हैं?	Professional/Technical/ व्यवसायिक / तकनीकी	1
		Factory worker/कारखाने में काम	2
		Day labourer/दिहाड़ी मजदूर	3
		Government Service/सरकारी नौकरी	4
		Service/Sales/Commercial/ petty-trader गैर सरकारी नौकरी / सेल्समैन / वाणिज्यकी / छोटा	5
		Agricultural/खेतिहर	6
		Housewife/गृहिणी	7
		Student/छात्र	8
		Others Specify _____ अन्य स्पष्ट करें	
17	What religion do you follow? आप कौन से धर्म को मानते हैं?	Hindu/हिन्दू	1
		Muslim/मुस्लिम	2
		Christian/ इसाई	3
		Sikhism/ सिख	4
		Buddhism/बौध	5
		Others Specify _____ अन्य स्पष्ट करें	
18	Which caste (jati) does your family belong to? / आप का परिवार किस जाति से है?	Other specify/अन्य स्पष्ट करें _____	
19	Which social group does this caste (jati) belong to?/ आप किस सामाजिक (जाति) वर्ग में आते हैं?	General/Other high castes/सामान्य / अन्य उच्च जाति	1
		Other Backward Classes (OBC)/ अन्य पिछड़ी जाति	2
		Scheduled Caste (SC/ Dalit/ Harijan)/ अति पिछड़ी	3
		Scheduled Tribe (ST/ Adivasi)/ अनुसूचित जनजाति / आदिवासी	4
		Other specify/अन्य स्पष्ट करें _____	

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES		SKIP TO
20	How many people usually live in this house?/आप के इस घर में कुल कितने सदस्य रहते हैं?	Male पुरुष _____people सदस्य		
		Female महिला _____people सदस्य		
21	What level of education did the head of household achieve?/ जो परिवार के मुखिया है उन्होंने कहां तक शिक्षा प्राप्त की है?	None/बिल्कुल नहीं	1	
		Up to primary/प्राथमिक स्कूल	2	
		Up to upper - primary/उच्च प्राथमिक	3	
		Up to secondary/माध्यमिक पास	4	
		Up to to higher secondary/उच्च माध्यमिक	5	
		Graduation and above/ स्नातक पास	6	
22	What level of education did you achieve? आपने पढ़ाई कहां तक की है? (Skip this question if you are the head of the household)/ अगर आप घर के मुखिया है तो इस प्रश्न को छोड़ें	None/बिल्कुल नहीं	1	
		Up to primary/प्राथमिक स्कूल	2	
		Up to upper - primary/उच्च प्राथमिक	3	
		Up to secondary/माध्यमिक पास	4	
		Up to to higher secondary/उच्च माध्यमिक	5	
		Graduation and above/ स्नातक पास	6	
23	Please list up every person living in your family in the last one year, whosoever lived below this roof for more than two months./ अपने परिवार के उन सभी लोगों के नाम बतायें जो पिछले एक साल से यहां रह रहे हो, जो इस छत के नीचे दो महीने से रह रहा हो।			
Number नम्बर	Sex लिंग M-1, F-2	Age उम्र	Relationship with the household head घर के मुखिया से संबंध	
			1. Self/ स्वयं 2. Husband/Wife/ पती/पत्नी 3. Son/Daughter/ बेटा/बेटी 4. Son-in-law/Daughter-in-law/ दामाद/बहु 5. Grandfather/Grandmother/ दादा/दादी 6. grandson/grand daughter/ पोता/पोती 7. father/ mother/ पिता/माता	8. brother/ sister/ भाई/बहन 9. father-in-law/ mother-in-law/ सांस/ससुर 10. nephew/ niece/ भांजा/भांजी 11. brother-in-law/ sister-in-law/ साला/साली/ननद 12. adopted son/ daughter/गोद लिया बेटा/बेटी 13. any other relative/ अन्य कोई रिश्तेदार 14. Other/ अन्य
Person 1				
Person 2				
Person 3				
Person 4				
Person 5				
Person 6				
Person 7				
Person 8				
Person 9				
Person 10				

Socio - Economic / सामाजिक-आर्थिक

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES		SKIP TO
24	What is the ownership of your residential land?/ आपके घर की जमीन किस प्रकार की है?	Owned by my family/घरेलु जमीन	1	
		Rented in authorized land /किराये पर ली हुई अधिकृत जमीन	2	
		Occupied in unauthorized land/ अनधिकृत जमीन पर अधिकृत	3	
		Don't know/मालूम नहीं /कह नहीं सकते	88	
25	Is your residential land flooded regularly/ क्या आपके घर में पानी भरता है? मेरा मतलब है कभी-कभी भरता है या हर साल भरता है?	Never/कभी नहीं	1	
		Sometimes/कभी-कभी	2	
		Every year/हर साल	3	
		Other specify/अन्य स्पष्ट करें _____		
26	What were the main sources of your cash income of all your family members in the last 12 months?/ पिछले 12 महिनो में आपके परिवार के सभी सदस्यों की नकद आय का मुख्य स्रोत क्या है? [Read all options. Check all that apply]/सभी विकल्पों को पढ़ें और जो लागू हो गोला लगाएँ	Professional/Technical/ व्यवसायिक / तकनीकी	1	
		Factory worker/कारखाने में मजदूर	2	
		Day labourer/दिहाड़ी मजदूर	3	
		Government Service/सरकारी नौकरी	4	
		Service/Sales/Commercial (private company)/ गैर सरकारी नौकरी /सेल्समैन / वाणिज्य की / प्राईवेट संस्था	5	
		Agricultural/खेतिहार	6	
		Fishing/मछली पकड़ना	7	
		Animal husbandry/ पशु उत्पादक बेचकर	8	
		Business/trading/shop owner/petty trader(self-employment) / व्यापार /दुकानदार /स्वम का व्यवसाय	9	
		Other specify/ अन्य स्पष्ट करें _____		
27	How much was the household's total income for the last 12 months?/ आपके परिवार में 12 महिनो में कुल कितनी आमदनी हुई है?	Rs./ रु. _____		
		Don't know/मालूम नहीं	88	
28	Which of the followings do you need urgent improvement? Rank top five items/ आपको किस प्रकार की सुविधा में सुधार की ज्यादा जरूरत है? [Read all options. Check all that apply] (एक-एक करके सभी विकल्प पढ़ें और मुख्य पाँच को चिह्नित करें।)	Drinking water/पीने का पानी		
		Access road and transportation/सड़क और परिवहन		
		Drainage/ / Liquid waste /जल निकासी / गिला कुड़ा		
		Sooile wast/ सुखा कुड़ा		
		Latrine facilities/शौचालय की सुविधा		
		Education Facilities/शिक्षा संबंधी सुविधा		
		Health facilities/स्वास्थ्य संगठन		
		Electricity/ cooking fuel/बिजली / इंधन लकड़ी		
		Employment opportunities/ रोजगार के अवसर		
		Waste collection service/कुड़ा उठाने की सेवा		
		Crime/ Safety/ अपराध/ सुरक्षा		
		Overall function of local governments (Panchayat/Municipality) in your locality /स्थानीय सरकारी तंत्र की या संस्था की		
		Other specify/अन्य स्पष्ट करें _____		

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES		SKIP TO
29	You said that (read the item listed as Number 1 in question no-28) need urgent improvement. Then, primarily whose responsibility to improve it? /आपने जो कहा है (प्रश्न 28 में जो पहला विकल्प चुना है उसे पढ़ें) जिसमें सुधार की ज्यादा जरूरत है तो कृपया बतायें कि उसकी जिम्मेदारी पहले किसकी है?	Individual household/परिवार की	1	
		Leaders of your locality/ मुहल्ले का नेता	2	
		Community as a whole incl. your self/ समुदाय के साथ खुद जुड़ कर	3	
		Local government (Municipality/Gram Panchayat) /स्थानीय तंत्र (नगर निगम, ग्राम पंचायत)	4	
		State Government/राज्य सरकार	5	
		Central Government/केन्द्र सरकार	6	
		NGOs/गैर सरकारी संस्था	7	
		Other specify/अन्य स्पष्ट करें _____		
30	You said that (read the item listed as Number 1 in question no-28) need urgent improvement. Have you taken any initiatives to improve the situation? / आपने जो कहा है (प्रश्न 28 में जो पहला विकल्प चुना है उसे पढ़ें) जिसमें सुधार की ज्यादा जरूरत है तो क्या आपने उसके लिए कोई कदम उठाया?	Yes/हाँ		
		Specify स्पष्ट करें _____	No/ नहीं	

Sanitation Facility/ स्वच्छता सुविधा

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES		SKIP TO
31	Where do adults (male) in your household most frequently go to defecate?/ आपके परिवार के व्यस्क पुरुष सदस्य ज्यादातर शौच के लिए कहाँ जाते हैं? (Ask one which is very often) (सिर्फ एक पूछें जो आमतौर पर इस्तेमाल होता है)	Household latrine/घर में खुद के शौचालय में	1	
		Other house's latrine/दुसरे के घर के शौचालय में	2	
		Community toilet/सामुदायिक शौचालय में जाते हैं	3	
		Public toilet/सार्वजनिक शौचालय जाते हैं	4	
		Open defecation --- Near house/घर के पास खुले में	5	
		Open defecation --- field/forest/खेत/जंगल में/खुले में	6	
		Other specify/अन्य स्पष्ट करें _____		
		32	Where do adults (female) in your household most frequently go to defecate?/ आपके परिवार के व्यस्क महिला सदस्य ज्यादातर शौच के लिए कहाँ जाती हैं? (Ask one which is very often) (सिर्फ एक पूछें जो आमतौर पर इस्तेमाल होता है)	
Other house's latrine/दुसरे के घर के शौचालय में	2			
Community toilet/सामुदायिक शौचालय में जाते हैं	3			
Public toilet/ सार्वजनिक शौचालय में जाते हैं	4			
Open defecation --- near house/घर के पास खुले में	5			
Open defecation --- field/forest/खेत/जंगल में/खुले में	6			
Other specify/अन्य स्पष्ट करें _____				
33	Where do children in your household usually go to defecate?/ आपके परिवार के बच्चे आमतौर पर शौच के लिए कहाँ जाते हैं? (Ask one which is very often) (सिर्फ एक पूछें जो आमतौर पर इस्तेमाल होता है)			Household latrine/घर के शौचालय में
		Other house's latrine/दुसरे के घर के शौचालय में	2	
		Community toilet/सामुदायिक शौचालय में जाते हैं	3	
		Public toilet/ सार्वजनिक शौचालय में जाते हैं	4	
		Open defecation --- near house/घर के पास खुले में	5	
		Open defecation --- field/forest/खेत/जंगल में/खुले में	6	
		Other specify/अन्य स्पष्ट करें _____		

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO	
34	In your household, how are/has been babies' faeces usually disposed of?/ आपके परिवार में बच्चों के मल को कहाँ फेका जाता है? (Ask one which is very often) (सिर्फ एक पुछें जो आमतौर पर इस्तेमाल होता है)	Put into latrine/शौचालय में डालते हैं	1	
		Put into drain/ditch/नाली/गड्ढे में	2	
		Thrown in garbage/कचरे में फेंकते हैं	3	
		Buried/ज़मीन में गाड़ देते हैं	4	
		Left in open/खुले में छोड़ देते हैं	5	
		No baby/बच्चा नहीं है	6	
		Other specify/अन्य स्पष्ट करें_____		
35	What are the <u>disadvantages</u> of owning a latrine?/ घर में शौचालय होने के क्या नुकसान हैं? [DO NOT read options; check all that apply]/ कोई विकल्प विकल्प ना पढ़ें, सभी बताकर जवाब टिक करें	Bad smell/गंदी बदबु आती है	1	
		Attracts flies/मक्खियां आ जाती है	2	
		Cost to maintain it/रख-रखाव का खर्चा होता है	3	
		Work to maintain it/रख-रखाव के लिए मेहनत	4	
		Other people come to use it/ दूसरे लोग भी इस्तेमाल करते हैं	5	
		Affects groundwater quality/ ज़मीन के नीचे का पानी प्रभावित होता है	6	
		Overflows/भरकर बाहर गिरने लग जाता है	7	
		More water consumption/ पानी का ज्यादा खर्च	8	
		No disadvantages/कोई नुकसान नहीं	9	
		Don't know /cant say/मालूम नहीं/ कह नहीं सकते	88	
		Other specify/अन्य स्पष्ट करें_____		
36	What are the <u>advantages</u> of owning a latrine?/ घर में शौचालय होने के क्या फायदे हैं? [DO NOT read options; check all that apply]/ [कोई विकल्प ना पढ़ें, सभी बताये जवाब टिक करें]	Improved hygiene/health/cleanliness/ स्वच्छता/स्वास्थ्य/सफाई में सुधार	1	
		More privacy/ज्यादा गोपनीयता मिलती है	2	
		More comfortable/ज्यादा आरामदायक होता है	3	
		convenience/save time/ सुविधाजनक/समय की बचत होती है	4	
		Improved safety/बेहतर सुरक्षा होती है	5	
		Improved status/prestige/ दर्जा/प्रतिष्ठा बढ़ाता है	6	
		Guests can use it/ मेहमान इस्तेमाल कर सकते हैं	7	
		No advantages/कोई फायदा नहीं	8	
		Don't know /can't say/मालूम नहीं/कह नहीं सकते	99	
Other specify/ अन्य स्पष्ट करें_____				
37	Do you own latrine? /क्या आपका अपना शौचालय है?	Yes/हाँ	1	
		No/नहीं	2	
38	Where do you most frequently go to defecate?/ आप शौच के लिए ज्यादातर कहाँ जाते हैं?	Community toilet/ सामुदायिक शौचालय	1	Go To Section B
		Public toilet/ सरकारी शौचालय	2	Go To Section B
		Open defecation –nearhouse/ खुले में	3	Go To Section C
		Open defaction –field/forest/ खुले खेत में	4	Go To Section C
		Household latrine/ घर के शौचालय में	5	Go To Section D
		Other house's latrine/ दूसरे के घर के शौचालय में	6	Go To Section E

SECTION B: Community/public toilet user/ समुदायिक शौचालय उपयोगकर्ता

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
39	Which organization manages the shared toilet you use?/ जिस शौचालय को आप इस्तेमाल करते हैं उसको कौन सी संस्था देखभाल करती है?	NGOs / गैर सरकारी संस्था	1
		Local Governemnt/ स्थानीय सरकारी तंत्र	2
		Self-help Group/ स्वयं सहायता समूह	3
		Community/ समुदाय	4
		Users/ इस्तेमाल करने वाले	5
		Don't know/मालूम नहीं	99
40	How far is the shared toilet from your house? / यह साझा शौचालय आप के घर से कितनी दूरी पर है?	Minutes on foot _____ पैदल मिनट में	
41	How satisfied are you with using this shared toilet?/ आप इस साझा शौचालय के इस्तेमाल से कितना संतुष्ट हैं?	Very satisfied/बहुत संतुष्ट हैं	1
		Satisfied/ संतुष्ट हैं	2
		Unsatisfied/ असंतुष्ट हैं	3
		Very unsatisfied/बहुत असंतुष्ट हैं	4
		Don't know/मालूम नहीं	99
42	How often and how much do you have to pay to use the shared toilet?/ आप शौचालय के इस्तेमाल के लिए कितने पैसे देते हैं और कब-कब देते हैं?	For each use/प्रत्येक बार जब भी इस्तेमाल करते हैं	1
		Every week/हर हफ्ते	2
		Every month/हर महीने	3
		Once a year/साल में एक बार	4
		One-time payment/एक बार भुगतान	5
		Other specify/अन्य स्पष्ट करें _____	
43	Has it ever happened that you went to the shared toilet and were unable to use it/ क्या कभी ऐसा हुआ है की आप साझा शौचालय के इस्तेमाल के लिए गये हों पर उसे इस्तेमाल नहीं कर पाये हों ?	Yes/हाँ	1 → 45
		No/नहीं	2
44	Why were you not able to use the shared toilet?/ आप इस साझा शौचालय का इस्तेमाल क्यों नहीं कर पाये?	Closed down/बंद था	1
		Some parts were missing/ broken/ कुछ हिस्सा गायब था/टूटा था	2
		Smell/ Dirty/ Impure/बदबु/गंदा/प्रदुषित था	3
		Not safe/ No privacy/सुरक्षित नहीं/गोपनीयता नहीं थी	4
		Didn't have money/पैसा नहीं था	5
		Other specify/अन्य स्पष्ट करें _____	

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
45	Why don't you own a latrine? / आप का अपना शौचालय क्यों नहीं है? MR	Too expensive/ don't have enough money/ बहुत महंगा/पर्याप्त पैसे नहीं है	1
		The government has not given us a subsidy yet / सरकार के द्वारा कोई अनुदान नहीं मिला है	2
		No entitlement to the land/ खुद की जमीन नहीं है	3
		Don't have enough space/ पर्याप्त जगह नहीं है	4
		Water shortage/ not enough water to pour/ पानी की कमी/ डालने के लिए पर्याप्त पानी नहीं है	5
		Satisfied with current practice/ don't see a need/ वर्तमान तरीके से संतुष्ट है/ कोई जरूरत नहीं है	6
		Lack information on where to purchase, how to construct, etc./ कहाँ से खरीदना है/कैसे बनाना है जानकारी नहीं है	7
		Other priorities come first/अन्य प्राथमिकतायें पहले हैं	8
		Other specify/ अन्य स्पष्ट करें _____	
46	Has your household ever thought about or discussed building a latrine for your family? /क्या आप के परिवार ने कभी शौचालय के निर्माण के बारे में सोचा या बात-चीत की?	Yes/हाँ	1
		No/नहीं	2
47	Who in your household would make the final decision to build a latrine? /शौचालय के निर्माण के बारे में आप के परिवार में अंतिम निर्णय किसका होगा?	Head/ घर के मुखिया का	1
		Spouse/पति/पत्नी का	2
		Husband and wife jointly/ पति और पत्नि दोनों मिलकर लेंगे	3
		All (joint decision)/संयुक्त रूप से सभी परिवार के सदस्य	4
		Other/अन्य	
48	For example, If I return to your house one year from today, how likely is it that you will have built a latrine at your house?/ उदाहरण के लिए यदि मैं आज से एक साल बाद आपके घर वापस आता हूँ तो कितनी संभावना है कि आपके घर में शौचालय बना होगा?	No chance/कोई संभावना नहीं	1
		Low likelihood/कम संभावना	2
		Medium likelihood/मध्यम संभावना	3
		High likelihood/बहुत संभावना	4
		Don't know /cant say/मालूम नहीं/ कह नहीं सकते	88
49	Imagine that you decide to construct a toilet for your household. What kind of latrine would you accept? /कल्पना कीजिये कि आपने अपने घर के लिए शौचालय बनाने का निर्णय ले लिया। आप किस तरह का शौचालय चाहेंगे? [Single answer. Probe. Not preference but acceptance] एक विकल्प चुनें: वर्याता नहीं लेकिन स्वीकार्य	Latrine connected to piped sewer system /सीवर प्रणाली से जुड़ा शौचालय	1
		Latrine connected to septic tank /सेप्टिक टैंक से जुड़ा शौचालय	2
		Latrine connected to improved pit with slab /उचित पिट स्लैब के साथ शौचालय	3
		Latrine – open pit without slab /स्लैब के बिना खुले पिट वाला शौचालय	4
		Latrine – removed by human /मेहतर द्वारा मल हटाये जाने वाला शौचालय	5
		Latrine – served by animal /पशु द्वारा मल हटाये जाने वाला शौचालय	6
		Latrine – discharged to road, drain, etc. /सीवर या रोड़ से जुड़ा हुआ शौचालय	7
		Other specify/ अन्य स्पष्ट करें _____	

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
50	What is the lowest amount that you would need to spend to build an acceptable latrine for your family?/ अपने घर के लिए एक स्वीकार्य शौचालय बनाने के लिए आपको कम से कम कितने पैसे की जरूरत होगी?	Rs./रु _____	
51	How much can you afford for maintenance?/ शौचालय के रख-रखाव में आप कितना वहन कर सकते हैं	Emptying a pit : Rs. _____ per emptying /एक बार पिट खाली करने पर खर्च रु. _____ Regular cleaning Rs. _____ per month /महीने में सफाई पर खर्च रु. _____ Don't know/Cant say/ मालूम नहीं /कह नहीं सकते	99
52	Do you currently have any money saved towards building a latrine?/ क्या आपने वर्तमान में शौचालय बनाने के लिए कोई पैसे जमा किया है?	Yes/हाँ No/नहीं	1 2
53	Would you consider taking a loan to build a latrine?/ क्या आप शौचालय बनाने के लिए ऋण ले सकते हैं?	Yes/हाँ No/नहीं Don't know/मालूम नहीं /कह नहीं सकते	1 2 99

SECTION C: OD doers / खुले में शौच करने वाले

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
54	How far is the OD place from your house?/ जहाँ आप खुले में शौच के लिए जाते हैं वह आपके घर से कितनी दूर है?	Minutes on foot _____ पैदल मिनट में	
55	How satisfied are you with defecating in open? /आप खुले में शौच करने से कितना संतुष्ट हैं?	Very satisfied/बहुत संतुष्ट हैं Satisfied/ संतुष्ट हैं Unsatisfied/असंतुष्ट हैं Very unsatisfied/ बहुत असंतुष्ट हैं Don't know/मालूम नहीं /कह नहीं सकते	1 2 3 4 99
56	Are there separate places for men and women to defecate in open? / खुले में शौच के लिए क्या महिलाओं और पुरुषों के लिए अलग-अलग जगह है?	Yes/हाँ No /नहीं	1 2
57	Are there separate places for people from different castes to defecate in open? / खुले में शौच के लिए क्या अलग जाति के लोगों के लिए अलग जगह है?	Yes/हाँ No /नहीं	1 2
58	At what times do you usually go to OD? /किस समय आप ज्यादातर खुले में शौच के लिए जाते हैं? [Read all options, check all that apply] सभी विकल्प पढ़े जो लागू हो टिक करें	Morning before sunrise/सुबह सुरज निकलने से पहले Morning after sunrise/सुबह सुरज निकलने के बाद In the afternoon/दोपहर में In the evening (before dark)/ सायं काल/अँधेरा होने से पहले In the night (after dark)/ अँधेरा होने के बाद Any time/कभी भी	1 2 3 4 5 6

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
59	Does anyone usually accompany you when you go to OD? /जब आप खुले में शौच के लिए जाते हैं तो अक्सर क्या कोई आप के साथ जाता है?	Yes/हाँ	1
		No/नहीं	2
60	What are the difficulties you have faced while you are going to OD? /खुले में शौच जाने पर किन-किन परेशानियों का सामना करना पड़ता है?	Bitten by snake, scorpion, dog, bees, etc /साँप, बिच्छु, कुत्ता, मधुमक्खी इत्यादि द्वारा काटना	1
		Hurting yourself or fallen/टोकर खाकर गिरना	2
		Teased by someone/किसी ने कभी छेड़ा है	3
		Someone attempted to molest you/ किसी ने आपके साथ छेड़छाड़ करने का प्रयास किया है	4
		Molested by someone/ किसी ने आपके साथ छेड़खानी की है	5
		Other specify/ अन्य स्पष्ट करें _____	
61	What are the disadvantages of OD? /खुले में शौच जाने पर क्या नुकसान है?	Cannot go during bad weather/ मौसम खराब होने पर शौच के लिए नहीं जा सकते	1
		Physical difficulties due to old age/ बुढ़ापे में शारीरिक परेशानी होती है	2
		Physical difficulties due to handicap/ विकलांगता के कारण शारीरिक परेशानी होती है	3
		Physical difficulties due to pregnancy/ गर्भावस्था में शारीरिक परेशानी होती है	4
		Health burden for women since they are allowed to go OD either early morning and/or after dark /औरतों को शारीरिक परेशानी होती है क्यों की उन्हें सायं काल या रात में ही शौच के लिए जाने की अनुमति है	5
		Wasting time to walk long distance/ दूर चल के जाने से समय की बर्बादी होती है	6
		Creating environmental problem/sanitation problem/ पर्यावरण और स्वच्छता की व्यवस्था दुषित होती है	7
		Other specify/ अन्य स्पष्ट करें _____	
62	What are the advantages of OD /खुले में शौच जाने के क्या फायदे हैं?	Occasion for social interaction/ एक दूसरे से बात करने का मौका मिलता है	1
		Good exercise for health /शारीरिक व्यायाम होता है	2
		Time saving (no need to got to toilet) while working in farm land/ खेती करते वक्त समय की बचत होती है	3
		House will be clearer without toilet / शौचालय ना होने पर घर साफ रहता है	4
		Require less water/ पानी की बचत होती है	5
		Other specify/ अन्य स्पष्ट करें _____	

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO	
63	Why don't you own a latrine?/ आप का अपना शौचालय क्यों नहीं है? MR	Too expensive/ don't have enough money/ बहुत महंगा/पर्याप्त पैसे नहीं हैं	1	
		The government has not given us a subsidy yet /सरकार से कोई सब्सिडी अब तक नहीं मिली है	2	
		No entitlement to the land/ ज़मीन पर हक नहीं है	3	
		don't have enough space/पर्याप्त जगह नहीं है	4	
		Water shortage/ not enough water to pour/ पानी की कमी/ डालने के लिए पर्याप्त पानी नहीं है	5	
		Satisfied with current practice/ don't see a need/ वर्तमान तरीके से संतुष्ट है/ कोई जरूरत नहीं दिखती	6	
		Lack information on where to purchase, how to construct, etc/ कहाँ से खरीदना है, कैसे बनाना है आदि का पता नहीं है	7	
		Other priorities come first/अन्य प्राथमिकता पहले है	8	
		Other specify/अन्य स्पष्ट करें _____		
64	Has your household ever thought about or discussed building a latrine for your family? /क्या आप के परिवार ने कभी शौचालय के निर्माण के बारे में सोचा या बात-चीत की?	Yes/हाँ	1	
		No/नहीं	2	
65	Who in your household would make the final decision to build a latrine? शौचालय के निर्माण के बारे में आप के परिवार में अंतिम निर्णय किसका होगा?	Head/मुखिया का	1	
		Spouse/पति या पत्नी का	2	
		Husband and wife jointly/पति और पत्नी दोनों का मिलकर	3	
		All (joint decision)/संयुक्त रूप से सभी	4	
		Other specify/अन्य स्पष्ट करें _____		
66	For example, if I return to your house one year from today, how likely is it that you will have built a latrine at your house?/ उदाहरण के लिए यदि आज से एक साल बाद मैं आपके घर वापस आता/आती हूँ तो कितनी संभावना है कि आप के घर में शौचालय बना होगा?	No chance/कोई संभावना नहीं	1	
		Low likelihood/कम संभावना होगी	2	
		Medium likelihood/मध्यम संभावना होगी	3	
		High likelihood/बहुत संभावना होगी	4	
		Don't know/ Cannot say/मालूम नहीं /कह नहीं सकते	99	
67	Imagine that you decide to construct a toilet for your household. What kind of latrine can you accept?/ कल्पना किजिये कि आपने अपने घर के लिए शौचालय बनाने का निर्णय ले लिया है आप किस तरह का शौचालय चाहेंगे? [Probe. Not preference but acceptance] बतायें, वर्याता नहीं स्वीकार्य हो	Latrine connected to piped sewer system /सीवर प्रणाली से जुड़ा शौचालय	1	
		Latrine connected to septic tank /सेप्टिक टैंक से जुड़ा शौचालय	2	
		Latrine connected to improved pit with slab /उचित पिट स्लैब के साथ शौचालय	3	
		Latrine – open pit without slab /स्लैब के बिना खुले पिट वाला शौचालय	4	
		Latrine – removed by human /मेहतर द्वारा मल हटाये जाने वाला शौचालय	5	
		Latrine – served by animal /पशु द्वारा मल हटाये जाने वाला शौचालय	6	
		Latrine – discharged to road, drain, etc. /सीवर या रोड़ से जुड़ा हुआ शौचालय	7	
		Other specify/अन्य स्पष्ट करें _____		

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES		SKIP TO
68	What is the lowest amount that you would need to spend to build an acceptable latrine for your family?/ अपने घर के लिए एक सुविधाजनक शौचालय बनाने के लिए आपको कम से कम कितने पैसे की जरूरत होगी?	Rs./रु _____		
69	How much can you afford for maintenance? /शौचालय के रख रखाव में कितना खर्च कर सकते हैं?	Emptying a pit: Rs. _____ per emptying पिट को खाली करने हेतु रु. _____ एक बार खाली करने पर		
		Regular cleaning Rs. _____ per month रोजाना साफ सफाई पर रु. _____ एक महीने में		
		Don't know/cant say /मालूम नहीं / कह नहीं सकते	99	
70	Do you currently have any money saved towards build a latrine?/ क्या आपने वर्तमान में शौचालय बनाने के लिए कोई पैसा जमा किया है?	Yes/हाँ	1	
		No/नहीं	2	
71	Would you consider taking a loan to purchase a latrine?/ क्या आप शौचालय बनाने के लिए ऋण लेने की सोचेंगे?	Yes/हाँ	1	
		No/नहीं	2	
		Don't know/मालूम नहीं / कह नहीं सकते	99	

SECTION D: Latrine owners/ users / शौचालय उपयोगकर्ता

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES		SKIP TO
72	Is the latrine functioning now?/ आपका शौचालय उपयोग लायक है?	Yes/हाँ	1	→75/76
		No/नहीं	2	
73	If not, please mention the reason for that? /अगर नहीं, तो क्या कारण है? [DO NOT read options; check all that apply] (विकल्प ना पढ़े सभी बताये गये विकल्पों पर टिक करें)	Dirty/ smelly/ गंदा / बदबूदार है	1	
		Pit is full/पिट भर गया है	2	
		No water to flush/प्लश के लिए पानी नहीं है	3	
		Superstructure broken/missing/ स्ट्रक्चर टुटा है / है ही नहीं	4	
		Not finished building/घर पूरी तरह से बना ही नहीं है	5	
		Used as storage/स्टोर के रूप में इस्तेमाल कर रहे हैं	6	
		Smells bad/गंदी बदबू आती है	7	
		Prefer the field/forest/खेतों / जंगल में जाना पसंद है	8	
		Other specify/अन्य स्पष्ट करें _____		

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES		SKIP TO	
74	<p>If not, why did you build this latrine in the first place?/ अगर नहीं तो आपने यह शौचालय क्यों बनवाया था?</p> <p>[DO NOT read options; check all that apply] (विकल्प ना पढ़ें सभी बताये गये विकल्पों पर टिक करें)</p>	Program was offering subsidy/ कार्यक्रम के तहत सब्सिडी थी	1	<p>Stop here if respondent do not use latrine. अगर शौचालय का इस्तेमाल नहीं करते हैं तो आगे ना पुछें और Section -F में जायें</p>	
		Someone told me I had to/ किसी ने मुझे इसके लिए बताया था	2		
		Had enough money to build/ खरीदने के लिए पर्याप्त पैसा था	3		
		Sick/old relative बिमार/बुजुर्ग रिश्तेदार के हेतु	4		
		Privacy/ security for female members/ महिलाओं के लिए गोपनीय/सुरक्षा हेतु	5		
		Pregnancy of female household members/ घर की महिला गर्भवती थी	6		
		Children become physically mature/ बच्चे बड़े हो गये हैं	7		
		Social pressure/समाजिक दबाव है	8		
		Construction of new house नये घर के निर्माण हेतु	9		
		Neighbour got one पड़ोसी को मिला था	10		
		Event(wedding/funeral/NewYear) समारोह (शादी/कार्यक्रम/नव वर्ष) के वजह से	11		
		Had visitors from outside village coming/ बाहरी गाँव से आगंतुक आ रहे थे	12		
		Don't know/मालूम नहीं/कह नहीं सकते	88		
Other specify/अन्य स्पष्ट करें _____					
75/ 76	<p>Do <u>adults (male)</u> in your household use the latrine for defecation?/ क्या घर के पुरुष शौच के लिए शौचालय का इस्तेमाल करते हैं?</p> <p>[Read options; select one] विकल्प पढ़ कर सुनायें, केवल एक उत्तर</p>	75. DRY SEASON/ शुष्क मौसम	76. RAINY SEASON / बारिश का मौसम		
		Always/हमेशा	1	Always/हमेशा	1
		Sometimes/कभी-कभी	2	Sometimes/कभी-कभी	2
		Never/कभी नहीं	3	Never/कभी नहीं	3
Don't know/मालूम नहीं		99	Don't know/मालूम नहीं		
77/ 78	<p>Do <u>adults (female)</u> in your household use the latrine for defecation?/ क्या घर की महिला शौच के लिए शौचालय का इस्तेमाल करती हैं?</p> <p>[Read options; select one] विकल्प पढ़ कर सुनायें, केवल एक उत्तर</p>	77. DRY SEASON/ शुष्क मौसम	78. RAINY SEASON / बारिश का मौसम		
		Always/हमेशा	1	Always/हमेशा	1
		Sometimes/कभी-कभी	2	Sometimes/कभी-कभी	2
		Never/कभी नहीं	3	Never/कभी नहीं	3
Don't know/मालूम नहीं		99	Don't know/मालूम नहीं		
79/ 80	<p>Do <u>children</u> in your household use the latrine for defecation?/ क्या घर के बच्चों शौच के लिए शौचालय का इस्तेमाल करते हैं?</p> <p>[Read options; select one] विकल्प पढ़ कर सुनायें, सिर्फ एक जवाब</p>	79. DRY SEASON/ शुष्क मौसम	80. RAINY SEASON / बारिश का मौसम		
		Always/हमेशा	1	Always/हमेशा	1
		Sometimes/कभी-कभी	2	Sometimes/कभी-कभी	2
		Never/कभी नहीं	3	Never/कभी नहीं	3
Don't know/मालूम नहीं		99	Don't know/मालूम नहीं		
81	<p>If you didn't have this latrine to use, where would you go to defecate?/अगर आप के पास इस्तेमाल के लिए यह शौचालय नहीं होता तो आप शौच के लिए कहाँ जाते?</p> <p>[Don't read options. Check all that apply] विकल्प पढ़ कर सुनायें, जो भी लागू हो टिक करें</p>	Public latrine/सार्वजनिक शौचालय	1		
		Neighbor's latrine/पड़ोसीयों का शौचालय	2		
		Relative's latrine/रिश्तेदारों का शौचालय	3		
		Field/forest/खेत/जंगल	4		
		Other specify/अन्य स्पष्ट करें _____			

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
82	What kind of latrine do you have? आपके पास किस प्रकार का शौचालय है?	Latrine connected to piped sewer system /सीवर प्रणाली से जुड़ा शौचालय	1
		Latrine connected to septic tank /सेप्टिक टैंक से जुड़ा शौचालय	2
		Latrine connected to improved pit with slab /उचित पिट स्लैब के साथ शौचालय	3
		Latrine – open pit without slab /स्लैब के बिना खुले पिट वाला शौचालय	4
		Latrine – removed by human /मेहतर द्वारा मल हटाये जाने वाला शौचालय	5
		Latrine – served by animal /पशु द्वारा मल हटाये जाने वाला शौचालय	6
		Latrine – discharged to road, drain, etc. /सीवर या रोड़ से जुड़ा हुआ शौचालय	7
		Don't know/मालूम नहीं/कह नहीं सकते	99
83	What kind of <u>slab</u> does your latrine have? आपके शौचालय का स्लैब कैसा है? [Observe, Check one] [देखें, एक जवाब]	Wooden slab/लकड़ी का स्लैब	1
		Concrete slab/कंक्रीट का स्लैब	2
		Pour flush/पानी से बहाने वाला स्लैब	3
		Western toilet bowl/पश्चिमी शैली वाला स्लैब	4
		Other specify/अन्य स्पष्ट करें _____	
84	What kind of <u>shelter walls</u> does your latrine have?/ आपके शौचालय की दिवार किस प्रकार की है? [Observe if possible]यदि संभव है तो शौचालय कि दिवार ध्यान से देखें [Check one. If more than one wall material is used, choose material that covers the largest area] [एक जवाब, यदि दरवाजे में एक से ज्यादा मटेरियल इस्तेमाल हुआ है तो उस मटेरियल को लिखें जो सबसे ज्यादा इस्तेमाल हुआ है]	Concrete/brick/कंक्रीट/ईट की है	1
		Fibrous cement/रेशेदार सीमेंट की है	2
		Galvanized steel/जस्ती इस्पात की है	3
		Wood/लकड़ी की है	4
		Thatch/छप्पर लगा हुआ है	5
		Plastic sheet/प्लास्टिक शीट लगा हुआ है	6
		Salvaged material/बची हुई सामग्री की है	7
		No walls/दिवार नहीं है	8
Other specify/अन्य स्पष्ट करें _____			
85	What kind of shelter roof does your latrine have?/ आपकी शौचालय की छत किस सामग्री से बनी हुई है? [Observe if possible]यदि संभव है तो शौचालय कि छत को ध्यान से देखें [Check one. If more than one roof material is used, choose material that covers the largest area]/[एक जवाब, यदि दरवाजे में एक से ज्यादा मटेरियल इस्तेमाल हुआ है तो उस मटेरियल को लिखें जो सबसे ज्यादा इस्तेमाल हुआ है]	Concrete/brick/कंक्रीट/ईट की है	1
		Fibrous cement/रेशेदार सिमेंट की है	2
		Galvanized steel/जस्ती इस्पात की है	3
		Tiles/टाइल्स लगा हुआ है	4
		Wood/लकड़ी की है	5
		Thatch/छप्पर लगा हुआ है	6
		Plastic sheet/प्लास्टिक शीट लगा हुआ है	7
		Salvaged material/बची हुई सामग्री की है	8
		No roof/छत नहीं है	9
Other specify/अन्य स्पष्ट करें _____			
86	Who usually cleans the latrine?/ आमतौर पर शौचालय की सफाई कौन करता है? [Accept more than one answer.] [एक से ज्यादा जवाब संभव]	Whosoever uses the latrine/ जो शौचालय का इस्तेमाल करता है	1
		Give someone money to clean it/ पैसे देकर किसी से करवाते हैं	2
		Someone in the family/घर का कोई सदस्य	3
		Other specify/अन्य स्पष्ट करें _____	

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES		SKIP TO
87	How often do you clean the latrine? आप शौचालय की सफाई कब-कब करते हैं?	Whenever it is used/जब भी इस्तेमाल होता है	1	
		Once in a week/हफ्ते में एक बार	2	
		Once in a month/महीने में एक बार	3	
		Other specify/अन्य स्पष्ट करें _____		
88	[Applicable to those who chose 2 in Q86.] यदि प्रश्न 86 में 2 हो तो पूछें If you gave money to someone to clean it, was he/she from your village or from outside your village? / आप पैसे देकर जिनसे शौचालय साफ करवाते हैं क्या वह आप के गाँव का है या गाँव के बाहर का?	From village/गाँव से	1	
		From outside village/गाँव के बाहर से	2	
		Don't know/मालूम नहीं	99	
89	[Applicable to those who chose 2 in Q86.] यदि प्रश्न 86 में 2 हो तो पूछें How much do you give to them? / आप उसे कितना पैसा देते हैं?	Rs./रु _____ Per month/एक महीने में		
90	[Applicable to those who chose 2 in Q86.] यदि 86 में 2 कोड हो तो पूछें Do you know which caste do they belong? /जिनसे आप पैसे देकर शौचालय साफ करवाते हैं क्या आप जानते हैं कि वह किस जाति के हैं?	Yes/हाँ		
		Specify स्पष्ट करें _____ Don't know/ मालूम नहीं	99	
91	Do you use water to flush your latrine?/क्या आप शौचालय में फ्लश करने हेतु पानी इस्तेमाल करते हैं?	Yes/हाँ	1	→ 95
		No/नहीं	2	
92	How many times is your latrine used per day by all family members? / आपके परिवार के सदस्य दिन में शौचालय कितनी बार इस्तेमाल करते हैं?	Number of times/कितनी बार _____		
93	How much water per use do you usually use to flush the latrine?/ एक बार शौचालय इस्तेमाल करने पर आमतौर पर कितना पानी इस्तेमाल होता है?	_____ Litter /लीटर		
94	Do you have enough water to flush the latrine in the dry season? /क्या सूखे के मौसम में शौचालय को फ्लश करने के लिए आप के पास पर्याप्त पानी होता है?	Yes/हाँ	1	
		No/नहीं	2	
95	When did you built the latrine? /आपने यह शौचालय कब बनवाया था? [best estimate] सबसे अच्छा अनुमान	Year: साल _____ Month: महीना _____		
96	Who made the final decision to build your first latrine? /आपके घर में पहला शौचालय बनाने के लिए अंतिम निर्णय किसने लिया था? [Check only one] केवल एक जवाब	Head of household/घर के मुखिया	1	
		Head of household and spouse jointly/ घर के मुखिया और पति / पत्नी दोनों ने मिलकर	2	
		Spouse/पति / पत्नी	3	
		Family together/परिवार ने मिलकर	4	
		Other specify/अन्य स्पष्ट करें _____		

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
97	What made you decide to build your latrine at the time that you did? जब आपने शौचालय बनाया तो किन बातों का ध्यान रख कर इसका निर्माण किया था? [probe; check all that apply] जांच करें, लागू होने वाले सभी टिक करें	Program was offering subsidy/ कार्यक्रम के तहत सब्सिडी थी	1
		Someone told me I had to/ किसी ने मुझे इसके लिए बताया था	2
		Had enough money to build/ खरीदने के लिए पर्याप्त पैसा था	3
		Sick/old relative बिमार/बुजुर्ग रिश्तेदार के हेतु	4
		Privacy/ security for female members/ महिलाओं के लिए गोपनीय/सुरक्षा हेतु	5
		Pregnancy of female household members/ घर की महिला गर्भवती थी	6
		Children become physically mature/ बच्चे बड़े हो गये हैं	7
		Social pressure/समाजिक दबाव है	8
		Construction of new house नये घर के निर्माण हेतु	9
		Neighbour got one पड़ोसी को मिला था	10
		Event(wedding/funeral/NewYear) समारोह (शादी/कार्यक्रम/नव वर्ष) के वजह से	11
		Had visitors from outside village coming/ बाहरी गाँव से आगंतुक आ रहे थे	12
		Don't know/मालूम नहीं/कह नहीं सकते	99
		Other specify/अन्य स्पष्ट करें _____	
98	Did you receive assistance from any organization to build your current latrine? <i>E.g., free/subsidized materials or labour, technical advice, loan, etc./</i> क्या आपको शौचालय बनाने में किसी संस्था की मदद मिली थी? उदाहरण के लिए मुफ्त/रियायती सामग्रीया मजदूर, तकनीकी सलाह, ऋण आदि।	Yes, from the Government/हाँ, सरकार से	1
		Yes, from NGO/ हॉ, एन.जी.ओ से	2
		No/नहीं	3
		Don't know/मालूम नहीं	99
		Other specify/ अन्य स्पष्ट करें _____	
99	What assistance did you receive from the organization? /आपको संस्था से क्या मदद मिली थी? [Read options and check all that apply] विकल्प पढ़ें और जो लागू हो टिक करें	Subsidy (cash)/पैसे की रियायत (कैश)	1
		Free/subsidized materials/मुफ्त/रियायती सामग्री	2
		Free/subsidized labour (construction activities)/निर्माण के लिए मुफ्त/रियायती मजदूर	3
		Loan/कर्जा	4
		Technical advice/तकनीकी सलाह	5
		Design provided/डिजाईन दिया	6
		Encouragement/प्रोत्साहन	7
		Other specify/ अन्य स्पष्ट करें _____	
100	How much did you get from the government for your latrine?/ आपको शौचालय बनाने के लिए सरकार से कितना पैसा मिला था ? [If possible, enter material and labour costs separately]/ (यदि संभव हो, सामग्री और मजदूरी अलग-अलग लिखें)	Total/ कुल Rs _____/Don't know/मालूम नहीं	99
		Materials/ सामग्री Rs _____/ Don't know/मालूम नहीं	99
		Labour/ मजदूरी Rs _____/Don't know/मालूम नहीं	99
		In kind contribution, value unknown/ वस्तु के रूप में लागत मालूम नहीं	4

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES		SKIP TO
101	How much did you get from the NGO for your latrine?/आपको शौचालय बनाने के लिए एन.जी.ओ से कितना पैसा मिला था? <i>[If possible, enter material and labour costs separately]/(यदि संभव हो, सामग्री और मजदूरी अलग-अलग लिखें)</i>	Total/ कुल Rs _____/ Don't know/मालूम नहीं	99	
		Materials/ सामग्री Rs _____/ Don't know/मालूम नहीं	99	
		Labour/ मजदूरी Rs _____/ Don't know/मालूम नहीं	99	
		In kind contribution, value unknown/ वस्तु के रूप में लागत मालूम नहीं	4	
102	How much did you spend to construct your latrine?/आपने शौचालय बनाने पर कितना खर्च किया था? <i>[If possible, enter material and labour costs separately]/(यदि संभव हो, सामग्री और मजदूरी अलग-अलग लिखें)</i>	Total/ कुल Rs _____/ Don't know/मालूम नहीं	99	
		Materials/ सामग्री Rs _____/ Don't know/मालूम नहीं	99	
		Labour/ मजदूरी Rs _____/ Don't know/मालूम नहीं	99	
		In kind contribution, value unknown/ वस्तु के रूप में लागत मालूम नहीं	4	
103	Has your latrine pit ever been emptied?/ क्या आप के शौचालय का पिट कभी खाली किया गया है?	Yes/हाँ	1	} 110
		No/नहीं	2	
		Don't know/मालूम नहीं	99	
		Not Applicable/मान्य नहीं	88	
104	If yes, what do you do with the contents?/ यदि प्रश्न 115 में जवाब हाँ है तो पूछें कि पिट खाली करने के बाद मल को कहां फेंकते हैं? <i>[readoptions,checkallthatapply] [विकल्प पढ़ें, जो भी लागू हो वह टिक करें]</i>	Spread on field as fertilizer/ खाद के रूप में खेतों में डाला	1	
		Dumped in the forest/जंगल में फेंक दिया	2	
		Dumped in the river/pond/canal/ नदी/तलाब/नहर में फेंक दिया	3	
		Empty pit contents into new hole/नया गड्ढा बनाया	4	
		Don't know/मालूम नहीं	99	
		Other specify/अन्य स्पष्ट करें _____		
105	Have you ever hired someone to empty your pit? / क्या आपने कभी भी अपने पिट को खाली करने के लिए किसी को मजदूरी पर रखा?	Yes/हाँ	1	} 110
		No/नहीं	2	
		Don't know/मालूम नहीं	99	
106	Do you remember how much you paid for emptying the pit? / क्या आपको याद है कि आपने पिट खाली करने के लिए कितना पैसा दिया था?	Yes /हाँ,	1	
		Specify/स्पष्ट करें Rs./रु. _____ No/नहीं	2	
107	Were they from your village or from outside your village?/ क्या पिट खाली करने वाले आपके गाँव से थे या बाहर से थे?	From village/अपने गाँव से	1	
		From outsidevillage/अपने गाँव से बाहर	2	
		Don't know/मालूम नहीं	99	
108	Do you know which caste do they belong to?/ क्या आप जानते हैं कि वह किस जाति के हैं?	Yes /हाँ,	1	
		Specify/स्पष्ट करें _____ Don't know/मालूम नहीं	99	

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
109	How did you get to know this person?/ आपको पिट खाली करने वाले मजदूर के बारे में किससे पता चला?	Local government (Municipality / GPs)/ स्थानीय सरकार (नगर पालिका / ग्राम पंचायत) से पता चला	1
		Community meeting/सामुदायिक बैठक में पता चला	2
		Relative/friend/रिश्तेदार/मित्र से पता चला	3
		Recommended by someone/किसी ने बताया था	4
		Specify/ स्पष्ट करें _____	
		Poster/Advertisement/पोस्टर/विज्ञापन से पता चला	5
		Radio/Car announcement/ रेडियो / कार में घोषणा हुई थी	6
	Other specify/अन्य स्पष्ट करें _____		
110	Did you hire anybody to build or help build your latrine?/ क्या आपने शौचालय बनवाने में या मदद के लिए किसी को किराये पर रखा था?	Yes/हाँ	1
		No/नहीं	2
111	If yes, were they from your village or from outside your village?/ यदि प्रश्न 122 में जवाब हाँ है तो पूछें, क्या वह आपके गाँव से थे या गाँव के बाहर से?	From village/गाँव से	1
		From outside village/गाँव के बाहर से	2
		Don't know/मालूम नहीं	88
112	Why did you pick this person?/ आपने शौचालय के निर्माण के लिए जिनसे मदद ली थी उन्हें ही क्यों चुना था? <i>[Don't read the options, check all that apply]/ विकल्प ना पढ़ें/जो लागू हो टिक करें</i>	Relative/friend /रिश्तेदार/मित्र था	1
		Had hired before/पहले मजदूरी पर रखा था	2
		Has good reputation अच्छा नाम था	3
		Saw and liked a latrine they had built /उसका बनाया हुआ शौचालय देखकर पसंद आया था	4
		Least expensive/कम खर्चा/सस्ता था, कम पैसे लेता था	5
		Other specify/ अन्य स्पष्ट करें _____	
113	How did you learn about this person? /आपने इस के बारे में कैसे जाना? <i>[Don't read the options, check all that apply]/ विकल्प ना पढ़ें/जो लागू हो टिक करें</i>	Local government (Municipality / GPs)/ स्थानीय सरकार (नगर पालिका / ग्राम पंचायत) से पता चला	1
		Community meeting/सामुदायिक बैठक में पता चला	2
		Relative/friend/रिश्तेदार/मित्र से पता चला	3
		Recommended by someone/किसी ने बताया था	4
		Specify/ स्पष्ट करें _____	
		Poster/Advertisement/पोस्टर/विज्ञापन से पता चला	5
		Radio/Car announcement/ रेडियो / कार में घोषणा हुई थी	6
	Other specify/ अन्य स्पष्ट करें _____		

SECTION E: Users of Other's latrine

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
114	Whose latrine do you use? आप किसका शौचालय इस्तेमाल करते हैं?	Relatives/रिश्तेदार	1
		Friend/दोस्त	2
		Landlord/ मकान मालिक	3
		Other specify/ अन्य स्पष्ट करें _____	
115	How far is the shared toilet from your house?/जो सांझा शौचालय आप इस्तेमाल करते हैं वह आपके घर से कितनी दूर है?	Minutes on foot _____ पैदल मिनट में	
116	Why don't you won a latrine?/ आपका खुद का शौचालय क्यों नहीं है?	Too expensive/ don't have enough money/ बहुत महंगा/पर्याप्त पैसे नहीं है	1
		The government has not given us a subsidy yet / सरकार के द्वारा कोई अनुदान नहीं मिला है	2
		No entitlement to the land/ खुद की जमीन नहीं है	3
		Don't have enough space/ पर्याप्त जगह नहीं है	4
		Water shortage/ not enough water to pour/ पानी की कमी/डालने के लिए पर्याप्त पानी नहीं है	5
		Satisfied with current practice/ don't see a need/ वर्तमान तरीके से संतुष्ट है/कोई जरूरत नहीं है	6
		Lack information on where to purchase, how to construct, etc./ कहाँ से खरिदना है/कैसे बनाना है जानकारी नहीं है	7
		Other priorities come first/अन्य प्राथमिकतायें पहले है	8
		Too expensive/ don't have enough money/ बहुत महंगा/पर्याप्त पैसे नहीं है	9
		Other specify/ अन्य स्पष्ट करें _____	
117	Has your household ever thought about or discussed building a latrine for your family?/ क्या आपके परिवार ने कभी शौचालय के निर्माण के बारे में सोचा या बात-चीत की?	Yes/हाँ	1
		No/नहीं	2
118	Who in your household would make the final decision to build a latrine? शौचालय के निर्माण के बारे में आपके परिवार में अंतिम निर्णय किसका होगा?	Head /घर के मुखिया	1
		Spouse/पति /पत्नी	2
		Head and wife jointly/ घर के मुखिया और पति/पत्नी दोनो ने मिलकर	3
		All (joint decision)/ सभी मिलकर निर्णय लेते है	4
		Other specify/ अन्य स्पष्ट करें _____	
119	For example, If I return to your house one year from today, how likely is it that you will have built a latrine at your house? / उदाहरण के लिए यदि आज से एक साल बाद मैं आपके घर वापस आता/आती हूँ तो कितनी संभावना है कि आप के घर में शौचालय बना होगा?	No chance/कोई संभावना नहीं	1
		Low likelihood/कम संभावना होगी	2
		Medium likelihood/मध्यम संभावना होगी	3
		High likelihood/बहुत संभावना होगी	4
		Other specify/ अन्य स्पष्ट करें _____	

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
120	Imagine that you decide to construct a toilet for your household. What kind of latrine would you accept? / कल्पना कीजिए कि आपने घर के लिए शौचालय बनाने का निर्णय ले लिया है आप किस तरह का शौचालय चाहेंगे? [Probe. Not preference but acceptance] बतायें, बर्खास्त नहीं लेकिन स्वीकार्य	Latrine connected to piped sewer system /सीवर प्रणाली से जुड़ा शौचालय	1
		Latrine connected to septic tank /सेप्टिक टैंक से जुड़ा शौचालय	2
		Latrine connected to improved pit with slab /उचित पिट स्लैब के साथ शौचालय	3
		Latrine – open pit without slab /स्लैब के बिना खुले पिट वाला शौचालय	4
		Latrine – removed by human /मेहतर द्वारा मल हटाये जाने वाला शौचालय	5
		Latrine – served by animal /पशु द्वारा मल हटाये जाने वाला शौचालय	6
		Latrine – discharged to road, drain, etc. /सीवर या रोड़ से जुड़ा हुआ शौचालय	7
		Other specify/ अन्य स्पष्ट करें _____	
121	What is the lowest amount that you would need to spend to build an acceptable latrine for your family?/अपने घर के लिए एक सुविधाजनक शौचालय बनाने के लिए आपको कम से कम कितने पैसे की जरूरत होगी?	Rs. / रु _____	
122	How much can you afford for maintenance?/ आप शौचालय के रख रखाव पर कितना खर्च कर सकते हैं?	Emptying a pit : Rs. _____ per emptying /एक बार पिट खाली करने पर खर्च रु. _____	
		Regular cleaning Rs. _____ per month /महीने में सफाई पर खर्च रु. _____	
		Don't know/cant say/मालूम नहीं /कह नहीं सकते	88
123	Do you currently have any money saved towards bulding a latrine/ क्या आपने वर्तमान में शौचालय बनाने के लिए कोई पैसा जमा किया है?	Yes/हाँ	1
		No /नहीं	2
124	Would you consider taking a loan to purchase a latrine?/क्या आप शौचालय के लिए ऋण लेने की सोचेंगे?	Yes/हाँ	1
		No /नहीं	2
		Don't know/मालूम नहीं	99

SECTION F: Waste Management / अपशिष्ट प्रबंधन

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
125	How do you dispose the waste? आप कुड़ा कहां फेंकते हैं?	Placed it beside the near-by road side/ नजदीक सड़क के किनारे रख देते हैं	1
		Placed it to a designated collection point, incl. communal container, concrete bins, etc/ कुड़े के लिए बनाई गई एक नियमित जगह पर फेंक देते हैं जिसमें समुदायीक पात्र टोस रूप से बना कुड़ादान शामिल है	2
		Placed it onto an open pile of waste in neighborhood/पास में खुले कुड़े के ढेर में	3
		Placed it directly to the waste truck/ hand carts/ सीधा कुड़े की गाड़ी / हाथ गाड़ी में	4
		Handed it directly to waste collectors/ कुड़ा इक्वटा करने वाले को देते हैं	5
		Self-disposal/ खुद ही निपटारा करते हैं	6
		Other specify/ अन्य स्पष्ट करें _____	
		Don't know/मालूम नहीं	99

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
126	How often do you dispose of the waste generated in your premises?/ आप अपने घर का कुड़ा कब-कब फेंकते हैं?	As soon as waste is generated/जैसे ही कुड़ा इकट्ठा होता है	1
		Once daily/दिन में एक बार	2
		Once every 2 or 3 days/ 2-3 दिन में एक बार	3
		Less frequently/ काफी कम बार	4
		Other specify/ अन्य स्पष्ट करें _____	5
		Don't know/मालूम नहीं	99
127	Who mainly handles wastes at home? घर में मुख्य रूप से कुड़े को कौन फेंकता है?	An adult male member// एक वयस्क पुरुष	1
		An adult female member/ एक वयस्क महिला	2
		Children/ बच्चा	3
		Servant/ नौकर	4
		Other specify/ अन्य स्पष्ट करें _____	
		Don't know/मालूम नहीं	99
128	Who mainly brings the wastes to a specific point? आमतौर पर कुड़े को एक खास जगह पर कौन ले जाता है	An adult male member// एक वयस्क पुरुष	1
		An adult female member/ एक वयस्क महिला	2
		Children/ बच्चा	3
		Servant/ नौकर	4
		Other specify/ अन्य स्पष्ट करें _____	
		Don't know/मालूम नहीं	99
129	(For those who chose 1,2,3,4 and 5 in Q125) (उनके लिए जिन्होंने प्रश्न 125 में 1,2,3,4 या 5 बताया है) What type of container do you use for carrying garbage? आप कुड़ा ले जाने के लिए क्या इस्तेमाल करते हैं?	Plastic bag/ प्लास्टिक थैला	1
		Paper bag/ कागज थैला	2
		Metal/ plastic bin/ प्लास्टिक का कुड़े दानी	3
		None : place directly/ सीधा फेंक देते हैं	4
		Other specify/ अन्य स्पष्ट करें _____	
		Don't know/मालूम नहीं	99
130	How often does anyone in your family or servant clean the side of the road or adjacent public area near your premises?/ कब-कब आप के परिवार के कोई सदस्य या नौकर, सड़क या अपने आस-पास के सुविधाजनक परिसर की सफाई करते हैं?	Yes, almost everyday/ हाँ प्रतिदिन	1
		Yes, sometimes/ हाँ कभी-कभी	2
		Rarely/ हाँ एक दो बार	3
		Never/ कभी नहीं	4
		Other specify/ अन्य स्पष्ट करें _____	
		Don't know/मालूम नहीं	99

Waste Collection/ अपशिष्ट संग्रह कार्य

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
131	Is there someone who comes around to collect or buy your reusable or recyclable materials? आपके यहाँ कोई है जो पुनः प्रयोग और दुबारा इस्तेमाल होने वाली सामग्री को खरीदने आता है	Yes/हाँ	1
		No /नहीं	2
		Don't know/मालूम नहीं	99
132	Do you take for recyclable materials to shops for refund or sale?/ क्या आप अपनी दुकानों के लिए दुबारा इस्तेमाल होने वाली सामग्री वापसी या बीकी के लिए लेते हैं?	Yes/हाँ	1
		No /नहीं	2
		Don't know/मालूम नहीं	99

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
133	Are you using kitchen waste and/or garden waste for compost?/ क्या आप रसोई का कचरा या बागीचे का कचरा खुद के लिए प्रयोग कर रहे हैं?	Yes/हाँ	1
		No /नहीं	2
		Don't know/मालूम नहीं	99
134	Does your household receive a collection service of any type? क्या आपके घर पर कुड़ा इकट्टा कर की सेवा प्राप्त होती है?	Yes/हाँ	1
		No /नहीं	2
		Don't know/मालूम नहीं	99
134.1	Would you like to receive a collection service? / क्या आपको कूड़ा/कचरा इकट्टा करने की सेवा चाहिए? (If 134.1 3 & 4 then go to Section – G) (अगर 134.1 में 3 और 4 हैं तो आगे ना पूछे Section – G पर जाए)	Yes if it is free/ हाँ, यदि फ्री में मिले तो	1
		Yes, even we need to pay/ हाँ, यदि पैसा भी देना पड़े तो	2
		No/नहीं	3
		Don't know/मालूम नहीं	4
134.2	(For those who chose 2 in Q.134.1) (उनके लिए जिन्होंने प्रश्न 134.1 में विकल्प 2 बताया है) What is the maximum fee (tax) per month that your household would be prepared to pay for the "good" collection service? / कूड़ा/कचरा इकट्टा करने की बेहतर सेवा पाने के लिए आपका परिवार मासिक कितना खर्च कर सकते हैं?	Rs/रूपया..... average amount per month/औसतन मासिक खर्च	
135	How is the waste collected? कैसे कचरा इकट्टा किया जाता है?	Place it beside the near-by road side for collection services/घर के पास रोड़ साईड में रख देते हैं।	1
		Placed it to a designated collection point, incl. communal container, concrete bins, etc, for collection services/संग्रह सेवा के लिए एक निर्धारित जगह पर कुड़ेदान में एकत्रीत करते है	2
		Placed it onto an open pile of waste in neighborhood for collection service/ संग्रह सेवा के लिए खुले में एकत्रीत करते है	3
		Placed it directly to the waste truck/ hand carts/ खुद संग्रह करने वाली गाड़ी/हाथ गाड़ी में देते है	4
		Handed it directly to waste collectors/ खुद संग्रह करने वालो को देते है	5
136	Who collects the waste? कचरा कौन इकट्टा करता है?	Local government/ स्थानीय प्रसाशन	1
		Private company/निजी कम्पनी	2
		Residents' association / Neighborhood group/ निवासी मंडली/पड़ोसी समुह	3
		NGO/एन.जी.ओ	4
		Individual waste collector/ scavenger/कुड़े वाला / मेहन्तर	5
		Other specify/ अन्य स्पष्ट करें _____ Don't know/मालूम नहीं	99

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
137	How often is your garbage collected? कितने दिनों के अन्तराल पर कचरा इककटा किया जाता है?	Daily/ प्रतिदिन	1
		More than four times per week/ हफ्ते में 4 बार से ज्यादा	2
		Two to three times per week/ हफ्ते में 2 से 3 बार	3
		Once a week/ हफ्ते में 1 बार	4
		Less than once per week/ 1 हफ्ते से कम	5
		Irregular/ अनियमित रूप से	6
		Don't know/मालूम नहीं	99
138	Is the waste collection service done at a fixed time on the collection day?/ क्या कचरा इककटा करने वाले का समय निर्धारित है?	Yes/हाँ	1
		No /नहीं	2
		Don't know/मालूम नहीं	99
139	Are you satisfied with the collection service?/ क्या आप कुड़ा इककटा करने वाले सेवा से संतुष्ट हैं?	Very satisfied/ पूरी तरह संतुष्ट	1
		Reasonably satisfied/ थोड़ा संतुष्ट	2
		Less than satisfied/ कम संतुष्ट	3
		Not satisfied at all/ बिल्कुल संतुष्ट नहीं	4
		Don't know/मालूम नहीं	99
140	(For those who chose 3 and 4 in Q139.) (यदि Q139 में 3 और 4 आता है तो पुछें) Would you state your primary reason for dissatisfaction? क्या कारण है कि आप इस सेवा से संतुष्ट नहीं हैं? [DO NOT read options; check all that apply]/ कोई विकल्प विकल्प ना पढ़ें, सभी बताकर जवाब टिक करें	The service is not reliable/ सेवा विश्वसनीय नहीं है	1
		Frequency of service – the interval between collections is too long/ कचरा संग्रह लम्बे अन्तराल में होता है	2
		The location of the communal container or pick-up point is unsatisfactory/ कचरा जमा करने कि जगह ठीक नहीं है	3
		Lack of clean appearance, odors, flies or fires at the communal container or pick-up point/ कचरा इककटा करने कि जगह बदबुदार, किड़े मकोड़े और बगैर साफ-सफाई का है।	4
		The collection workers are rude or impolite/ कुड़ा इककटा करने वाले का व्यवहार सही नहीं है	5
		Lack of clean appearance of the neighbourhood/ आस पास और पड़ोस बगैर साफ-सफाई का है	6
		Other specify/ अन्य स्पष्ट करें _____	
141	Do you know where the collected waste is taken for final disposal when it leaves your neighborhood?/ क्या आप जानते हैं कि आप से इककटा किया हुआ कचरे का अन्तिम निपटान कहाँ होता है?	Yes/हाँ	1
		No /नहीं	2
142	(For those who chose 1 in the previous question) (यदि पिछले प्रश्न में 1 है तो पुछें) Please specify problems faced by the final disposal sites, if any./अन्तिम निपटान होने वाला स्थान से कोई परेशानी?		
143	Do you pay for the collection service?/ क्या आप कुड़ा इककटा की सेवा प्राप्त करने के लिए पैसे देते हैं?	Yes/हाँ	1
		No /नहीं	2
144	How much do you pay for the collection service?/कुड़ा इककटा की सेवा प्राप्त करने के लिए आप कितना पैसे देते हैं?	Rs.per/ रुपये _____	

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
145	Have you ever given small allowance (not the collection fee) directly to the waste collection workers?/क्या आप कभी वेतन के अलावा और कोई छोटी-मोटी रकम दी है?	Yes/हाँ	1
		No /नहीं	2
146	How many times per year and how much per time did you give such small allowance? आपने कितनी बार और एक बार में कितने रुपये की रकम दी है?	Rs.: average amount per time/ एक बार में औसतन कितने रु. times per year/ साल में कितनी बार	147
147	What is the maximum fee per month that your household would be prepared to pay for the "better" collection service? "better" collection service means e.g. regular and more frequent collection service. बेहतर सेवा पाने के लिए आपका परिवार महिने कितने रुपये देना चाहेगा?	Rs.: average amount per month _____ औसतन महिने में कितने रुपये	
148	(Ask all/सबसे पूछें) How do you think litter can be reduced in the area? आपके हिसाब से कुड़ा कचरा फैलाना कैसे कम किया जा सकता है?	To strengthen laws and regulations/ कानून और नियम को बजबुत करना	1
		To increase the frequency of waste collection service/ कचरा इकठ्ठा करने के अन्तराल को कम करना	2
		To raise people's awareness on waste discharge manner/ कचरा निवाहन के बारे में जागरूकता लाना	3
		To increase number of dustbins in the area/ ज्यादा से ज्यादा कुड़ादान लगाना	4
		Other specify/ अन्य स्पष्ट करें _____	
		Don't know/मालूम नहीं	99

SECTION G: Water Use and Wastewater Discharge/ पानी का उपयोग /गंदे पानी का निकास

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
149	What is the main source of drinking water? पीने के पानी का मुख्य साधन क्या है?	Bottled water/ बोतल का पानी	1
		Piped water into dwelling/ घर में पाईप का पानी	2
		Piped water into yard/ plot/ आंगन में पाईप का पानी	3
		Public tap/ standpipe/ पब्लिक पईट	4
		Tube well/ borehole/ नलकूप/ बोरवेल	5
		Protected well/ सुरक्षित कुँआ	6
		Unprotected well/ असुरक्षित कुँआ	7
		Protected spring/ सुरक्षित धारा	8
		Unprotected spring/ असुरक्षित धारा	9
		Rainwater collection/ बरसात का जल संचयन	10
		Surface water – tank/pond/ तलाब	11
		Other surface water – river/ dam/ stream/canal/ lake, etc/ नदी, बांध, धारा, नहर, झील	12
Other specify/ अन्य स्पष्ट करें _____			
150	How long does it take to go to the main source of drinking water, get water and come back?/आपको पानी लाने के लिए कितना समय लगता है? (जाना, आना और पानी भरने में)	On-site/ पास में उपलब्ध	1
		Delivered to home/ घर में उपलब्ध	2
		Off-site/ बाहर से लाते हैं _____ minutes/मिनट में	3
		Don't know/मालूम नहीं	99

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
151	How much drinking water do you use per day from the main source?/आप मुख्य स्रोत से प्रतिदिन कितना पीने का पानी इस्तेमाल करते हैं?	In liters per day/ लिटर में प्रतिदिन _____ Don't know/मालूम नहीं	99
152	How much do you pay for drinking water from the main source?/आप पीने के पानी के लिए कितना खर्च करते हैं? (chose either "month" or "year") (मसिक या वार्षिक खर्च में से कोई एक)	In amount paid per month in Rs., _____ Rs./month मासिक खर्च In amount paid per year in Rs., _____ Rs./year वार्षिक खर्च Don't know/मालूम नहीं	99
153	What is the frequency of supply of the main source of drinking water? पीने का पानी मुख्य स्रोत से कब-कब उपलब्ध होता है?	Round the clock/ हमेशा Fixed timing daily/ निश्चित समय में, रोजाना Fixed timing, alternate day/ निश्चित समय से, एक दिन बाद Erratic/ कोई निश्चित नहीं Other specify/ अन्य स्पष्ट करें _____	1 2 3 4
154	What do you dislike the most about your main drinking water supply source? पीने का पानी का मुख्य स्रोत के बारे में आप क्या पसंद नहीं करते हैं? [DO NOT read options; check all that apply]/ कोई विकल्प विकल्प ना पढ़ें, सभी बताकर जवाब टिक करें	Too far/बहुत दूर है Not enough supply/सप्लाई प्रयाप्त नहीं है Long waiting time to collect/ पानी भरने में काफी समय तक इंतजार करना पड़ता है Have to treat water/ पीने के लिए उपचार करना पड़ता है Long waiting time to treat water/ उपचार करने में ज्यादा समय लगता है Makes dishes bad taste/ पानी से बने हुए खाने का स्वाद खराब होता है Tastes bad/स्वाद अच्छा नहीं है High cost/ज्यादा पैसे लगते हैं Smells bad/बदबुदार है Looks dirty/दिखने में मैला है Bad for health/स्वास्थ्य के लिए हानीकारक है	1 2 3 4 5 6 7 8 9 10 11
155	What do you like the most about your drinking water source? पीने का पानी का मुख्य स्रोत के बारे में आप क्या पसंद करते हैं?	Doesn't take a long time/ पास में है, ज्यादा समय नहीं लगता Good for health/स्वास्थ्य के लिए अच्छा है Personal safety/ security/निजि सुरक्षा Good taste/स्वाद अच्छा है Convenient/सुविधाजनक है No smell/बदबु नहीं आती Clear/ good color/दिखने में साफ है Prestige/प्रतिष्ठा का निशान है Good for visitors/बाहर से आनेवालों के लिए अच्छा है Other specify/ अन्य स्पष्ट करें _____	1 2 3 4 5 6 7 8 9
156	Do you treat your water in any way to make it safer to drink? क्या आप पीने के पानी का उपचार करते हैं?	Yes/हाँ No /नहीं Don't know/मालूम नहीं	1 2 99

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES		SKIP TO
157	How do you treat your water? आप पीने के पानी का उपचार कैसे करते हैं?	Boil/ पानी को उबाल कर		
		Add bleach/chlorine/ क्लोरीन की गोली / ब्लीचिंग पाउडर		
		Strain it through a cloth/ कपड़े से छानते हैं		
		Use a water filter (ceramic, sand, etc.)/ वाटर फिल्टर इस्तेमाल करते हैं		
		Solar disinfection/सोलर किटाणुशोधन		
		Let it stand and settle/ पानी को स्थिर करके		
		Other specify/ अन्य स्पष्ट करें _____		
158	What is the main water source for domestic purpose, i.e. all household activities such as drinking, cooking, washing, bathing, etc? घरेलू उपयोग जैसे पीन, खाना पकाने, धोने और नहाने के लिए पानी का मुख्य स्रोत क्या है?	Bottled water/ बोतल का पानी	1	
		Piped water into dwelling/ घर में पाईप का पानी	2	
		Piped water into yard/ plot/ आंगन में पाईप का पानी	3	
		Public tap/ standpipe/ पब्लिक पईट	4	
		Tube well/ borehole/ नलकूप/ बोरवेल	5	
		Protected well/ सुरक्षित कुँआ	6	
		Unprotected well/ असुरक्षित कुँआ	7	
		Protected spring/ सुरक्षित धारा	8	
		Unprotected spring/ असुरक्षित धारा	9	
		Rainwater collection/ बरसात का जल संचयन	10	
		Surface water – tank/pond/ तलाब	11	
		Other surface water – river/ dam/ stream/canal/ lake, etc/ नदी, बांध, धारा, नहर, झील	12	
		Other specify/ अन्य स्पष्ट करें _____		
159	How long does it take to go to the main water source for domestic purpose, get water and come back? घरेलू उपयोग के लिए मुख्य स्रोत से पानी लेने के लिए कितना समय लगता है?	On-site/ पास में उपलब्ध	1	
		Delivered to home/ घर में उपलब्ध	2	
		Off-site/ बाहर से लाते हैं _____ minutes/मिनट में		
		Don't know/मालूम नहीं	99	
160	How much domestic water does your household use per day? घरेलू उपयोग के लिए कितना पानी इस्तेमाल होता है? In liters per (choose day, week, or month)			Lts/ लिटर
		L/day /household for bathing/ नहाने के लिए		
		L/day /household for washing clothes/ कपड़े धोने के लिए		
		L/day /household for toilet/ शौचालय के इस्तेमाल के लिए		
		L/day /household for cleaning utensils / बर्तन धोने के लिए		
		L/day /household for watering gardens / बागीचे में पानी देने के लिए		
		L/day /household for others / अन्य इस्तेमाल के लिए		
Don't know/मालूम नहीं		99		

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES		SKIP TO
161	How much do you pay for domestic water? आप घरेलू उपयोग के लिए पानी के इस्तेमाल के लिए कितना पैसा खर्च करते हैं? (chose either "month" or "year") (मासिक या वार्षिक खर्च में से कोई एक)	In amount paid per month in Rs., _____ Rs./month मासिक खर्च		
		In amount paid per year in Rs., _____ Rs./year वार्षिक खर्च		
		Don't know/मालूम नहीं	99	
162	What is the frequency of supply of the main source of domestic water?/ घरेलू उपयोग के लिए इस्तेमाल पानी का मुख्य स्रोत से कब कब उपलब्ध होता है?	Round the clock/ हमेशा	1	
		Fixed timing daily/ निश्चित समय में, रोजाना	2	
		Erratic/ कोई निश्चित नहीं	3	
		Other specify/ अन्य स्पष्ट करें _____		
		Don't know/मालूम नहीं	99	
163	Who in your household usually goes to collect water (both for drinking and other purposes)? आपके घर से कौन पानी लेने जाता है (पानी और घरेलू इस्तेमाल के लिए) [DO NOT read options; check all that apply]/ कोई विकल्प विकल्प ना पढ़ें, सभी बताकर जवाब टिक करें	Adult woman/ वयस्क महिला	1	
		Adult man/ वयस्क पुरुष	2	
		Female child/ (under 15 years) बालिका शिशु (15 साल से कम)	3	
		Male child/ (under 15 years)/ बालक शिशु (15 साल से कम)	4	
		Other specify/ अन्य स्पष्ट करें _____		
Don't know/मालूम नहीं	99			
164	Is your bathroom attached or detached type?/ आपके घर में बाथरूम साथ में है या अलग से है?	Attached/साथ में	1	
		Detached/अलग से	2	
		No bathroom/बाथरूम नहीं है	3	→167
165	What type of bathroom is it? आपके घर में बाथरूम किस प्रकार का है?	Exclusive use of household/ सिर्फ घर वालों के लिए	1	
		Common use of households in the building/ nearby/ बिल्डिंग/ आस-पास के लोगों का एक ही है	2	
		Public/ community use/ सामुदायिक है	3	
		Other specify/ अन्य स्पष्ट करें _____		
166	How far from your house to the bathing place? आपके घर से बाथरूम की दूरी कितनी है	On-site/ पास में उपलब्ध		
		Off-site/पास में नहीं है _____ minutes/मिनट में		
		Don't know/मालूम नहीं	99	
167	Where do you wash your clothes? आप कपड़े कहाँ साफ करते हैं?	In the bathing place/ नहाने के स्थान पर	1	
		In the backyard/ घर के पिछवाड़े में	2	
		Out in front of house/ घर के सामने	3	
		Give to dhobi/ धोबी को देते हैं	4	
		Other specify/ अन्य स्पष्ट करें _____		
168	Where do you clean your utensils? आप बर्तन कहाँ साफ करते हैं?	In the kitchen/ रसोई में	1	
		In the bathing place/ नहाने के स्थान में	2	
		In the backyard/ घर के पिछवाड़े	3	
		Out in front of house/ घर के सामने	4	
		Other specify/ अन्य स्पष्ट करें _____		

Wastewater Discharge/ दुषित जल निकासी

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
169	Where does your wastewater go? आपका घर से निकलता गंदा पानी कहाँ जाता है	Central sewerage system/ केन्द्रीय निकास प्रणाली	1
		Road side drain/ रोड के किनारे नाले में	2
		Nearby open space (no drainage)/ पास के खुली जगह में (जल निकासी के लिए नाली नहीं है)	3
		Nearby water bodies/ पास के जलाशय में	4
		Other specify/ अन्य स्पष्ट करें _____	5
		Don't know/मालूम नहीं	99
170	(For those who chose 2 in Q169.) Is the drain covered or open? क्या नाली ढका हुआ है या खुला है	Covered drain/नाली ढका हुआ है	1
		Open drain/ नाली खुला हुआ है	2
171	(For those who chose 2 in Q169.) How the drain is constructed/made? नाली की बनावट किस प्रकार है	Drain is cemented/ is made of concrete/ सिमेंट से बनाया हुआ है	1
		Simply excavate earth/ मिट्टी खोद कर बनाया हुआ है	2
		Other specify/ अन्य स्पष्ट करें _____	
172	What kind of problem does the present wastewater disposal system has? घर से निकलते गंदे पानी की निकासी में क्या समस्या आ रही है	Foul odor/ बदबु की परेशानी	1
		Dirty water logging/ गंदे पानी का जमाव	2
		Mosquitoes and other insects breeding/ मच्छर, किड़े और मकोड़े का पनअपना	3
		Eyesore/ दिखने में अच्छा नहीं लग रहा है	4
		Choked and overflowing drains/ बंद और बाहर बहता हुई नली	5
		Other specify/ अन्य स्पष्ट करें _____	
		Don't know/मालूम नहीं	99

SECTION H: Hygiene and WASH Communication/ साफ-सफाई के बारे में सूचना

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
173	How often do you wash your hands with soap?/ आप साबुन से हाथ कब-कब धोते हैं? [Check only one option] [सिर्फ एक जवाब]	More than three times per day/ दिन में तीन बार से ज्यादा	1
		Two to three times per day/रोजाना दो से तीन बार	2
		Once per day/दिन में एक बार	3
		Once every 2---3 days/2-3दिन में एक बार	4
		Less than once per week/हफ्ते में एक बार से कम	5
		Almost never/लगभग कभी नहीं	6
174	When do you usually wash your hands with soap?/ आमतौर पर आप हाथ कब धोते हैं? [Don't read the options, check all that apply]/विकल्प ना पढ़ें/जो लागू हो टिक करें	When they are dirty/जब हाथ गंदे होते हैं	1
		When returning to the household/जब घर लौटते हैं	2
		Before eating/भोजन करने से पहले	3
		After eating/भोजन करने के बाद	4
		After defecation/शौच के बाद	5
		Before going to sleep/सोने से पहले	6
		After waking up/उठने के बाद	7
		Before preparing food/भोजन पकाने से पहले	8
		Before washing baby/बच्चे को धोने से पहले	9
		After washing baby/बच्चे को धोने के बाद	10
Other specify/अन्य स्पष्ट करें _____			

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
175	What do you do in your household to prevent children from getting diarrhoea? / आपने घर में बच्चों को डायरिया (पतले दस्त) से बचाने के लिए आप क्या तरीके अपनाये हैं? [Don't read the options, check all that apply]/ विकल्प ना पढ़े/जो लागू हो टिक करें	Pray to spirits/ancestors/आत्मा/पूर्वजों की प्रार्थना	1
		Cook food properly/eat soon after cooking /खाने को अच्छी तरह से पकाते हैं/पकने के बाद तुरंत खा लेते हैं	2
		Be careful about what kinds of food you eat/ आप किस प्रकार का खाना खाते है उसके बारे में सावधान रहते हैं	3
		Boil drinking water/पीने के पानी को उबालते हैं	4
		Filter drinking water/पीने के पानी को छानते हैं	5
		Wash vegetables with clean water /सब्जियां साफ पानी से धोते हैं	6
		Wash hands with soap after defecation /शौच के बाद हाथों को साबुन से धोते हैं	7
		Wash hands with soap before preparing food/eating/ खाना पकाने/खाने से पहले साबुन से हाथ धोते हैं	8
		Wash hands with soap after cleaning a child's/ anus/बच्चों का मल साफ करने के बाद साबुन से हाथ धोते हैं	9
		Clean cooking and eating utensils/ खाना बनाने और खाने के बर्तन को साफ करते हैं	10
		Don't know/मालूम नहीं	88
		Other specify/अन्य स्पष्ट करें _____	
176	What hygiene advice have you heard before?/ स्वच्छता के बारे में पहले से आपने क्या सलाह सुनी है? [Don't read the options, check all that apply]/ विकल्प ना पढ़े/जो लागू हो टिक करें	None/कुछ नहीं	1
		Use a latrine/शौचालय का इस्तेमाल	2
		Drink safe water/सुरक्षित पानी पियो	3
		Store water safely/पानी को सुरक्षित तरीके से एकत्र करें	4
		Wash hands/हाथ धोयें	5
		Wash hands with soap/साबुन से हाथ धोयें	6
		Good food hygiene/स्वच्छ भोजन	7
		Wastewater/stagnant water management/ बरबाद पानी/ स्थिर जल प्रबंधन	8
		Safe disposal of babies' faeces / बच्चों के मल का सुरक्षित निपटारा	9
		Other specify/अन्य स्पष्ट करें _____	

SECTION I: Communication / संचार

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
177	Who do you consider a leader of your community? Give us his/her position. आप अपने समुदाय में किसको नेता मानते हैं? [DONOT read options; chose one which the respondent considers most important] विकल्प ना पढ़े/जो सबसे महत्वपूर्ण है उसे लिखें	Mayor (for urban)/ मेयर (शहरी क्षेत्र के लिए)	1
		Ward member (for urban)/वार्ड मेम्बर (शहरी क्षेत्र के लिए)	2
		Pradhan (for rural) प्रधान (ग्रामीण क्षेत्र के लिए)	3
		GP members (for rural)/ ग्राम पंचायत सदस्य (ग्रामीण क्षेत्र के लिए)	4
		Religious leaders/ धार्मिक नेता	5
		Caste leaders/जातिवादी नेता	6
		Other specify/अन्य स्पष्ट करें _____	
		Don't know/मालूम नहीं	99

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
178	How many members of your family are members of any community groups in your locality? /आपके घर के कितने सदस्य किसी सामुदायिक संस्था के सदस्य हैं?	Persons in number /सदस्यों की संख्या _____	
		Don't know/मालूम नहीं	88
179	What are these community groups? /किस तरह की सामुदायिक संस्था है?	SHGs/स्वयं सहायता समूह	1
		(for rural) GPs thematic committee i.e. water and sanitation committee, education committee /ग्राम पंचायत कमेटी जैसे कि जल और स्वच्छता, शिक्षा समिति	2
		(for urban) ward-level committee/ वार्ड स्तर की कमेटी	3
		PTA/ अभिभावक शिक्षक समिति	4
		Residential associations/ आवासीय समूह	5
		Caste-based association/ जातिगत संघ	6
		Trade Union/ Business-based association/ व्यवसायीक संघ	7
		Other specify/अन्य स्पष्ट करें _____	
180	How often do you travel outside the village? /आप गाँव से बाहर कब-कब जाते हैं?	More than once per week/हफ्ते में एक बार से ज्यादा	1
		Once per week/हफ्ते में एक बार	2
		1--2 times per month/महीने में 1-2 बार	3
		Less than once per month/महीने में एक बार से भी कम	4
		Less than once per year/साल में एक बार से कम	5
		Rarely/कभी-कभी	6
		Never/कभी नहीं	7
181	From which of the following sources have you heard hygiene advice in the past year?/ पिछले साल आपने किन-किन साधनों के माध्यम से स्वच्छता के बारे में सलाह सुनी है? <i>[Don't read the options, check all that apply]/विकल्प ना पढ़ें/जो लागू हो टिक करें</i>	Village chief / Panchayat members /गाँव के मुखिया /पंचायत के सदस्य से	1
		Neighbour/पड़ोसी से	2
		Government officers/सरकारी अधिकारी से	3
		ASHA (Midwife)/ आशा (दाई) से	4
		ANM (Nurse)/ ए.एन.एम (नर्स) से	5
		Anganwadi worker/आंगनवाड़ी कार्यकर्ता से	6
		Relative/रिश्तेदार से	7
		Schools/teachers/विद्यालय / शिक्षक से	8
		Religious leaders/धार्मिक नेताओं से	9
		Leaders of caste-based association/जातिगत संघ के नेता	10
		(Trade) Union leaders/ व्यापार संघ के नेता	11
		NGO/agency worker/ स्वयं सेवी संस्था / कर्मी गैर सरकारी संगठन / एजेंसी कार्यकर्ता से	11
		Radio/रेडियो से	12
		Poster/Picture/पोस्टर / तस्वीर से	13
		Billboard advertisement/बिलबोर्ड विज्ञापन से	14
		Television advertisement/टीवी विज्ञापन से	15
		Community meeting/सामुदायिक कार्यकर्ता द्वारा	16
		Health Center/ Dispensary/स्वास्थ्य केन्द्र द्वारा	17
		Anganwadi/औषधालय-आंगनवाड़ी द्वारा	18
None/कोई नहीं	19		
Don't know/मालूम नहीं	88		
Other specify/अन्य स्पष्ट करें _____			

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
182	<p>In your opinion, which of the following would be able to give trustworthy information about building or purchasing sanitation and water products? / आपकी राय में इनमें से कौन साफ सफाई और पानी के उत्पादों के निर्माण या खरीद के बारे में विश्वसनीय जानकारी देने में योग्य होगा?</p> <p><i>[Choose from the below 1,2,3,4]/ निम्न 1,2,3,4 में से चुनें</i></p> <p>1. Very good information source/ जानकारी का बहुत अच्छा माध्यम</p> <p>2. Acceptable/Average information source/ जानकारी का स्वीकार्य/औसत माध्यम</p> <p>3. Not a good information source/ जानकारी का अच्छा माध्यम नहीं</p> <p>4. Don't know/ मालूम नहीं</p>	<p>Village chief / Panchayat members /गाँव के मुखिया/पंचायत के सदस्य</p> <p>Neighbour/पड़ोसी</p> <p>Government officers/सरकारी अधिकारी</p> <p>ASHA (Midwife)/आशा (दाई)</p> <p>ANM (Nurse)/ ए.एन.एम (नर्स)</p> <p>Anganwadi worker/आंगनवाड़ी कार्यकर्ता</p> <p>Relative/रिश्तेदार</p> <p>Schools/teachers/विद्यालय / शिक्षक</p> <p>Religious leaders/धार्मिक नेताओं</p> <p>Leaders of caste-based association/ जातिगत संघ के नेता</p> <p>(Trade) Union leaders/ व्यापार संघ के नेता</p> <p>NGO/agency worker/ गैर सरकारी संगठन/एजेंसी कार्यकर्ता</p> <p>Radio/रेडियो</p> <p>Poster/Picture/पोस्टर / तस्वीर</p> <p>Billboard advertisement/बिलबोर्ड विज्ञापन</p> <p>Television advertisement/टीवी विज्ञापन</p> <p>Community meeting/सामुदायिक कार्यकर्ता</p> <p>Health Center/ Dispensary/स्वास्थ्य केन्द्र</p> <p>Anganwadi/औषधालय-आंगनवाड़ी</p> <p>Other specify/अन्य स्पष्ट करें _____</p>	

.....Thank you....
धन्यवाद

Summary of Household Survey

		Location		Total	
		Rural			
		N	%	N	%
Q2_Block Name	Kashi Vidya Peeth	150	100.0%	150	100.0%
Total		150	100.0%	150	100.0%

		Location		Total	
		Rural			
		N	%	N	%
Q3_GP Name	Sujabad	50	33.3%	50	33.3%
	Shirgoverdhanpur	50	33.3%	50	33.3%
	Shivdaspur	50	33.3%	50	33.3%
Total		150	100.0%	150	100.0%

		Location		Total	
		Rural			
		N	%	N	%
Q4_Village Name	Sujabad	50	33.3%	50	33.3%
	Shirgoverdhanpur	50	33.3%	50	33.3%
	Shivdaspur	50	33.3%	50	33.3%
Total		150	100.0%	150	100.0%

		Location		Total	
		Urban			
		N	%	N	%
Q5_Local Government's Name	Varanasi Municipal Corporation	100	66.7%	100	66.7%
	Ram Nagar Nagar Palika	50	33.3%	50	33.3%
Total		150	100.0%	150	100.0%

		Location		Total	
		Urban			
		N	%	N	%
Q6_Ward Name	Janakpur	13	8.7%	13	8.7%
	Wajidpur	6	4.0%	6	4.0%
	Old Ram Nagar	16	10.7%	16	10.7%
	Kodopur	6	4.0%	6	4.0%
	Sashtri Park	9	6.0%	9	6.0%
	Naria	11	7.3%	11	7.3%
	Indira Nagar	7	4.7%	7	4.7%
	Ulfatt Biwi	14	9.3%	14	9.3%
	Lallapura	9	6.0%	9	6.0%
	Julaha	9	6.0%	9	6.0%
	Piyari	10	6.7%	10	6.7%
	Kalbhairav	12	8.0%	12	8.0%
	Jalalipura	10	6.7%	10	6.7%
	Prahlad Ghat	8	5.3%	8	5.3%
	Sigra	10	6.7%	10	6.7%
Total		150	100.0%	150	100.0%

		Location				Total	
		Rural		Urban			
		N	%	N	%	N	%
Q8_Interviewer Name	Avdesh Kumar	26	17.3%	28	18.7%	54	18.0%
	Gopal Kumar	27	18.0%	27	18.0%	54	18.0%
	Sweety Singh	24	16.0%	24	16.0%	48	16.0%
	Bibha Sinha	22	14.7%	24	16.0%	46	15.3%
	Babli Kumari	27	18.0%	24	16.0%	51	17.0%
	Priyanka Kumari	24	16.0%	23	15.3%	47	15.7%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban			
		N	%	N	%	N	%
Q9_Supervisor Name	Jitendra Prasad	150	100.0%	150	100.0%	300	100.0%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q10_Checked By	Jitendra Prasad	136	90.7%	132	88.0%	268	89.3%
	Gopal	14	9.3%	18	12.0%	32	10.7%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q12_How old are you?	18	3	2.0%	4	2.7%	7	2.3%
	19	4	2.7%	2	1.3%	6	2.0%
	20	2	1.3%	2	1.3%	4	1.3%
	21	2	1.3%	2	1.3%	4	1.3%
	22	3	2.0%	3	2.0%	6	2.0%
	23	6	4.0%	3	2.0%	9	3.0%
	24	3	2.0%	2	1.3%	5	1.7%
	25	5	3.3%	6	4.0%	11	3.7%
	26	1	0.7%	2	1.3%	3	1.0%
	27	4	2.7%	4	2.7%	8	2.7%
	28	5	3.3%	4	2.7%	9	3.0%
	29	5	3.3%			5	1.7%
	30	7	4.7%	8	5.3%	15	5.0%
	31	1	0.7%			1	0.3%
	32	2	1.3%	2	1.3%	4	1.3%
	34			2	1.3%	2	0.7%
	35	16	10.7%	15	10.0%	31	10.3%
	36	3	2.0%	1	0.7%	4	1.3%
	38	4	2.7%	7	4.7%	11	3.7%
	39			2	1.3%	2	0.7%
	40	16	10.7%	8	5.3%	24	8.0%
	41	1	0.7%	2	1.3%	3	1.0%
	42	3	2.0%	2	1.3%	5	1.7%
	43	1	0.7%	3	2.0%	4	1.3%
	44	2	1.3%	1	0.7%	3	1.0%
	45	11	7.3%	10	6.7%	21	7.0%
	46	1	0.7%	2	1.3%	3	1.0%
	47			1	0.7%	1	0.3%
	48	1	0.7%	3	2.0%	4	1.3%
	49	1	0.7%			1	0.3%
	50	8	5.3%	6	4.0%	14	4.7%
	52	3	2.0%	6	4.0%	9	3.0%
	53			2	1.3%	2	0.7%
	54			1	0.7%	1	0.3%
	55	6	4.0%	4	2.7%	10	3.3%
	57			2	1.3%	2	0.7%
	58	2	1.3%	2	1.3%	4	1.3%
	59			1	0.7%	1	0.3%
	60	5	3.3%	6	4.0%	11	3.7%
	61			1	0.7%	1	0.3%
	62	1	0.7%	3	2.0%	4	1.3%
	64	1	0.7%	1	0.7%	2	0.7%
	65	2	1.3%	6	4.0%	8	2.7%
	67	1	0.7%			1	0.3%
	68			1	0.7%	1	0.3%
	70	4	2.7%	1	0.7%	5	1.7%
	72	1	0.7%			1	0.3%
	73			2	1.3%	2	0.7%
	74	1	0.7%			1	0.3%
	75			1	0.7%	1	0.3%
	78	1	0.7%			1	0.3%
	79			1	0.7%	1	0.3%
	88	1	0.7%			1	0.3%
Total		150	100.0%	150	100.0%	300	100.0%

Report

Q12_How old are you?					
Location	N	Sum	Mean	Minimum	Maximum
Rural	150	5,950	39.67	18	88
Urban	150	6,246	41.64	18	79
Total	300	12,196	40.65	18	88

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q13_What is your relationship to the head of the household?	Self	52	34.7%	65	43.3%	117	39.0%
	Spouse	57	38.0%	46	30.7%	103	34.3%
	Son/daughter	2	1.3%	1	0.7%	3	1.0%
	Father/Mother	26	17.3%	30	20.0%	56	18.7%
	Brother in law/Sister in law	2	1.3%			2	0.7%
	Father in law/Mother in law	5	3.3%	7	4.7%	12	4.0%
	Grand Mother/Grand Father	4	2.7%			4	1.3%
	Aunt (father's sister)			1	0.7%	1	0.3%
	Brother	2	1.3%			2	0.7%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q14_What is the respondent's sex	Male	77	51.3%	80	53.3%	157	52.3%
	Female	73	48.7%	70	46.7%	143	47.7%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q15_What is the sex of the household head?	Male	134	89.3%	127	84.7%	261	87.0%
	Female	16	10.7%	23	15.3%	39	13.0%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q16_What is the occupation of the head of the household?	Professional/Technical	8	5.3%	6	4.0%	14	4.7%
	Factory worker	3	2.0%	3	2.0%	6	2.0%
	Day labourer	56	37.3%	31	20.7%	87	29.0%
	Government Service	10	6.7%	14	9.3%	24	8.0%
	Service/Sales/Commercial/ petty-trader	37	24.7%	54	36.0%	91	30.3%
	Agricultural	2	1.3%	1	0.7%	3	1.0%
	Housewife	3	2.0%	10	6.7%	13	4.3%
	Rickshaw puller	1	0.7%	1	0.7%	2	0.7%
	Retired person	5	3.3%	3	2.0%	8	2.7%
	Skilled worker	16	10.7%	16	10.7%	32	10.7%
	Milk Man	1	0.7%	1	0.7%	2	0.7%
	Shopkeeper	6	4.0%	8	5.3%	14	4.7%
	Temple priest			1	0.7%	1	0.3%
	Landlord			1	0.7%	1	0.3%
	Property dealer	2	1.3%			2	0.7%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q17_What religion do you follow?	Hindu	145	96.7%	118	78.7%	263	87.7%
	Muslim	5	3.3%	32	21.3%	37	12.3%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q18_Which caste (jati) does your family belong to?	Teli	8	5.3%	2	1.3%	10	3.3%
	Chamar	27	18.0%	11	7.3%	38	12.7%
	Kurmi/Koiri	8	5.3%	7	4.7%	15	5.0%
	Mallah	26	17.3%	4	2.7%	30	10.0%
	Pathan (Muslim)	2	1.3%	18	12.0%	20	6.7%
	Gound	1	0.7%	2	1.3%	3	1.0%
	Ansari	3	2.0%	11	7.3%	14	4.7%
	Brahmin	14	9.3%	12	8.0%	26	8.7%
	Bania	1	0.7%	6	4.0%	7	2.3%
	Yadav	28	18.7%	13	8.7%	41	13.7%
	Kharwar	2	1.3%	1	0.7%	3	1.0%
	Dhobi	1	0.7%			1	0.3%
	Rajput	13	8.7%	8	5.3%	21	7.0%
	Nai	2	1.3%	3	2.0%	5	1.7%
	Pal/Gareriya	4	2.7%			4	1.3%

Kumhar/Prajapati	5	3.3%	5	3.3%	10	3.3%
Bati (Chourasia)	1	0.7%	10	6.7%	11	3.7%
Kahar	2	1.3%	3	2.0%	5	1.7%
Bhumihar			3	2.0%	3	1.0%
Noniya			1	0.7%	1	0.3%
Khatik			3	2.0%	3	1.0%
Halwai			2	1.3%	2	0.7%
Kanu			1	0.7%	1	0.3%
Sonkar	1	0.7%	6	4.0%	7	2.3%
Badhai			2	1.3%	2	0.7%
Seikh (Muslim)			3	2.0%	3	1.0%
Rajbhar	1	0.7%	3	2.0%	4	1.3%
Kayasth			8	5.3%	8	2.7%
Dhankar			1	0.7%	1	0.3%
Lohar			1	0.7%	1	0.3%
Total	150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q19_Which social group does this caste (jati) belong to?	General/Other high castes	28	18.7%	42	28.0%	70	23.3%
	Other Backward Classes (OBC)	94	62.7%	94	62.7%	188	62.7%
	Scheduled Caste (SC/ Dalit/ Harijan)	28	18.7%	14	9.3%	42	14.0%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q20_male_Male_How many people usually live in this house?	0	1	0.7%			1	0.3%
	1	12	8.0%	20	13.3%	32	10.7%
	2	35	23.3%	42	28.0%	77	25.7%
	3	42	28.0%	41	27.3%	83	27.7%
	4	27	18.0%	23	15.3%	50	16.7%
	5	18	12.0%	13	8.7%	31	10.3%
	6	8	5.3%	6	4.0%	14	4.7%
	7	4	2.7%	4	2.7%	8	2.7%
	8	2	1.3%	1	0.7%	3	1.0%
	9	1	0.7%			1	0.3%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q20_female_Female_How many people usually live in this house?	1	31	20.7%	27	18.0%	58	19.3%
	2	49	32.7%	48	32.0%	97	32.3%
	3	25	16.7%	40	26.7%	65	21.7%
	4	20	13.3%	17	11.3%	37	12.3%
	5	14	9.3%	8	5.3%	22	7.3%
	6	5	3.3%	8	5.3%	13	4.3%
	7	2	1.3%			2	0.7%
	8	2	1.3%	1	0.7%	3	1.0%
	9	2	1.3%			2	0.7%
	11			1	0.7%	1	0.3%
Total		150	100.0%	150	100.0%	300	100.0%

Report

Q20_male_Male_How many people usually live in this house?

Location	N	Sum	Mean	Std. Deviation	Minimum	Maximum
Rural	150	507	3.38	1.621	0	9
Urban	150	456	3.04	1.510	1	8
Total	300	963	3.21	1.573	0	9

Report

Q20_female_Female_How many people usually live in this house?

Location	N	Sum	Mean	Std. Deviation	Minimum	Maximum
Rural	150	432	2.88	1.730	1	9
Urban	150	418	2.79	1.553	1	11
Total	300	850	2.83	1.642	1	11

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q21_What level of education did the head of household achieve?	None	54	36.0%	34	22.7%	88	29.3%
	Up to primary	31	20.7%	25	16.7%	56	18.7%
	Up to upper - primary	10	6.7%	15	10.0%	25	8.3%
	Up to secondary	20	13.3%	21	14.0%	41	13.7%
	Up to to higher secondary	22	14.7%	28	18.7%	50	16.7%
	Graduation and above	13	8.7%	27	18.0%	40	13.3%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q22_What level of education did you achieve?	None	34	34.7%	19	22.4%	53	29.0%
	Up to primary	10	10.2%	11	12.9%	21	11.5%
	Up to upper - primary	14	14.3%	12	14.1%	26	14.2%
	Up to secondary	20	20.4%	12	14.1%	32	17.5%
	Up to to higher secondary	11	11.2%	21	24.7%	32	17.5%
	Graduation and above	9	9.2%	10	11.8%	19	10.4%
Total		98	100.0%	85	100.0%	183	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q23_1s_Sex_Please list up every person living in your family in the last one year, whosoever lived below this roof for more than two months?	Male	514	54.7%	455	52.1%	969	53.4%
	Female	425	45.3%	419	47.9%	844	46.6%
Total		939	100.0%	874	100.0%	1,813	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q23_1a_Age_Please list up every person living in your family in the last one year, whosoever lived below this roof for more than two months?	0	7	0.7%	3	0.3%	10	0.6%
	1	11	1.2%	5	0.6%	16	0.9%
	2	12	1.3%	15	1.7%	27	1.5%
	3	15	1.6%	13	1.5%	28	1.5%
	4	19	2.0%	9	1.0%	28	1.5%
	5	21	2.2%	13	1.5%	34	1.9%
	6	16	1.7%	19	2.2%	35	1.9%
	7	18	1.9%	4	0.5%	22	1.2%
	8	20	2.1%	10	1.1%	30	1.7%
	9	14	1.5%	12	1.4%	26	1.4%
	10	25	2.7%	21	2.4%	46	2.5%
	11	20	2.1%	8	0.9%	28	1.5%
	12	27	2.9%	30	3.4%	57	3.1%
	13	20	2.1%	14	1.6%	34	1.9%
	14	26	2.8%	18	2.1%	44	2.4%
	15	30	3.2%	23	2.6%	53	2.9%
	16	28	3.0%	21	2.4%	49	2.7%
	17	18	1.9%	20	2.3%	38	2.1%
	18	37	3.9%	41	4.7%	78	4.3%
	19	17	1.8%	16	1.8%	33	1.8%
	20	34	3.6%	38	4.3%	72	4.0%
	21	5	0.5%	8	0.9%	13	0.7%
	22	20	2.1%	32	3.7%	52	2.9%
	23	15	1.6%	13	1.5%	28	1.5%
	24	18	1.9%	16	1.8%	34	1.9%
	25	24	2.6%	24	2.7%	48	2.6%
	26	14	1.5%	18	2.1%	32	1.8%
	27	14	1.5%	11	1.3%	25	1.4%
	28	24	2.6%	20	2.3%	44	2.4%
	29	8	0.9%	4	0.5%	12	0.7%
	30	34	3.6%	30	3.4%	64	3.5%
	31	1	0.1%	3	0.3%	4	0.2%
	32	16	1.7%	14	1.6%	30	1.7%
	33	4	0.4%	2	0.2%	6	0.3%
	34	2	0.2%	5	0.6%	7	0.4%
	35	36	3.8%	33	3.8%	69	3.8%
	36	7	0.7%	3	0.3%	10	0.6%
	37	3	0.3%	3	0.3%	6	0.3%

38	10	1.1%	16	1.8%	26	1.4%
39	1	0.1%	2	0.2%	3	0.2%
40	32	3.4%	33	3.8%	65	3.6%
41	1	0.1%	2	0.2%	3	0.2%
42	12	1.3%	7	0.8%	19	1.0%
43	3	0.3%	8	0.9%	11	0.6%
44	2	0.2%	1	0.1%	3	0.2%
45	29	3.1%	37	4.2%	66	3.6%
46	5	0.5%	2	0.2%	7	0.4%
47	1	0.1%	4	0.5%	5	0.3%
48	5	0.5%	9	1.0%	14	0.8%
49	2	0.2%	3	0.3%	5	0.3%
50	32	3.4%	30	3.4%	62	3.4%
52	6	0.6%	10	1.1%	16	0.9%
53	2	0.2%	2	0.2%	4	0.2%
54	3	0.3%	3	0.3%	6	0.3%
55	21	2.2%	18	2.1%	39	2.2%
56	3	0.3%	2	0.2%	5	0.3%
57	1	0.1%	4	0.5%	5	0.3%
58	4	0.4%	6	0.7%	10	0.6%
59	1	0.1%	1	0.1%	2	0.1%
60	23	2.4%	20	2.3%	43	2.4%
61			1	0.1%	1	0.1%
62	2	0.2%	5	0.6%	7	0.4%
63			1	0.1%	1	0.1%
64	1	0.1%	2	0.2%	3	0.2%
65	14	1.5%	18	2.1%	32	1.8%
67	1	0.1%			1	0.1%
68	2	0.2%	2	0.2%	4	0.2%
70	14	1.5%	7	0.8%	21	1.2%
72	2	0.2%			2	0.1%
73			3	0.3%	3	0.2%
74	1	0.1%			1	0.1%
75	8	0.9%	10	1.1%	18	1.0%
76	1	0.1%	1	0.1%	2	0.1%
77			1	0.1%	1	0.1%
78	1	0.1%			1	0.1%
79			1	0.1%	1	0.1%
80	6	0.6%	5	0.6%	11	0.6%
82			1	0.1%	1	0.1%
84	1	0.1%			1	0.1%
85	3	0.3%	2	0.2%	5	0.3%
88	1	0.1%			1	0.1%
90	1	0.1%			1	0.1%
93			1	0.1%	1	0.1%
95	1	0.1%			1	0.1%
112			1	0.1%	1	0.1%
Total	939	100.0%	874	100.0%	1,813	100.0%

Report

months?

Location	N	Sum	Mean	Minimum	Maximum
Rural	939	25,971	27.66	0	95
Urban	874	26,002	29.75	0	112
Total	1,813	51,973	28.67	0	112

	Location				Total		
	Rural		Urban		N	%	
	N	%	N	%			
Q23_1r_Relationship with the household head_Please list up every person living in your family in the last one year, whosoever lived below this roof for more than two months?	Self	150	16.0%	150	17.2%	300	16.5%
	Husband/Wife	124	13.2%	123	14.1%	247	13.6%
	Son/Daughter	395	42.1%	386	44.2%	781	43.1%
	Son-in-law/Daughter-in-law	75	8.0%	48	5.5%	123	6.8%
	Grandfather/Grandmother			2	0.2%	2	0.1%
	Grandson/grand daughter	133	14.2%	90	10.3%	223	12.3%
	Father/ mother	29	3.1%	31	3.5%	60	3.3%
	Brother/ sister	15	1.6%	21	2.4%	36	2.0%
	Father-in-law/ mother-in-law	2	0.2%	1	0.1%	3	0.2%
	Nephew/ niece	8	0.9%	15	1.7%	23	1.3%
	Brother-in-law/ sister-in-law	7	0.7%	7	0.8%	14	0.8%
	Adopted son/ daughter	1	0.1%			1	0.1%
Total		939	100.0%	874	100.0%	1,813	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q24_What is the ownership of your residential land?	Owned by my family	149	99.3%	148	98.7%	297	99.0%
	Rented in authorized land	1	0.7%			1	0.3%
	Occupied in unauthorized land			2	1.3%	2	0.7%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q25_Is your residential land flooded regularly?	Never	90	60.0%	111	74.0%	201	67.0%
	Sometimes	29	19.3%	16	10.7%	45	15.0%
	Every year	31	20.7%	23	15.3%	54	18.0%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q26_What were the main sources of your cash income of all your family members in the last 12 months?	Professional/Technical	7	4.7%	8	5.3%	15	5.0%
	Factory worker	14	9.3%	10	6.7%	24	8.0%
	Day labourer	66	44.0%	41	27.3%	107	35.7%
	Government Service	16	10.7%	18	12.0%	34	11.3%
	Service/Sales/Commercial (private company)	29	19.3%	37	24.7%	66	22.0%
	Agricultural	1	0.7%	1	0.7%	2	0.7%
	Fishing	1	0.7%			1	0.3%
	Animal husbandry	4	2.7%			4	1.3%
	Business/trading/shop owner/petty trader(self-employment)	17	11.3%	34	22.7%	51	17.0%
	Rickshaw puller	1	0.7%	1	0.7%	2	0.7%
	Skilled worker	12	8.0%	15	10.0%	27	9.0%
	Temple priest			1	0.7%	1	0.3%
	Landlord			3	2.0%	3	1.0%
	Property dealer	2	1.3%	1	0.7%	3	1.0%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q27_How much was the household's total income for the last 12 months?	40,000	4	2.7%			4	1.3%
	45,000	5	3.3%	3	2.0%	8	2.7%
	48,000	3	2.0%			3	1.0%
	50,000	3	2.0%	4	2.7%	7	2.3%
	52,000	1	0.7%	2	1.3%	3	1.0%
	55,000	5	3.3%			5	1.7%
	56,000	1	0.7%	1	0.7%	2	0.7%
	60,000	21	14.0%	17	11.3%	38	12.7%
	65,000	2	1.3%	4	2.7%	6	2.0%
	70,000	8	5.3%	5	3.3%	13	4.3%
	72,000	2	1.3%	3	2.0%	5	1.7%
	75,000	9	6.0%	2	1.3%	11	3.7%
	80,000	7	4.7%	10	6.7%	17	5.7%
	84,000	6	4.0%	2	1.3%	8	2.7%
	85,000	2	1.3%	5	3.3%	7	2.3%
	90,000	6	4.0%	8	5.3%	14	4.7%
	95,000	3	2.0%	1	0.7%	4	1.3%
	96,000	1	0.7%	1	0.7%	2	0.7%
	100,000	9	6.0%	8	5.3%	17	5.7%
	101,000	1	0.7%			1	0.3%
	105,000			1	0.7%	1	0.3%
	108,000	1	0.7%	2	1.3%	3	1.0%
	110,000			2	1.3%	2	0.7%
	120,000	10	6.7%	9	6.0%	19	6.3%
	124,000			1	0.7%	1	0.3%
	125,000	3	2.0%	2	1.3%	5	1.7%
	128,000	1	0.7%			1	0.3%
	130,000	2	1.3%			2	0.7%
	135,000			1	0.7%	1	0.3%
	136,000			1	0.7%	1	0.3%
	140,000	3	2.0%	2	1.3%	5	1.7%
	143,000	1	0.7%			1	0.3%

144,000				1	0.7%	1	0.3%
145,000	1	0.7%		2	1.3%	3	1.0%
150,000	4	2.7%		11	7.3%	15	5.0%
160,000	1	0.7%		1	0.7%	2	0.7%
165,000	2	1.3%		4	2.7%	6	2.0%
166,000	1	0.7%				1	0.3%
168,000	1	0.7%				1	0.3%
169,000	1	0.7%				1	0.3%
175,000	1	0.7%				1	0.3%
180,000	2	1.3%		1	0.7%	3	1.0%
185,000				1	0.7%	1	0.3%
192,000				1	0.7%	1	0.3%
200,000	4	2.7%		9	6.0%	13	4.3%
210,000				1	0.7%	1	0.3%
230,000				1	0.7%	1	0.3%
234,000	1	0.7%				1	0.3%
240,000	1	0.7%		2	1.3%	3	1.0%
250,000	2	1.3%		8	5.3%	10	3.3%
255,000				1	0.7%	1	0.3%
276,000	1	0.7%				1	0.3%
300,000	2	1.3%				2	0.7%
332,000				1	0.7%	1	0.3%
350,000	1	0.7%		3	2.0%	4	1.3%
360,000	2	1.3%				2	0.7%
385,000				1	0.7%	1	0.3%
400,000				1	0.7%	1	0.3%
430,000				1	0.7%	1	0.3%
500,000	2	1.3%		1	0.7%	3	1.0%
520,000				1	0.7%	1	0.3%
Total	150	100.0%		150	100.0%	300	100.0%

Report

Q27_How much was the household's total income for the last 12 months?

Location	N	Sum	Mean	Std. Deviation	Minimum	Maximum
Rural	150	16,614,000	110,760.00	78,607.912	40,000	500,000
Urban	150	20,194,000	134,626.67	89,745.991	45,000	520,000
Total	300	36,808,000	122,693.33	85,063.812	40,000	520,000

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q28_dw_Drinking	1	25	36.8%	33	37.1%	58	36.9%
Water_Which of the	2	13	19.1%	18	20.2%	31	19.7%
followings do you need urgent	3	18	26.5%	13	14.6%	31	19.7%
improvement? Rank top five	4	4	5.9%	16	18.0%	20	12.7%
items?	5	8	11.8%	9	10.1%	17	10.8%
Q28_ar_Access Road and	1	26	33.8%	12	18.2%	38	26.6%
Transportation_Which of the	2	19	24.7%	15	22.7%	34	23.8%
followings do you need urgent	3	17	22.1%	16	24.2%	33	23.1%
improvement? Rank top five	4	10	13.0%	6	9.1%	16	11.2%
items?	5	5	6.5%	17	25.8%	22	15.4%
Q28_dl_Drainage/Liquid	1	36	35.0%	21	22.6%	57	29.1%
Waste_Which of the	2	35	34.0%	35	37.6%	70	35.7%
followings do you need urgent	3	15	14.6%	18	19.4%	33	16.8%
improvement? Rank top five	4	10	9.7%	10	10.8%	20	10.2%
items?	5	7	6.8%	9	9.7%	16	8.2%
Q28_sw_Sooile Wast_Which	1	2	2.8%	7	11.3%	9	6.8%
of the followings do you need	2	20	28.2%	16	25.8%	36	27.1%
urgent improvement? Rank	3	23	32.4%	15	24.2%	38	28.6%
top five items?	4	14	19.7%	13	21.0%	27	20.3%
	5	12	16.9%	11	17.7%	23	17.3%
Q28_lf_Latrine	1	10	17.2%	5	12.8%	15	15.5%
Facilities_Which of the	2	11	19.0%	7	17.9%	18	18.6%
followings do you need urgent	3	12	20.7%	14	35.9%	26	26.8%
improvement? Rank top five	4	14	24.1%	9	23.1%	23	23.7%
items?	5	11	19.0%	4	10.3%	15	15.5%
Q28_ef_Education	1	4	7.3%	3	4.8%	7	5.9%
Facilities_Which of the	2	5	9.1%	5	7.9%	10	8.5%
followings do you need urgent	3	10	18.2%	15	23.8%	25	21.2%
improvement? Rank top five	4	23	41.8%	16	25.4%	39	33.1%
items?	5	13	23.6%	24	38.1%	37	31.4%

Q28_hf_Health	1	2	5.0%	3	7.5%	5	6.3%
Facilities_Which of the followings do you need urgent improvement? Rank top five items?	2	1	2.5%	5	12.5%	6	7.5%
	3	10	25.0%	6	15.0%	16	20.0%
	4	9	22.5%	12	30.0%	21	26.3%
	5	18	45.0%	14	35.0%	32	40.0%
Q28_ec_Electricity/Cooking Fuel_Which of the followings do you need urgent improvement? Rank top five items?	1	17	17.3%	32	26.4%	49	22.4%
	2	21	21.4%	23	19.0%	44	20.1%
	3	14	14.3%	25	20.7%	39	17.8%
	4	27	27.6%	23	19.0%	50	22.8%
	5	19	19.4%	18	14.9%	37	16.9%
Q28_eo_Employment Opportunities_Which of the followings do you need urgent improvement? Rank top five items?	1	12	15.2%	14	18.9%	26	17.0%
	2	12	15.2%	10	13.5%	22	14.4%
	3	17	21.5%	14	18.9%	31	20.3%
	4	19	24.1%	20	27.0%	39	25.5%
	5	19	24.1%	16	21.6%	35	22.9%
Q28_wc_Waste Collection Service_Which of the followings do you need urgent improvement? Rank top five items?	1	15	19.2%	18	24.0%	33	21.6%
	2	8	10.3%	11	14.7%	19	12.4%
	3	14	17.9%	11	14.7%	25	16.3%
	4	18	23.1%	15	20.0%	33	21.6%
	5	23	29.5%	20	26.7%	43	28.1%
Q28_cs_Crime/Safety_Which of the followings do you need urgent improvement? Rank top five items?	1	1	5.0%	2	8.3%	3	6.8%
	2	4	20.0%	5	20.8%	9	20.5%
	3	3	12.5%	3	12.5%	3	6.8%
	4	1	5.0%	10	41.7%	11	25.0%
	5	14	70.0%	4	16.7%	18	40.9%
Q28_of_Overall Function of local governments (Panchayat/Municipality) in	2	1	33.3%			1	14.3%
	4	1	33.3%			1	14.3%
	5	1	33.3%	4	100.0%	5	71.4%
Total		3	100.0%	4	100.0%	7	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q29_You said that (read the item listed as Number 1 in question no-28) need urgent improvement. Then, primarily whose responsibility to improve it?	Leaders of your locality	39	26.0%	12	8.0%	51	17.0%
	Community as a whole incl. your self	8	5.3%	6	4.0%	14	4.7%
	Local government (municipality/Gram panchayat)	82	54.7%	114	76.0%	196	65.3%
	State Government	16	10.7%	11	7.3%	27	9.0%
	Central Government	9	6.0%	6	4.0%	15	5.0%
	NGOs			2	1.3%	2	0.7%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q30_You said that (read the item listed as Number 1 in question no-28) need urgent improvement? Have you taken any initiatives to improve the situation?	Took the matter to the notice of the Gram Panchayat officials	10	6.7%	4	2.7%	14	4.7%
	No	139	92.7%	145	96.7%	284	94.7%
	Submitted written complain in the Gram Panchayat office	1	0.7%			1	0.3%
	Submitted written complain in the Nagar Nigam office			1	0.7%	1	0.3%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q31_Where do adults (male) in your household most frequently go to defecate?	Household latrine	121	81.2%	135	90.0%	256	85.6%
	Other house's latrine	2	1.3%			2	0.7%
	Public toilet			1	0.7%	1	0.3%
	Open defecation -- Near house	9	6.0%	5	3.3%	14	4.7%
	Open defecation -- field/forest	17	11.4%	9	6.0%	26	8.7%
Total		149	100.0%	150	100.0%	299	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q32_Where do adults (female) in your household most frequently go to defecate?	Household latrine	123	82.0%	135	90.0%	258	86.0%
	Other house's latrine	2	1.3%			2	0.7%
	Public toilet			1	0.7%	1	0.3%
	Open defecation -- Near house	8	5.3%	5	3.3%	13	4.3%
	Open defecation -- field/forest	17	11.3%	9	6.0%	26	8.7%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q33_Where do children in your household usually go to defecate?	No children	46	30.7%	59	39.3%	105	35.0%
	Household latrine	84	56.0%	74	49.3%	158	52.7%
	Other house's latrine	2	1.3%			2	0.7%
	Public toilet			1	0.7%	1	0.3%
	Open defecation -- Near house	7	4.7%	9	6.0%	16	5.3%
	Open defecation -- field/forest	11	7.3%	7	4.7%	18	6.0%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q34_In your household, how are/has been babies' faeces usually disposed of?	Put into latrine	7	4.7%	13	8.7%	20	6.7%
	Put into drain/ditch	1	0.7%	4	2.7%	5	1.7%
	Thrown in garbage	15	10.0%	4	2.7%	19	6.3%
	Left in open	2	1.3%	1	0.7%	3	1.0%
	No baby	125	83.3%	128	85.3%	253	84.3%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q35_What are the disadvantages of owning a latrine?	Bad smell	28	18.7%	31	20.7%	59	19.7%
	Attracts flies	18	12.0%	9	6.0%	27	9.0%
	Cost to maintain it	5	3.3%	1	0.7%	6	2.0%
	Work to maintain it	11	7.3%	14	9.3%	25	8.3%
	Other people come to use it	4	2.7%			4	1.3%
	Affects groundwater quality	3	2.0%	14	9.3%	17	5.7%
	Overflows	11	7.3%	14	9.3%	25	8.3%
	More water consumption	8	5.3%			8	2.7%
	No disadvantages	102	68.0%	92	61.3%	194	64.7%
	Don't know /cant say			3	2.0%	3	1.0%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q36_What are the advantages of owning a latrine?	Improved hygiene/ health/ cleanliness	63	42.0%	51	34.0%	114	38.0%
	More privacy	108	72.0%	109	72.7%	217	72.3%
	More comfortable	62	41.3%	66	44.0%	128	42.7%
	Convenience/save time	47	31.3%	32	21.3%	79	26.3%
	Improved safety	69	46.0%	78	52.0%	147	49.0%
	Improved status/prestige	14	9.3%	19	12.7%	33	11.0%
	Guests can use it	22	14.7%	20	13.3%	42	14.0%
	No advantages	1	0.7%			1	0.3%
	Don't know /can't say			1	0.7%	1	0.3%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q37_Do you own latrine?	Yes	124	82.7%	136	90.7%	260	86.7%
	No	26	17.3%	14	9.3%	40	13.3%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q38_Where do you most frequently go to defecate?	Public toilet			1	0.7%	1	0.3%
	Open defecation -nearhouse	5	3.3%	4	2.7%	9	3.0%
	Open defaction -field/forest	20	13.3%	10	6.7%	30	10.0%
	Household latrine	123	82.0%	135	90.0%	258	86.0%
	Other house's latrine	2	1.3%			2	0.7%
Total		150	100.0%	150	100.0%	300	100.0%

		Location		Total	
		Urban		N	%
		N	%		
Q39_Which organization manages the shared toilet you use?	5	1	100.0%	1	100.0%
Total		1	100.0%	1	100.0%

	Location		Total	
	Urban		N	%
	N	%		
Q40_How far is the shared toilet from your house? 15	1	100.0%	1	100.0%
Total	1	100.0%	1	100.0%

	Location		Total	
	Urban		N	%
	N	%		
Q41_How satisfied are you with using this shared toilet? Very unsatisfied	1	100.0%	1	100.0%
Total	1	100.0%	1	100.0%

	Location		Total	
	Urban		N	%
	N	%		
Q42_How often and how much do you have to pay to use the shared toilet? For each use	1	100.0%	1	100.0%
Total	1	100.0%	1	100.0%

	Location		Total	
	Urban		N	%
	N	%		
Q43_Has it ever happened that you went to the shared toilet and were unable to use it? Yes	1	100.0%	1	100.0%
Total	1	100.0%	1	100.0%

	Location		Total	
	Urban		N	%
	N	%		
Q44_Why were you not able to use the shared toilet? Closed down	1	100.0%	1	100.0%
Total	1	100.0%	1	100.0%

	Location		Total	
	Urban		N	%
	N	%		
Q45_1_Why don't you own a latrine? Too expensive/don't have enough money	1	100.0%	1	100.0%
Total	1	100.0%	1	100.0%

	Location		Total	
	Urban		N	%
	N	%		
Q46_Has your household ever thought about or discussed building a latrine for your family? Yes	1	100.0%	1	100.0%
Total	1	100.0%	1	100.0%

	Location		Total	
	Urban		N	%
	N	%		
Q47_Who in your household would make the final decision to build a latrine? Husband and wife jointly	1	100.0%	1	100.0%
Total	1	100.0%	1	100.0%

	Location		Total	
	Urban		N	%
	N	%		
Q48_For example, if I return to your house one year from today, how likely is it that you will have built a latrine at your house? No chance	1	100.0%	1	100.0%
Total	1	100.0%	1	100.0%

	Location		Total	
	Urban		N	%
	N	%		
Q49_Imagine that you decide Latrine connected to piped sewer system to construct a toilet for your household. What kind of latrine would you accept?	1	100.0%	1	100.0%
Total	1	100.0%	1	100.0%

	Location		Total	
	Urban		N	%
	N	%		
Q50_What is the lowest amount that you would need to spend to build an acceptable latrine for your family? 27,000	1	100.0%	1	100.0%
Total	1	100.0%	1	100.0%

	Location		Total	
	Urban		N	%
	N	%		
Q51_1_Emptying a pit per Rs Don't know emptying_How much can you afford for maintenance?	1	100.0%	1	100.0%
Total	1	100.0%	1	100.0%

	Location		Total	
	Urban		N	%
	N	%		
Q51_2_Regular cleaning Rs Don't know per month_How much can you afford for maintenance?	1	100.0%	1	100.0%
Total	1	100.0%	1	100.0%

	Location		Total	
	Urban		N	%
	N	%		
Q52_Do you currently have any money saved towards building a latrine? Yes	1	100.0%	1	100.0%
Total	1	100.0%	1	100.0%

	Location		Total	
	Urban		N	%
	N	%		
Q53_Would you consider taking a loan to build a latrine? No	1	100.0%	1	100.0%
Total	1	100.0%	1	100.0%

	Location				Total	
	Rural		Urban		N	%
	N	%	N	%		
Q54_How far is the OD place from your house?	5	20.0%	8	57.1%	13	33.3%
	10	24.0%	3	21.4%	9	23.1%
	12		1	7.1%	1	2.6%
	15	32.0%	2	14.3%	10	25.6%
	20	12.0%			3	7.7%
	30	12.0%			3	7.7%
Total	25	100.0%	14	100.0%	39	100.0%

Report

Q54_How far is the OD place from your house?

Location	N	Sum	Mean	Std. Deviation	Minimum	Maximum
Rural	25	355	14.20	7.594	5	30
Urban	14	112	8.00	3.903	5	15
Total	39	467	11.97	7.121	5	30

		Location				Total	
		Rural		Urban			
		N	%	N	%	N	%
Q55_How satisfied are you with defecating in open?	Unsatisfied	6	24.0%	3	21.4%	9	23.1%
	Very unsatisfied	19	76.0%	11	78.6%	30	76.9%
Total		25	100.0%	14	100.0%	39	100.0%

		Location				Total	
		Rural		Urban			
		N	%	N	%	N	%
Q56_Are there separate places for men and women to defecate in open?	Yes	4	16.0%	2	14.3%	6	15.4%
	No	21	84.0%	12	85.7%	33	84.6%
Total		25	100.0%	14	100.0%	39	100.0%

		Location				Total	
		Rural		Urban			
		N	%	N	%	N	%
Q57_Are there separate places for people from different castes to defecate in open?	No	25	100.0%	14	100.0%	39	100.0%
Total		25	100.0%	14	100.0%	39	100.0%

		Location				Total	
		Rural		Urban			
		N	%	N	%	N	%
Q58_At what times do you usually go to OD?	Morning before sunrise	24	96.0%	9	64.3%	33	84.6%
	Morning after sunrise	1	4.0%	1	7.1%	2	5.1%
	In the evening (before dark)	12	48.0%	6	42.9%	18	46.2%
	In the night (after dark)	10	40.0%	4	28.6%	14	35.9%
	Any time			4	28.6%	4	10.3%
Total		25	100.0%	14	100.0%	39	100.0%

		Location				Total	
		Rural		Urban			
		N	%	N	%	N	%
Q59_Does anyone usually accompany you when you go to OD?	Yes	10	40.0%	11	78.6%	21	53.8%
	No	15	60.0%	3	21.4%	18	46.2%
Total		25	100.0%	14	100.0%	39	100.0%

		Location				Total	
		Rural		Urban			
		N	%	N	%	N	%
\$q60_What are the difficulties you have faced while you are going to OD?	Bitten by snake, scorpion, dog, bees, etc	23	92.0%	12	85.7%	35	89.7%
	Hurting yourself or fallen	14	56.0%	1	7.1%	15	38.5%
	Teased by someone	2	8.0%	2	14.3%	4	10.3%
	Someone attempted to molest you	2	8.0%	1	7.1%	3	7.7%
	Molested by someone			1	7.1%	1	2.6%
	Feel ashamed and disturbed of the passer-by"	2	8.0%	1	7.1%	3	7.7%
Total		25	100.0%	14	100.0%	39	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q61_What are the disadvantages of OD?	Cannot go during bad weather	21	84.0%	11	78.6%	32	82.1%
	Physical difficulties due to old age	6	24.0%	6	42.9%	12	30.8%
	Physical difficulties due to handicap	3	12.0%	2	14.3%	5	12.8%
	Physical difficulties due to pregnancy	2	8.0%	1	7.1%	3	7.7%
	Health burden for women since they are allowed to go OD either early morning and/or after dark	11	44.0%	5	35.7%	16	41.0%
	Wasting time to walk long distance	10	40.0%	3	21.4%	13	33.3%
	Creating environmental problem/sanitation problem	3	12.0%			3	7.7%
Total		25	100.0%	14	100.0%	39	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
\$q62_What are the advantages of OD	Occasion for social interaction	9	36.0%	5	35.7%	14	35.9%
	Good exercise for health	5	20.0%	2	14.3%	7	17.9%
	Time saving (no need to got to toilet) while working in farm land	1	4.0%	2	14.3%	3	7.7%
	House will be clearer without toilet	1	4.0%	1	7.1%	2	5.1%
	Require less water	5	20.0%	2	14.3%	7	17.9%
	Nothing	10	40.0%	6	42.9%	16	41.0%
Total		25	100.0%	14	100.0%	39	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q63_Why don't you own a latrine?	Too expensive/ don't have enough money	22	88.0%	12	85.7%	34	87.2%
	The government has not given us a subsidy yet	7	28.0%	1	7.1%	8	20.5%
	No entitlement to the land	1	4.0%			1	2.6%
	Don't have enough space	7	28.0%	3	21.4%	10	25.6%
	Water shortage/ not enough water to pour	2	8.0%			2	5.1%
	Satisfied with current practice/ don't see a need	1	4.0%			1	2.6%
	Lack information on where to purchase, how to construct, etc	3	12.0%			3	7.7%
	Other priorities come first			1	7.1%	1	2.6%
Total		25	100.0%	14	100.0%	39	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q64_Has your household ever thought about or discussed building a latrine for your family?	Yes	16	64.0%	5	35.7%	21	53.8%
	No	9	36.0%	9	64.3%	18	46.2%
Total		25	100.0%	14	100.0%	39	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q65_Who in your household would make the final decision to build a latrine?	Head	16	64.0%	2	14.3%	18	46.2%
	Spouse	1	4.0%	7	50.0%	8	20.5%
	Head and wife jointly	3	12.0%	2	14.3%	5	12.8%
	All (joint decision)	5	20.0%	3	21.4%	8	20.5%
Total		25	100.0%	14	100.0%	39	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q66_For example, if I return to your house one year from today, how likely is it that you will have built a latrine at your house?	No chance	13	52.0%	6	42.9%	19	48.7%
	Low likelihood	5	20.0%	3	21.4%	8	20.5%
	Medium likelihood	2	8.0%	4	28.6%	6	15.4%
	High likelihood	3	12.0%			3	7.7%
	Don't know/Cannot say	2	8.0%	1	7.1%	3	7.7%
Total		25	100.0%	14	100.0%	39	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q67_Imagine that you decide to construct a toilet for your household? What kind of latrine can you accept?	Latrine connected to piped sewer system	8	32.0%	10	71.4%	18	46.2%
	Latrine connected to septic tank	14	56.0%	3	21.4%	17	43.6%
	Latrine connected to improved pit with slab	2	8.0%	1	7.1%	3	7.7%
	Latrine - open pit without slab	1	4.0%			1	2.6%
Total		25	100.0%	14	100.0%	39	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q68_What is the lowest amount that you would need to spend to build an acceptable latrine for your family?	10,000	1	4.0%	2	14.3%	3	7.7%
	12,000	4	16.0%			4	10.3%
	14,000	1	4.0%	1	7.1%	2	5.1%
	15,000	4	16.0%	4	28.6%	8	20.5%
	20,000	9	36.0%	6	42.9%	15	38.5%
	25,000	4	16.0%			4	10.3%
	35,000			1	7.1%	1	2.6%
	50,000	2	8.0%			2	5.1%
Total		25	100.0%	14	100.0%	39	100.0%

Report

Q68_What is the lowest amount that you would need to spend to build an acceptable latrine for your family?

Location	N	Sum	Mean	Std. Deviation	Minimum	Maximum
Rural	25	512,000	20,480.00	9,971.292	10,000	50,000
Urban	14	249,000	17,785.71	6,154.155	10,000	35,000
Total	39	761,000	19,512.82	8,801.530	10,000	50,000

Report

Q69_1_Emptying a pit Rs per emptying_How much can you afford for maintenance?

Location	N	Sum	Mean	Std. Deviation	Minimum	Maximum
Rural	18	15,500	861.11	767.838	100	3,000
Urban	8	5,000	625.00	231.455	500	1,000
Total	26	20,500	788.46	654.417	100	3,000

Report

Q69_2_Regular cleaning Rs per month_How much can you afford for maintenance?

Location	N	Sum	Mean	Std. Deviation	Minimum	Maximum
Rural	20	1,125	56.25	44.511	20	200
Urban	8	440	55.00	30.706	20	100
Total	28	1,565	55.89	40.484	20	200

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q70_Do you currently have any money saved towards build a latrine?	Yes	2	8.0%	3	21.4%	5	12.8%
	No	23	92.0%	11	78.6%	34	87.2%
Total		25	100.0%	14	100.0%	39	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q71_Would you consider taking a loan to purchase a latrine?	Yes	7	28.0%	1	7.1%	8	20.5%
	No	17	68.0%	13	92.9%	30	76.9%
	Don't know	1	4.0%			1	2.6%
Total		25	100.0%	14	100.0%	39	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q72_Is the latrine functioning now?	Yes	123	100.0%	135	100.0%	258	100.0%
Total		123	100.0%	135	100.0%	258	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q75_DRY SEASON_Do adults (male) in your household use the latrine for defecation?	Always	121	98.4%	135	100.0%	256	99.2%
	Sometimes	2	1.6%			2	0.8%
Total		123	100.0%	135	100.0%	258	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q76_RAINY SEASON_Do adults (male) in your household use the latrine for defecation?	Always	119	96.7%	135	100.0%	254	98.4%
	Sometimes	3	2.4%			3	1.2%
	Never	1	0.8%			1	0.4%
Total		123	100.0%	135	100.0%	258	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q77_DRY SEASON_Do adults (female) in your household use the latrine for defecation?	Always	122	99.2%	135	100.0%	257	99.6%
	Sometimes	1	0.8%			1	0.4%
Total		123	100.0%	135	100.0%	258	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q78_RAINY SEASON_Do adults (female) in your household use the latrine for defecation?	Always	121	98.4%	135	100.0%	256	99.2%
	Sometimes	1	0.8%			1	0.4%
	Never	1	0.8%			1	0.4%
Total		123	100.0%	135	100.0%	258	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q78_RAINY SEASON_Do adults (female) in your household use the latrine for defecation?	Always	121	98.4%	135	100.0%	256	99.2%
	Sometimes	1	0.8%			1	0.4%
	Never	1	0.8%			1	0.4%
Total		123	100.0%	135	100.0%	258	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q79_DRY SEASON_Do children in your household use the latrine for defecation?	Always	80	93.0%	67	84.8%	147	89.1%
	Sometimes	2	2.3%	5	6.3%	7	4.2%
	Never	4	4.7%	4	5.1%	8	4.8%
	Don't know			3	3.8%	3	1.8%
Total		86	100.0%	79	100.0%	165	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q80_RAINY SEASON_Do children in your household use the latrine for defecation?	Always	78	90.7%	67	84.8%	145	87.9%
	Sometimes	3	3.5%	5	6.3%	8	4.8%
	Never	5	5.8%	4	5.1%	9	5.5%
	Don't know			3	3.8%	3	1.8%
Total		86	100.0%	79	100.0%	165	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q81_If you didn't have this latrine to use, where would you go to defecate?	Public latrine	3	2.4%	11	8.1%	14	5.4%
	Neighbor's latrine	2	1.6%	10	7.4%	12	4.7%
	Relative's latrine	1	0.8%	6	4.4%	7	2.7%
	Field/forest	115	93.5%	99	73.3%	214	82.9%
	River side	2	1.6%	9	6.7%	11	4.3%
Total		123	100.0%	135	100.0%	258	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q82_What kind of latrine do you have?	Latrine connected to piped sewer system	36	29.3%	108	80.0%	144	55.8%
	Latrine connected to septic tank	57	46.3%	14	10.4%	71	27.5%
	Latrine connected to improved pit with slab	27	22.0%	8	5.9%	35	13.6%
	Latrine - served by animal			1	0.7%	1	0.4%
	Latrine - discharged to road, drain, etc	3	2.4%	4	3.0%	7	2.7%
Total		123	100.0%	135	100.0%	258	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q83_What kind of slab does your latrine have?	Concrete slab	34	27.6%	30	22.2%	64	24.8%
	Pour flush	88	71.5%	104	77.0%	192	74.4%
	Western toilet bowl	1	0.8%	1	0.7%	2	0.8%
Total		123	100.0%	135	100.0%	258	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q84_What kind of shelter walls does your latrine have?	Concrete/brick	122	99.2%	133	98.5%	255	98.8%
	Fibrous cement	2	1.6%	2	1.5%	4	1.6%
	Thatch	2	1.6%	2	1.5%	4	1.6%
	Salvaged material	1	0.8%			1	0.4%
Total		123	100.0%	135	100.0%	258	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q85_What kind of shelter roof does your latrine have?	Concrete/brick	103	83.7%	121	89.6%	224	86.8%
	Fibrous cement	11	8.9%	6	4.4%	17	6.6%
	Galvanized steel			1	0.7%	1	0.4%
	Tiles	1	0.8%	5	3.7%	6	2.3%
	Wood	1	0.8%			1	0.4%
	Thatch	3	2.4%	1	0.7%	4	1.6%
	Plastic sheet	2	1.6%			2	0.8%
	Salvaged material	1	0.8%			1	0.4%
	No roof	4	3.3%	1	0.7%	5	1.9%
Total		123	100.0%	135	100.0%	258	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q86_Who usually cleans the latrine?	Whosoever uses the latrine	2	1.6%			2	0.8%
	Give someone money to clean it	3	2.4%	6	4.4%	9	3.5%
	Someone in the family	118	95.9%	129	95.6%	247	95.7%
Total		123	100.0%	135	100.0%	258	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q87_How often do you clean the latrine?	Whenever it is used	8	6.5%	8	5.9%	16	6.2%
	Once in a week	99	80.5%	120	88.9%	219	84.9%
	Once in a month	16	13.0%	7	5.2%	23	8.9%
Total		123	100.0%	135	100.0%	258	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q88_If you gave money to someone to clean it, was he/she from your village or from outside your village?	From village	3	100.0%	3	50.0%	6	66.7%
	From outside village			3	50.0%	3	33.3%
Total		3	100.0%	6	100.0%	9	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q89_How much do you give to them?	30			1	16.7%	1	11.1%
	50	1	33.3%	1	16.7%	2	22.2%
	120	1	33.3%			1	11.1%
	150			1	16.7%	1	11.1%
	200	1	33.3%	1	16.7%	2	22.2%
	300			1	16.7%	1	11.1%
	350			1	16.7%	1	11.1%
Total		3	100.0%	6	100.0%	9	100.0%

Report

Q89_How much do you give to them?

Location	N	Sum	Mean	Minimum	Maximum
Rural	3	370	123.33	50	200
Urban	6	1,080	180.00	30	350
Total	9	1,450	161.11	30	350

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q90_Do you know which caste do they belong?	Balmiki	3	100.0%	4	66.7%	7	77.8%
	Dom			1	16.7%	1	11.1%
	Don't know			1	16.7%	1	11.1%
Total		3	100.0%	6	100.0%	9	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q91_Do you use water to flush your latrine?	Yes	123	100.0%	135	100.0%	258	100.0%
	Total	123	100.0%	135	100.0%	258	100.0%

		Location				Total		
		Rural		Urban		N	%	
		N	%	N	%			
Q92_How many times is your latrine used per day by all family members?	4	6	4.9%	3	2.2%	9	3.5%	
	5	2	1.6%	1	0.7%	3	1.2%	
	6	5	4.1%	18	13.3%	23	8.9%	
	7	1	0.8%	3	2.2%	4	1.6%	
	8	18	14.6%	30	22.2%	48	18.6%	
	10	29	23.6%	30	22.2%	59	22.9%	
	12	18	14.6%	17	12.6%	35	13.6%	
	13	1	0.8%	2	1.5%	3	1.2%	
	14	12	9.8%	6	4.4%	18	7.0%	
	15	11	8.9%	5	3.7%	16	6.2%	
	16	6	4.9%	6	4.4%	12	4.7%	
	18	4	3.3%	3	2.2%	7	2.7%	
	20	2	1.6%	5	3.7%	7	2.7%	
	22	1	0.8%	3	2.2%	4	1.6%	
	24	1	0.8%	1	0.7%	2	0.8%	
	25	2	1.6%	1	0.7%	3	1.2%	
	26	2	1.6%			2	0.8%	
	30	2	1.6%	1	0.7%	3	1.2%	
	Total		123	100.0%	135	100.0%	258	100.0%

Report

Q92_How many times is your latrine used per day by all family members?

Location	N	Sum	Mean	Minimum	Maximum
Rural	123	1,483	12.06	4	30
Urban	135	1,470	10.89	4	30
Total	258	2,953	11.45	4	30

	Location				Total	
	Rural		Urban		N	%
	N	%	N	%		
Q93_How much water per use 2	2	1.6%	2	1.5%	4	1.6%
do you usually use to flush 3	1	0.8%	3	2.2%	4	1.6%
the latrine? 4	4	3.3%			4	1.6%
5	36	29.3%	25	18.5%	61	23.6%
6	13	10.6%	7	5.2%	20	7.8%
7	9	7.3%	7	5.2%	16	6.2%
8	12	9.8%	18	13.3%	30	11.6%
9	1	0.8%	4	3.0%	5	1.9%
10	26	21.1%	49	36.3%	75	29.1%
11			2	1.5%	2	0.8%
12	3	2.4%	8	5.9%	11	4.3%
15	9	7.3%	6	4.4%	15	5.8%
20	5	4.1%	4	3.0%	9	3.5%
25	1	0.8%			1	0.4%
28	1	0.8%			1	0.4%
Total	123	100.0%	135	100.0%	258	100.0%

Report

Q93_How much water per use do you usually use to flush the latrine?

Location	N	Sum	Mean	Minimum	Maximum
Rural	123	1,033	8.40	2	28
Urban	135	1,187	8.79	2	20
Total	258	2,220	8.60	2	28

	Location				Total	
	Rural		Urban		N	%
	N	%	N	%		
Q94_Do you have enough Yes	115	93.5%	133	98.5%	248	96.1%
water to flush the latrine in the dry season? No	8	6.5%	2	1.5%	10	3.9%
Total	123	100.0%	135	100.0%	258	100.0%

	Location				Total	
	Rural		Urban		N	%
	N	%	N	%		
Q95_Y_Year_When did you 0	3	2.4%	1	0.7%	4	1.6%
built the latrine? 1,925			1	0.7%	1	0.4%
1,933			1	0.7%	1	0.4%
1,945			1	0.7%	1	0.4%
1,952	1	0.8%			1	0.4%
1,955			1	0.7%	1	0.4%
1,960			1	0.7%	1	0.4%
1,962			2	1.5%	2	0.8%
1,965	1	0.8%	2	1.5%	3	1.2%
1,968			1	0.7%	1	0.4%
1,970	1	0.8%	5	3.7%	6	2.3%
1,971	1	0.8%			1	0.4%
1,972			2	1.5%	2	0.8%
1,974			3	2.2%	3	1.2%
1,975	2	1.6%	10	7.4%	12	4.7%
1,976			1	0.7%	1	0.4%
1,978			1	0.7%	1	0.4%
1,980	4	3.3%	7	5.2%	11	4.3%
1,982			1	0.7%	1	0.4%
1,983			1	0.7%	1	0.4%
1,985	4	3.3%	7	5.2%	11	4.3%
1,986	1	0.8%	2	1.5%	3	1.2%
1,988			1	0.7%	1	0.4%
1,990	9	7.3%	8	5.9%	17	6.6%
1,993			2	1.5%	2	0.8%
1,994			4	3.0%	4	1.6%
1,995	11	8.9%	10	7.4%	21	8.1%
1,997	2	1.6%	2	1.5%	4	1.6%

1,998	2	1.6%	3	2.2%	5	1.9%
1,999			1	0.7%	1	0.4%
2,000	7	5.7%	3	2.2%	10	3.9%
2,001	4	3.3%	5	3.7%	9	3.5%
2,002	1	0.8%	3	2.2%	4	1.6%
2,003	3	2.4%	3	2.2%	6	2.3%
2,004	1	0.8%	7	5.2%	8	3.1%
2,005	7	5.7%	9	6.7%	16	6.2%
2,006	3	2.4%			3	1.2%
2,007	5	4.1%	1	0.7%	6	2.3%
2,008	7	5.7%	3	2.2%	10	3.9%
2,009	3	2.4%			3	1.2%
2,010	11	8.9%	8	5.9%	19	7.4%
2,011	7	5.7%	2	1.5%	9	3.5%
2,012	4	3.3%	3	2.2%	7	2.7%
2,013	8	6.5%	4	3.0%	12	4.7%
2,014	6	4.9%	1	0.7%	7	2.7%
2,015	4	3.3%	1	0.7%	5	1.9%
Total	123	100.0%	135	100.0%	258	100.0%

	Location				Total		
	Rural		Urban		N	%	
	N	%	N	%			
Q95_M_Month_When did you built the latrine?	0	4	3.3%	3	2.2%	7	2.7%
	1	2	1.6%			2	0.8%
	2	7	5.7%	12	8.9%	19	7.4%
	3	17	13.8%	15	11.1%	32	12.4%
	4	18	14.6%	14	10.4%	32	12.4%
	5	20	16.3%	31	23.0%	51	19.8%
	6	22	17.9%	19	14.1%	41	15.9%
	7	7	5.7%	10	7.4%	17	6.6%
	8	14	11.4%	19	14.1%	33	12.8%
	9	4	3.3%	6	4.4%	10	3.9%
	10	3	2.4%	4	3.0%	7	2.7%
	11	2	1.6%	2	1.5%	4	1.6%
	12	3	2.4%			3	1.2%
Total		123	100.0%	135	100.0%	258	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q96_Who made the final decision to build your first latrine?	Head of household	67	54.5%	64	47.4%	131	50.8%
	Head of household and spouse jointly	22	17.9%	28	20.7%	50	19.4%
	Spouse	7	5.7%	3	2.2%	10	3.9%
	Family together	27	22.0%	40	29.6%	67	26.0%
Total		123	100.0%	135	100.0%	258	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q97_What made you decide to build your latrine at the time that you did?	Program was offering subsidy	4	3.3%	2	1.5%	6	2.3%
	Someone told me I had to	8	6.5%	11	8.1%	19	7.4%
	Had enough money to build	11	8.9%	13	9.6%	24	9.3%
	Sick/old relative	33	26.8%	24	17.8%	57	22.1%
	Privacy/ security for female members	86	69.9%	98	72.6%	184	71.3%
	Pregnancy of female household members	18	14.6%	14	10.4%	32	12.4%
	Children become physically mature	51	41.5%	45	33.3%	96	37.2%
	Social pressure	5	4.1%	2	1.5%	7	2.7%
	Construction of new house	27	22.0%	41	30.4%	68	26.4%
	Neighbour got one			1	0.7%	1	0.4%
	Event(wedding/funeral/NewYear)	4	3.3%	6	4.4%	10	3.9%
	Had visitors from outside village coming	2	1.6%	2	1.5%	4	1.6%
	Don't know	2	1.6%	1	0.7%	3	1.2%
Total		123	100.0%	135	100.0%	258	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q98_Did you receive assistance from any organization to build your current latrine? Eg, free/subsidized materials or labour, technical advice, loan, etc?	Yes, from the Government	12	9.8%			12	4.7%
	Yes, from NGO	1	0.8%			1	0.4%
	No	106	86.2%	133	98.5%	239	92.6%
	Don't know	4	3.3%	2	1.5%	6	2.3%
Total		123	100.0%	135	100.0%	258	100.0%

		Location		Total	
		Rural		N	%
		N	%		
Q99_What assistance did you receive from the organization?	Subsidy (cash)	3	23.1%	3	23.1%
	Free/subsidized materials	10	76.9%	10	76.9%
	Free/subsidized labour (construction activities)	6	46.2%	6	46.2%
Total		13	100.0%	13	100.0%

		Location		Total	
		Rural		N	%
		N	%		
Q100_tot_Total_How much did you get from the government for your latrine?	In kind Contribution, value unknown	4	33.3%	4	33.3%
	Don't know	3	25.0%	3	25.0%
	500	1	8.3%	1	8.3%
	600	1	8.3%	1	8.3%
	800	2	16.7%	2	16.7%
	1,500	1	8.3%	1	8.3%
Total		12	100.0%	12	100.0%

Report

Q100_tot_Total_How much did you get from the government for your latrine?

Location	N	Sum	Mean	Std. Deviation	Minimum	Maximum
Rural	5	4,200	840.00	391.152	500	1,500
Total	5	4,200	840.00	391.152	500	1,500

		Location		Total	
		Rural		N	%
		N	%		
Q100_mat_Materials_How much did you get from the government for your latrine?	Don't know	10	83.3%	10	83.3%
	500	1	8.3%	1	8.3%
	750	1	8.3%	1	8.3%
Total		12	100.0%	12	100.0%

Report

Q100_mat_Materials_How much did you get from the government for your latrine?

Location	N	Sum	Mean	Std. Deviation	Minimum	Maximum
Rural	2	1,250	625.00	176.777	500	750
Total	2	1,250	625.00	176.777	500	750

		Location		Total	
		Rural		N	%
		N	%		
Q100_lab_Labour_How much did you get from the government for your latrine?	Don't know	11	91.7%	11	91.7%
	750	1	8.3%	1	8.3%
Total		12	100.0%	12	100.0%

Report

Q100_lab_Labour_How much did you get from the government for your latrine?

Location	N	Sum	Mean	Std. Deviation	Minimum	Maximum
Rural	1	750	750.00	.	750	750
Total	1	750	750.00	.	750	750

	Location		Total		
	Rural		N	%	
	N	%			
Q101_tot_Total_How much did you get from the NGO for your latrine?	1,700	1	100.0%	1	100.0%
Total		1	100.0%	1	100.0%

	Location		Total		
	Rural		N	%	
	N	%			
Q101_mat_Materials_How much did you get from the NGO for your latrine?	Don't know	1	100.0%	1	100.0%
Total		1	100.0%	1	100.0%

	Location		Total		
	Rural		N	%	
	N	%			
Q101_mat_Materials_How much did you get from the NGO for your latrine?	Don't know	1	100.0%	1	100.0%
Total		1	100.0%	1	100.0%

	Location		Total		
	Rural		N	%	
	N	%			
Q102_tot_Total_How much did you spend to construct your latrine?	In kind Contribution, value unknown	4	30.8%	4	30.8%
	200	2	15.4%	2	15.4%
	300	1	7.7%	1	7.7%
	500	1	7.7%	1	7.7%
	1,500	3	23.1%	3	23.1%
	2,000	1	7.7%	1	7.7%
	4,000	1	7.7%	1	7.7%
Total		13	100.0%	13	100.0%

Report

Q102_tot_Total_How much did you spend to construct your latrine?

Location	N	Sum	Mean	Std. Deviation	Minimum	Maximum
Rural	9	11,700	1,300.00	1,222.702	200	4,000
Total	9	11,700	1,300.00	1,222.702	200	4,000

	Location		Total		
	Rural		N	%	
	N	%			
Q102_mat_Materials_How much did you spend to construct your latrine?	Don't know	7	77.8%	7	77.8%
	1,000	1	11.1%	1	11.1%
	1,300	1	11.1%	1	11.1%
Total		9	100.0%	9	100.0%

Report

Q102_mat_Materials_How much did you spend to construct your latrine?

Location	N	Sum	Mean	Std. Deviation	Minimum	Maximum
Rural	2	2,300	1,150.00	212.132	1,000	1,300
Total	2	2,300	1,150.00	212.132	1,000	1,300

	Location		Total		
	Rural		N	%	
	N	%			
Q102_lab_Labour_How much did you spend to construct your latrine?	Don't know	5	55.6%	5	55.6%
	500	2	22.2%	2	22.2%
	700	1	11.1%	1	11.1%
	1,500	1	11.1%	1	11.1%
Total		9	100.0%	9	100.0%

Report

Q102_lab_Labour_How much did you spend to construct your latrine?

Location	N	Sum	Mean	Std. Deviation	Minimum	Maximum
Rural	4	3,200	800.00	476.095	500	1,500
Total	4	3,200	800.00	476.095	500	1,500

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q103_Has your latrine pit ever been emptied?	Yes	17	13.8%	6	4.4%	23	8.9%
	No	91	74.0%	91	67.4%	182	70.5%
	Not Applicable	10	8.1%	38	28.1%	48	18.6%
	Don't know	5	4.1%			5	1.9%
Total		123	100.0%	135	100.0%	258	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q104_If yes, what do you do with the contents?	Spread on field as fertilizer	1	5.9%			1	4.3%
	Dumped in the forest	1	5.9%			1	4.3%
	Dumped in the river/pond/canal	5	29.4%	1	16.7%	6	26.1%
	Empty pit contents into new hole	9	52.9%	2	33.3%	11	47.8%
	Don't know	1	5.9%	3	50.0%	4	17.4%
Total		17	100.0%	6	100.0%	23	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q105_Have you ever hired someone to empty your pit?	Yes	16	94.1%	5	83.3%	21	91.3%
	No	1	5.9%	1	16.7%	2	8.7%
Total		17	100.0%	6	100.0%	23	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q106_Do you remember how much you paid for emptying the pit?	Yes	15	93.8%	5	100.0%	20	95.2%
	No	1	6.3%			1	4.8%
Total		16	100.0%	5	100.0%	21	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q106_s_Specify_Do you remember how much you paid for emptying the pit?	200			2	40.0%	2	10.0%
	250			1	20.0%	1	5.0%
	600	1	6.7%			1	5.0%
	700	2	13.3%			2	10.0%
	800			1	20.0%	1	5.0%
	1,000	3	20.0%			3	15.0%
	1,300	1	6.7%			1	5.0%
	1,500	1	6.7%			1	5.0%
	2,000	3	20.0%			3	15.0%
	2,200	1	6.7%			1	5.0%
	2,500			1	20.0%	1	5.0%
	4,000	2	13.3%			2	10.0%
5,000	1	6.7%			1	5.0%	
Total		15	100.0%	5	100.0%	20	100.0%

Report

Q106_s_Specify_Do you remember how much you paid for emptying the pit?

Location	N	Sum	Mean	Minimum	Maximum
Rural	15	29,000	1,933.33	600	5,000
Urban	5	3,950	790.00	200	2,500
Total	20	32,950	1,647.50	200	5,000

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q107_Were they from your village or from outside your village?	From village	7	43.8%	4	80.0%	11	52.4%
	From outside village	9	56.3%			9	42.9%
	Don't know			1	20.0%	1	4.8%
Total		16	100.0%	5	100.0%	21	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q108_Do you know which caste do they belong to?	Yes	12	75.0%	4	80.0%	16	76.2%
	Don't know	4	25.0%	1	20.0%	5	23.8%
Total		16	100.0%	5	100.0%	21	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
\$q109_How did you get to know this person?	Local government (Municipality/GPs)	2	12.5%	5	100.0%	7	33.3%
	Community meeting	1	6.3%			1	4.8%
	Relative/friend	10	62.5%			10	47.6%
	Recommended by someone	4	25.0%			4	19.0%
Total		16	100.0%	5	100.0%	21	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q110_Did you hire anybody to build or help build your latrine?	Yes	118	95.9%	135	100.0%	253	98.1%
	No	5	4.1%			5	1.9%
Total		123	100.0%	135	100.0%	258	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q111_If yes, were they from your village or from outside your village?	From village	91	77.1%	66	48.9%	157	62.1%
	From outside village	26	22.0%	59	43.7%	85	33.6%
	Don't know	1	0.8%	10	7.4%	11	4.3%
Total		118	100.0%	135	100.0%	253	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q112_Why did you pick this person?	Relative/friend	7	5.9%	4	3.0%	11	4.3%
	Had hired before	58	49.2%	64	47.4%	122	48.2%
	Has good reputation	28	23.7%	36	26.7%	64	25.3%
	Saw and liked a latrine they had built	18	15.3%	27	20.0%	45	17.8%
	Least expensive	13	11.0%	13	9.6%	26	10.3%
Total		118	100.0%	135	100.0%	253	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q113_How did you learn about this person?	Local government (Municipality / GPs)	21	17.8%	33	24.4%	54	21.3%
	Community meeting	6	5.1%	17	12.6%	23	9.1%
	Relative/friend	81	68.6%	71	52.6%	152	60.1%
	Recommended by someone	13	11.0%	14	10.4%	27	10.7%
	Poster/Advertisement			1	0.7%	1	0.4%
	Radio/Car announcement	1	0.8%			1	0.4%
	Personal contact	2	1.7%			2	0.8%
Total		118	100.0%	135	100.0%	253	100.0%

		Location		Total	
		Rural		N	%
		N	%		
Q114_Whose latrine do you use?	Relatives	2	100.0%	2	100.0%
Total		2	100.0%	2	100.0%

		Location		Total	
		Rural		N	%
		N	%		
Q115_How far is the shared toilet from your house?	3	1	50.0%	1	50.0%
	5	1	50.0%	1	50.0%
Total		2	100.0%	2	100.0%

	Location		Total	
	Rural		N	%
	N	%		
Q116_Why don't you won a latrine? Too expensive/ don't have enough money	2	100.0%	2	100.0%
Total	2	100.0%	2	100.0%

	Location		Total	
	Rural		N	%
	N	%		
Q117_Has your household ever thought about or discussed building a latrine for your family? Yes	2	100.0%	2	100.0%
Total	2	100.0%	2	100.0%

	Location		Total	
	Rural		N	%
	N	%		
Q118_Who in your household would make the final decision to build a latrine? Head	2	100.0%	2	100.0%
Total	2	100.0%	2	100.0%

	Location		Total	
	Rural		N	%
	N	%		
Q119_For example, If I return to your house one year from today, how likely is it that you will have built a latrine at your house? No chance	1	50.0%	1	50.0%
Medium likelihood	1	50.0%	1	50.0%
Total	2	100.0%	2	100.0%

	Location		Total	
	Rural		N	%
	N	%		
Q120_Imagine that you decide to construct a toilet for your household? What kind of latrine would you accept? Latrine connected to piped sewer system	1	50.0%	1	50.0%
Latrine connected to septic tank	1	50.0%	1	50.0%
Total	2	100.0%	2	100.0%

	Location		Total	
	Rural		N	%
	N	%		
Q121_What is the lowest amount that you would need to spend to build an acceptable latrine for your family? 10,000	1	50.0%	1	50.0%
20,000	1	50.0%	1	50.0%
Total	2	100.0%	2	100.0%

	Location		Total	
	Rural		N	%
	N	%		
Q122_emp_Emptying a pit Rs per emptying_How much can you afford for maintenance? Don't know/cant say	1	50.0%	1	50.0%
5,000	1	50.0%	1	50.0%
Total	2	100.0%	2	100.0%

	Location		Total		
	Rural		N	%	
	N	%			
Q122_reg_Regular cleaning Rs per month_How much can you afford for maintenance?	50	1	50.0%	1	50.0%
	Don't know/cant say	1	50.0%	1	50.0%
Total		2	100.0%	2	100.0%

	Location		Total		
	Rural		N	%	
	N	%			
Q123_Do you currently have any money saved towards bulding a latrine	Yes	1	50.0%	1	50.0%
	No	1	50.0%	1	50.0%
Total		2	100.0%	2	100.0%

	Location		Total		
	Rural		N	%	
	N	%			
Q124_Would you consider taking a loan to purchase a latrine?	No	2	100.0%	2	100.0%
Total		2	100.0%	2	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q125_How do you dispose the waste?	Placed it beside the near-by road side	49	32.7%	76	50.7%	125	41.7%
	Placed it to a designated collection point, incl. communal container, concrete bins, etc	9	6.0%	13	8.7%	22	7.3%
	Placed it onto an open pile of waste in neighborhood	81	54.0%	22	14.7%	103	34.3%
	Placed it directly to the waste truck/ hand carts	1	0.7%	35	23.3%	36	12.0%
	Handed it directly to waste collectors			9	6.0%	9	3.0%
	Self-disposal	12	8.0%	1	0.7%	13	4.3%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q126_How often do you dispose of the waste generated in your premises?	As soon as waste is generated	54	36.0%	39	26.0%	93	31.0%
	Once daily	81	54.0%	105	70.0%	186	62.0%
	Once every 2 or 3 days	14	9.3%	5	3.3%	19	6.3%
	Less frequently	1	0.7%	1	0.7%	2	0.7%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q127_Who mainly handles wastes at home?	An adult male member	29	19.3%	35	23.3%	64	21.3%
	An adult female member	116	77.3%	104	69.3%	220	73.3%
	Children	5	3.3%	10	6.7%	15	5.0%
	Servant			1	0.7%	1	0.3%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q128_Who mainly brings the wastes to a specific point?	An adult male member	32	21.3%	37	24.7%	69	23.0%
	An adult female member	113	75.3%	102	68.0%	215	71.7%
	Children	5	3.3%	10	6.7%	15	5.0%
	Servant			1	0.7%	1	0.3%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q129_What type of container do you use for carrying garbage?	Plastic Bag	70	51.1%	96	64.4%	166	58.0%
	Paper Bag	2	1.5%	3	2.0%	5	1.7%
	Metal/Plastic bin	28	20.4%	40	26.8%	68	23.8%
	None place directly	37	27.0%	10	6.7%	47	16.4%
Total		137	100.0%	149	100.0%	286	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q130_How often does anyone in your family or servant clean the side of the road or adjacent public area near your premises?	Yes almost everyday	33	22.0%	39	26.0%	72	24.0%
	Yes sometimes	26	17.3%	36	24.0%	62	20.7%
	Rarely	12	8.0%	7	4.7%	19	6.3%
	Never	79	52.7%	68	45.3%	147	49.0%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q131_Is there someone who comes around to collect or buy your reusable or recyclable materials?	Yes	142	94.7%	150	100.0%	292	97.3%
	No	7	4.7%			7	2.3%
	Don't Know	1	0.7%			1	0.3%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q132_Do you take for recyclable materials to shops for refund or sale?	Yes	16	10.7%	9	6.0%	25	8.3%
	No	132	88.0%	140	93.3%	272	90.7%
	Don't Know	2	1.3%	1	0.7%	3	1.0%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q133_Are you using kitchen waste and/or garden waste for compost?	Yes	5	3.3%			5	1.7%
	No	145	96.7%	150	100.0%	295	98.3%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q134_Does your household receive a collection service of any type?	Yes	7	4.7%	94	62.7%	101	33.7%
	No	143	95.3%	56	37.3%	199	66.3%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q134_1_Would you like to receive a collection service?	Yes if it is free	103	72.0%	44	78.6%	147	73.9%
	Yes even we need to pay	33	23.1%	12	21.4%	45	22.6%
	No	3	2.1%			3	1.5%
	Don't Know	4	2.8%			4	2.0%
Total		143	100.0%	56	100.0%	199	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q134_2_What is the maximum fee (tax) per month that your household would be prepared to pay for the good collection services?	15	4	12.1%			4	8.9%
	20	3	9.1%			3	6.7%
	25	5	15.2%			5	11.1%
	30	7	21.2%	7	58.3%	14	31.1%
	40			1	8.3%	1	2.2%
	45			1	8.3%	1	2.2%
	50	7	21.2%	2	16.7%	9	20.0%
	60	1	3.0%	1	8.3%	2	4.4%
	100	6	18.2%			6	13.3%
Total		33	100.0%	12	100.0%	45	100.0%

Report

Q134_2 What is the maximum fee (tax) per month that your household would be prepared to pay for the good collection services?

Location	N	Sum	Mean	Std. Deviation	Minimum	Maximum
Rural	33	1,465	44.39	29.362	15	100
Urban	12	455	37.92	10.757	30	60
Total	45	1,920	42.67	25.774	15	100

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q135_How is the waste collected?	Place it beside the near-by road side for collection service	3	42.9%	56	59.6%	59	58.4%
	Placed it to a designated collection point, incl. communal container, concrete bins, etc, for collection services	1	14.3%	2	2.1%	3	3.0%
	Placed it onto an open pile of waste in neighborhood for collection service	1	14.3%	3	3.2%	4	4.0%
	Placed it directly to the waste truck/ hand carts	2	28.6%	30	31.9%	32	31.7%
	Handed it directly to waste collectors			3	3.2%	3	3.0%
Total		7	100.0%	94	100.0%	101	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q136_Who collects the waste?	Local government	2	28.6%	46	48.9%	48	47.5%
	Private company			1	1.1%	1	1.0%
	Residents'association / Neighborhood group	2	28.6%	2	2.1%	4	4.0%
	Individual waste collector/ scavenger	3	42.9%	45	47.9%	48	47.5%
Total		7	100.0%	94	100.0%	101	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q137_How often is your garbage collected?	Daily			67	71.3%	67	66.3%
	More than four times per week	3	42.9%	13	13.8%	16	15.8%
	Two to three times per week	2	28.6%	11	11.7%	13	12.9%
	Once a week			3	3.2%	3	3.0%
	Less than once per week	1	14.3%			1	1.0%
	Don't Know	1	14.3%			1	1.0%
Total		7	100.0%	94	100.0%	101	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q138_Is the waste collection service done at a fixed time on the collection day?	Yes	4	57.1%	73	77.7%	77	76.2%
	No	2	28.6%	14	14.9%	16	15.8%
	Don't Know	1	14.3%	7	7.4%	8	7.9%
Total		7	100.0%	94	100.0%	101	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q139_Are you satisfied with the collection service?	Very satisfied			34	36.2%	34	33.7%
	Reasonably satisfied	1	14.3%	39	41.5%	40	39.6%
	Less than satisfied	3	42.9%	9	9.6%	12	11.9%
	Not satisfied at all	3	42.9%	12	12.8%	15	14.9%
Total		7	100.0%	94	100.0%	101	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q140_Would you state your primary reason for dissatisfaction?	The service is not reliable			1	4.8%	1	3.7%
	Frequency of service – the interval between collections is too long	1	16.7%	7	33.3%	8	29.6%
	The location of the communal container or pick-up point is unsatisfactory	4	66.7%	8	38.1%	12	44.4%
	Lack of clean appearance, odors, flies or fires at the communal container or pick-up point	4	66.7%	7	33.3%	11	40.7%
	The collection workers are rude or impolite			3	14.3%	3	11.1%
	Lack of clean appearance of the neighbourhood	1	16.7%	1	4.8%	2	7.4%
Total		6	100.0%	21	100.0%	27	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q141_Do you know where the collected waste is taken for final disposal when it leaves your neighborhood?	Yes	2	28.6%	1	1.1%	3	3.0%
	No	5	71.4%	93	98.9%	98	97.0%
Total		7	100.0%	94	100.0%	101	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q142_1_Please specify problems faced by the final disposal sites, if any?	Foul smell from the area	2	100.0%	1	100.0%	3	100.0%
Total		2	100.0%	1	100.0%	3	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q143_Do you pay for the collection service?	Yes			6	6.4%	6	5.9%
	No	7	100.0%	88	93.6%	95	94.1%
Total		7	100.0%	94	100.0%	101	100.0%

		Location		Total	
		Urban		N	%
		N	%		
Q144_How much do you pay for the collection service?	30	1	16.7%	1	16.7%
	50	4	66.7%	4	66.7%
	200	1	16.7%	1	16.7%
Total		6	100.0%	6	100.0%

Report

Q144_How much do you pay for the collection service?

Location	N	Sum	Mean	Minimum	Maximum
Urban	6	430	71.67	30	200
Total	6	430	71.67	30	200

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q145_Have you ever given small allowance (not the	Yes			32	34.0%	32	31.7%
	No	7	100.0%	62	66.0%	69	68.3%

		Location		Total	
		Urban		N	%
		N	%		
Q146_a_Rs average amount per time_How many times per year and how much per time did you give such small allowance?	10	1	3.1%	1	3.1%
	20	6	18.8%	6	18.8%
	21	1	3.1%	1	3.1%
	25	10	31.3%	10	31.3%
	30	2	6.3%	2	6.3%
	40	3	9.4%	3	9.4%
	50	5	15.6%	5	15.6%
	51	1	3.1%	1	3.1%
	60	2	6.3%	2	6.3%
	100	1	3.1%	1	3.1%
Total		32	100.0%	32	100.0%

Report

Q146_a_Rs average amount per time_How many times per year and how much per time did you give such small allowance?

Location	N	Sum	Mean	Minimum	Maximum
Urban	32	1,102	34.44	10	100
Total	32	1,102	34.44	10	100

		Location		Total	
		Urban		N	%
		N	%		
Q146_t_Times per year_How many times per year and how much per time did you give such small allowance?	1	5	15.6%	5	15.6%
	2	14	43.8%	14	43.8%
	3	7	21.9%	7	21.9%
	4	5	15.6%	5	15.6%
	5	1	3.1%	1	3.1%
Total		32	100.0%	32	100.0%

Report

Q146_t_Times per year_How many times per year and how much per time did you give such small allowance?

Location	N	Sum	Mean	Minimum	Maximum
Urban	32	79	2.47	1	5
Total	32	79	2.47	1	5

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q147_What is the maximum fee per month that your household would be prepared to pay for the better collection service?	0	5	71.4%	42	44.7%	47	46.5%
	20	1	14.3%	3	3.2%	4	4.0%
	30			13	13.8%	13	12.9%
	35			1	1.1%	1	1.0%
	40			5	5.3%	5	5.0%
	50	1	14.3%	18	19.1%	19	18.8%
	55			1	1.1%	1	1.0%
	60			6	6.4%	6	5.9%
	80			1	1.1%	1	1.0%
	100			1	1.1%	1	1.0%
	150			2	2.1%	2	2.0%
	200			1	1.1%	1	1.0%
Total		7	100.0%	94	100.0%	101	100.0%

Report

Q147_What is the maximum fee per month that your household would be prepared to pay for the better collection service?

Location	N	Sum	Mean	Minimum	Maximum
Rural	7	70	10.00	0	50
Urban	94	2,680	28.51	0	200
Total	101	2,750	27.23	0	200

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q148_How do you think litter can be reduced in the area?	To strengthen laws and regulations	42	28.0%	26	17.3%	68	22.7%
	To increase the frequency of waste collection service	6	4.0%	5	3.3%	11	3.7%
	To raise people's awareness on waste discharge manner	40	26.7%	49	32.7%	89	29.7%
	To increase number of dustbins in the area	66	44.0%	72	48.0%	138	46.0%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q149_What is the main source of drinking water?	Piped water into dwelling	58	38.7%	74	49.3%	132	44.0%
	Piped water into yard/ plot	54	36.0%	33	22.0%	87	29.0%
	Public tap/ standpipe	3	2.0%	13	8.7%	16	5.3%
	Tube well/ borehole	23	15.3%	25	16.7%	48	16.0%
	Protected well	2	1.3%	1	0.7%	3	1.0%
	Unprotected well	9	6.0%	4	2.7%	13	4.3%
	Piped water from the neighbour	1	0.7%			1	0.3%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q150_How long does it take to go to the main source of drinking water, get water and come back?	On-site	28	18.7%	25	16.7%	53	17.7%
	Delivered to home	109	72.7%	106	70.7%	215	71.7%
	Off-site	12	8.0%	19	12.7%	31	10.3%
	Don't Know	1	0.7%			1	0.3%
Total		150	100.0%	150	100.0%	300	100.0%

	Location				Total	
	Rural		Urban		N	%
	N	%	N	%		
5	6	50.0%	7	36.8%	13	41.9%
8	1	8.3%			1	3.2%
10	3	25.0%	11	57.9%	14	45.2%
15	1	8.3%	1	5.3%	2	6.5%
25	1	8.3%			1	3.2%
Total	12	100.0%	19	100.0%	31	100.0%

Report

q150_min

Location	N	Sum	Mean	Minimum	Maximum
Rural	12	108	9.00	5	25
Urban	19	160	8.42	5	15
Total	31	268	8.65	5	25

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q151_How much drinking water do you use per day from the main source?	10	6	4.0%	4	2.7%	10	3.3%
	12	3	2.0%	1	0.7%	4	1.3%
	13			1	0.7%	1	0.3%
	14	1	0.7%	1	0.7%	2	0.7%
	15	8	5.3%	10	6.7%	18	6.0%
	16	2	1.3%	2	1.3%	4	1.3%
	17	1	0.7%			1	0.3%
	18	5	3.3%	4	2.7%	9	3.0%
	19	1	0.7%			1	0.3%
	20	19	12.7%	43	28.7%	62	20.7%
	21	1	0.7%			1	0.3%
	22	1	0.7%	4	2.7%	5	1.7%
	23	2	1.3%			2	0.7%
	24			4	2.7%	4	1.3%
	25	13	8.7%	16	10.7%	29	9.7%
	28	3	2.0%	2	1.3%	5	1.7%
	30	24	16.0%	23	15.3%	47	15.7%
	32			3	2.0%	3	1.0%
	35	3	2.0%	8	5.3%	11	3.7%
	40	7	4.7%	5	3.3%	12	4.0%
	45	4	2.7%			4	1.3%
	48	1	0.7%			1	0.3%
	50	12	8.0%	4	2.7%	16	5.3%
	Don't Know	33	22.0%	15	10.0%	48	16.0%
Total		150	100.0%	150	100.0%	300	100.0%

Report

Q151 How much drinking water do you use per day from the main source?

Location	N	Sum	Mean	Minimum	Maximum
Rural	117	3,199	27.34	10	50
Urban	135	3,299	24.44	10	50
Total	252	6,498	25.79	10	50

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q152_m_In amount paid per month in Rs_ How much do you pay for drinking water from the main source?	0	14	13.1%	3	6.0%	17	10.8%
	10	1	0.9%	4	8.0%	5	3.2%
	12			2	4.0%	2	1.3%
	15			1	2.0%	1	0.6%
	20	17	15.9%	2	4.0%	19	12.1%
	25	11	10.3%	3	6.0%	14	8.9%
	30	28	26.2%	3	6.0%	31	19.7%
	32	3	2.8%			3	1.9%
	36	1	0.9%			1	0.6%
	40	3	2.8%	2	4.0%	5	3.2%
	50	19	17.8%	9	18.0%	28	17.8%
	60	3	2.8%	2	4.0%	5	3.2%
	72	1	0.9%			1	0.6%
	Don't Know	3	2.8%	16	32.0%	19	12.1%
	100	1	0.9%	3	6.0%	4	2.5%
	120	1	0.9%			1	0.6%
	150	1	0.9%			1	0.6%
Total		107	100.0%	50	100.0%	157	100.0%

Report

Q152_m_In amount paid per month in Rs_ How much do you pay for drinking water from the main source?

Location	N	Sum	Mean	Minimum	Maximum
Rural	104	3,289	31.63	0	150
Urban	34	1,234	36.29	0	100
Total	138	4,523	32.78	0	150

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q152_y_In amount paid per year in Rs_ How much do you pay for drinking water from the main source?	20			2	1.7%	2	1.2%
	25			7	6.0%	7	4.3%
	30	1	2.2%			1	0.6%
	35			1	0.9%	1	0.6%
	40	2	4.3%	7	6.0%	9	5.6%
	50	6	13.0%	1	0.9%	7	4.3%
	52			2	1.7%	2	1.2%
	60	1	2.2%			1	0.6%
	70	1	2.2%			1	0.6%
	75			3	2.6%	3	1.9%
	Don't Know	3	6.5%	16	13.8%	19	11.7%
	100	10	21.7%	10	8.6%	20	12.3%
	120			7	6.0%	7	4.3%
	125	1	2.2%			1	0.6%
	150	1	2.2%	3	2.6%	4	2.5%
	200	6	13.0%	12	10.3%	18	11.1%
	240			2	1.7%	2	1.2%
	250	2	4.3%	2	1.7%	4	2.5%
	270	1	2.2%			1	0.6%
	275			2	1.7%	2	1.2%
	276	1	2.2%			1	0.6%
	300	2	4.3%	19	16.4%	21	13.0%
	370	1	2.2%			1	0.6%
	400	1	2.2%	4	3.4%	5	3.1%
	500	4	8.7%	14	12.1%	18	11.1%
	740	1	2.2%			1	0.6%
	800	1	2.2%			1	0.6%
	1,000			2	1.7%	2	1.2%
Total		46	100.0%	116	100.0%	162	100.0%

Report

Q152_y_In amount paid per year in Rs_ How much do you pay for drinking water from the main source?

Location	N	Sum	Mean	Minimum	Maximum
Rural	43	8,971	208.63	30	800
Urban	100	23,429	234.29	20	1,000
Total	143	32,400	226.57	20	1,000

		Location				Total	
		Rural		Urban			
		N	%	N	%	N	%
Q153_What is the frequency of supply of the main source of drinking water?	Round the clock	39	26.0%	31	20.7%	70	23.3%
	Fixed timing daily	87	58.0%	109	72.7%	196	65.3%
	Fixed timing, alternate day	8	5.3%	9	6.0%	17	5.7%
	Erratic	16	10.7%	1	0.7%	17	5.7%
Total	150	100.0%	150	100.0%	300	100.0%	

		Location				Total	
		Rural		Urban			
		N	%	N	%	N	%
Q154_What do you dislike the most about your main drinking water supply source?	Too far	6	4.0%	7	4.7%	13	4.3%
	Not enough supply	45	30.0%	43	28.7%	88	29.3%
	Long waiting time to collect	21	14.0%	20	13.3%	41	13.7%
	Have to treat water	6	4.0%	5	3.3%	11	3.7%
	Long waiting time to treat water			1	0.7%	1	0.3%
	Makes dishes bad taste	11	7.3%	9	6.0%	20	6.7%
	Tastes bad	14	9.3%	12	8.0%	26	8.7%
	High cost	38	25.3%	31	20.7%	69	23.0%
	Smells bad	17	11.3%	17	11.3%	34	11.3%
	Looks dirty	11	7.3%	10	6.7%	21	7.0%
	Bad for health	7	4.7%			7	2.3%
Nothing	18	12.0%	30	20.0%	48	16.0%	
Total	150	100.0%	150	100.0%	300	100.0%	

		Location				Total	
		Rural		Urban			
		N	%	N	%	N	%
Q155_What do you like the most about your drinking water source?	Doesn't take a long time	35	23.3%	28	18.7%	63	21.0%
	Good for health	38	25.3%	26	17.3%	64	21.3%
	Personal safety/ security	56	37.3%	61	40.7%	117	39.0%
	Good taste	57	38.0%	51	34.0%	108	36.0%
	Convenient	44	29.3%	70	46.7%	114	38.0%
	No smell	3	2.0%	3	2.0%	6	2.0%
	Clear/ good color	34	22.7%	27	18.0%	61	20.3%
	Prestige	2	1.3%	2	1.3%	4	1.3%
	Good for visitors	2	1.3%			2	0.7%
	Total	150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban			
		N	%	N	%	N	%
Q156_Do you treat your water in any way to make it safer to drink?	Yes	22	14.7%	31	20.7%	53	17.7%
	No	128	85.3%	119	79.3%	247	82.3%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban			
		N	%	N	%	N	%
Q157_How do you treat your water?	Boil	19	86.4%	26	83.9%	45	84.9%
	Add bleach/chlorine	9	40.9%	3	9.7%	12	22.6%
	Strain it through a cloth	3	13.6%	1	3.2%	4	7.5%
	Use a water filter (ceramic, sand etc)	4	18.2%	3	9.7%	7	13.2%
Total		22	100.0%	31	100.0%	53	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q158_What is the main water source for domestic purpose, ie all household activities such as drinking, cooking, washing, bathing, etc?	Bottled water	1	0.7%			1	0.3%
	Piped water into dwelling	57	38.0%	75	50.0%	132	44.0%
	Piped water into yard/ plot	45	30.0%	34	22.7%	79	26.3%
	Public tap/ standpipe	5	3.3%	9	6.0%	14	4.7%
	Tube well/ borehole	30	20.0%	28	18.7%	58	19.3%
	Protected well			1	0.7%	1	0.3%
	Unprotected well	11	7.3%	3	2.0%	14	4.7%
	Piped water from the neighbour	1	0.7%			1	0.3%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q159_How long does it take to go to the main water source for domestic purpose, get water and come back?	On-site	14	9.3%	11	7.3%	25	8.3%
	Delivered to home	123	82.0%	123	82.0%	246	82.0%
	Off-site	13	8.7%	16	10.7%	29	9.7%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
5		5	38.5%	8	50.0%	13	44.8%
8		1	7.7%			1	3.4%
10		6	46.2%	8	50.0%	14	48.3%
15		1	7.7%			1	3.4%
Total		13	100.0%	16	100.0%	29	100.0%

Report

Location	N	Sum	Mean	Minimum	Maximum
Rural	13	108	8.31	5	15
Urban	16	120	7.50	5	10
Total	29	228	7.86	5	15

Report

Location		Q160_1_L/day/ household for bathing_How much domestic water does your household use per day?	Q160_2_L/day/ household for washing clothes_How much domestic water does your household use per day?	Q160_3_L/day/ household for toilet_How much domestic water does your household use per day?	Q160_4_L/day/ household for cleaning utentils_How much domestic water does your household use per day?	Q160_5_L/day/h ousehold for watering gardens_How much domestic water does your household use per day?	Q160_6_L/day/h ousehold for others_How much domestic water does your household use per day?
Rural	N	150	150	150	150	150	150
	Sum	20,085	8,862	7,056	4,574	265	1,994
	Mean	133.90	59.08	47.04	30.49	1.77	13.29
	Minimum	25	10	0	10	0	0
	Maximum	500	200	200	100	40	100
Urban	N	150	150	150	150	150	150
	Sum	19,681	9,037	7,409	4,972	323	1,719
	Mean	131.21	60.25	49.39	33.15	2.15	11.46
	Minimum	40	15	0	10	0	0
	Maximum	360	150	200	100	30	100
Total	N	300	300	300	300	300	300
	Sum	39,766	17,899	14,465	9,546	588	3,713
	Mean	132.55	59.66	48.22	31.82	1.96	12.38
	Minimum	25	10	0	10	0	0
	Maximum	500	200	200	100	40	100

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q161_m_In amount paid per month in Rs_How much do you pay for domestic water?	0	5	5.3%	5	12.8%	10	7.5%
	20	3	3.2%			3	2.3%
	25	5	5.3%	1	2.6%	6	4.5%
	26			1	2.6%	1	0.8%
	30	6	6.4%	1	2.6%	7	5.3%
	40	5	5.3%			5	3.8%
	42	9	9.6%			9	6.8%
	45	4	4.3%			4	3.0%
	50	17	18.1%			17	12.8%
	60	3	3.2%			3	2.3%
	65	1	1.1%			1	0.8%
	70	1	1.1%			1	0.8%
	75	1	1.1%			1	0.8%
	80	2	2.1%			2	1.5%
	Don't Know	4	4.3%	16	41.0%	20	15.0%
	100	10	10.6%	4	10.3%	14	10.5%
	120	7	7.4%	2	5.1%	9	6.8%
	125	2	2.1%	1	2.6%	3	2.3%
	150	2	2.1%	4	10.3%	6	4.5%
	160	1	1.1%			1	0.8%
	175			1	2.6%	1	0.8%
	200	4	4.3%			4	3.0%
	225			1	2.6%	1	0.8%
	250	2	2.1%	2	5.1%	4	3.0%
Total		94	100.0%	39	100.0%	133	100.0%

Report

Q161_m_In amount paid per month in Rs_How much do you pay for domestic water?

Location	N	Sum	Mean	Minimum	Maximum
Rural	90	6,373	70.81	0	250
Urban	23	2,346	102.00	0	250
Total	113	8,719	77.16	0	250

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q161_y_In amount paid per year in Rs_How much do you pay for domestic water?	0	8	13.3%			8	4.3%
	40			1	0.8%	1	0.5%
	50			1	0.8%	1	0.5%
	73			1	0.8%	1	0.5%
	75	1	1.7%	2	1.6%	3	1.6%
	90	1	1.7%			1	0.5%
	95	1	1.7%	3	2.4%	4	2.1%
	Don't Know	4	6.7%	16	12.6%	20	10.7%
	100	3	5.0%	5	3.9%	8	4.3%
	120	2	3.3%	7	5.5%	9	4.8%
	144			1	0.8%	1	0.5%
	150	4	6.7%			4	2.1%
	200	7	11.7%	5	3.9%	12	6.4%
	216	1	1.7%			1	0.5%
	220			1	0.8%	1	0.5%
	240	2	3.3%	2	1.6%	4	2.1%
	250	1	1.7%	4	3.1%	5	2.7%
	270	1	1.7%	1	0.8%	2	1.1%
	275			2	1.6%	2	1.1%
	276	1	1.7%			1	0.5%
	300	3	5.0%	4	3.1%	7	3.7%
	325			1	0.8%	1	0.5%
	370	2	3.3%			2	1.1%
	400	5	8.3%	5	3.9%	10	5.3%
	500	4	6.7%	4	3.1%	8	4.3%
	550			1	0.8%	1	0.5%
	600	5	8.3%	6	4.7%	11	5.9%
	700	1	1.7%	13	10.2%	14	7.5%
	750			1	0.8%	1	0.5%
	800			7	5.5%	7	3.7%
	900	1	1.7%	1	0.8%	2	1.1%
	1,000	2	3.3%	7	5.5%	9	4.8%
	1,100			2	1.6%	2	1.1%
	1,200			3	2.4%	3	1.6%
	1,300			2	1.6%	2	1.1%

	1,500			3	2.4%	3	1.6%
	1,800			3	2.4%	3	1.6%
	1,900			2	1.6%	2	1.1%
	2,000			9	7.1%	9	4.8%
	2,600			1	0.8%	1	0.5%
Total		60	100.0%	127	100.0%	187	100.0%

Report

Q161_y_In amount paid per year in Rs_ How much do you pay for domestic water?

Location	N	Sum	Mean	Minimum	Maximum
Rural	56	16,532	295.21	0	1,000
Urban	111	81,327	732.68	40	2,600
Total	167	97,859	585.98	0	2,600

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q162_What is the frequency of supply of the main source of domestic water?	Round the clock	47	31.3%	35	23.3%	82	27.3%
	Fixed timing daily	83	55.3%	106	70.7%	189	63.0%
	Erratic	20	13.3%	9	6.0%	29	9.7%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q163_Who in your household usually goes to collect water (both for drinking and other purposes)?	Adult woman	20	74.1%	19	70.4%	39	72.2%
	Adult man	3	11.1%	4	14.8%	7	13.0%
	Female child (under 15 years)	1	3.7%	2	7.4%	3	5.6%
	Anyone from the family members	3	11.1%	2	7.4%	5	9.3%
Total		27	100.0%	27	100.0%	54	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q164_Is your bathroom attached or detached type?	Attached	30	20.0%	57	38.0%	87	29.0%
	Detached	61	40.7%	53	35.3%	114	38.0%
	No bathroom	59	39.3%	40	26.7%	99	33.0%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q165_What type of bathroom is it?	Exclusive use of household	91	100.0%	110	100.0%	201	100.0%
Total		91	100.0%	110	100.0%	201	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q166_How far from your house to the bathing place?	On-site	89	97.8%	110	100.0%	199	99.0%
	5	2	2.2%			2	1.0%
Total		91	100.0%	110	100.0%	201	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q167_Where do you wash your clothes?	In the bathing place	108	72.0%	127	84.7%	235	78.3%
	In the backyard	5	3.3%	2	1.3%	7	2.3%
	Out in front of house	35	23.3%	16	10.7%	51	17.0%
	Give to dhobi	2	1.3%	5	3.3%	7	2.3%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q168_Where do you clean your utensils?	In the kitchen	26	17.3%	64	42.7%	90	30.0%
	In the bathing place	65	43.3%	42	28.0%	107	35.7%
	In the backyard	9	6.0%	7	4.7%	16	5.3%
	Out in front of house	50	33.3%	37	24.7%	87	29.0%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q169_Where does your wastewater go?	Central sewerage system	63	42.0%	112	74.7%	175	58.3%
	Road side drain	43	28.7%	30	20.0%	73	24.3%
	Nearby open space (no drainage)	32	21.3%	6	4.0%	38	12.7%
	Nearby water bodies	12	8.0%	2	1.3%	14	4.7%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q170_Is the drain covered or open?	Covered drain	29	67.4%	25	83.3%	54	74.0%
	Open drain	14	32.6%	5	16.7%	19	26.0%
Total		43	100.0%	30	100.0%	73	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q171_How the drain is constructed/made?	Drain is cemented/is made of concrete	31	72.1%	27	90.0%	58	79.5%
	Simply excavate earth	12	27.9%	3	10.0%	15	20.5%
Total		43	100.0%	30	100.0%	73	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q172_What kind of problem does the present wastewater disposal system has?	Foul odor	43	28.7%	25	16.7%	68	22.7%
	Dirty water logging	25	16.7%	11	7.3%	36	12.0%
	Mosquitoes and other insects breeding	41	27.3%	14	9.3%	55	18.3%
	Eyesore	13	8.7%	6	4.0%	19	6.3%
	Choked and overflowing drains	12	8.0%	3	2.0%	15	5.0%
	Has no problem at all	47	31.3%	100	66.7%	147	49.0%
	Don't Know	8	5.3%	5	3.3%	13	4.3%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q173_How often do you wash your hands with soap?	More than three times per day	63	42.0%	58	38.7%	121	40.3%
	Two to three times per day	76	50.7%	84	56.0%	160	53.3%
	Once per day	9	6.0%	6	4.0%	15	5.0%
	Once every 2--?3 days	2	1.3%	2	1.3%	4	1.3%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q174_When do you usually wash your hands with soap?	When they are dirty	88	58.7%	86	57.3%	174	58.0%
	When returning to the household	21	14.0%	16	10.7%	37	12.3%
	Before eating	57	38.0%	50	33.3%	107	35.7%
	After eating	15	10.0%	11	7.3%	26	8.7%
	After defecation	146	97.3%	146	97.3%	292	97.3%
	Before going to sleep			1	0.7%	1	0.3%
	After waking up	1	0.7%	2	1.3%	3	1.0%
	Before preparing food	29	19.3%	27	18.0%	56	18.7%
	Before washing baby	6	4.0%	8	5.3%	14	4.7%
	After washing baby	12	8.0%	9	6.0%	21	7.0%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q175_What do you do in your household to prevent children from getting diarrhoea?	Pray to spirits/ancestors			1	0.7%	1	0.3%
	Cook food properly/eat soon after cooking	31	20.7%	25	16.7%	56	18.7%
	Be careful about what kinds of food you eat	17	11.3%	18	12.0%	35	11.7%
	Boil drinking water	35	23.3%	41	27.3%	76	25.3%
	Filter drinking water	19	12.7%	31	20.7%	50	16.7%
	Wash vegetables with clean water	12	8.0%	11	7.3%	23	7.7%
	Wash hands with soap after defecation	45	30.0%	47	31.3%	92	30.7%
	Wash hands with soap before preparing food/eating/	30	20.0%	20	13.3%	50	16.7%
	Wash hands with soap after cleaning a child's/ anus	30	20.0%	24	16.0%	54	18.0%
	Clean cooking and eating utensils	12	8.0%	7	4.7%	19	6.3%
	Provides Glucose supplements	1	0.7%			1	0.3%
	Don't Know	60	40.0%	55	36.7%	115	38.3%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q176_What hygiene advice have you heard before?	None	17	11.3%	21	14.0%	38	12.7%
	Use a latrine	90	60.0%	80	53.3%	170	56.7%
	Drink safe water	80	53.3%	81	54.0%	161	53.7%
	Store water safely	19	12.7%	18	12.0%	37	12.3%
	Wash hands	35	23.3%	27	18.0%	62	20.7%
	Wash hands with soap	73	48.7%	69	46.0%	142	47.3%
	Good food hygiene	22	14.7%	34	22.7%	56	18.7%
	Wastewater/stagnant water management	8	5.3%	2	1.3%	10	3.3%
	Safe disposal of babies' faeces			1	0.7%	1	0.3%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q177_Who do you consider a leader of your community? Give us his/her position?	Mayor (for urban)			27	18.0%	27	9.0%
	Ward member (for urban)			117	78.0%	117	39.0%
	Pradhan (for rural)	133	88.7%			133	44.3%
	GP members (for rural)	14	9.3%			14	4.7%
	Religious leaders			1	0.7%	1	0.3%
	Caste leaders			2	1.3%	2	0.7%
	Don't Know	3	2.0%	3	2.0%	6	2.0%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban		N	%
		N	%	N	%		
Q178_How many members of your family are members of any community groups in your locality?	0	124	82.7%	133	88.7%	257	85.7%
	1	6	4.0%	7	4.7%	13	4.3%
	2	1	0.7%			1	0.3%
	Don't Know	19	12.7%	10	6.7%	29	9.7%
Total		150	100.0%	150	100.0%	300	100.0%

Report

Q178. How many members of your family are members of any community groups in your locality?

Location	N	Sum	Mean	Minimum	Maximum
Rural	131	8	0.06	0	2
Urban	140	7	0.05	0	1
Total	271	15	0.06	0	2

		Location				Total	
		Rural		Urban			
		N	%	N	%	N	%
Q179_What are these community groups?	SHGs (for urban) ward-level committee	7	100.0%	6	85.7%	13	92.9%
Total		7	100.0%	7	100.0%	14	100.0%

		Location				Total	
		Rural		Urban			
		N	%	N	%	N	%
Q180_How often do you travel outside the village?	More than once per week	57	38.0%	51	34.0%	108	36.0%
	Once per week	34	22.7%	40	26.7%	74	24.7%
	1-2 times per month	27	18.0%	36	24.0%	63	21.0%
	Less than once per month	10	6.7%	6	4.0%	16	5.3%
	Less than once per year	4	2.7%			4	1.3%
	Rarely	12	8.0%	16	10.7%	28	9.3%
	Never	6	4.0%	1	0.7%	7	2.3%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban			
		N	%	N	%	N	%
Q181_From which of the following sources have you heard hygiene advice in the past year?	Village chief / Panchayat members	25	16.7%	8	5.3%	33	11.0%
	Neighbour	30	20.0%	38	25.3%	68	22.7%
	Government officers	25	16.7%	20	13.3%	45	15.0%
	ASHA (Midwife)	30	20.0%	4	2.7%	34	11.3%
	ANM (Nurse)	17	11.3%	6	4.0%	23	7.7%
	Anganwadi worker	38	25.3%	36	24.0%	74	24.7%
	Relative	17	11.3%	23	15.3%	40	13.3%
	Schools/teachers	24	16.0%	19	12.7%	43	14.3%
	Religious leaders	2	1.3%	1	0.7%	3	1.0%
	Leaders of caste-based association			1	0.7%	1	0.3%
	(Trade) Union leaders	16	10.7%	15	10.0%	31	10.3%
	NGO/agency worker	39	26.0%	23	15.3%	62	20.7%
	Radio	35	23.3%	44	29.3%	79	26.3%
	Poster/Picture	14	9.3%	21	14.0%	35	11.7%
	Billboard advertisement	114	76.0%	131	87.3%	245	81.7%
	Television advertisement	3	2.0%	1	0.7%	4	1.3%
	Community meeting	15	10.0%	16	10.7%	31	10.3%
	HealthCenter/ Dispensary	10	6.7%	1	0.7%	11	3.7%
	Anganwadi	14	9.3%	7	4.7%	21	7.0%
	Don't Know			2	1.3%	2	0.7%
Total		150	100.0%	150	100.0%	300	100.0%

		Location				Total	
		Rural		Urban			
		N	%	N	%	N	%
Q182_1_In your opinion, which of the following would be able to give trustworthy information about building or purchasing sanitation and water products?	Very good information source	66	44.0%	16	10.7%	82	27.3%
	Acceptable/Average information source	24	16.0%	44	29.3%	68	22.7%
	Not a good information source	21	14.0%	9	6.0%	30	10.0%
	Don't know	39	26.0%	81	54.0%	120	40.0%
Q182_2_In your opinion, which of the following would be able to give trustworthy information about building or purchasing sanitation and water products?	Very good information source	54	36.0%	38	25.3%	92	30.7%
	Acceptable/Average information source	51	34.0%	62	41.3%	113	37.7%
	Not a good information source	34	22.7%	31	20.7%	65	21.7%
	Don't know	11	7.3%	19	12.7%	30	10.0%
Q182_3_In your opinion, which of the following would be able to give trustworthy information about building or purchasing sanitation and water products?	Very good information source	70	46.7%	64	42.7%	134	44.7%
	Acceptable/Average information source	43	28.7%	45	30.0%	88	29.3%
	Not a good information source	17	11.3%	14	9.3%	31	10.3%

	Don't know	20	13.3%	27	18.0%	47	15.7%
Q182_4_In your opinion, which of the following would be able to give trustworthy information about building or purchasing sanitation and water products?	Very good information source	79	52.7%	32	21.3%	111	37.0%
	Acceptable/Average information source	52	34.7%	49	32.7%	101	33.7%
	Not a good information source	14	9.3%	16	10.7%	30	10.0%
	Don't know	5	3.3%	53	35.3%	58	19.3%
Q182_5_In your opinion, which of the following would be able to give trustworthy information about building or purchasing sanitation and water products?	Very good information source	65	43.3%	48	32.0%	113	37.7%
	Acceptable/Average information source	57	38.0%	51	34.0%	108	36.0%
	Not a good information source	19	12.7%	19	12.7%	38	12.7%
	Don't know	9	6.0%	32	21.3%	41	13.7%
Q182_6_In your opinion, which of the following would be able to give trustworthy information about building or purchasing sanitation and water products?	Very good information source	103	68.7%	80	53.3%	183	61.0%
	Acceptable/Average information source	31	20.7%	42	28.0%	73	24.3%
	Not a good information source	10	6.7%	13	8.7%	23	7.7%
	Don't know	6	4.0%	15	10.0%	21	7.0%
Q182_7_In your opinion, which of the following would be able to give trustworthy information about building or purchasing sanitation and water products?	Very good information source	46	30.7%	43	28.7%	89	29.7%
	Acceptable/Average information source	49	32.7%	41	27.3%	90	30.0%
	Not a good information source	38	25.3%	38	25.3%	76	25.3%
	Don't know	17	11.3%	28	18.7%	45	15.0%
Q182_8_In your opinion, which of the following would be able to give trustworthy information about building or purchasing sanitation and water products?	Very good information source	87	58.0%	107	71.3%	194	64.7%
	Acceptable/Average information source	44	29.3%	24	16.0%	68	22.7%
	Not a good information source	7	4.7%	7	4.7%	14	4.7%
	Don't know	12	8.0%	12	8.0%	24	8.0%
Q182_9_In your opinion, which of the following would be able to give trustworthy information about building or purchasing sanitation and water products?	Very good information source	6	4.0%	11	7.3%	17	5.7%
	Acceptable/Average information source	24	16.0%	52	34.7%	76	25.3%
	Not a good information source	43	28.7%	17	11.3%	60	20.0%
	Don't know	77	51.3%	70	46.7%	147	49.0%
Q182_10_In your opinion, which of the following would be able to give trustworthy information about building or purchasing sanitation and water products?	Very good information source	5	3.3%	6	4.0%	11	3.7%
	Acceptable/Average information source	21	14.0%	35	23.3%	56	18.7%
	Not a good information source	41	27.3%	18	12.0%	59	19.7%
	Don't know	83	55.3%	91	60.7%	174	58.0%
Q182_11_In your opinion, which of the following would be able to give trustworthy information about building or purchasing sanitation and water products?	Very good information source	4	2.7%	6	4.0%	10	3.3%
	Acceptable/Average information source	23	15.3%	32	21.3%	55	18.3%
	Not a good information source	39	26.0%	20	13.3%	59	19.7%
	Don't know	84	56.0%	92	61.3%	176	58.7%
Q182_12_In your opinion, which of the following would be able to give trustworthy information about building or purchasing sanitation and water products?	Very good information source	50	33.3%	57	38.0%	107	35.7%
	Acceptable/Average information source	53	35.3%	44	29.3%	97	32.3%
	Not a good information source	18	12.0%	31	20.7%	49	16.3%

	Don't know	29	19.3%	18	12.0%	47	15.7%
Q182_13_In your opinion, which of the following would be able to give trustworthy information about building or purchasing sanitation and water products?	Very good information source	93	62.0%	73	48.7%	166	55.3%
	Acceptable/Average information source	32	21.3%	44	29.3%	76	25.3%
	Not a good information source	16	10.7%	9	6.0%	25	8.3%
	Don't know	9	6.0%	24	16.0%	33	11.0%
Q182_14_In your opinion, which of the following would be able to give trustworthy information about building or purchasing sanitation and water products?	Very good information source	74	49.3%	86	57.3%	160	53.3%
	Acceptable/Average information source	49	32.7%	52	34.7%	101	33.7%
	Not a good information source	14	9.3%	3	2.0%	17	5.7%
	Don't know	13	8.7%	9	6.0%	22	7.3%
Q182_15_In your opinion, which of the following would be able to give trustworthy information about building or purchasing sanitation and water products?	Very good information source	63	42.0%	73	48.7%	136	45.3%
	Acceptable/Average information source	46	30.7%	45	30.0%	91	30.3%
	Not a good information source	14	9.3%	9	6.0%	23	7.7%
	Don't know	27	18.0%	23	15.3%	50	16.7%
Q182_16_In your opinion, which of the following would be able to give trustworthy information about building or purchasing sanitation and water products?	Very good information source	138	92.0%	138	92.0%	276	92.0%
	Acceptable/Average information source	9	6.0%	9	6.0%	18	6.0%
	Not a good information source	1	0.7%	2	1.3%	3	1.0%
	Don't know	2	1.3%	1	0.7%	3	1.0%
Q182_17_In your opinion, which of the following would be able to give trustworthy information about building or purchasing sanitation and water products?	Very good information source	30	20.0%	27	18.0%	57	19.0%
	Acceptable/Average information source	59	39.3%	68	45.3%	127	42.3%
	Not a good information source	31	20.7%	23	15.3%	54	18.0%
	Don't know	30	20.0%	32	21.3%	62	20.7%
Q182_18_In your opinion, which of the following would be able to give trustworthy information about building or purchasing sanitation and water products?	Very good information source	59	39.3%	47	31.3%	106	35.3%
	Acceptable/Average information source	65	43.3%	73	48.7%	138	46.0%
	Not a good information source	20	13.3%	23	15.3%	43	14.3%
	Don't know	6	4.0%	7	4.7%	13	4.3%
Q182_19_In your opinion, which of the following would be able to give trustworthy information about building or purchasing sanitation and water products?	Very good information source	69	46.0%	51	34.0%	120	40.0%
	Acceptable/Average information source	43	28.7%	53	35.3%	96	32.0%
	Not a good information source	13	8.7%	17	11.3%	30	10.0%
	Don't know	25	16.7%	29	19.3%	54	18.0%
Total		150	100.0%	150	100.0%	300	100.0%

Data Collection and Clarification Study on Improvement of Environment in Varanasi City Questionnaire for Business Entities

[Respondent must be an adult person who is in the management class, ideally the owner of the business. Interviewers should spend a few minutes building rapport with the respondent.]

उत्तरदाता प्रबंधन वर्ग का कोई एक वयस्क कर्मचारी हो, आदर्श रूप से अपने व्यवसाय का मालिक होना चाहिए। साक्षात्कर्ता उत्तरदाता के साथ तालमेल बनाने के लिए कुछ मिनट लगाएँ।

My name is _____ and I am working with a Delhi-based research institute named CMS. We are gathering information about opinions on waste management from business communities. We do not plan to build any facilities but we in collaboration with Japanese researchers plan to write a report on the basis of this information. /

मेरा नाम _____ है और मैं दिल्ली की एक शोध संस्था सी.एम.एस के साथ काम कर रहा/रही हूँ। हम अपशिष्ट प्रबंधन के बारे में व्यवसायिक समुदाय से जानकारी एकत्र कर रहे हैं। हमारी किसी शौचालय बनाने की योजना नहीं है लेकिन जापान के शोधकर्ताओं के साथ मिलकर इस जानकारी के आधार पर रिपोर्ट बनाने की योजना है।

You will understand more about our work during our discussion. You can ask me to explain anything you don't understand at any time during our conversation, and you are free to end the conversation at any time. All information you provide will be kept confidential, that is, your name or other identification will not be reported along with your answers to the questions. /

चर्चा के दौरान आप हमारे काम के बारे में अधिक जान जायेंगे। यदि आपको कोई भी बात समझ नहीं आती है तो हमारी बात-चीत के दौरान किसी भी समय आप पूछ सकते हैं और चाहे तो किसी भी समय बात-चीत बंद कर सकते हैं। आप के द्वारा दी गयी संपूर्ण जानकारी गुप्त रखी जायेगी जैसे की आपका नाम या दुसरी पहचान आपके जवाबों के साथ रिपोर्ट नहीं की जायेगी।

Are you able to answer a few questions for us? It will take about 30 minutes. /

क्या आप हमारे कुछ प्रश्नों के जवाब देने में सक्षम हैं? इसमें आधा घंटा लगेगा।

Interview Identification/उत्तरदाता की पहचान

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
1	Questionnaire number/ प्रश्न पत्र संख्या		
2	Local government's name/ स्थानीय सरकार का नाम		
3	Ward number/ वार्ड .नम्बर		
4	Date of Interview/ साक्षात्कार की तिथि	7.1 dd _____, mm _____, 2015 7.2. Start time/शुरु करने का समय: _____ End time/समाप्त करने का समय: _____	
5	Interviewername/ साक्षात्कार का नाम		
6	Supervisor/सुपरवाइजर का नाम		
7	Checked by/जाँचकर्ता का नाम		

Respondent Information /उत्तरदाता की जानकारी

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
8	What is your name?/आपका नाम क्या है?		
9	How old are you? / आप कितने वर्ष के हो?		
10	What is your relationship to this business entity? आपका इस व्यवसायिक संस्था से क्या संबंध है?	Funder/ owner/ co-owner/ निवेश कर्ता / मालिक / सह मालिक	1
		Family members of the above/ परिवार के सदस्य	2
		Employee (management class)/ कर्मचारी (प्रबंधन वर्ग)	3
		Employee (non-management class)/ कर्मचारी (गैर प्रबंधन वर्ग)	4
		Others Specify _____ अन्य स्पष्ट करें	
11	What is the respondent's sex? उत्तरदाता का लिंग क्या है?	Male/पुरुष	1
		Female/महिला	2
12	What is the type of business व्यवसायिक संस्था किस प्रकार है?	Shop/ दुकान	1
		Restaurant/ रेस्टोरेंट	2
		Bar/ coffee shop/ tea stall/ बार/ कॉफी शॉप/ चाय की दुकान	3
		Public office/ सार्वजनिक कार्यालय	4
		Private office/ निजी कार्यालय	5
		Hotel/ होटल	6
		Garage/ workshop/ गैराज/ वर्कशाप	7
		Others Specify _____ अन्य स्पष्ट कर	
13	What is the size of business by the number of employees? व्यवसायिक संस्था में कार्यरत कर्मचारी संख्या क्या है?	Micro (less than 5)/ 5 से कम	1
		Small (5 to 19)/ 5 से 19	2
		Medium (20 to 99)/ 20 से 99	3
		Large (over 100)/ 100 से ज्यादा	4
14	What is the type of business property?/ व्यवसायिक ईकाई का स्वरूप	Independent building/ अलग से निर्मित मकान	1
		An individual space in the building/ the market/ बिल्डिंग/ मार्केट में व्यक्तिगत जगह है	2
		Adjacent to the living space (house) of the business owner/ घर के साथ लगा हुआ है	3
		Others Specify _____ अन्य स्पष्ट करें	
15	What is the name of your business entity and contact number?/ व्यवसायिक संस्था का नाम और कॉन्टैक्ट नम्बर	Name: _____	
		Contact number: _____	

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
16	Which of the followings do you need urgent improvement in your Business locality ? Rank top five items/ आपको आपके व्यवसायिक क्षेत्र में किस प्रकार की सुविधा में सुधार की ज्यादा जरूरत है? [Read all options. Check all that apply] (एक-एक करके सभी विकल्प पढ़ें और मुख्य पाँच को चिह्नित करें।)	Drinking water/पीने का पानी	
		Access road and transportation/सड़क और परिवहन	
		Drainage/ / Liquid waste /जल निकासी/ गिला कुड़ा	
		Solid waste/ सुखा कुड़ा	
		Latrine facilities/शौचालय की सुविधा	
		Education Facilities/शिक्षा संबंधी सुविधा	
		Health facilities/स्वास्थ्य संगठन	
		Electricity/ cooking fuel/बिजली/ इंधन लकड़ी	
		Employment opportunities/ रोजगार के अवसर	
		Waste collection service/कुड़ा उठाने की सेवा	
		Crime/ Safety/ अपराध/ सुरक्षा	
		Overall function of local governments (Panchayat/Municipality) in your locality /स्थानीय सरकारी तंत्र की या संस्था की	
Other specify/अन्य स्पष्ट करें _____			
17	You said that (read the item listed as Number 1 in question no-16) need urgent improvement. Then, primarily whose responsibility to improve it? /आपने जो कहा है (प्रश्न 16 में जो पहला विकल्प चुना है उसे पढ़ें) जिसमें सुधार की ज्यादा जरूरत है तो कृपया बतायें कि उसकी जिम्मेदारी पहले किसकी है?	Individual household/परिवार की	1
		Leaders of your locality/ मुहल्ले का नेता	2
		Community as a whole incl. your self/ समुदाय के साथ खुद जुड़ कर	3
		Local government (Municipality/Gram Panchayat) /स्थानीय तंत्र (नगर निगम, ग्राम पंचायत)	4
		State Government/राज्य सरकार	5
		Central Government/केन्द्र सरकार	6
		NGOs/गैर सरकारी संस्था	7
		Other specify/अन्य स्पष्ट करें _____	
18	You said that (read the item listed as Number 1 in question no-16) need urgent improvement. Have you taken any initiatives to improve the situation?/ आपने जो कहा है (प्रश्न 16 में जो पहला विकल्प चुना है उसे पढ़ें) जिसमें सुधार की ज्यादा जरूरत है तो क्या आपने उसके लिए कोई कदम उठाया?	Yes/हाँ	
		Specify स्पष्ट करें _____ No/ नहीं	2

Waste Management / अपशिष्ट प्रबंधन

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
19	How do you dispose the waste? आप कुड़ा कहाँ फेंकते हैं?	Placed it beside the near-by road side/ नजदीक सड़क के किनारे रख देते हैं	1
		Placed it to a designated collection point, incl. communal container, concrete bins, etc/ कुड़े के लिए बनाई गई एक नियमित जगह पर फेंक देते हैं जिसमें समुदायीक पात्र टोस रूप से बना कुड़ादान शामिल है	2
		Placed it onto an open pile of waste in neighborhood/पास में खुले कुड़े के ढेर में	3
		Placed it directly to the waste truck/ hand carts/ सीधा कुड़े की गाड़ी/ हाथ गाड़ी में	4
		Handed it directly to waste collectors/ कुड़ा इक्कटा करने वाले को देते हैं	5
		Self-disposal/ खुद ही निपटारा करते हैं	6
		Other specify/ अन्य स्पष्ट करें _____	
		Don't know/मालूम नहीं	99

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
20	How often do you dispose of the waste generated in your premises?/ आप अपने घर का कुड़ा कब-कब फेंकते हैं?	As soon as waste is generated/जैसे ही कुड़ा इकट्ठा होता है	1
		Once daily/दिन में एक बार	2
		Once every 2 or 3 days/ 2-3 दिन में एक बार	3
		Less frequently/ काफी कम बार	4
		Other specify/ अन्य स्पष्ट करें _____	5
		Don't know/मालूम नहीं	99
21	Who mainly handles wastes at home? घर में मुख्य रूप से कुड़े को कौन फेंकता है?	An adult male member// एक वयस्क पुरुष	1
		An adult female member/ एक वयस्क महिला	2
		Children/ बच्चा	3
		Servant/ नौकर	4
		Other specify/ अन्य स्पष्ट करें _____	
		Don't know/मालूम नहीं	99
22	(For those who chose 1, 2 and 3 in Q19) (उनके लिए जिन्होंने प्रश्न 19 में 1, 2 या 3 बताया है) Who mainly brings the wastes to a specific point? आमतौर पर कुड़े को एक खास जगह पर कौन ले जाता है	An adult male member// एक वयस्क पुरुष	1
		An adult female member/ एक वयस्क महिला	2
		Children/ बच्चा	3
		Servant/ नौकर	4
		Other specify/ अन्य स्पष्ट करें _____	
		Don't know/मालूम नहीं	99
23	(For those who chose 1,2,3,4 and 5 in Q19) (उनके लिए जिन्होंने प्रश्न 19 में 1,2,3,4 या 5 बताया है) What type of container do you use for carrying garbage? आप कुड़ा ले जाने के लिए क्या इस्तेमाल करते हैं?	Plastic bag/ प्लास्टिक थैला	1
		Paper bag/ कागज थैला	2
		Metal/ plastic bin/ प्लास्टिक का कुड़े दानी	3
		None : place directly/ सीधा फेंक देते हैं	4
		Other specify/ अन्य स्पष्ट करें _____	
		Don't know/मालूम नहीं	99
24	How often does anyone in your family or servant clean the side of the road or adjacent public area near your premises?/ कब-कब आप के परिवार के कोई सदस्य या नौकर, सड़क या अपने आस-पास के सुविधाजनक परिसर की सफाई करते हैं?	Yes, almost everyday/ हाँ प्रतिदिन	1
		Yes, sometimes/ हाँ कभी-कभी	2
		Rarely/ हाँ एक दो बार	3
		Never/ कभी नहीं	4
		Other specify/ अन्य स्पष्ट करें _____	
		Don't know/मालूम नहीं	99

Waste Collection/ अपशिष्ट संग्रह कार्य

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
25	Is there someone who comes around to collect or buy your reusable or recyclable materials? आपके यहाँ कोई है जो पुनः प्रयोग और दुबारा इस्तेमाल होने वाली सामग्री को खरीदने आता है	Yes/हाँ	1
		No /नहीं	2
		Don't know/मालूम नहीं	99
26	Do you take for recyclable materials to shops for refund or sale?/ क्या आप अपनी दुकानों के लिए दुबारा इस्तेमाल होने वाली सामग्री वापसी या बीकी के लिए लेते हैं?	Yes/हाँ	1
		No /नहीं	2
		Don't know/मालूम नहीं	99

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES		SKIP TO
27	Are you using kitchen waste and/or garden waste for compost?/ क्या आप रसोई का कचरा या बागीचे का कचरा खुद के लिए प्रयोग कर रहे हैं?	Yes/हाँ	1	
		No /नहीं	2	
		Don't know/मालूम नहीं	99	
28	Does you receive a collection service of any type?/क्या आपको कुड़ा इक्कटा करने की सेवा प्राप्त होती है?	Yes/हाँ	1	→ 43
		No /नहीं	2	
		Don't know/मालूम नहीं	99	
29	How is the waste collected? कैसे कचरा इक्कटा किया जाता है?	Place it beside the near-by road side for collection services/घर के पास रोड़ साईड में रख देते हैं।	1	
		Placed it to a designated collection point, incl. communal container, concrete bins, etc, for collection services/संग्रह सेवा के लिए एक निर्धारित जगह पर कुड़ेदान में एकत्रीत करते है	2	
		Placed it onto an open pile of waste in neighborhoodfor collection service/ संग्रह सेवा के लिए खुले में एकत्रीत करते है	3	
		Placed it directly to the waste truck/ hand carts/ खुद संग्रह करने वाली गाड़ी/हाथ गाड़ी मे देते है	4	
		Handed it directly to waste collectors/ खुद संग्रह करने वालो को देते है	5	
30	Who collects the waste? कचरा कौन इक्कटा करता है?	Local government/ स्थानीय प्रसाशन	1	
		Private company/निजी कम्पनी	2	
		Residents' association / Neighborhood group/ निवासी मंडली/पड़ोसी समुह	3	
		NGO/एन.जी.ओ	4	
		Individual waste collector/ scavenger/कुड़े वाला/ मेहन्तर	5	
		Other specify/ अन्य स्पष्ट करें _____		
		Don't know/मालूम नहीं	99	
31	How often is your garbage collected? कितने दिनों के अन्तराल पर कचरा इक्कटा किया जाता है?	Daily/ प्रतिदिन	1	
		More than four times per week/ हफ्ते में 4 बार से ज्यादा	2	
		Two to three times per week/ हफ्ते में 2 से 3 बार	3	
		Once a week/ हफ्ते में 1 बार	4	
		Less than once per week/ 1 हफ्ते से कम	5	
		Irregular/ अनियमित रूप से	6	
		Don't know/मालूम नहीं	99	
32	Is the waste collection service done at a fixed time on the collection day?/ क्या कचरा इक्कटा करने वाले का समय निर्धारित है?	Yes/हाँ	1	
		No /नहीं	2	
		Don't know/मालूम नहीं	99	
33	Are you satisfied with the collection service?/ क्या आप कुड़ा इक्कटा करने वाले सेवा से संतुष्ट है?	Very satisfied/ पुरी तरह संतुष्ट	1	
		Reasonably satisfied/ थोड़ा संतुष्ट	2	
		Less than satisfied/ कम संतुष्ट	3	
		Not satisfied at all/ बिल्कुल संतुष्ट नहीं	4	
		Don't know/मालूम नहीं	99	

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
34	<p>(For those who chose 3 and 4 in Q33.) (यदि Q33 में 3 और 4 आता है तो पुंछें)</p> <p>Would you state your primary reason for dissatisfaction? क्या कारण है कि आप इस सेवा से संतुष्ट नहीं हैं?</p> <p>[DO NOT read options; check all that apply]/ कोई विकल्प विकल्प ना पड़ें, सभी बताकर जवाब टिक करें</p>	The service is not reliable/ सेवा विश्वसनीय नहीं है	1
		Frequency of service – the interval between collections is too long/ कचरा संग्रह लम्बे अन्तराल में होता है	2
		The location of the communal container or pick-up point is unsatisfactory/ कचरा जमा करने कि जगह ठीक नहीं है	3
		Lack of clean appearance, odors, flies or fires at the communal container or pick-up point/ कचरा इक्कठा करने कि जगह बदबुदार, किड़े मकोड़े और बगैर साफ-सफाई का है।	4
		The collection workers are rude or impolite/ कुड़ा इक्कठा करने वाले का व्यवहार सही नहीं है	5
		Lack of clean appearance of the neighbourhood/ आस पास और पड़ोस बगैर साफ-सफाई का है	6
		Other specify/ अन्य स्पष्ट करें _____	
35	Do you know where the collected waste is taken for final disposal when it leaves your neighborhood?/ क्या आप जानते हैं कि आप से इक्कठा किया हुआ कचरे का अन्तिम निपटान कहाँ होता है?	Yes/हाँ	1
		No /नहीं	2
36	<p>(For those who chose 1 in the previous question) (यदि पिछले प्रश्न में 1 है तो पुंछें)</p> <p>Please specify problems faced by the final disposal sites, if any./अन्तिम निपटान होने वाला स्थान से कोई परेशानी?</p>		
37	Do you pay for the collection service?/ क्या आप कुड़ा इक्कठा की सेवा प्राप्त करने के लिए पैसे देते हैं?	Yes/हाँ	1
		No /नहीं	2
38	How much do you pay for the collection service?/कुड़ा इक्कठा की सेवा प्राप्त करने के लिए आप कितना पैसे देते हैं?	Rs.per/ रुपये _____	
39	Have you ever given small allowance (not the collection fee) directly to the waste collection workers?/क्या आप कभी वेतन के अलावा और कोई छोटी-मोटी रकम दी है?	Yes/हाँ	1
		No /नहीं	2
40	How many times per year and how much per time did you give such small allowance? आपने कितनी बार और एक बार में कितने रुपये की रकम दी है?	Rs.: average amount per time/ एक बार में औसतन कितने रु.	
		times per year/ साल में कितनी बार	
41	<p>What is the maximum fee per month that your household would be prepared to pay for the “better” collection service? “better” collection service means e.g. regular and more frequent collection service. बेहतर सेवा पाने के लिए आपका परिवार महिने कितने रुपये देना चाहेगा?</p>	Rs.: average amount per month _____ औसतन महिने में कितने रुपये	

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
42	How do you think litter can be reduced in the area? आपके हिसाब से कुड़ा कचरा फेंकना कैसे कम किया जा सकता है?	To strengthen laws and regulations/ कानून और नियम को बजबुत करना	1
		To increase the frequency of waste collection service/ कचरा इकठ्ठा करने के अन्तराल को कम करना	2
		To raise people's awareness on waste discharge manner/ कचरा निवाहन के बारे में जागरूकता लाना	3
		To increase number of dustbins in the area/ ज्यादा से ज्यादा कुड़ादान लगाना	4
		Other specify/ अन्य स्पष्ट करें _____	
		Don't know/मालूम नहीं	99

Wastewater Discharge/ दुषित जल निकासी

Q.NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
43	Where does your wastewater go? आपका घर से निकलता गंदा पानी कहाँ जाता है	Central sewerage system/ केन्द्रीय निकास प्रणाली	1
		Road side drain/ रोड के किनारे नाले में	2
		Nearby open space (no drainage)/ पास के खुली जगह में (जल निकासी के लिए नाली नहीं है)	3
		Nearby water bodies/ पास के जलाशय में	4
		Other specify/ अन्य स्पष्ट करें _____	5
		Don't know/मालूम नहीं	99
44	What kind of problem does the present wastewater disposal system has? घर से निकलते गंदे पानी की निकासी में क्या समस्या आ रही है	Foul odor/ बदबु की परेशानी	1
		Dirty water logging/ गंदे पानी का जमाव	2
		Mosquitoes and other insects breeding/ मच्छर, किड़े और मकोड़े का पनअपना	3
		Eyesore/ दिखने में अच्छा नहीं लग रहा है	4
		Choked and overflowing drains/ बंद और बाहर बहता हुई नली	5
		Other specify/ अन्य स्पष्ट करें _____	
		Don't know/मालूम नहीं	99

.....Thank you....

धन्यवाद

Summary of Buisness Survey

Q1_ Questionnaire Number

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	10.0	10.0	10.0
	2	1	10.0	10.0	20.0
	3	1	10.0	10.0	30.0
	4	1	10.0	10.0	40.0
	5	1	10.0	10.0	50.0
	6	1	10.0	10.0	60.0
	7	1	10.0	10.0	70.0
	8	1	10.0	10.0	80.0
	9	1	10.0	10.0	90.0
	10	1	10.0	10.0	100.0
	Total	10	100.0	100.0	

Q2_ Local Governments name

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Varanasi Municipal Corporation	10	100.0	100.0	100.0

Q3_ Ward Number

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Pared Kothi, Varanasi Cantt	1	10.0	10.0	10.0
	Ramapura	2	20.0	20.0	30.0
	Shivala	2	20.0	20.0	50.0
	Bishwesarganj	1	10.0	10.0	60.0
	Nadeswar, Varanasi Cantt	1	10.0	10.0	70.0
	Sonarpura	1	10.0	10.0	80.0
	Krimkund	1	10.0	10.0	90.0
	Bhelupur	1	10.0	10.0	100.0
	Total	10	100.0	100.0	

Q7_ 1dd_ Date of Interview

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	14	8	80.0	80.0	80.0
	16	2	20.0	20.0	100.0
	Total	10	100.0	100.0	

Q7_ 1mm_ Month of Interview

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	9	10	100.0	100.0	100.0

Q7_ 2st_ Start time of Interview

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	12.30	1	10.0	10.0	10.0
	13.00	1	10.0	10.0	20.0
	14.45	1	10.0	10.0	30.0
	15.00	1	10.0	10.0	40.0
	15.30	1	10.0	10.0	50.0
	16.20	1	10.0	10.0	60.0
	16.30	1	10.0	10.0	70.0
	17.30	2	20.0	20.0	90.0
	17.45	1	10.0	10.0	100.0
	Total	10	100.0	100.0	

Q7_2et_End time of Interview

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	12.50	1	10.0	10.0	10.0
	13.20	1	10.0	10.0	20.0
	15.05	1	10.0	10.0	30.0
	15.20	1	10.0	10.0	40.0
	15.45	1	10.0	10.0	50.0
	16.40	1	10.0	10.0	60.0
	17.00	1	10.0	10.0	70.0
	17.50	1	10.0	10.0	80.0
	18.00	1	10.0	10.0	90.0
	18.15	1	10.0	10.0	100.0
	Total	10	100.0	100.0	

Q5 Interviewer Name

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Mr Jitendra Prasad	8	80.0	80.0	80.0
	Mr Debananda	1	10.0	10.0	90.0
	Mr Kono Ichiro	1	10.0	10.0	100.0
	Total	10	100.0	100.0	

Q6 Supervisor Name

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Mr Jitendra Prasad	8	80.0	80.0	80.0
	Mr Debananda	1	10.0	10.0	90.0
	Mr Kono Ichiro	1	10.0	10.0	100.0
	Total	10	100.0	100.0	

Q7_Checked By

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Mr Jitendra Prasad	8	80.0	80.0	80.0
	Mr Debananda	1	10.0	10.0	90.0
	Mr Kono Ichiro	1	10.0	10.0	100.0
	Total	10	100.0	100.0	

Q8_What is your name?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Mr Anand Chaturvedi	1	10.0	10.0	10.0
	Mr Arun Kumar Singh	1	10.0	10.0	20.0
	Mr Ashwani Anand	1	10.0	10.0	30.0
	Mr Bhanu Yadav	1	10.0	10.0	40.0
	Mr K D Roy	1	10.0	10.0	50.0
	Mr Kasi Singh Bisain	1	10.0	10.0	60.0
	Mr Manoj Kumar Jaiswal	1	10.0	10.0	70.0
	Mr Radhay Chand Sonkar	1	10.0	10.0	80.0
	Mr Santosh Kumar	1	10.0	10.0	90.0
	Mr Vijay Kumar	1	10.0	10.0	100.0
	Total	10	100.0	100.0	

Q9_How old are you?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	32	1	10.0	10.0	10.0
	39	1	10.0	10.0	20.0
	40	1	10.0	10.0	30.0
	42	1	10.0	10.0	40.0
	46	2	20.0	20.0	60.0
	47	2	20.0	20.0	80.0
	58	1	10.0	10.0	90.0
	66	1	10.0	10.0	100.0
	Total	10	100.0	100.0	

Q10_ What is your relationship to this business entity?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Funder/owner/co-owner	6	60.0	60.0	60.0
	Employee (management class)	4	40.0	40.0	100.0
	Total	10	100.0	100.0	

Q11_ What is the respondent's sex

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	10	100.0	100.0	100.0

Q12_ What is the type of business?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Restaurant	3	30.0	30.0	30.0
	Hotel	3	30.0	30.0	60.0
	School	2	20.0	20.0	80.0
	Temple	1	10.0	10.0	90.0
	Vegetable shop	1	10.0	10.0	100.0
	Total	10	100.0	100.0	

Q13_ What is the size of business by the number of employees?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Micro (less than 5)	1	10.0	10.0	10.0
	Small (5 to 19)	3	30.0	30.0	40.0
	Medium (20 to 99)	4	40.0	40.0	80.0
	Large (over 100)	2	20.0	20.0	100.0
	Total	10	100.0	100.0	

Q14_ What is the type of business?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Independent building	7	70.0	70.0	70.0
	An individual space in the building/the market	3	30.0	30.0	100.0
	Total	10	100.0	100.0	

Q15n_Name_ What is the name of your business entity and contact number?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Ashok Restaurant	1	10.0	10.0	10.0
	Baba Kina Ram Aghoor Pith Temple	1	10.0	10.0	20.0
	Bisweshwar Ganj Vegetable Market	1	10.0	10.0	30.0
	Gateway Hotel	1	10.0	10.0	40.0
	Hotel Varanasi Palace	1	10.0	10.0	50.0
	K.K CMS Central Academy	1	10.0	10.0	60.0
	Kerala Cafe	1	10.0	10.0	70.0
	Sanathan Dharm Inter College	1	10.0	10.0	80.0
	Santosh Bojanalaya	1	10.0	10.0	90.0
	Vishwanath Hotel	1	10.0	10.0	100.0
	Total	10	100.0	100.0	

Q15cn_ Contact Number_ What is the name of your business entity and contact number?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	7752802075	1	10.0	11.1	11.1
	8799397890	1	10.0	11.1	22.2
	8808647853	1	10.0	11.1	33.3
	9044564046	1	10.0	11.1	44.4
	9335410054	1	10.0	11.1	55.6
	9389227116	1	10.0	11.1	66.7
	9794487878	1	10.0	11.1	77.8
	9822716868	1	10.0	11.1	88.9
	9936071164	1	10.0	11.1	100.0
	Total	9	90.0	100.0	
Missing	System	1	10.0		
Total		10	100.0		

Q15cn1_Contact Number_What is the name of your business entity and contact number?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	5422277155	1	10.0	50.0	50.0
	7897677139	1	10.0	50.0	100.0
	Total	2	20.0	100.0	
Missing	System	8	80.0		
Total		10	100.0		

Q16_dw_Drinking Water_Which of the followings do you need urgent improvement in your Business locality? Rank top five items?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	20.0	50.0	50.0
	4	1	10.0	25.0	75.0
	5	1	10.0	25.0	100.0
	Total	4	40.0	100.0	
Missing	System	6	60.0		
Total		10	100.0		

Q16_ar_Access Road and Transportation_Which of the followings do you need urgent improvement in your Business locality? Rank top five items?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	10.0	33.3	33.3
	3	1	10.0	33.3	66.7
	5	1	10.0	33.3	100.0
	Total	3	30.0	100.0	
Missing	System	7	70.0		
Total		10	100.0		

Q16_dl_Drainage/Liquid Waste_Which of the followings do you need urgent improvement in your Business locality? Rank top five items?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	2	20.0	40.0	40.0
	3	3	30.0	60.0	100.0
	Total	5	50.0	100.0	
Missing	System	5	50.0		
Total		10	100.0		

Q16_sw_Solid Waste_Which of the followings do you need urgent improvement in your Business locality? Rank top five items?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	6	60.0	75.0	75.0
	2	1	10.0	12.5	87.5
	4	1	10.0	12.5	100.0
	Total	8	80.0	100.0	
Missing	System	2	20.0		
Total		10	100.0		

Q16_lf_Latrine Facilities_Which of the followings do you need urgent improvement in your Business locality? Rank top five items?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	10.0	14.3	14.3
	2	2	20.0	28.6	42.9
	3	1	10.0	14.3	57.1
	4	3	30.0	42.9	100.0
	Total	7	70.0	100.0	
Missing	System	3	30.0		
Total		10	100.0		

Q16_ef_Education Facilities_Which of the followings do you need urgent improvement in your Business locality? Rank top five items?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	5	1	10.0	100.0	100.0
Missing	System	9	90.0		
Total		10	100.0		

Q16_hf_Health Facilities_Which of the followings do you need urgent improvement in your Business locality? Rank top five items?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	1	10.0	33.3	33.3
	4	1	10.0	33.3	66.7
	5	1	10.0	33.3	100.0
	Total	3	30.0	100.0	
Missing	System	7	70.0		
Total		10	100.0		

Q16_ec_Electricity/Cooking Fuel_Which of the followings do you need urgent improvement in your Business locality? Rank top five items?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	1	10.0	25.0	25.0
	4	1	10.0	25.0	50.0
	5	2	20.0	50.0	100.0
	Total	4	40.0	100.0	
Missing	System	6	60.0		
Total		10	100.0		

Q16_eo_Employment Opportunities_Which of the followings do you need urgent improvement in your Business locality? Rank top five items?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	1	10.0	50.0	50.0
	4	1	10.0	50.0	100.0
	Total	2	20.0	100.0	
Missing	System	8	80.0		
Total		10	100.0		

Q16_wc_Waste Collection Service_Which of the followings do you need urgent improvement in your Business locality? Rank top five items?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	5	50.0	55.6	55.6
	3	1	10.0	11.1	66.7
	4	1	10.0	11.1	77.8
	5	2	20.0	22.2	100.0
	Total	9	90.0	100.0	
Missing	System	1	10.0		
Total		10	100.0		

Q16_cs_Crime/Safety_Which of the followings do you need urgent improvement in your Business locality? Rank top five items?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	1	10.0	50.0	50.0
	5	1	10.0	50.0	100.0
	Total	2	20.0	100.0	
Missing	System	8	80.0		
Total		10	100.0		

Q16_of_Overall Function of local governments (Panchayat/Municipality) in your locality_Which of the followings do you need urgent improvement in your Business locality? Rank top five items?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	4	1	10.0	50.0	50.0
	5	1	10.0	50.0	100.0
	Total	2	20.0	100.0	
Missing	System	8	80.0		
Total		10	100.0		

Q17: You said that (read the item listed as Number 1 in question no -16) need urgent improvement. Then, primarily whose responsibility to improve it?

		Responses		Percent of Cases
		N	Percent	
Q17(a)	Leaders of your locality	3	27.3%	30.0%
	Community as a whole incl your self	1	9.1%	10.0%
	Local government (Municipality/Gram Panc	3	27.3%	30.0%
	State Government	1	9.1%	10.0%
	Management Committee of the Temple	1	9.1%	10.0%
	Management Committee of the Market	2	18.2%	20.0%
Total		11	100.0%	110.0%

a. Group

Q18_You said that (read the item listed as Number 1 in question no-16) need urgent improvement? Have you taken any initiatives to improve the situation?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	2	20.0	20.0	20.0
	No	8	80.0	80.0	100.0
	Total	10	100.0	100.0	

Q18_s_Specify_You said that (read the item listed as Number 1 in question no-16) need urgent improvement? Have you taken any initiatives to

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Setting up Waste bin in the Temple Premises	1	10.0	50.0	50.0
	Given complain to the Municipal Corporation	1	10.0	50.0	100.0
	Total	2	20.0	100.0	
Missing	System	8	80.0		
Total		10	100.0		

Q19: How do you dispose the waste?

		Responses		Percent of Cases
		N	Percent	
Q19(a)	Placed it beside the near-by road side	1	9.1%	10.0%
	Placed it to a designated collection poi	7	63.6%	70.0%
	Placed it onto an open pile of waste in	1	9.1%	10.0%
	Handed it directly to waste collectors	2	18.2%	20.0%
Total		11	100.0%	110.0%

a. Group

Q20_How often do you dispose of the waste generated in your premises?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	As soon as waste is generated	1	10.0	10.0	10.0
	Once daily	7	70.0	70.0	80.0
	Once every 2 or 3 days	1	10.0	10.0	90.0
	Less frequently	1	10.0	10.0	100.0
	Total	10	100.0	100.0	

Q21_Who mainly handles wastes at home?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Servant	2	20.0	20.0	20.0
	Staff member	7	70.0	70.0	90.0
	Sanitation workers of Municipal Corporation	1	10.0	10.0	100.0
	Total	10	100.0	100.0	

Q22_Who mainly brings the wastes to a specific point?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Servant	2	20.0	22.2	22.2
	Staff member	4	40.0	44.4	66.7
	Sanitation workers of Municipal Corporation	3	30.0	33.3	100.0
	Total	9	90.0	100.0	
Missing	System	1	10.0		
Total		10	100.0		

Q23_ What type of container do you use for carrying garbage?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Plastic Bag	5	50.0	50.0	50.0
	Metal/plastic bin	3	30.0	30.0	80.0
	Concrete Container	2	20.0	20.0	100.0
	Total	10	100.0	100.0	

Q24_ How often does anyone in your family or servant clean the side of the road or adjacent public area near your premises?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes, almost everyday	9	90.0	90.0	90.0
	Yes, sometimes	1	10.0	10.0	100.0
	Total	10	100.0	100.0	

Q25_ Is there someone who comes around to collect or buy your reusable or recyclable materials?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	2	20.0	20.0	20.0
	No	7	70.0	70.0	90.0
	Don't know	1	10.0	10.0	100.0
	Total	10	100.0	100.0	

Q26_ Do you take for recyclable materials to shops for refund or sale?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	9	90.0	90.0	90.0
	Don't know	1	10.0	10.0	100.0
	Total	10	100.0	100.0	

Q27_ Are you using kitchen waste and/or garden waste for compost?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	10	100.0	100.0	100.0

Q28_ Does you receive a collection service of any type?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	9	90.0	90.0	90.0
	No	1	10.0	10.0	100.0
	Total	10	100.0	100.0	

Q29_ How is the waste collected?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Place it beside the near-by road side for collection	1	10.0	11.1	11.1
	Placed it to a designated collection point, incl communal co	5	50.0	55.6	66.7
	Placed it directly to the waste truck/hand carts	1	10.0	11.1	77.8
	Handed it directly to waste collectors	2	20.0	22.2	100.0
	Total	9	90.0	100.0	
Missing	System	1	10.0		
	Total	10	100.0		

Q30: Who collects the waste?

		Responses		Percent of Cases
		N	Percent	
\$q30(a)	Local government	6	60.0%	66.7%
	Private company	1	10.0%	11.1%
	Individual waste collector/scavenger	3	30.0%	33.3%
	Total	10	100.0%	111.1%

a. Group

Q31_ How often is your garbage collected?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Daily	8	80.0	88.9	88.9
	Less than once per week	1	10.0	11.1	100.0
	Total	9	90.0	100.0	
Missing	System	1	10.0		
	Total	10	100.0		

Q32_ Is the waste collection service done at a fixed time on the collection day?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	8	80.0	88.9	88.9
	No	1	10.0	11.1	100.0
	Total	9	90.0	100.0	
Missing	System	1	10.0		
Total		10	100.0		

Q33_ Are you satisfied with the collection service?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very satisfied	2	20.0	22.2	22.2
	Reasonably satisfied	3	30.0	33.3	55.6
	Less than satisfied	3	30.0	33.3	88.9
	Not satisfied at all	1	10.0	11.1	100.0
	Total	9	90.0	100.0	
Missing	System	1	10.0		
Total		10	100.0		

Q34_ Would you state your primary reason for dissatisfaction?

		Responses		Percent of Cases
		N	Percent	
Q34(a)	The service is not reliable	1	20.0%	25.0%
	Frequency of service - the interval between collections is too long	1	20.0%	25.0%
	The collection workers are rude or impolite	1	20.0%	25.0%
	Lack of clean appearance of the neighbourhood	1	20.0%	25.0%
	Have to pay extra money	1	20.0%	25.0%
Total		5	100.0%	125.0%

a. Group

Q35_ Do you know where the collected waste is taken for final disposal when it leaves your neighborhood?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	1	10.0	11.1	11.1
	No	8	80.0	88.9	100.0
	Total	9	90.0	100.0	
Missing	System	1	10.0		
Total		10	100.0		

Q36_ Please specify problems faced by the final disposal sites, if any?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rajghat	1	10.0	100.0	100.0
Missing	System	9	90.0		
Total		10	100.0		

Q37_ Do you pay for the collection service?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	3	30.0	33.3	33.3
	No	6	60.0	66.7	100.0
	Total	9	90.0	100.0	
Missing	System	1	10.0		
Total		10	100.0		

Q38_ How much do you pay for the collection service?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	500	1	10.0	33.3	33.3
	1,000	1	10.0	33.3	66.7
	20,000	1	10.0	33.3	100.0
	Total	3	30.0	100.0	
Missing	System	7	70.0		
Total		10	100.0		

Q39_ Have you ever given small allowance (not the collection fee) directly to the waste collection workers?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	1	10.0	11.1	11.1
	No	8	80.0	88.9	100.0
	Total	9	90.0	100.0	
Missing	System	1	10.0		
Total		10	100.0		

Q40_a_ Rs average amount per time_ How many times per year and how much per time did you give such small allowance?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	50	1	10.0	100.0	100.0
Missing	System	9	90.0		
Total		10	100.0		

Q40_t_ Times per year_ How many times per year and how much per time did you give such small allowance?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	1	10.0	100.0	100.0
Missing	System	9	90.0		
Total		10	100.0		

Q41_ What is the maximum fee per month that your household would be prepared to pay for the better collection service?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	1	10.0	10.0	10.0
	10	1	10.0	10.0	20.0
	15	1	10.0	10.0	30.0
	Can't say	1	10.0	10.0	40.0
	100	3	30.0	30.0	70.0
	500	2	20.0	20.0	90.0
	30,000	1	10.0	10.0	100.0
Total		10	100.0	100.0	

Q42 How do you think litter can be reduced in the area?

		Responses		Percent of Cases
		N	Percent	
\$q42(a)	To strengthen laws and regulations	8	42.1%	80.0%
	To increase the frequency of waste collection service	2	10.5%	20.0%
	To raise peoples awareness on waste discharge manner	3	15.8%	30.0%
	To increase number of dustbin in the area	5	26.3%	50.0%
	To collect waste from each household	1	5.3%	10.0%
Total		18	100.0%	190.0%

a. Group

Q43_ Where does your wastewater go?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Central sewerage system	7	70.0	70.0	70.0
	Road side drain	2	20.0	20.0	90.0
	Having its own treatment plant	1	10.0	10.0	100.0
Total		10	100.0	100.0	

Q44 What kind of problem does the present wastewater disposal system has?

		Responses		Percent of Cases
		N	Percent	
\$q44(a)	Dirty water logging	1	9.1%	10.0%
	Choked and overflowing drains	4	36.4%	40.0%
	Having no problem at all	1	9.1%	10.0%
	Don't know	5	45.5%	50.0%
Total		11	100.0%	110.0%

a. Group

ANNEX B セミナー関連資料

衛生施設に係るセミナー

1 衛生施設に係るセミナーの開催

1.1 セミナーの概要

本セミナーは衛生施設分野におけるインド側と日本側の技術および経験を紹介し、衛生施設分野における今後の協力ニーズについて聴取する事を目的に、関係省庁、ドナー、NGO等を招き、2015年9月にデリーで開催したものである。

表 1-1 セミナーの概要

表題	Knowledge Exchange Seminar on Sanitation Facilities － A Stepping Stone to Further Collaboration between India and Japan for Better Sanitation －
日時	2015年9月10日（木）10:00～16:00
場所	Silver Oak, Indian Habitat Centre, New Delhi
参加人数	83名（インド関係省庁、ドナー、NGO、バラナシ関係者、等）

1.2 プログラム

本セミナーのプログラムを下記に示す。

表 1-2 セミナープログラム

Topic	Expositor	Time
Registration		09:00 – 10:00
Opening address by JICA	Mr. Kotaro TANAKA, Director, South Asia Division 1, South Asia Dept	10:00 – 10:05
Opening address by MOUD	Mr. Shailendra Vikram Singh, Director, MOUD	10:05 – 10:10
Opening address by MODWS	Mr. G. Balasubramanian, Deputy Advisor, MODWS	10:10–10:15
P.1 Challenges faced by SBM Rural	Dr. D. S. Shyni, Senior Consultant from MODWS	10:15–10:35
P.2 Challenges faced by SBM Urban	Ms. Parvati, Technical Officer from MOUD	10:35–10:55
P.3 Advantages of Japanese on-site treatment system: <ul style="list-style-type: none"> - The history of night soil treatment in Japan - Technical advantages of the Japanese on-site treatment system - Institutional development for septage 	Mr. Akira MORITA, and Mr. Kazushi HASHIMOTO, Japan Sanitation Consortium	10:55 – 11:35

management		
Question and Answers	Participants	11:35-11:55
Tea Break		11:55- 12:15
P.4 Improvement of individual sanitation from privy to modern toilet: a role played by a sanitary ware manufacture, TOTO	Mr.Kazuo WATANABE, President, TOTO Asia Oceania PTE LTD.	12:15- 12:45
P.5 Public Participation and School Education for Sanitation Improvement in Japan	Mr. Koo UE, Chairman, Japan Toilet Labo. (NPO)	12:45- 13:05
Question and Answer	Participants	13:05- 13:25
Lunch Break		13:25- 14:25
P.6 Good Practices from India - CSR and sanitation - Example of Good Practice	-Mr Rashid KIDWAI, Co-ordinator of India Sanitation Coalition - Mr. Shri S. CHATTERJEE, Executive President, Sulabh International	14:25- 14:45 14:45-15:00
P.7 Gender and sanitation - Experience in Delhi	-Mr. Kundan CHAUHAN, Center for Advocacy and Research (CFAR)	15:00 -15:15
P.8 Future Cooperation of JICA in Sanitation Sector	Mr. Kotaro TANAKA	15:15-15:25
Question and Answer	Participants	15:25- 15:45
Closing speech	Mr. Kotaro TANAKA	15:45- 15:55

1.3 発表の概要

セミナーの発表者として、日本側は Japan Sanitation Consortium、TOTO 社、日本トイレ研究所の 3 機関、インド側は MODWS、MOUD、India Sanitation Coalition、CFAR (NGO)、Sulabh International (NGO) の 5 機関より、衛生分野におけるそれぞれの経験並びに活動について発表し、参加者との質疑応答を行った。また、セミナーの最後に、JICA よりインドにおける今後の支援方針についての発表が行われた。各発表者の発表概要は下記の通りである。

P.1 Challenges faced by SBM Rural, Presented by Dr. D.S Shyni, Senior Consultant, MODWS

インドにおける野外排泄や Rural における Sanitation の改善状況と、SBM Rural における戦略を説明後、村落部におけるトイレ普及の課題として、人材不足や、NGO 等との協力体制構築の必要性が述べられた。SBM に関するガイドラインについて、MODWS の Web サイトにも掲示されている点についても紹介された。



<p>P.2 Challenges faced by SBM Urban, presented by Ms. Parvati, Technical Officer, MOUD</p> <p>SBM Urban におけるトイレの設置目標（1 千万件）と、家庭および公衆トイレの状況、設置するトイレの種類と技術、および設置事例が紹介された。都市ごみについても言及され、対応策とその事例としてごみ焼却の例も紹介された。</p>	
<p>P.3-1 Advantages of Japanese on-site treatment system, presented by the Japan Sanitation Consortium 1) Advantages of Japanese on-site treatment system -The history of night soil treatment-, presented by Mr. Akira MORITA</p> <p>日本におけるし尿処理の歴史、汚水の処理システムが紹介され、主な処理システムとサービス割合の変化が時間軸によって示された。また、On-site技術の変遷と、浄化槽の処理性の比較やオンサイト汚泥の処理方法等についても紹介された。</p>	
<p>P3-2 Advantages of Japanese on-site treatment system, presented by the Japan Sanitation Consortium 2) Institutional Development for Septage Management, presented by Mr. Kazushi HASHIMOTO</p> <p>下水の分散処理システム（Decentralized Wastewater Treatment System (DEWATS)）について説明し、DEWATSにおける汚泥引き抜き（Septage Management）の重要性について強調した。また、日本におけるSeptage Managementの法律や財政の裏付け、資格者の確保など重要なポイントが説明され、マレーシアやインド・ミゾラム州での事例が紹介された。</p>	
<p>P4. Improvement of individual sanitation from privy to modern toilet: a role played by a sanitary ware manufacture, TOTO (TOTO's Achievements in Improving Toilet Environments), presented by Mr. Kazuo WATANABE President, TOTO Asia Oceania PTE LTD.</p> <p>TOTO 社の会社概要および製品概要、そのビジョンと歴史が紹介され、TOTO 社の製品の1回の水洗は、3.8Lの水で十分であり、限りある水の節約に貢献していることが語られた。また、TOTO Water Environment Fund を設立し、NGO の衛生環境の改善活動を支援する取り組みが紹介された。</p>	
<p>P5. Public Participation and School Education for Sanitation Improvement in Japan (Improvement of Japanese Public and School Toilet), presented by Mr. Koo UE, Chairman, NPO Japan Toilet Labo</p> <p>日本トイレ研究所のビジョン、活動についての説明が行われた。トイレ分野では未だ改善されない3つの分野（山岳や海浜など自然環境におけるトイレ、災害時のトイレ、そして学校のトイレ）における説明と、学校トイレの改善を図る取り組みが紹介された。</p>	

<p>P.6-1 Good Practices from India CRS and sanitation, presented by Mr. Rashid KIDWAI, Coordinator, Indian Sanitation Coalition</p> <p>Indian Sanitation Coalitionの役割とビジョンについて説明後、Swachh Bharat Mission(SBM)が掲げる持続的なSanitationの実現を図るため、企業や市民社会グループ、政府、メディア、ドナーなどのプラットフォームを設け、衛生分野でのマッチングを行っている点について、紹介が行われた。</p>	
<p>P.6-2 Example of Good Practice, presented by Mr. Shri S. CHATTERJEE, Executive President, Sulabh International</p> <p>Sulabh Internationalの創業者や組織概要について紹介し、Sulabhが普及しているTwo-pit Pour-flush Compost Toilet等の技術、並びにその特徴について説明が行われた。また、Public toiletの建設と運営について事例が紹介され、更にCSRに基づいた活動報告がなされた。</p>	
<p>P.7 Gender and sanitation – Experience in Delhi (Gender and Sanitation: Strengthen Demand Generation and Realization), presented by Mr. Kundan CHAUHAN, Center for Advocacy and Research (CFAR)</p> <p>DelhiのスラムにおけるCFARの活動報告があり、コミュニティ住民の意見交換や学習活動などにより、衛生状況が改善された事例の紹介があった。また、Sanitation Initiativesプロジェクトを通じてGender Equalityを改善する活動の紹介も行われた。</p>	
<p>P.8 Future Cooperation of JICA in Sanitation Sector (JICA' Cooperation for Sanitation), presented by Mr. Kotaro TANAKA, Director, South Asia Division 1, South Asia Department, JICA</p> <p>JICAの役割、インドにおける戦略や方針が述べられ、Yamuna Action Plan Projectを例としてSanitation SectorのJICAの活動について報告された。Ganga Action Plan Project (Varanasi)をはじめとする進行中のProjectや協力調査が紹介された。さらに今後のJICAの支援方策についての説明が行われた。</p>	

1.4 質疑応答概要

本セミナーで行われた質疑応答の概要は下記の通りである。

<p>質問 1. 浄化槽の処理は、好気性状態で行われるのか？</p> <p>-----</p> <p>【回答】 嫌気性処理と好気性処理の両方である。</p>
<p>質問 2. 浄化槽の維持管理の頻度は？</p> <p>-----</p> <p>【回答】 一年間に3回であり、あとはメンテナンスフリーである。</p>
<p>質問 3. Septic tank の Desludging のタイミングは？</p> <p>-----</p> <p>【回答】 三分の一以上、汚泥が貯まった時であり、通常年1回行う。</p>

質問 4. 浄化槽の最小容量は？
【回答】 5 人家族用が最小のユニットである。
質問 5. 学校や地域を巻き込んで活動をするきっかけは何であったのか？
【回答】 周囲の大人を巻き込むことによって、子供たちも理解しやすくなるからである。
質問 6. JICA と協力して、インドでもこのような学校教育ができないだろうか？
【回答】 いろいろな機会をとらえて、チャレンジしてみたい。
質問 7. Dehli 市内の公共トイレは、汚れていたり、閉鎖されたりしているがなぜか？
【回答】 公衆トイレというと、Slubb が運営していると思われるが、実際には Sulabh 以外が運営維持管理している公衆トイレも多い。
質問 8. ガンジス川に汚泥が投棄されているが、VMC は何故、対応しないのか？
【回答】 我々には対応できる部署が整っておらず、今後の課題である。

1.5 セミナーの様子

表 1-3 セミナーの様子

	
<p>会場入り口の案内版</p>	<p>会場内の演台とバナー</p>



受付の状況（受付対応2名、署名を求め、名札を配布）



司会進行担当（MC）



セミナー参加者の様子（1）



セミナー参加者の様子（2）



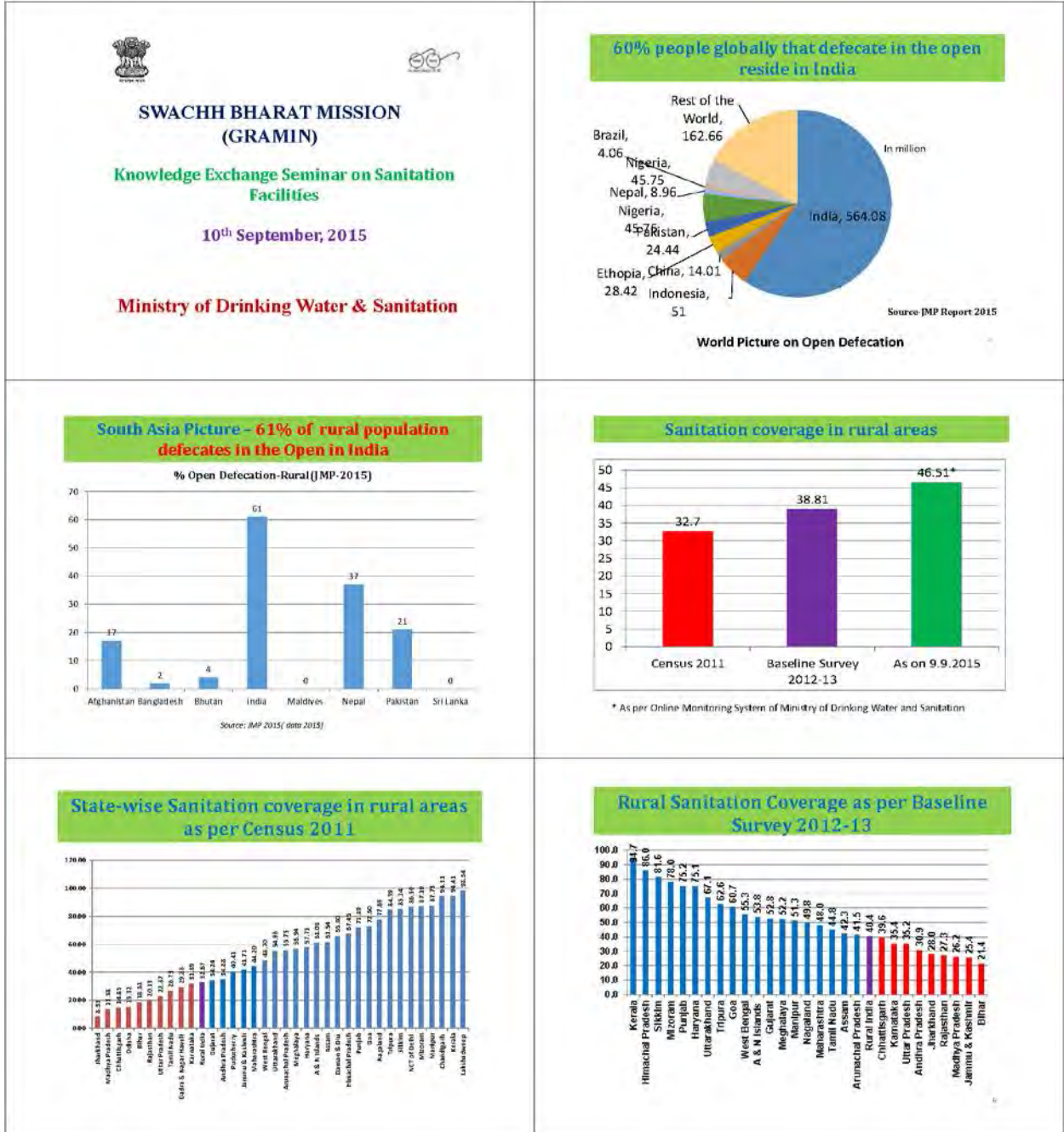
Q&Aの様子（1）



Q&Aの様子（2）

セミナー発表資料

P1. Challenges faced by SBM Rural, Presented by Dr. D.S Shyni, Senior Consultant, MODWS



Sanitation Chronology

- Sanitation was part of national agenda in first 5 year plan (1951-56)
- 1986 - Focus on Sanitation - **Central Rural Sanitation Programme (CRSP)** launched
- 1999 - **Total Sanitation Campaign (TSC)** launched
- 2003- Community incentive scheme- **Nirmal Gram Puraskar (NGP)** launched on 2nd Oct 2003
- 2012- Nirmal Bharat Abhiyan(NBA)
- 2014- Swachh Bharat Mission (Gramin) launched on 2nd October, 2014.

Objectives of Swachh Bharat Mission (Gramin)

- To make India Open Defecation Free (ODF) by 2nd October 2019, by providing access to toilet facilities to all;
- To provide toilets, separately for Boys and Girls in all schools by 15.8.2015;
- To provide toilets to all Anganwadis;
- Villages to be kept clean with Solid and Liquid Waste Management.

Provisions

- Incentive to cover support for Individual Household Latrine (IHHL) for all APLs belonging to
 - SC/ST,
 - Small and Marginal Farmers,
 - Landless Labourers with Homestead,
 - Physically Handicapped
 - Women Headed Households,
 and all BPLs.
- Incentive enhanced from Rs. 10,000 to Rs. 12,000 with provision for water for storing, hand-washing and cleaning of toilets.
- Central share Rs. 9,000 (75 percent), State share Rs. 3,000 (25 percent). North Eastern States, Jammu and Kashmir and Special Category States (HP and Uttarakhand), Central share 10,800 and State share Rs. 1,200 (90 percent:10 percent).

Provisions

- Solid and Liquid Waste management (SLWM) in 'project mode' for each GP with financial assistance on number of households.
- Cap of Rs. 7/12/15/20 lakh for Gram Panchayats having up to 150/300/500/More than 500 households on a Centre and State/GP sharing ratio of 75:25.
- Any additional cost requirement to be met by State/GP.





Provisions

- Transfer construction of
 - School toilets to the Department of School Education and Literacy
 - Anganwadi toilets to the Ministry of Women and Child Development
- Information, Education and Communication (IEC) at 8 percent of total project cost, with 3 percent at the Central level and 5 percent at State level.
- Administrative Cost will be 2 percent of the project cost. Sharing pattern 75:25 between Centre and State

Pattern of Assistance



Components	Total incentive (In Rs.)	Centre share (In Rs.)	State share (In Rs.)	Beneficiaries share (In Rs.)
IHHL	12,000/-	9000/-(10,800 For Special category States)	3000/-(1,200 For Special category States)	
Community Sanitary Complexes	Rs. 200000	Rs. 120000	Rs. 60000	Rs. 20000
RSM/PC	Rs. 500000	Rs. 300000	Rs. 100000	
Solid and Liquid Waste Management	Rs. 7/12/15/20 lakh for GPs having up to 150/300/500/ more than 500 households	75%	25%	

<p style="text-align: center;">Strategy</p> <ol style="list-style-type: none"> 1. Creation of demand by Triggering 'Behaviour change' by intensified IEC campaign and Inter Personal Communication (IPC). 2. Assistance of Multilateral Agencies, National NGOs and groups like Rotary/Lions, Nehru Yuva Kendra etc. 3. Outputs (Construction) and Outcomes (Usage/ open defecation free) will be monitored. 4. Mechanism of 'Trigger' plus Incentives to construct quality toilets will be used. 	<p style="text-align: center;">Strategy</p> <ol style="list-style-type: none"> 5. Strong Administrative structure for the Mission at Central, State and District level. 6. Monitor Outcomes (Toilet usage); Monitor Outputs in terms of Expenditure and toilets constructed. 7. Use of Technology to Monitor Household coverage through Hand held device. 8. Innovative, Low cost and User friendly technologies for toilet and Solid and Liquid Waste Management to be pursued. 9. States, which performs well under the Swachh Bharat Mission to be incentivised. 10. Launching of the Swachh Bharat Award.
<p style="text-align: center;">Solid Waste Management </p> <ul style="list-style-type: none"> • Setting up of systems for the scientific disposal of waste in such a way that has a tangible impact on the population. • The community/ Gram Panchayat has to be motivated to come forward and demand for such system, which they have to operate and maintain. • The states can decide on the technologies suitable to their areas. • Segregation, collection and safe disposal of household garbage and decentralized systems like household/ community level composting, vermicomposting and biogas plants are permitted. • Menstrual Hygiene Management – safe disposal of sanitary pads and cloths and setting up of incinerators in schools, women complexes, PHCs and other suitable place in village are considered. 	<p style="text-align: center;">APPROACHES FOR SLWM </p> <ul style="list-style-type: none"> • Demand-driven approach • The solutions should start at household level and then go upward like the rungs on a ladder • Economical Aspects • Priority on health- Health consequences could be the key rationale for the formulation of State Policy for SLWM.
<p style="text-align: center;">Strategy for Planning and Implementation</p> <ul style="list-style-type: none"> • All Gram Panchayats to be targeted for coverage with a SLWM project. • SLWM projects for each GP forms the part of Annual District Plan. • Annual District plan will be approved by the State level Scheme Sanctioning Committee (SLSCC). • Each individual project – household level, community level etc. will be approved at the DWC level as per technical and financial rules. • Objective is to initiate SLWM in all GPs without delay. • Every State should have one SLWM Consultant supported by SLWM Consultants in each District to guide the preparation of SLWM Projects. <p style="text-align: right;"></p>	<p style="text-align: center;">Liquid Waste Management </p> <ul style="list-style-type: none"> • Maximum reuse of liquid waste (grey water) for agriculture purposes with least O & M cost. • For collection of waste water - low cost drainage/ small bore system, soakage pit can be considered. • For treatment of waste water - waste stabilization ponds, duck weed based technology, phytoid technology (NEERI), Dewats system can be considered. • Reduce , Reuse, Recycle and Recover/ Replace is given focus under the rural SLWM programme. • Septage Management/ treatment in rural areas. • Agriculture Waste Management in rural areas. • Industrial waste- Sugar Industries etc. in rural areas.

Nirmal Gram Puraskar (NGP)

- Clean Village Prize started from 2005 - fiscal incentive scheme for local governments (PRI) at village, block and district level, which achieves Nirmal status.
- Award given to local government that becomes 100% Open Defecation Free and maintains clean environment.
- Total of 28589 Gram; 181 Block and 13 District declared Nirmal so far.
- During 2013, 587 Gram Panchayats awarded NGP
- NGP will be restructured and Swachh Bharat Award will be launched

Rural Sanitation - As per Baseline Survey 2013

Total households as per Baseline Survey 2013 :
17.12 Cr.

Component	Number
IHHLS	11.11 crore toilets to be constructed
Out of this:	
Households eligible for Incentives	- 8.84 crore
Households with Defunct/dysfunctional	- 1.39 crore
APLs not eligible for Incentives	- 0.88 crore

Challenges

- Mindset change required to motivate usage.
- Absence of / Inadequate staff at the Field Level
 - Need for Personnel at Block level for Sanitation
 - Need of Swachhata Doots at GP Level
- Need for Effective IEC and Behaviour Change Campaign
 - Strengthening Districts and Blocks with IEC equipments
- Need for Involvement of NGOs, CSO, SHGs and Partners at District and GP levels
- Involvement and participation of Citizens is a must.

Challenges cont...

- Technologies for household sanitation
- Technologies for Solid and Liquid Waste Management
- Operation and Maintenance of School, Anganwadi toilets
- Operation and Maintenance of Community Toilets.
- Need for availability of water for use of toilets
- Issue of defunct/dysfunctional toilets.
- Sensitization of Panchayats to make the proactive Capacity building essential.
- Availability of sanitary material in rural areas

Important recent initiatives

- Centre State coordination improved through visits, State workshops and VCs.
- National RALU constituted for feedback and suggestions.
- External monitoring initiated through NSSO/3rd parties
- States being told to focus on Sanitation as a key development priority and to deploy adequately trained manpower for the same.
- Collector's trainings 5 batches of 30 each held.
- Training of IAS Probationers-Phase I at LBSNAA held on 5th June (180 participants).

Important recent initiatives

- Massive IEC Campaign with MoIB and M/o Finance.
- Process and Product Innovation Forum on website.
- National Workshop on SIWM on 21.04.2014.
- Use of Social Media: Whatsapp group/Facebook page
- Committee -Dr. R.A. Mashelkar- Innovative Technologies
- Corporate Facilitation Desk being created- Sanitation Coalition Forum
- Identifying Key Resource Centres for Capacity Building

PUBLICATIONS



- Guidelines for Swachh Bharat Mission(Gramin).
- Guidelines on Solid and Liquid Waste Management (SLWM) in Rural Areas – ADB Support.
- Compendium of Innovative Technologies on Rural Drinking Water and Sanitation.
- Webpage to upload Innovative rural technologies on SLWM
- Source Book on Solid and Liquid Waste Management in Rural India – CEE
- Technical Manual on Solid and Liquid Waste Management- MDWS.

Under preparation

- Guidelines on Menstrual Hygiene Management.
- Handbook on sanitation facilities to PwD.
- SOP for providing Sanitation facilities during Disaster.

LET US TOGETHER MAKE



Thank you

SANITATION..... A WAY OF LIFE

P.2 Challenges faced by SBM Urban, presented by Ms. Parvati, Technical Officer, MOUD

 <p>Swachh Bharat Mission</p>	 <p>एक कदम स्वच्छता की ओर स्वच्छ भारत मिशन (2014 - 2019)</p> <ul style="list-style-type: none"> Household toilets for 1.04 crore urban households Construct 2.56 lakh public toilets Construct 2.52 lakh community toilet seats Scientific disposal of Solid Waste in all Urban bodies Total cost: Rs.62,009 crore
<p>Household Toilets</p> <ul style="list-style-type: none"> > Total Number of Toilets to be Constructed- 1.04 Crore > Beneficiaries: Any household that, <ul style="list-style-type: none"> a) Does not have a toilet OR b) Has an insanitary toilet- <ul style="list-style-type: none"> Discharging directly to drains or other water-body Pit Latrine can be updated by adding twin-pit system > Centre Contribution - 4,000/- per Toilet > State Contribution - at least 1,333/- per Toilet > No Restriction on Land and Location 	<p>Sanitation Technologies besides Conventional Septic Tank (IS-2470)</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Twin Pit Latrines</p>  </div> <div style="text-align: center;"> <p>DRDO- Bio-digester</p>  </div> </div> <p>Low water Use Innovations</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Enhanced Slope (26-28°)</p> </div> <div style="text-align: center;">  <p>P-Trap (12-20 mm water seal) Conventional- 50 mm</p> </div> <div style="text-align: center;">  <p>Reed Bed</p> </div> <div style="text-align: center;">  <p>Pre fabricated Structures</p> </div> </div>
<p>Reference Case - Individual Toilet Construction</p> <p>Chhattisgarh</p> <ul style="list-style-type: none"> Centralised Construction Model Govt to Build Beneficiary to contribute- <ul style="list-style-type: none"> Rs 2000 in Municipal Corporation, Rs 1500 in Municipality Rs 1000 in Town Panchayat Total construction Cost/ unit- Rs. 18000-20,000. Govt. of India contribution- Rs.4,000 Balance amount Rs.12,000-15000 will be borne by the State 	<p>Reference Case - Individual Toilet Construction</p> <p>Bhopal</p> <ul style="list-style-type: none"> Partially Centralised Construction Model Govt to Build only the Substructure (Septic Tank etc.) Beneficiary has to construct the superstructure on their own.  

Reference Case - Individual Toilet Construction

Pune

- A scheme by an NGO in which IHHL constructed on **cost-sharing** basis.
- 30% of the cost to be borne by the household and the rest by NGO from various sources including Government contribution



Community & Public Toilets - Key Facts

Total Combined Requirement ~ 5.07 Lakh Seats

Construction Cost per Toilet Seat ~ Rs 65,000

Funds-
 • 40% VGF/ Grant by Centre for Community Toilets
 • 13.33% contribution from State

Existing, Combined & Joint toilets are also eligible

Reference Case – Public & Community Toilet Construction and O&M

NDMC Model – PPP, no cost to Govt; Cross Subsidisation

- CTs Constructed and being maintained on PPP basis by private agencies in Jhuggi-Jhonpri (JJ) Clusters.
- Toilets also provided in up-scale colonies for use of Domestic helps/ Maid/ Taxi Drivers/ Hawkers/ Beggars/ Auto Rickshaws.
- Sometimes, it is financially difficult for agencies to run these toilets successfully and hygienically on PPP basis, where these have no potential for advertisement.
- Hence Cross-subsidised.



Solid Waste Management (SWM)

Target- Scientific SWM disposal in 4041 towns

Funds –
 • 20% VGF/ Grant by Centre
 • Rs 240 per capita

Recommended Waste Treatment Options by City classification

Population	Waste Qty. (TPD)	Treatment Option	Estimated Cost (Rs. Crores) excluding land cost
15,000 to 50,000	3-10	• Biomethanation • Conventional Composting • Vermi Composting	10-20 Lakhs/ITPD of segregated wet waste
50,000 to 1,00,000	10-20	• Biomethanation • Conventional Composting • Vermi Composting	10 Lakhs/ITPD of segregated wet waste
1,00,000 to 10,00,000	20-350	• Integrated Waste Processing • Biomethanation • Composting • RDF	400 Lakhs/100 TPD
10,00,000 to 200,00,000	350-8000	• Integrated Waste Processing • Biomethanation • Composting • RDF • Waste to Energy	Case based

Waste to Energy – Relevant Technologies

Incineration

- Waste is delivered by waste collection vehicles to the waste pit, then carried on a combustion system through the **combustion oven** and transformed into ash.
- Ash is discharged while energy contained in **exhaust gases** from the combustion process is **recovered as steam** in the boiler and used to **drive power generator turbines**.
- Resulting **electricity** is also available for use outside the facility

Gasification

- Converts **carbonaceous wastes** into Carbon Monoxide, Hydrogen and Carbon Dioxide by reacting the material at high temperatures (>700 °C), **without combustion**, with a **controlled amount of oxygen**.
- Resulting gas mixture is called **syngas** or **producer gas** and is itself a fuel.



Reference Cases - Municipal Solid Waste Incineration Plant



16 MW - OKHLA

12 MW - GHAZIPUR

11.5 MW - Jabalpur (under Construction)

33

Ghazipur Waste to Energy (WtE) Plant



Soft Components

IEC & PA Campaigns

- For behavioural change

Capacity Building and Administrative Expenses

- May be used for training and exposure visits.
- For national level workshops and training



एक कदम स्वच्छता की ओर

Thanks!

P.3-1 Advantages of Japanese on-site treatment system, presented by the Japan Sanitation Consortium

1) Advantages of Japanese on-site treatment system -The history of night soil treatment-, presented by Mr. Akira MORITA

P3-1
JSC

Advantages of Japanese on-site treatment system

- The history of night soil treatment -

Akira Morita
Japan Sanitation consortium

History of Sanitation in Japan

- ~1950s : **Agricultural use**
 - ✓ Human waste was collected and recycled as a fertilizer for rice farming before the diffusion of chemical fertilizer in 1940s.
- 1950s ~ : **From Valuable Material to Waste**
 - ✓ Worsening of Environmental Pollution
 - ✓ Spread of Hygienic Disposal
 - ✓ Establishment of Institutions for Environmental Sanitation.
- 1980s ~ : **Sustainable Development**
 - ✓ Recycling (Energy&Biomass)
 - ✓ Global Warming (Energy saving)

Major systems for night soil and grey water treatment

The diagram illustrates four main sanitation systems:

- Sewerage system (Night soil + grey water):** Shows a house connected to a sewerage line leading to a wastewater treatment facility.
- Rural sewerage system:** Shows a house connected to a sewerage line leading to a treatment facility.
- Johkasou system:** Shows a house with a toilet and a separate tank for night soil, which is then transported to a treatment facility.
- Night soil storage (Wash and vacuum toilet):** Shows a house with a toilet and a separate tank for night soil, which is then transported to a treatment facility.

Population trends for on-site & off-site sanitation systems in Japan

The chart shows the population in millions from 1955 to 2010, categorized by sanitation system:

- Disposal to the nature without treatment:** Decreases from approximately 40 million in 1955 to near zero by 1985.
- Dumping into the sea:** Decreases from approximately 20 million in 1955 to near zero by 1985.
- PAWTP (Johkasou) + Sludge treatment plant:** Increases from near zero in 1955 to approximately 100 million by 2010.
- Public sewerage system:** Increases from near zero in 1955 to approximately 20 million by 2010.

History of Technology Innovation for Night soil Treatment in Japan

The timeline shows the evolution of night soil treatment technology:

- 1960:** Anaerobic Digestion (Prevention from diseases)
- '70s:** Aerobic Digestion (Pollution Control)
- '80s:** Denitrification Process (Environmental Protection)
- '90s:** High-rate membrane Process (High efficiency & Compactification)
- After 2000:** Sludge Treatment system with recycling (Resources Reclamation)

History of Technology Innovation for On-site Treatment in Japan

The timeline shows the evolution of on-site treatment technology:

- 1900:** Oxidation Bed Process (Black) (BTP -800 130mg/L)
- 1920:** Oxidation Bed Process (Black) (BTP -800 130mg/L)
- 1940:** Oxidation Bed Process (Black) (BTP -800 130mg/L)
- 1960:** PAWTP (Black water only type) (BTP -800 10mg/L)
- 1980:** PAWTP (Both black + grey water type) (BTP -800 10mg/L, t-N 20mg/L)
- 2000:** PAWTP (Both black + grey water type) (BTP -800 10mg/L, t-N 20mg/L)
- 2010:** Soil trench process (Black) (BTP -800 10mg/L)

Classification of on-site treatment technology system in Japan

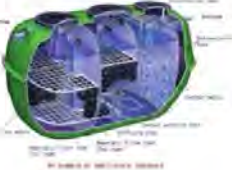
- Floating organism method**
 - Activated sludge process → PAWTP (Johkasou)
 - Contact aeration process
 - Rotating biological contactor process
- Natural method**
 - Soil trench, (Wetland) → Mountain toilet
- Vault toilet method**
 - Vault and vacuum toilet
 - Urine/feces separating compost toilet → Compost toilet

PAWTP (Johkasou) system in Japan

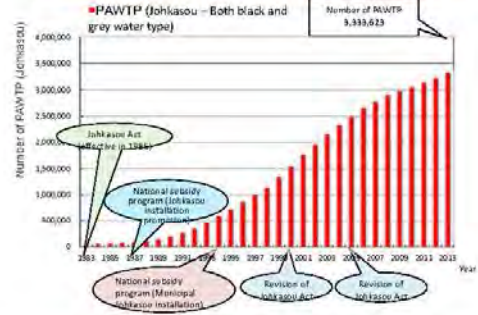


What is PAWTP (Johkasou)?

- Advanced domestic waste water treatment system (tank) developed in Japan
- Treats wastewater as clean as BOD mg/L
- Treats not only black water but also grey water
- Operated for 11 million Japanese people in less populated areas around Japan, as a technique which is cost-effective and able to be installed in a short time.



Number and Trends of installed PAWTP (Johkasou – Both black and grey water type)



Outline of On-site Technologies

On-site technology	Advantages	Disadvantages
Pit latrine	Water and electricity are not required. The installation cost is inexpensive.	Unsanitary Groundwater contamination
Composting toilet	Water and electricity are not required. Turn to soil of farmland	Difficult without agricultural demand
Septic tank	Flush toilet is possible. Electricity is not required. Less sludge production	Secondary treatment is required. Limitation in treatment performance Source of colin bacillus contamination
Johkasou	Environment-friendly High treatment performance Measures against colin bacillus contamination is possible.	Electricity is required. More sludge production

Performance of septic tank system

- Effluent water quality**

	pH	COD _{Cr} (mg/L)	BOD (mg/L)	SS (mg/L)	T-N (mg/L)	T-P (mg/L)	Cl (mg/L)	
Cistern-Flush toilet (n=10)	Avg. 7.38	312.4	167.7	78.3	207.4	7.8	152.6	
	S.D.	0.21	217.0	118.8	30.8	94.9	42.342	
Pour-Flush toilet (n=4)	Avg. 7.67	394.0	208.0	196.0	578.8	13.9	261.4	
	S.D.	0.15	128.6	71.0	46.4	146.7	6.3	41.9


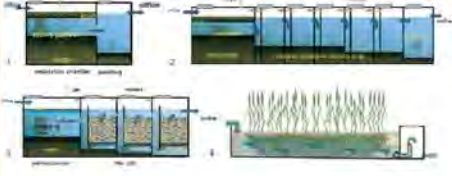

(Source: Hidemasa Hara)
- Sludge generation**
0.17L/PE/day (Source: JICA)
- Properties of Septage** (mg/L)

	COD _{Cr}	BOD	SS	T-N	T-P
Average	31900	6480	12900	590	210
Range	1500-703000	440-78500	310-93400	95-1060	20-760

(Source: USEPA/Black+Grey)

P3-2 Advantages of Japanese on-site treatment system, presented by the Japan Sanitation Consortium

2) Institutional Development for Septage Management, presented by Mr. Kazushi HASHIMOTO

<p>JSC P.3-2</p> <h2 style="text-align: center;">Institutional Development for Septage Management</h2> <p style="text-align: center;">September 10, 2013 Kazushi HASHIMOTO Adviser Japan Sanitation Consortium</p>	<p>JSC</p> <h3 style="text-align: center;">Table of contents</h3> <ol style="list-style-type: none"> 1. Decentralized Wastewater Treatment System (DEWATS) 2. What happens, if DEWATS is not regularly desludged? 3. What is essential for decentralized wastewater management? - Septage Management 4. Institutional Framework for Septage Management in Japan <p style="text-align: center;">(Appendix)</p> <ol style="list-style-type: none"> 1. Malaysia's effort toward establishing effective Septage Management System 2. JSC's comments on Septage Management Plan for Aizawl City, Mizoram State, India 3. Basic parameters shared by Septage Management experts in Japan 																								
<p>JSC</p> <h3>1. Decentralized Wastewater Treatment System (DEWATS) ①</h3> <ul style="list-style-type: none"> • Septic Tank 	<p>JSC</p> <h3>1. Decentralized Wastewater Treatment System (DEWATS) ②</h3> <ul style="list-style-type: none"> • BORDA DEWATS 																								
<p>JSC</p> <h3>1. Decentralized Wastewater Treatment System (DEWATS) ③</h3> <ul style="list-style-type: none"> • Packaged Aerated Wastewater Treatment Plant (PAWTP – Johkasou in Japan) 	<p>JSC</p> <h3>1. Decentralized Wastewater Treatment System (DEWATS) ④</h3> <p style="text-align: center;">Comparison of DEWATS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Septic Tank</th> <th>BORDA DEWATS</th> <th>PAWTP (Johkasou)</th> </tr> </thead> <tbody> <tr> <td>Treatment Process</td> <td>Anaerobic (Electricity not required)</td> <td>Anaerobic (Electricity not required)</td> <td>Aerobic (Electricity required)</td> </tr> <tr> <td>Effluent Water Quality (BOD)</td> <td>100-200 mg/l</td> <td>50 mg/l</td> <td>20 mg/l</td> </tr> <tr> <td>Nitrogen removal</td> <td>Not removed</td> <td>Not removed</td> <td>Removed</td> </tr> <tr> <td>Coliform removal</td> <td>Poor</td> <td>Poor</td> <td>Removed (disinfection)</td> </tr> <tr> <td>CAPEX per person in developing countries</td> <td>US\$ 80-150</td> <td>US\$ 90-100</td> <td>US\$ 210-380</td> </tr> </tbody> </table>		Septic Tank	BORDA DEWATS	PAWTP (Johkasou)	Treatment Process	Anaerobic (Electricity not required)	Anaerobic (Electricity not required)	Aerobic (Electricity required)	Effluent Water Quality (BOD)	100-200 mg/l	50 mg/l	20 mg/l	Nitrogen removal	Not removed	Not removed	Removed	Coliform removal	Poor	Poor	Removed (disinfection)	CAPEX per person in developing countries	US\$ 80-150	US\$ 90-100	US\$ 210-380
	Septic Tank	BORDA DEWATS	PAWTP (Johkasou)																						
Treatment Process	Anaerobic (Electricity not required)	Anaerobic (Electricity not required)	Aerobic (Electricity required)																						
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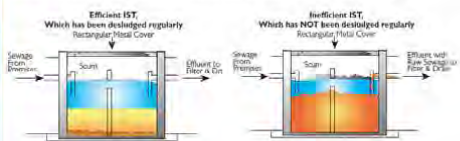
2. What happens, if DEWATS is not regularly desludged?

Any wastewater treatment system ceases to treat and becomes a pollution source.



2. What happens, if Septic Tank is not regularly desludged ? ①

If the septage volume exceeds one-third the capacity of the tank, solid-liquid separation decreases since the retention time of the wastewater decreases. BOD removal is hampered since the inflow of wastewater agitates the accumulated sludge causing inflow wastewater to pass through the tank without treatment. Moreover, a part of the accumulated sludge in the tank flows out together with the untreated wastewater, leading to further deterioration in the water quality of the effluent of the septic tank.



(Source : USAID)

2. What happens, if Septic Tank is not regularly desludged ? ② (Indonesia)

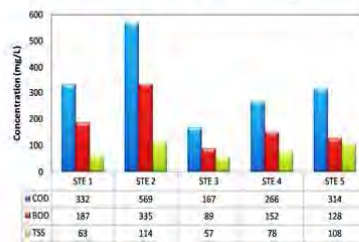
No septic tank meets the effluent standard established by the Governor of Jakarta City Government for household septic tank (BOD75mg/l, COD100 mg/l). Irregular desludging may be one of the causes.

	Volume (m ³)	Usage (persons)	Effluent water quality		Remarks
			BOD mg/l	COD mg/l	
Black water only type 3	6.0	15	145	421	Desludged once a year.
Black water only type 2	2.2	4	231	622	Desludged twice a year.
Black water only type 3	2.9	4	237	544	Never desludged.
Black & Grey type-1	7.4	4	206	419	Not desludged (4 years)
Black & Grey type-2	10.0	40	162	367	Not desludged (5 years)
Black & Grey type-3	10.0	38	213	401	Not desludged (3 years)

(Source : JICA)

What happens, if Septic Tank is not regularly desludged ? ③ (India)

FIELD EVALUATION OF CONVENTIONAL SEPTIC TANKS (Presented at the IWA Side Event (Dec. 2014) by Prof. A. A. KAZMI, DEPARTMENT OF CIVIL ENGINEERING, IIT ROORKEE, India)



STE: Septic Tank Effluent

2. What happens, if PAWTP (Johkasou) is not regularly desludged ? ①

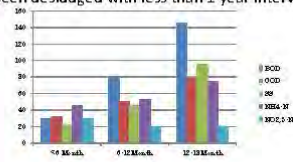
Sludge accumulates quickly in a PAWTP since its wastewater treatment efficiency is high. It must be desludged once a year to maintain its performance standard.

After one year After three years



2. What happens, if PAWTP (Johkasou) is not regularly desludged ? ②

A research, conducted in 1984 for 70 PAWTPs (black water only type) in Japan, revealed that 24.6% of them had not been desludged for more than 1 year, and their average effluent water quality (BOD) was worse than the ones which had been desludged with less than 1 year intervals.



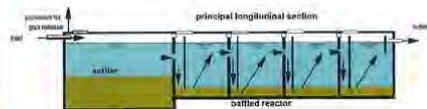


2. What happens, if BORDA DEWATS is not regularly desludged ? ③

[Required desludging frequency]

Settler : once in two years

Baffled reactor : once in five years



3. What is essential for the decentralized wastewater management ?

[1] Introduction of the regular desludging system.

Regular desludging = the sludge will be removed from the tank periodically regardless whether it is full or not, as a preventive maintenance of DEWATS.

[2] Proper disposal of the sludge removed from DEWATS.

➔ Septage Management !



3. What is essential for the decentralized wastewater management ?

[1] Introduction of regular desludging system

- (1) Desludging must be the legal obligation of all the owners of any DEWATS.
- (2) There must be the trained good desludging operators. Formalize them, if there are existing desludging operators. Let them make companies. Establish the licensing system and training system.
- (3) Data base of all DEWATS in the City. Both the municipality and the desludging operators should have it.
- (4) Use vacuum truck for the more efficient and hygienically safer de-sludging operation.
- (5) Use the sludge relay tank to shorten hauling time.
- (6) Improve the DEWATS for the efficient desludging.



3. What is essential for the decentralized wastewater management ?

Regulatory Framework is necessary !!!

Residents do not worry about the septic tank unless it becomes full of sludge, overflow and their toilet becomes unusable. Communication strategy is necessary but not enough. Regulation is necessary.



3. What is essential for the decentralized wastewater management ?

These peoples are the most important !!!



Existing desludging operators in Mizoram State, India, who are conducting desludging of septic tanks using a pump and a water tank mounted on a truck.



Junkhau Operator



PAWTP De-sludging Technician



PAWTP Inspector



3. What is essential for the decentralized wastewater management ?

Economics matters !!!

- The most expensive item for septage management is not the DEWATS itself but the cost for desludging. Desludging of one septic tank (3 m³) costs US\$30 in Jakarta, US\$50 in India, US\$70 in Malaysia, US\$250 in Japan.
- In Japan, the desludging is considered not a profitable business unless at least 4 PAWTPs can be desludged by one vacuum truck. Efficiency matters.
- In Japan, many desludging operators cover 7 PAWTPs daily and make money.

What is essential for the decentralized wastewater management ?

Technology ①

Use of Vacuum Truck will ensure the efficient and hygienically safe desludging operation.

	Vacuum Truck	Truck + pump
Time required for emptying	Septic tank (3M) – 40 minutes PAWTP (5PE) – 30 minutes	Septic tank (3M) – 2 hours
Discharge of the sludge	30 minutes – Quick because the caliber of the hose is bigger (45-65mm)	30 minutes – Slow because the caliber of the hose is smaller (32mm)
Possibility of the human contact with the pathogen	None	Possible at the time of connecting and disconnecting the hose to the tank.

These vacuum trucks shall be leased to the existing desludging operators.

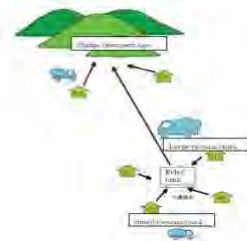


(Photo taken in Mizoram State, India)

3. What is essential for the decentralized wastewater management ?

Technology ②

Sludge relay tank will improve the efficiency of desludging operation by shortening the hauling time.



3. What is essential for the decentralized wastewater management ?

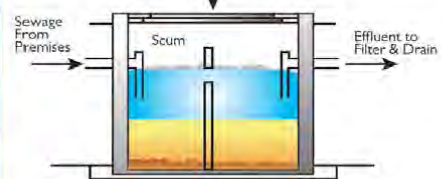
Technology ③

DEWATS must be desludging friendly !!!

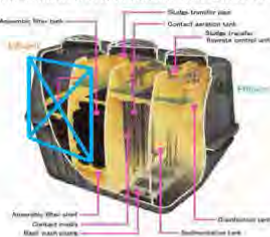
- It must be reachable for the desludging operators.
 - (1) It must be installed in the open air space.
 - (2) It must have manholes.
- It would be the most convenient if the partial desludging could effectively remove all the sludge without removing the water contents.

In case of septic tank, you need to remove all the contents of the tank.

Efficient IST,
Which has been desludged regularly
Rectangular, Metal Cover



PAWTP (Johkasou) consists of four (4) separate compartments. Since the sludge accumulates only in two of them due to the water flow caused by the blower (air lift effect), the partial desludging effectively removes all the sludge. The water contents of the tank does not need to be removed.



3. What is essential for the decentralized wastewater management ?

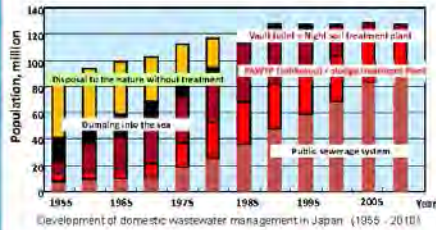
[2] Proper disposal of the sludge removed from DEWATS

- (1) Local municipality's obligation to develop septage/sludge treatment facility. Central government's obligation to provide financial support to Local municipalities.
- (2) Sludge drying bed is an appropriate method if land is available.
- (3) If there is a Sewage Treatment Plant (STP) nearby, co-treatment at the excess sludge treatment section of a sewage treatment plant is the best option. Proper pre-treatment facility is required to minimize the adverse effect on the operation of STP.
- (4) Independent septage/sludge treatment facilities - In Japan, there are 1,100 independent night soil/sludge treatment plants of various technologies.



4. Institutional Framework for Septage Management in Japan How Japan has dealt with sanitation problem?

Now, sewerage system is the major form of sanitation in Japan, but, still near 30% of Japan's population rely on on-site sanitation (PAWTP (Johkasou) + sludge treatment, vault toilet + night soil treatment). 50 years ago, on-site sanitation was dominant in Japan.



4. Institutional Framework for Septage Management in Japan - Septage Management based on PAWTP (Johkasou) Technology -

In Japan, PAWTPs (black water only type) had been widely diffused since 1960s. In 1970s - 1980s, water pollution of rivers and oceans had become a big issue. Particularly, the cause of eutrophication occurred in lakes and inland bays was attributed to the poor performance and maintenance of PAWTPs (black water only type).

Only after the promulgation of PAWTP (Johkasou) Act in 1983, the maintenance of PAWTPs in Japan improved and eutrophication of lakes and inland bays in Japan stopped.

The new installation of PAWTP (black water only type) was banned and PAWTP (both black water and grey water type) has become the standard DEWATS in Japan.



4. Institutional Framework for Septage Management in Japan - Legal Framework ① -

Item	Legal Framework
Resident's obligation to treat night soil	Nobody is allowed to discharge human waste without treatment either by public sewerage system, by night soil treatment facilities, or by PAWTP (Johkasou).
Manufacturing and installation of on-site wastewater treatment facilities	The PAWTP (black + grey water type) is a standard on-site wastewater treatment facility in Japan. PAWTPs shall meet the technical standards for effluent water quality and the structural standards prescribed in the Building Standard Act.
Maintenance of on-site wastewater treatment facilities	The owner of PAWTP is designated as 'PAWTP Manager', who is legally responsible for maintenance of the PAWTP. The PAWTP Manager shall make the PAWTP receive inspection, maintenance and desludging. The PAWTP Manager can outsource these maintenance works to a PAWTP maintenance vendor and a PAWTP desludging vendor.
Desludging of on-site wastewater treatment facilities	The PAWTP Manager shall ensure that the PAWTP receives desludging service (removal of sludge accumulated in the tank and transportation to night soil/sludge treatment facilities) once a year.



4. Institutional Framework for Septage Management in Japan - Legal Framework ② -

Item	Legal Framework
Inspection of on-site wastewater treatment facilities	The PAWTP Manager shall make the PAWTP receive an inspection for its water quality annually by the Specified Inspection Agency.
Desludging Business	A corporate body that intends to join the PAWTP desludging business shall get the approval from the mayor of the municipality for a limited period. The applicants need to conform to the standards for approval stipulated in the PAWTP Act.
Maintenance Business	A corporate body that intends to join the PAWTP maintenance business shall receive the registration from the local government concerned. The PAWTP maintenance vendor shall assign its staff qualified as 'PAWTP Operator' who has passed a national examination or completed a training course conducted by a designated training agency, to the PAWTP maintenance work.
Municipality's obligation to develop sludge treatment capacity	Municipalities are required to make a domestic wastewater management plan which shall include the estimation of the population using on-site treatment systems and the volume of on-site sludge to be treated in the next ten years.



4. Institutional Framework for Septage Management in Japan - Financing of Septage Management in Japan -

	Central Government	Municipality	Household
CAPEX of PAWTP (Johkasou) installed by Household (Johkasou Installation Promotion Program)	13.3%	26.7%	60%
CAPEX of PAWTP (Johkasou) installed by Municipality in the premise of Household (Municipal Johkasou Installation Program)	33.3%	56.7%	10%
OPEX of PAWTP (Johkasou) (Johkasou Installation Evolution Program)	0%	0%	100%
OPEX of PAWTP (Johkasou) (Municipal Johkasou Installation Program)	0%	0/NA subsidy	Same as sewerage user charge
CAPEX of Night soil/Sludge Treatment Plant	30%	70%	0%
OPEX of Night soil/Sludge Treatment Plant	0%	100%	0%
OPEX of removal service of night soil from vault toilet	0%	0/NA subsidy	Low price (subsidized)



4. Institutional Framework for Septage Management in Japan - Number of people engaged in the Septage Management Business in Japan

People with qualification (Number of registrants)		Number of vendors			
PAWTP Operators	72,523	Operation and maintenance	Specified inspection agencies	05	PAWTP inspection and water quality examination
PAWTP Installation Workers	83,205	Installation/Construction	PAWTP manufacturers	22	Research, development and manufacture
PAWTP Technical Supervisors	26,658	Management of PAWTP with 501 PE or more	PAWTP maintenance vendors	12,871	Operation and maintenance
PAWTP Desludging Technicians	35,137	Desludging	PAWTP desludging vendors	5,375	Desludging
PAWTP Inspectors	1,210		PAWTP installation vendors	33,593	Installation/construction
Total	198,733				

Thank you for your attention !

<http://www.jsanic.org/>

Appendix 1 Malaysia's effort toward establishing effective Septage Management System

Malaysia is the only developing country which is trying to establish nationwide septage system with partial success.

In 1994, Malaysia created Indah Water Konsortium (IWK), the private concessionaire who was responsible for O/M of all sewerage facilities and septage management. IWK was nationalized in 2000.

In 2006, under the new Water Service Industry Act, the responsibility for desludging and maintenance of septic tank was transferred from IWK to the owner or residents of a premise.

Malaysia's effort toward establishing effective Septage Management System

In 1993, Sewerage Services Act (SSA) federalized the sewerage assets, thus empowering the Malaysian Government to regulate this industry. SSA also provided the fundamental policies for septage management.

In 1994, Indah Water Konsortium (IWK) was created as the private concessionaire who was responsible for O/M of all sewerage facilities, and septage management. By these reforms,

- Sewerage coverage ratio : 25% (1993) ⇒ 70% (current)
- Desludging coverage ratio : 1% (1993) ⇒ 12.4% (1999)

On the other hand, the newly introduced sewerage charges (including desludging charges) for individuals and businesses caused complains from the Malaysian population and refusal to pay. As a result, tariffs were reduced at a level too low to cover operation expenditures.

Malaysia's effort toward establishing effective Septage Management System (continue)

In 2000, IWK was nationalized.

In 2006, SSA was replaced by the Water Service Industry Act (WSIA). National Water Services Commission (SPAN) was created to regulate water and sewerage services.

In the area of Septage Management, the IWK's responsibility for the desludging and maintenance of the individual septic tank was transferred to the owner or residents of a premise, who are legally responsible for engaging IWK (Service licensee) or a license permit holder – both regulated by SPAN – to desludge and maintain their septic tanks.

Fines up to US\$ 15,000 was established against the non-compliance, which have not been imposed yet.

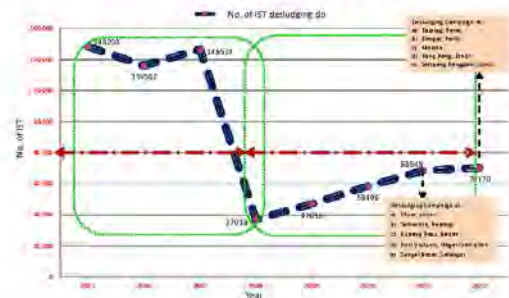
Malaysia's effort toward establishing effective Septage Management System (continue)

The number of desludged septic tanks has substantially decreased since 2008.



Malaysia's effort toward establishing effective Septage Management System (continue)

Desludging campaigns are being organized to incite septic tank owners/users to desludge within the legal interval.



Malaysia's effort toward establishing effective Septage Management System (continue)

Ms. Y. B. Dato' Noriah Kasnon, Deputy Minister for Energy, Green Technology, and Water, joined a desludging campaign organized by SPAN and IWK and operated the lever of vacuum truck.



Malaysia's effort toward establishing effective Septage Management System (continue)

Decrease of desludging activities has been affecting the river water quality.

RIVER WATER QUALITY BASED ON BIOLOGICAL OXYGEN DEMAND



Simeviz, Jabatan Alam Sekitar
Source: Department of Environment

Appendix 2

JSC's comments on Septage Management Plan for Aizawl City, Mizoram

Japan Sanitation Consortium (JSC), in 2013, participated in ADB TA 'India: Introducing Best Practices for Septage Management' as the International Expert.

ADB TA was targeted to Mizoram State.

JSC's comments on Septage Management Plan for Aizawl City, Mizoram

Items in the Draft Septage Management Plan proposed by the TA Consultant

Items	Proposed SMP
Volume of septage to be collected and the required number of vehicles	Volume of septage to be collected per day: 300 to 450m ³ Required number of vehicles: 25-38.4 per trucks
Equipment for desludging	Water tanks mounted on ordinary trucks with pumps and hoses.
Number of septic tanks to be deslugged per day per truck	2 septic tanks per day per truck.
Desludging fee	Rs.3,000 per septic tank (3m ³)
Institutional framework for septage management	City Sanitation Task Force (CSTF) and the Single Window System (SWS)
Licensing of desludging operators	One-time registration system. No details for the condition for licensing are provided in SMP.
Disposal and treatment method of the collected septage/sludge from on-site wastewater treatment facilities	Green Mud method (a kind of sludge drying bed utilizing sloped area instead of flat land area.)

JSC's comments on the Draft Septage Management Plan for Aizawl City, Mizoram ①

1. More coordination and adjustments with the sewerage project are needed particularly with respect to the following points:
 - (1) In the estimation of the population to be covered by the septage management, the gradually increasing population who will be covered by the sewerage system should be deducted, in order to more accurately determine the volume of the works required for the septage management.
 - (2) Consider in the first place the co-treatment of the on-site sludge with the excess sludge of the Sewage Treatment Plant (STP) by the sludge treatment section of the STP.
 - (3) Consider balancing the tariff for the septage management and the tariff for the sewerage system ensuring that the former does not exceed the latter. The desludging charge of Rs.3,000 per septic tank (3m³) is too high. It should be about Rs.1,800 (US\$30, which is the price in Indonesia) or less.

JSC's comments on the Draft Septage Management Plan for Aizawl City, Mizoram ②

2. According to the estimation in the draft SMP, one tanker can handle only two septic tanks per day. The desludging operation will not be financially viable unless one desludging operator with a tanker handles four or more septic tanks per day. The efficiency of desludging operation must be improved as follows.
 - (1) Use a cesspool (vacuum car) that ensures more efficient and hygienically safer desludging operation. A sustainable mechanism for private operators to fully utilize the cesspools already purchased by SIPMIU should be worked out in the SMP.
 - (2) Use a relay station for transferring sludge from the smaller cesspool (e.g. 2 ton type) to a larger cesspool (e.g. 10 ton type).
 - (3) Improve the design and structure of the on-site sanitation facility so that partial emptying can effectively remove all the sludge accumulated in the on-site sanitation facility.

<p>JSC's comments on the Draft Septage Management Plan for Aizawl City, Mizoram ③</p> <p>3. Collect the baseline data of the existing on-site sanitation facilities in Aizawl City — this is very important for efficient septage management. The SMP should propose how and who will collect the baseline data, and how the desludging operators should use the baseline data through the proposed Single Window System.</p> <p>4. Review the license of the desludging operator periodically. Clearly specify the conditions for licensing and for revoking the license.</p>	<p>JSC's comments on the Draft Septage Management Plan for Aizawl City, Mizoram ④</p> <p>5. Besides City Sanitation Task Force (CSTF) and the Single Window System (SWS), there should be a core administrative body in charge of preparing wastewater treatment strategies, laws and ordinance related to the sewerage system and the septage management system, including conditions for issuing and revoking the license of the desludging operator, piloting a new on-site sanitation facility and formulating its dissemination strategy, etc. The JSC Experts Team suggests that such a body should be in charge of both sewerage and drainage system and septage management system, since these systems are closely interrelated and complement each other.</p>																																														
<p>JSC's comments on the Draft Septage Management Plan for Aizawl City, Mizoram ⑤</p> <p>6. The co-treatment of the septage (on-site sludge) at the sludge treatment section of the STP No.6 should be considered in the first place. If only sludge treatment capacity is inadequate, a different sludge treatment method should be tried. If the Green Mizo technology proposed in the draft SMP is to be considered, carefully study the possibly high investment cost, operational complexity, protection against rain runoff and the use of lime to cope with the odor, and vector and pathogen destruction.</p>	<p>Appendix 3 Basic parameters shared by Septage Management experts in Japan</p> <ul style="list-style-type: none"> • Composition of night soil (Organic vs Inorganic) • Standard volume and quality of domestic wastewater 																																														
<p>Basic parameters shared by Septage Management experts in Japan</p> <p>Composition of night soil (Organic vs Inorganic)</p> <table border="1"> <thead> <tr> <th></th> <th>Composition</th> <th>Note</th> </tr> </thead> <tbody> <tr> <td>Organic substances</td> <td>70%</td> <td>Can be digested to some extent by biological treatment (Aerobic, Anaerobic). Undigested substances will remain as sludge.</td> </tr> <tr> <td>Inorganic substances</td> <td>30%</td> <td>Can not be digested by biological treatment. Will remain as sludge.</td> </tr> </tbody> </table>		Composition	Note	Organic substances	70%	Can be digested to some extent by biological treatment (Aerobic, Anaerobic). Undigested substances will remain as sludge.	Inorganic substances	30%	Can not be digested by biological treatment. Will remain as sludge.	<p>Basic parameters shared by Septage Management experts in Japan</p> <p>Standard volume and quality of domestic wastewater</p> <table border="1"> <thead> <tr> <th rowspan="2">Source of wastewater</th> <th rowspan="2">Volume (L/person/day)</th> <th colspan="2">BOD</th> </tr> <tr> <th>Population load (g/person/day)</th> <th>BOD (mg/L)</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Toilet wastewater (Black water)</td> <td>Toilet</td> <td>30</td> <td>13</td> <td>200</td> </tr> <tr> <td>Urinal</td> <td>30</td> <td>18</td> <td>600</td> </tr> <tr> <td>Laundry</td> <td>40</td> <td></td> <td></td> </tr> <tr> <td rowspan="3">Other (mixed) wastewater (Grey water)</td> <td>Bath/ Shower</td> <td>60</td> <td></td> <td></td> </tr> <tr> <td>Water basin for hair washing</td> <td>20</td> <td>3</td> <td>75</td> </tr> <tr> <td>Room cleaning</td> <td>10</td> <td></td> <td></td> </tr> <tr> <td>Total</td> <td>200</td> <td>40</td> <td>700</td> <td></td> </tr> </tbody> </table>	Source of wastewater	Volume (L/person/day)	BOD		Population load (g/person/day)	BOD (mg/L)	Toilet wastewater (Black water)	Toilet	30	13	200	Urinal	30	18	600	Laundry	40			Other (mixed) wastewater (Grey water)	Bath/ Shower	60			Water basin for hair washing	20	3	75	Room cleaning	10			Total	200	40	700	
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P4. Improvement of individual sanitation from privy to modern toilet: a role played by a sanitary ware manufacture, TOTO (TOTO's Achievements in Improving Toilet Environments), presented by Mr. Kazuo WATANABE President, TOTO Asia Oceania PTE LTD.

TOTO あしたをもう「まいにち」に P.4

JICA Knowledge Exchange Seminar on Sanitation Facilities
TOTO's Achievements in Improving Toilet Environments

Kazuo Watanabe
 President
 TOTO Asia Oceania Pte Ltd
 September, 2015

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Company Profile **TOTO**

■ **Company Data (as of March 2015)**

Company Name TOTO LTD.
Date of Establishment May 15, 1917
Headquarters Fukuoka, JAPAN
Number of Employees 26,842 (consolidated) 6,783 (non-consolidated)
Group Companies 56
Net Sales in FY2014 544.5 billion JPY (approx. 4.4 billion US\$, 124/\$)

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Company Profile **TOTO**

■ **Major Products**

Sales Breakdown

- New Domain Business: 3%
- Overseas Housing Equipment Business: 23%
- Domestic Housing Equipment Business: 73%

Domestic Housing Equipment Business

- Sanitary Ware
- Washlet
- Fully-fitted Bathrooms
- Integrated Kitchen Systems
- Bathroom Vanity
- Faucet Fixtures

Overseas Housing Equipment Business

- Sanitary Ware
- Washlet
- Faucet Fixtures
- Bathbubs
- Bathroom Sinks

New Domain Business

- Environmental Construction Materials
- Ceramic Products

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Company Profile **TOTO**

■ **Global Network**

MS: Manufacturing sites: 20
SO: Sales offices: 36
SR: Showrooms: 13

Develop 20 Sites in 31 different countries worldwide

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Company Profile **TOTO**

■ **TOTO V-Plan 2017 (Long Term Management Plan)**

Strengthen international contribution.
 Provide customers over the world with a new "everyday" and continue to be indispensable to society.

FY2017: Achieve net sales of ¥650 billion, operating income of ¥61 billion and ROA/ROE of 19% or more

Realizing environmental contribution through "TOTO Global Environmental Vision"

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TOTO Global Environmental Vision **TOTO**

Water, Earth & A Better Tomorrow

Since its founding, the TOTO Group has recognized the importance of water. Today, with ever-increasing water management through global activities, we are working on a collaboration with the world to contribute to a better tomorrow through the development of high-quality water-related products.

Taking on a social role and taking a stronger and greater initiative, we have the responsibility to save water and reduce CO2 emissions.

Adding "protection of water resources" to our 8th Global Environmental Goals highlights our efforts.

All product categories that facilitate environmental sustainability.

The TOTO group will work as one and make concerted efforts and we sincerely hope that our environment in local communities will be better living and a better tomorrow.

Formulating the environmental vision shared by all TOTO Group companies. All Group companies will make concerted efforts to address social challenges through their business activities.

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History of TOTO

TOTO

■ Founding Philosophy

Video

1912

In the age when unhygienic non-flush toilets were the mainstream in Japan, Magobei Okura and his son Kazuchika founded a ceramic sanitary ware laboratory out of their desire to "improve the living culture of citizens." This marked the beginning of research into flush-toilets at a time when Japan still had no sewage systems.



Kazuchika Okura and his father, Magobei



The ceramic sanitary ware laboratory was established out of the desire to "improve the living culture of the citizens."

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History of TOTO

TOTO

■ Founding Philosophy

Video



Kazuchika Okura, first president

Toyo Toki Co., Ltd. Founded in 1917

The predecessor's remarks

Kindness is more important than anything else.
Perform your work in a spirit of service.
Supplying quality products and satisfying users are the real goals of business.
If you achieve these goals, you will be rewarded with profits and remuneration.
In the world, there are many people who pursue only profits. They will end their lives without knowing the real goals of business.



Saburo Mizuno, second president

Company motto

Take pride in your work, and strive to do your best.
"Quality and Uniformity,"
"Service and Trust,"
"Cooperation and Prosperity"

Supplying quality products and satisfying users are the real goals of business." Taking on our founder's idea and moving forward to realize it

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History of TOTO

TOTO

■ 1920 Constructed Japan's first tunnel kiln

Video



View of the Kokura Plant in around 1934

1919 Constructing the No. 1 Dresser tunnel kiln

TOTO's founder, Kazuchika Okura, decided to build a tunnel kiln of the type he had seen in Europe. Although tunnel kilns were still at the experimental stage at the time, Okura built the first one in Japan after realizing that it would enable him to manufacture uniform products, as well as helping to reduce the quantity of fuel required.

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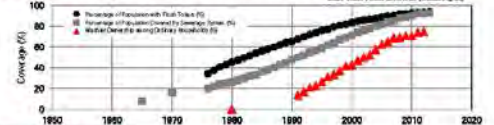
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TOTO Products: A History of Innovation

TOTO

■ Japan's Sewerage Coverage and TOTO Products

*Ministry of Environment, Water Based on Japan (2013)
*Japan Sewerage Operation Authority (see slides)
*Bidet Toilet (Red) does not include figure



TOTO Products and their Technical Usage

- 1914: Japan's first sealed flush toilet
- 1946: Commenced production of fittings for water faucets
- 1986: Launched Washlet®
- 1993: "BIDETEST" bidet flushing Wastlet
- 2006: bidet boasting 1.0L per flush
- 2013: Actlight

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TOTO Products: A History of Innovation

TOTO

■ Seated flush toilet (1914)



First-generation ceramic seated flush toilet

Japan's first ceramic seated flush toilet was produced in a Ceramic Sanitary Ware Laboratory in Nippon Toki Gomei Kaisha, the predecessor of TOTO, which was established in 1912. This toilet bowl was completed after two years of research and development. It is the starting point for manufacturing at TOTO Group.

At the time, most Japanese toilets were wooden non-flushing ones, which were easily damaged and unhygienic, but the company began to create highly durable sanitary ware, incorporating Western techniques.

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TOTO Products: A History of Innovation

TOTO

■ Washlet (1980 ~)



First-generation Washlet G

TOTO's Washlet® was first launched in June 1980. Unaccustomed to bidet functionality, the Washlet changed the Japanese life-style, and now more than 70% of households have a type of toilet seat featuring warm water shower. Washlets are becoming increasingly popular globally, including in facilities such as offices, hotels and hospitals.

- New Functions Added:**
- 1982: Bidet washing function
 - 1983: Adjustable nozzle position, oscillating wash, body sensor, deodorizing fragrances, remote control
 - 1992: Massage mode, deodorizing function
 - 1995: Room heating
 - 2003: Self-cleaning function, automatic opening and closing seat and lid
 - 2011: Sterile nozzle cleaning, automatic sterile water jet

The hygienic and comfortable warm water bidet toilet seat was a runaway success with the Japanese, who also responded by their love of cleanliness. Various new functions to enhance hygiene, comfort, and convenience were added over the years, including a sensor-activated automatic flush and filter, automatic functions, deodorizing functions, and sterilizing functions using ultraviolet light.

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TOTO Products: A History of Innovation



■NEOREST



The NEOREST toilet with integrated Washlet is TOTO's flagship product, incorporating the latest water conservation and environmental technologies, while ensuring hygiene and comfort.

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TOTO Products: A History of Innovation

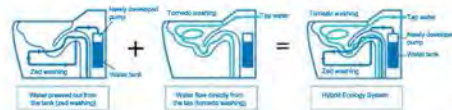


The mechanism of Neorest's water-saving

Further water-saving efficiency by two newly developed washing technologies

TOTO's Hybrid Ecology System

Water Run from the water tank with pressure (bid washing) and water flow directly from the tap (boredo washing), with these two new washing technologies combined, further water saving is realized.



We realized the effective flush-washing with 3.8 L of water by cleaning the surface of the bowl with tap water directly and draining the sewage by jet-flushing with water pressed out from the water tank.

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Global Environmental Vision: Preventing Global Warming



AERIAL SHOWER: a new type that reduces water-consumption dramatically



makes each water drop larger by adding air bubbles. It produces the effect of rich water flow while consuming 35% less water than normal showers.



Won two awards for environment-friendly technologies

Used for overhead showers as well

TOTO is promoting the technology of Air-in Shower, which is comfortable and saves water at the same time.

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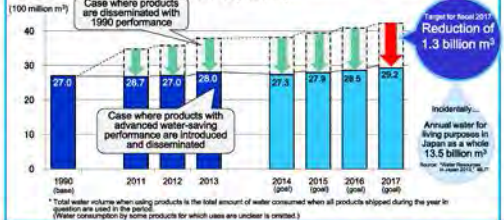
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Global Environmental Vision: Conserving Water



The amount of water to be saved by improved product performance [targets]

Contribution to water conservation through improving the water-saving performance of products (TOTO Group overall)



By globally introducing and disseminating water-saving products, the amount of water consumed during product use is reduced by 1.3 billion cubic meters, thereby contributing to conservation of water resources.

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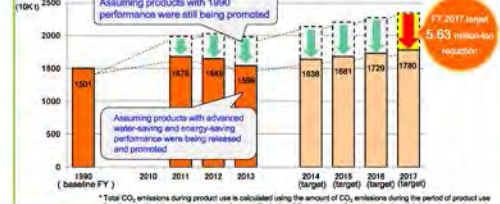
16

Global Environmental Vision: Preventing Global Warming



The amount of CO₂ emission reduction by the improvement of product performance [targets]

The reduction of CO₂ emissions from improvement in water and energy efficiency of products (TOTO Group as a whole)



By releasing and promoting energy-saving products, TOTO will reduce the CO₂ emissions when the products are in use by 5.63 million t, thereby will contribute to the prevention of global warming.

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Examples of Improvements in Toilet Environments (Japan)

Improvements in School Toilets (1/3)



Built during Japan's high growth period (1950s-1970s), school toilets used to be described by children as "dark, dirty, smelly and scary." In partnership with other relevant companies, TOTO formed the Research Group on School Toilets, submitting proposals to schools and boards of education and undertaking renovations.

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Examples of Improvements in Toilet Environments (Japan)^{TOTO}

Improvements in Toilets at Transport Facilities (Railway Stations and Expressways)



At railway stations and expressway rest areas (too, TOTO has sought to improve not only toilet hardware, but also the overall toilet environment, including maintainability, convenience, layout, and design.

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Examples of Improvements in Toilet Environments (Japan)^{TOTO}

Improvements in Toilets at Commercial Facilities



At commercial facilities, we have made suggestions for improving not only hygiene, but also comfort, especially in women's toilets. These suggestions include encouraging the installation of powder room areas, where women can touch-up their make-up.

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Initiatives by the TOTO Water Environment Fund

TOTO

About the TOTO Water Environment Fund

Through the TOTO Water Environment Fund, TOTO supports civic groups, with the aim of helping to resolve issues involving water in daily life. Since the Fund's establishment in 2005, it has supported a total of 180 groups in Japan and nine countries overseas.

* The TOTO Water Environment Fund - Overview of Grants Provided for Activities Overseas	
Activities targeted	Practical activities aimed at creating more hygienic and comfortable living environments, e.g. initiatives focused on hygiene improvements or conserving water resources
Grant amount	• Total value of all grants: approx. 40 million • Maximum grant available: ¥1.5 million per initiative
Organizations eligible	Non-profit groups engaging in civic activities (NPOs/NGOs)
Application/selection method	Following a rigorous screening process, grants are awarded to groups chosen by the Selection Committee from among those that submitted application documents



The TOTO Water Environment Fund has provided grants on five occasions in the past, helping to support groups engaged in creating more hygienic living environments in Japan and nine countries overseas.

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Initiatives by the TOTO Water Environment Fund

TOTO

Support for Activities in Mozambique (1/2)



The existing latrine consisted solely of a structural frame, which was made of mud bricks.

A handmade toilet bowl with an enclosed white fence.

A grant from the TOTO Water Environment Fund was used to install toilets in villages where villagers were not accustomed to using a toilet to relieve themselves, thereby improving public health for people in Mozambique.

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Initiatives by the TOTO Water Environment Fund

TOTO

Support for Activities in Mozambique (2/2)



Members of a local NGO who helped to make the toilets

Local children were taught how to use a toilet and how to prevent disease

This initiative attached great importance to teaching local citizens how to make toilets and instructing them in routine hygiene management, in an effort to empower them to improve their environment for themselves.

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TOTO's Business Operations in India

TOTO

Indian manufacturing base established (Gujarat Plant)



(History of TOTO's Business Operations in India)

- 2001 Began export sales to India
- 2003 Established a representative office in Delhi
- 2007 Opened an agency showroom
- 2010 Exhibited at AceTECH, India's largest construction industry exhibition, for the first time
- January 2011 Established the local subsidiary TOTO India in Mumbai
- March 2012 Broke ground on a sanitary ware plant in Gujarat
- April 2014 Held the kiln lighting ceremony

Group/industry	Sanitaryware
Amount invested	Approx. 80 billion
Number of employees	Around 100 people
Plant Overview	Site area: Approx. 140,000㎡ Building area: Approx. 80,000㎡ Production Capacity: Approx. 500,000 units/year

Opened July 2014

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TOTO's Aims in India

TOTO

At TOTO's Indian production site, Indian people will use TOTO's technology to manufacture products. TOTO will thus create employment and promote technology transfer in that area. In addition, we will not only help to improve the sanitation environment by supplying TOTO products for the domestic market in India, but also ensure the global proliferation of the "Made in India" label by supplying products manufactured in India to markets in Asia and Europe.



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あしたを、ちがう「まいにち」に。

TOTO

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P5. Public Participation and School Education for Sanitation Improvement in Japan (Improvement of Japanese Public and School Toilet), presented by Mr. Koo UE, Chairman, NPO Japan Toilet Labo

<p style="text-align: right;">P.5</p> <h2 style="text-align: center;">Improvement of Japanese Public and School Toilet</h2> <p>NPO Japan Toilet Labo. 日本トイレ研究所 Chairman 理事 Koo UE 上 幸雄</p> <p style="text-align: right;">Labo. JAPAN TOILET</p>	<h3 style="text-align: center;">Introduction ①</h3> <p>■ Composition</p> <p>(1)The improvement of Japanese public toilet began about 30years ago. (2)Unimproved 3 fields still left. (3)Why did school toilet not be improved? (4)The methods of improvement ①~⑦ (5)Results at school (6)The schools and children are the core of the local community. (7)The social results caused by improvement of toilet and sanitation.</p>
<h3 style="text-align: center;">Introduction ②</h3> <p>■ Aims</p> <p>I . Improvement of school toilet could conduct under cooperation school and parents. II . Children educate their teachers and parents. III . Basic thought is: toilet problems are problems about human dignity and rights. IV . Improvement of toilet advances quality of life.</p>	<p>(1)The improvement of Japanese public toilet began about 30years ago. ①</p> <p>1. Japan Toilet Labo. established , and started campaign to improve public toilet.</p> <p>①Yearly National Toilet Symposium held. ②Yearly Good 10 Public Toilet Competition held. ③Survey of actual condition and user's attitude. ④ November 10th fixed as Toilet Day, and conducted "cleaning up toilets campaign."</p>
<p>(1)The improvement of Japanese public toilet began about 30years ago. ②</p> <p>2. The activities of Japan Toilet Labo. spread in Japanese society.</p> <p>(1) Competitions of public toilet cleaning up in cities and sightseeing area. ⇒for among 15 years, 50 to 100 public toilets applied. (2) Japan Railways improved toilets of stations and trains. ⇒①Complete Renovation, ②Partial Renovation, ③Repair, ④ Cleaning (3) Commercial facilities improved toilets. ⇒Comfort stations at department stores Open use at convenience stores (4) Governmental subsidy program for school toilets introduced. ⇒Ministry of Education assists 1/3 to 1/2 amount of money to improve school toilets.</p>	<p>(2)Unimproved 3 fields left</p> <p>1. Toilets in natural environment (e.g. in the mountain areas and beaches) ⇒Difficulty due to insufficient infrastructures, technology and cost.</p> <p>2. Toilets in time of disaster ⇒Foods and water have priority. Low awareness for toilets.</p> <p>3. School toilets</p>

〔 3 〕Why did school toilet not be improved?

1. Unawareness of adults including teachers, parents, Board of Education, etc.
2. Adult society (offices, public institutions and sightseeing areas) improved sooner, but environment around children (schools, children's parks) are postponed.
3. Which has priority? Improvement of all school facilities or only toilets.

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〔 4 〕The methods of improvement ①

To hold "National School Toilet Symposium"

⇒Activities spread all around Japan.
Publicity and information sharing with people in various sectors.

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〔 4 〕The methods of improvement ②

To hold "School Toilet Seminar" at local cities

⇒To make consensus of the community and to develop particular model case.

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〔 4 〕The methods of improvement ③

To hold "Delivery service of school toilet class"

- ⇒To arouse children's interest in toilet through education and practice.
- ⇒public relations to teachers, parents and Board of Education
- ⇒public relations to mass media and local society

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Seminar (Iwate, Japan 2013)



Seminar (Iwate, Japan 2013)



Seminar (Iwate, Japan 2013)



Seminar (Tokyo, Japan 2013)



Seminar (Hokkaido, Japan 2013)



[4] The methods of improvement ④

To hold "poop class"

- ⇒ education of excretion and daily habit
- ⇒ education for elimination of prejudice against excretion

Poo Class (Tokyo, Japan 2013)



Poo Diary (2007)



Poo Diary (2007)



〔4〕The methods of improvement.⑤

To hold "Toilet Carpenters"

⇒Co-working of children, teachers, parents, specialists and coordinators for school toilet repair and/or remodeling

⇒A part of environment education for valuable use of school toilet

Toilet Carpenters (Gunma, Japan 2013)



Toilet Carpenters (Gunma, Japan 2013)



Toilet Carpenters (Gunma, Japan 2013)



Toilet Carpenters (Gunma, Japan 2013)



Toilet Carpenters and Class (Miyagi, Japan 2012)



Toilet Carpenters (Miyagi, Japan 2012)



Toilet Carpenters (Miyagi, Japan 2012)



[4] The methods of improvement ⑥

To establish
"Counseling Room for poop worries"

⇒ Medical staff guides excretion worries talking
with children and their parents.

Sukkiri-Unchi Book (2015)



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[4] The methods of improvement ⑦

To make "A project team for improvement school toilets" at each school

A project team plays a role of:

- ⇒ activity promotion, planning and coordination and management
- ⇒ information transmission, PR and to take a responsibility for getting subsidies and cooperation
- ⇒ coordinator between schools, government, local governments, companies and experts.

A project team for improvement school toilets (Miyagi, Japan 2011)



© 2015 Japan Toilet Labo.

A project team for improvement school toilets (Miyagi, Japan 2011)



© 2015 Japan Toilet Labo.

A project team for improvement school toilets (Miyagi, Japan 2011)



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Sewage Works Exhibition '14 (Osaka, Japan 2014)



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Exhibition (Tokyo, Japan 2014)



A lecture class about hygiene management of Toilets in time of disaster (Tokyo, Japan 2013)

Texts of a lecture class about hygiene management of Toilets in time of disaster (2015)



© 2015 Japan Toilet Labo.

Memories of The Great East Japan Earthquake (2012)



© 2015 Japan Toilet Labo.

〔5〕Results at school

1. The number of school violence, class disruption, school non-attendance are decreased.
2. Motivation to learn and participation will for school events are increased.
3. Cooperation between school and community is developed.
4. Participation will of cleanup activities for toilets and classrooms are gained.

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〔6〕The schools and children are the core of the local community.

1. On local festivals and events, children are the core.
2. In community, schools are the core.
3. Toilets and excretion treatment systems are essential for the place where a lot of people come together.
4. Proper management of environment and hygiene will lead to increase the power of the community.

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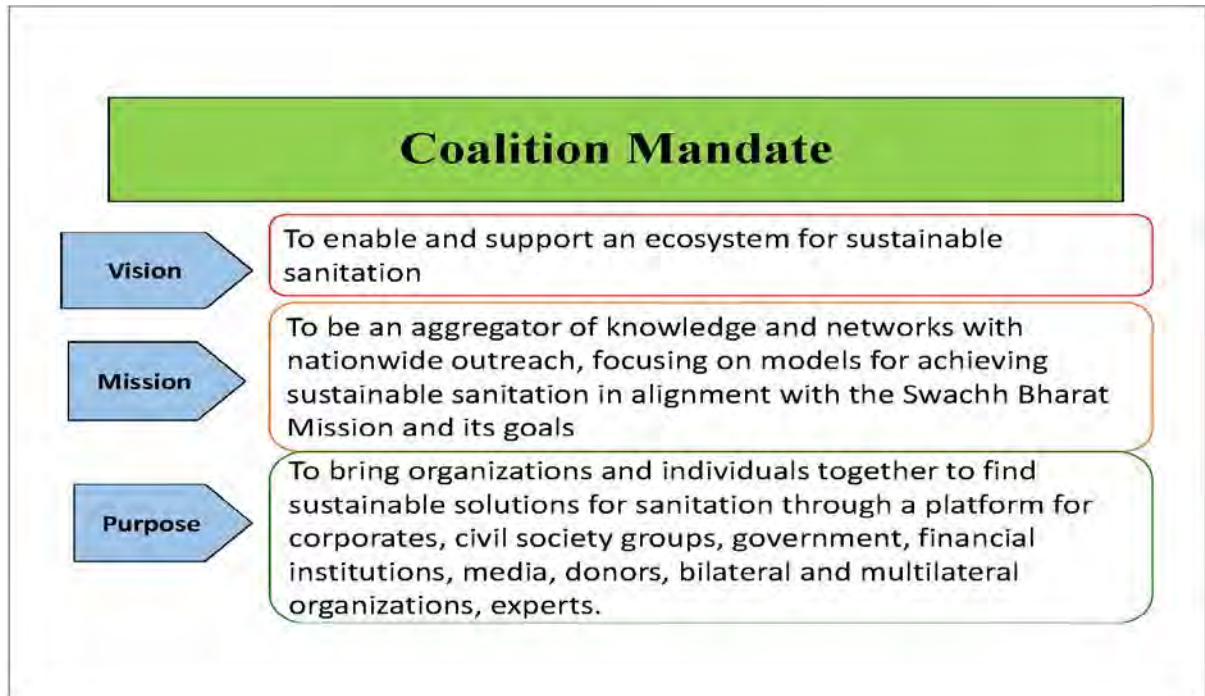
(7) The social results by improvement of toilet and sanitation

1. Preservation of community's life environment is based on preparation of toilets and excretion treatment systems.
2. Preparation of toilets and excretion treatment systems will keep health and community's hygiene.
3. Sound management of schools start from preparation of toilets.
4. Before the preparation of toilets, it is very important to decide WHO will clean the toilet and WHERE is the place for night soil treatment.
5. Excretion act ; open-air ⇒ toilet



P.6 -1 Good Practices from India

CRS and sanitation, presented by Mr. Rashid KIDWAI, Coordinator, Indian Sanitation Coalition



P.6-2 Example of Good Practice, presented by Mr. Shri S. CHATTERJEE, Executive President, Sulabh International

<p>KNOWLEDGE EXCHANGE SEMINAR ON SANITATION FACILITIES</p> <p>on the theme of Good Practices from India- CSR and Sanitation</p> <p>organised by Japan International Cooperation Agency (JICA) in association with Ministry of Drinking Water and Sanitation and Ministry of Urban Development, Government of India</p> <p>on 10th September, 2015 09:00 a.m. to 15:55 p.m.</p> <p>at India Habitat Center, New Delhi</p>  <p>From: Sulabh International Social Service Organisation</p>	<p>At the outset, Sulabh International Social Service Organisation thanks Japan International Cooperation Agency (JICA) and Govt. of India for the opportunity to make this presentation on Sanitation and the experience of Sulabh.</p>
<p>Introduction</p> <p>Dr. Bindeshwar Pathak, Founder, Sulabh Sanitation & Social Reform Movement.</p> <p>The Sulabh International Social Service Organisation is a Charity, Philanthropic, Human Rights and Social Welfare organisation.</p> <p>It is also philosophical, spiritual and value based organisation embedded in economic and social emancipation of untouchables, widows and also keeping the environment clean.</p> 	<p>About organisation</p> <p>Sulabh International Social Service Organisation</p> <ul style="list-style-type: none"> > Founded in 1970. > Based on the Gandhian philosophy. > Nationally and Internationally acclaimed organization. > NGO in General Consultative Status with the Economic and Social Council of United Nations. > Working all over the country as well as in Afghanistan, Africa and different parts of the world. > Social work force of over 50,000 volunteers. <p>Our Founder invented the following technologies:</p> <ul style="list-style-type: none"> > Two Pit Pour Flush Compost Toilet commonly known as Sulabh Shauchalaya. > Human excreta based Biogas Plant. > Sulabh Effluent Treatment Technology. > Construction and maintenance of Public Toilets on "Pay & Use" basis.
 <p>India had and has the problems of defecation in the open and manual cleaning of nightsoil by untouchables called human scavengers. Gandhi was the first person whose attention was drawn to find out solutions of these problems.</p>	 <p>Shri Narendra Modi is the first Prime Minister of India who has given importance to sanitation and toilets after Mahatma Gandhi.</p> <p>To pay tribute to Mahatma on his 150th Birth Anniversary, he in his speech on 15th August 2014 called upon the people to end the practice of defecation in open by 2019.</p> 



"The Prime Minister, Mr. Narendra Modi has ignited the candle of cleanliness among Indians to make India clean. He has asked Indians to restore the culture of sanitation which Indians had during Harappan civilization. We should join hands with the Prime Minister with all the might and resources, to make India clean and free from defecation in the open. Be civilized, be cultured, be clean, make India clean and stand out in the row of civilized, cultured and clean nations."

**Sulabh Shauchalaya Appropriate Technology :
Two-pit Pour-flush Compost Toilet**

In the Sulabh Shauchalaya there are two pits one of which is used at one time. When one pit becomes full then the other pit is used. Both the pits are used but one at a time. After two years in the first pit the excreta turns into bio-fertilizer which can be cleaned by anybody and this fertilizer can then be used in fields and gardens for enhancing productivity. In Sulabh toilets the minimum period of cleaning the pit is 2 years the maximum is 40 years.



The construction of Sulabh Shauchalaya is also very easy and the same can be constructed without any difficulty. If there is space then one should make two round pits separately. The benefit of this is that the lower layer is absolutely dry and there is not even a drop of water. If there is shortage of space then both the pits can be made together with a partition wall in between.



The partition wall is one feet deeper than the other walls and is also jutting out one feet on both sides. To make the walls stones, bricks, woods or mud baked burnt clay rings, coal tar etc. can be used.



Sulabh pour-flush toilet for least space with the toilet on top of the pits

**WATER SAVING P-TRAP USED IN
SULABH TWO PIT POUR FLUSH COMPOST TOILET**



It requires only 1 to 1.5 litres of water to flush



Ceramic Pan with 20° to 25° slope



P-trap is between 12-20 mm water seal



Pre-cast P-trap

11

Wealth from Waste

In Sulabh Shauchalayas the human excreta after remaining in the pit for two years gets converted into biofertilizer. This biofertilizer is free from pathogens having a nitrogen content of 1.8%, phosphate 1.6% and potassium 1%. This biofertilizer helps to enhance the productivity of the soil and can be effectively used for agriculture and horticulture purposes.



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DIFFERENT DESIGNS OF SULABH TWO PIT, POUR FLUSH, COMPOST TOILET



Cost Rs. 8,975/-

The cheapest toilet with jute on all sides on bamboo frame



Cost Rs. 11,835/-

Superstructure made of thatched palm matting – affordable for poor people.



Cost Rs. 12,655/-

Thatched wall with roof on bamboo frame



Cost Rs. 19,022/-

Brick wall with no door



Cost Rs. 16,600/-

Brick wall with jute curtain



Cost Rs. 21,700/-

Circular design without door and roof for people who feel claustrophobic.

LINING OF PITS

Can be lined from locally available materials



Brick



Stone



Wooden Logs



Cement Concrete Ring



Burnt Clay



The Sulabh toilets constructed in the upper floors of buildings can be connected to two pits.

The platforms on the Sulabh pits can be used for a variety of purposes like cooking, chopping fish, chaffing grains and running a small shop



Advantages of Sulabh Toilets

- > Hygienically and technically appropriate and socio-culturally acceptable.
- > Affordable and easy to construct with locally available materials.
- > Design and specifications can be modified to suit householder's needs and affordability.
- > Eliminates mosquito, insect and fly breeding.
- > Can be constructed in different physical, geological and hydrogeological conditions
- > Free from health hazards and does not pollute surface or ground water, if proper precautions and safeguards are taken during construction.
- > Can be located within the premises as it is free from foul smell and fly/mosquito nuisance etc.
- > Can be constructed on upper floors of houses.

- Pits are generally designed for 3-year desludging interval, but if desired, it can be designed for longer periods or it can be reduced even to two years.
- Maintenance is easy, simple and costs very little.
- Needs only 1 liter of water for flushing, while conventional flush toilet needs 10 liter of water.
- Needs less space than a septic tank toilet system.
- Does not need scavengers for cleaning the pits or disposal of sludge. This can be done by the householder.
- Makes available rich fertilizer and soil conditioner.
- Can be easily connected to sewers when introduced in the area.
- A low volume flushing cistern could be attached to avoid pour flushing.

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HUMAN EXCRETA BASED BIOGAS PLANT

- Human excreta recycled resulting in the production of biogas.
- Used for cooking, lighting, electricity generation & warming oneself in winter.
- 200 biogas plants of 35-60 cubic meter capacity constructed in different parts of India and 5 places in Afghanistan.

20



Uses of Biogas



21



22

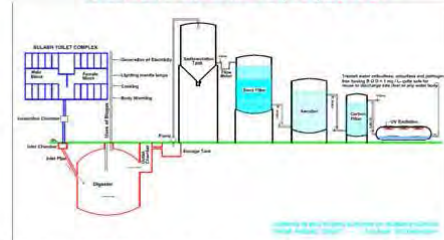
Sulabh Effluent Treatment Plant

- Biogas effluent treated through sedimentation tank, aeration tank, sand filter, activated charcoal followed by Ultra Violet (UV) rays.
- After the treatment the Biochemical Oxygen Demand (BOD) reduced to less than 10 milligram per litre.
- Treated effluent turns colourless, odourless and pathogen-free. Can be used as liquid manure.
- Safe for aquaculture, agriculture, gardening & discharging into water body.

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PUBLIC TOILET LINKED TO BIOGAS DIGESTER AND SULABH EFFLUENT TREATMENT (SET) DEVICE



The water discharged is treated by passing it through sedimentation chamber, sand filter, aeration tank, charcoal and through ultra violet rays.

So far, Sulabh has installed about 1.3 million toilets in the country including over one lac in rural areas and 8,000 public toilets and baths at public places being used by over 15 million people every day.

27

Construction & Maintenance of Public toilets

Patna Municipal Corporation had the problem of maintenance of public toilets and bathrooms. In 1974 Patna Municipal Corporation decided to engage Sulabh as a catalytic agency again and gave finance for construction of the toilets and bathrooms. But maintenance, it was decided, will be done out of the proceeds taken from the users by Sulabh under the pay-and-use system without putting burden on public exchequer.

Initially this idea was ridiculed and people harboured skeptical views about the success of the programme. Everybody entertained doubts about willingness of people to pay for the use of toilet. But in 1974 in the month of August on the very first day 500 people came to use the toilets and the collection was Rs. 50/-.

This idea worked throughout the country and apart from Sulabh many other NGOs and companies subsequently have come forward to maintain public toilets on this basis. Now to build and maintain public toilets a new system has emerged in this sector known as BOT.

28



Sulabh Public Toilet Complex with biogas plant-linked to Sulabh Effluent Treatment device—at Sulabh campus, New Delhi



The First Sulabh Public Toilet Complex constructed and maintained at Gandhi Maidan, Patna, Bihar

SULABH PUBLIC TOILETS

- Introduced system of maintenance of public toilets on "pay and use" basis in 1974.
- More than 8000 Public Toilets (W.C. 70,000; Baths 28,000; Urinals 23,000) which are being used by more than 15 million people daily.



Largest Sulabh Toilet Complex in the world at Shirdi (Nasik), Maharashtra, India

Funded by SHIRDI TRUST, constructed and maintained by Sulabh International, it has 148 toilets with dressing, baby sitting, breast feeding facilities and 108 bathrooms, 2,200 lockers for keeping the belongings of pilgrims. The complex is lit by electricity produced from the human excreta generated biogas plant. 50,000 persons can use these facilities daily.



Biogas generation at Sulabh Toilet Complex, Shirdi, Nasik, Maharashtra



Sulabh Toilet Complex (Air-Conditioned), Lucknow, Uttar Pradesh



Urinals inside Sulabh Toilet Complex, The Taj Mahal, Agra. This was declared second best in the world. (Hindustan Times, 12th July 2006)



Sulabh Toilet Complex, TAJ MAHAL, AGRA



Sulabh Toilet Complex – New Delhi Railway Station, Delhi.



Child friendly Toilet known as "Bal Mitra Sauchalaya" – Inside view, Bhopal, India



Child friendly Toilet known as "Bal Mitra Sauchalaya" – Inside view, Bhopal, India

Sulabh has constructed five toilet public complexes with biogas plants in Kabul. This has been funded by the Ministry of External Affairs, Govt. of India. These projects have been executed and completed in collaboration with Kabul Municipality. In 2007 the temperature went down to -30°C and also biogas plants functioned very well. So this technology, suitable for housing colonies, high-rise buildings like hotels, schools, colleges, hospitals and in non-sewered areas can be replicated with modifications at the rural level as well.

Sulabh Toilet Complex attached with Biogas Plant at Kabul, Afghanistan



Sulabh Toilet Complex at Kabul, Afghanistan

- Sanitary napkin vending machine – low cost sanitary napkins are provided.
- Distribution of Condoms, Oral Contraceptive Pills (OCPs), Oral Rehydration Salt (ORS), Iron, Folic Acid and Calcium tablets free of cost.
- Pulse Polio Centre of Delhi Government.



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Toilets and Urinals in the school are cleaned by the students and teachers turn by turn.



Sense of Ownership and Hygiene Behavior: Teacher and Students cleaning toilets and wash basin at Sulabh Public School, Mahavir Enclave, New Delhi.

VIEW OF THE SANITARY NAPKIN DISPOSER AT SULABH PUBLIC SCHOOL



CSR ACTIVITIES BY SULABH INTERNATIONAL

Implementation of Sulabh Shauchalaya (Individual household toilets) in District Ludhiana, Punjab sponsored by Bharti Foundation

- At present we are building 12000 Sulabh Shauchalaya in the villages of Ludhiana District.
- The Project has been initiated & funded by Bharti Foundation.
- The toilets are being built & in progress.

A view of the School Toilet Constructed by Sulabh in Tonk, Rajasthan
Funded by World Vision, India



Work done by Sulabh International Social Service Organisation under Corporate Social Responsibility

S.No.	Name of State	Name of Public and Private Sector
1.	Assam	* Indian Oil Corporation Limited (IOCL)
2.	Bihar	* Steel Authority of India Limited (SAIL), Vaishali
		* Ordinance Factory Rajgir
		* National Thermal Power Corporation (NTPC)
		* Indian Oil Corporation Limited (IOCL)
		* HUDCO
3.	Chandigarh	* HUDCO

S.No.	Name of State	Name of Public and Private Sector
4.	Delhi	* Rail Tel Corporation of India Ltd.
		* SAIL, Rourkela
		* SAIL, Durgapur
5.	Goa	* Thamba Metal
		* ACGL
6.	Gujarat	* GAIL
7.	Himachal Pradesh	* ITC
		* HUL
		* Ambuja Cement
		* Ware Housing Corporation of India

S.No.	Name of State	Name of Public and Private Sector
8.	Jammu & Kashmir	* Power Grid Corporation of India Limited.
9.	Karnataka	* Intel Private Limited
		* Power Grid Corporation of India Limited
10.	Maharashtra	* HDFC
		* M/s. Sheth Developers Pvt. Ltd.
		* M/s Indiabulls Real Estate
		* Ambuja Cement Foundation
		* Gateway Terminals India Pvt. Ltd.
		* M/s Asmi Realtors

S.No.	Name of State	Name of Public and Private Sector
11.	Punjab	* HUDCO
		* Guru Gobind Singh Super Thermal Plant
		* Ms. Mandip Kaur Sandher
		* Vividha Infrastructure Pvt. Ltd.
12.	Rajasthan	Grasim Cement, Kotputali Ultratech Cement Panipath
13.	Uttar Pradesh	Coal India Ltd.
		BHEL, Jhansi
		GAIL, Pata Auraiyya
		IRCTC
		GAIL (I) Ltd.

Hon'ble Prime Minister Shri Narendra Modi being shown cleaned and restored historic Assi Ghat



Recognition of Sulabh Technologies

"This designer's low-cost toilet has helped the planet, improved sanitation for millions – and freed countless scavengers from a life of cleaning human waste".
- TIME



HEROES OF THE ENVIRONMENT 2009

TIME Magazine has recognised Dr. Bindeshwar Pathak, Founder, Sulabh Sanitation and Social Reform Movement as 'HEROES OF THE ENVIRONMENT'.



In 1991, Dr. Bindeshwar Pathak was conferred Padma Bhushan by the then President of India, Shri R. Venkataraman, for his 'distinguished social service'.



His holiness Pope John Paul –II gave audience to Dr. Bindeshwar Pathak before being awarded International St. Francis Prize for the Environment (Canticle of all creatures) in 1992



The Dubai Municipality and UNCHS (HABITAT) awarded Sulabh 'Dubai International Award for Best Practices to Improve the Living Environment' out of 1125 entries in the year 2000



Dr. Bindeshwar Pathak receiving the UNEP Global 500 Roll of Honour Award for 2003 from Hon'ble Mr. Fares Bouez, Lebanese Minister of Environment. Hon'ble Mr. Klaus Topfer, Executive Director of UNEP is on the right.



Hon'ble Mrs. Anna K. Tibaijuka, Executive Director of UN-HABITAT presenting the UN-Habitat Scroll of Honour 2003 Award to Dr. Pathak.



The United Nations' Inter-Governmental Renewable Energy Organisation (IREO) has awarded the prestigious Renewable Energy Award to Dr. Bindeshwar Pathak, Sulabh International for the year 2009 at New York.



Dr. Bindeshwar Pathak, received the 2009 Stockholm Water Prize from the hands of H.R.H. Prince Carl Philip of Sweden. Dr. Pathak was awarded for his life's work to improve the health, dignity and lives of millions of people.



Vice President of the French Senate Ms. Chantal Jourdan decorated Dr. Bindeshwar Pathak "Legend of Planet" honour in an exceptional private reception hosted by President of the French Senate (French Parliament) Mr. Jean Pierre Bel at Palais du Luxembourg on June 03, 2013

Thank You!



SULABH INTERNATIONAL SOCIAL SERVICE ORGANISATION

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 Email : info@sulabhinternational.org, sulabhinfo@gmail.com
 Website : www.sulabhinternational.org / www.sulabhtoiletmuseum.org

P.7 Gender and sanitation – Experience in Delhi (Gender and Sanitation: Strengthen Demand Generation and Realization), presented by Mr. Kundan CHAUHAN, Center for Advocacy and Research (CFAR)

P.7

Gender and Sanitation: Strengthen Demand Generation And Realization



CFAR Intervention in Slums of DELHI

Total Slum/clusters = 2324
CFAR Intervention = 27
Households Covering = 25139
Slum and JJ cluster = 25
Unauthorized = 9



Map - Delhi

Legend:
● NORTH EAST DELHI
● EAST DELHI
● SOUTH DELHI

STRUCTURE OF GOVERNANCE: MULTIPLE AUTHORITIES



1. MUNICIPAL CORPORATION OF DELHI (MCD)

- SDMC (South Delhi Municipal Corporation)
- NDMC (North Delhi Municipal Corporation)
- EDMC (East Delhi Municipal Corporation)

2. DELHI URBAN SLUM IMPROVEMENT BOARD (DUSIB)
 Prime Responsibility: To provide the JJ Cluster civic amenities; improve standard of health, sanitation and educational and healthcare facilities.

3. DELHI JAL BOARD (DJB) –
 Procure and treat allocated raw water.

Primary responsibility:

- Provide basic amenities to the citizens
- Enhance required infrastructure facilities
- Implement various plan schemes for area development

Our Approach: Two Fold



Intervention

- Partner with Government to Strengthen Convergence
- Enhance Community Engagement

PARTNERING WITH GOVERNANCE STRUCTURE



Partnered with Mission Convergence Programme

Partnering with ICDS Anganwadi Centers

Partnering with Delhi Urban Slum Improvement Board to Enhance Community Participation & Engagement to Improve Sanitation Services Around Community Toilets

Community Engagement: Raised Collective Consciousness



Wall Painting

Street Play

Community Meetings

Self Defense Training

Raised Collective Consciousness: What is the Community Saying?

*"Earlier we did not know all we need to know about menstruation".
Muskan, Rajasthan Camp.*

"I knew about washing hand, but once it got demonstrated I realized its importance especially using soap, decided not to be stingy about it." Kismati, Rajiv camp Jhilmil.



"Initially I did not participate in meetings held near my house. Once I overheard them speaking about keeping water safe and then decided to attend these meetings. I am glad because I have since learnt many things that I knew but did not entirely understand - Gayatri, Rajiv camp.

Peer and Collective Learning



"Since I and my children have begun washing hands every time we need to my son is not complaining of stomach ache". Heena.

COLLECTIVE BARGAINING

"We have learnt the ways of demanding timely and proper service. Earlier we would pay to get our drains cleaned but now we know that they are employed by government to clean the drains"- Reena, NTPC Subhash Camp



*"We came together and got an open drain closed. Today we are able to relish the food we eat".
Munni, NTPC Subhash Camp*

FACILITATING SERVICES



Awareness Camp



Health Camp



Celebration of Days



Exposure Visits

Effect



Before



After



Gender Equality through Sanitation Initiatives



NTPC Subhash camp-A Case Study

Youth in Social Change



Capacity Building of Young people



Girls as Master Trainers on Menstrual Hygiene Management



Exposure on Vocational Training



Youth as Mobilisers: Creative mediums-Role play, Dance

Gender and Social Change



Conducting Survey in Sanitation



Networking with like minded peers



Garnering Community support in Sanitation



Networking with stakeholders

Advocates of Social Change



P.8 Future Cooperation of JICA in Sanitation Sector (JICA' Cooperation for Sanitation), presented by Mr. Kotaro TANAKA, Director, South Asia Division 1, South Asia Department, JICA

	<p>Tables</p> <ol style="list-style-type: none"> 1. JICA and its approaches 2. Operations in Sanitation 3. Future Cooperation Plan 				
<p>Tables</p> <ol style="list-style-type: none"> 1. JICA and its approaches 2. Operations in Sanitation 3. Future Cooperation Plan 	<p>What is JICA?</p> <p>1. JICA and its approaches</p> <p>Japan International Cooperation Agency</p> <ul style="list-style-type: none"> •President: Akihiko Tanaka •Establishment: August 1974 Reorganized 2008 •Staff: 1,800 approx (Full time) •Recipient Countries: 150 •Overseas Offices: 92 •Offices in Japan: HQ (Tokyo) and 15 sites <p>JICA's Vision Inclusive and Dynamic Development</p> <table border="1"> <tr> <td>Mission 1 Addressing Global Agenda</td> <td>Mission 2 Reducing Poverty through Equitable Growth</td> </tr> <tr> <td>Mission 3 Improving Governance</td> <td>Mission 4 Achieving Human Security</td> </tr> </table>	Mission 1 Addressing Global Agenda	Mission 2 Reducing Poverty through Equitable Growth	Mission 3 Improving Governance	Mission 4 Achieving Human Security
Mission 1 Addressing Global Agenda	Mission 2 Reducing Poverty through Equitable Growth				
Mission 3 Improving Governance	Mission 4 Achieving Human Security				
<p>JICA's Approaches</p> <p>1. JICA and its approaches</p> <p>JICA is "One Stop Shop" of Japan's Bilateral ODA</p>	<p>Strategy in India</p> <p>1. JICA and its approaches</p>				



Achievements in India

1. JICA and its approaches

ODA Loan

Operational results in FY2014:

Commitment: Rs.6.2 thousand crore

Disbursement: Rs.8.4 thousand crore

*1 JPY = 0.515 INR

Operational results in FY2013:

Commitment: Rs.16.4 thousand crore

Disbursement: Rs.7.7 thousand crore

*1 JPY = 0.526 INR

Major Sector (FY2003-2014):

Transport, Energy, Water, and Agriculture/Forestry



Grant Aid

No. of on-site projects: 1
As of August 2015

Technical Cooperation

282 India visited Japan
21 Japanese stations India in long term in FY 2014.

Citizen Participation

Japanese Volunteers: 14
ex. Japanese Language
Japanese NGO activities: 5
Working with Indian partner as of June 2015



Tables

1. JICA and its approaches

2. Operations in Sanitation

3. Future Cooperation Plan



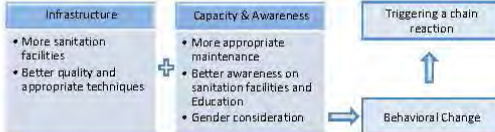
Sanitation Sector

Operations in Sanitation

Current Situation of Sanitation

- > 49.8% no latrine and 46.9% of households having latrine in premises
- > Diarrheal diseases is the 3rd major cause to under-5 mortality, mainly due to eating food and drink infected by germs of badly waste.

Issues on Sanitation to be addressed



JICA's cooperation

- > Yamuna Action Plan Project (phase 1, 2 and 3), Ganga Action Plan Project (Varanasi) and some other projects.
- > Toilets installed is 3,415
- > Data Collection survey on sanitation facilities



Examples: Yamuna Action Plan Project

Operations in Sanitation

Outline of the Project

- Phase 1 : Construction of 29 Sewerage Treatment Plants (STPs) in 13 cities
Loan amount: Approx. JPY 17 billion
Completed in February 2005
- Phase 2 : Construction of 4 STPs in Delhi and Agra
Loan amount: Approx. JPY 13 billion
Completed in July 2012.
- Phase 3 : Construction of 3 STPs in Delhi
Loan amount: Approx. JPY 32 billion
Will be completed in 2017

Characteristics of the Project

- ① Cooperation to National Plan
 - ① Reuse of Treated sludge: Treated waste/ partially reused such as cooling water in power plant.
 - ② Utilization of Sludge: Sludge utilized as fertilizer. Energy cost saved by utilizing gas generated from sludge.
- ② Consideration to the Poor: Public toilets for the poor without sanitation facility.
- ③ Raising Awareness of Citizen: Public outreach programs to raise awareness on sanitation exhibition in Delhi National Science Museum.
- ④ Support to Institutional Capacity Development: Strengthening water quality monitoring system, financial institutional reform, strengthening O&M capacity, etc.



Examples : Ganga Action Plan Project (Varanasi)

Operations in Sanitation

Outline of the Project

① Strengthening Organizations in Indian Side
Ministry of Water Resources, River Development and Ganga Rejuvenation (National Mission for Clean Ganga), Uttar Pradesh Jal Nigam, Varanasi Nagar Nigam.

Objective

To improve the water quality in River Ganga by strengthening sewerage treatment system with construction and rehabilitation of the sewerage system, thereby improving public health conditions for inhabitants and pilgrims

② Loan amount: JPY 11.1 billion (about INR 576 Crore) signed in March 2005

Scope of Works

Construction and rehabilitation of sewerage facilities (treatment plants, pumping stations and sewer network), Sanitation improvement (public toilets, public awareness activities), Consulting services and etc.

Characteristics of the Project

① Ganga Rejuvenation as a National Priority
Designing a Ganga priority program to rejuvenate holy Ganga River, where a lot of Hindu visit for pilgrimage and bathing.

Consideration for the Poor and Pilgrims

Includes construction of public toilets for the poor and rehabilitation of ghats for pilgrims and tourists.

Support for Institutional Improvement

Includes support for management improvement, financial improvement and human resource development of relevant organizations in Varanasi.



As the effluent flowing into Ganga river, sewage discharged to lake for will not fully absorbed by the vegetation in the catchment of the Project.



Grant installed by the Project



Installation of Sanitation Facilities

Operations in Sanitation

Installation of Sanitation facilities under sewerage projects


Project	Scheme	Number of Toilets Installed	State	Status
Yamuna Action Plan Project (I)	Loan	75	Haryana	All constructed
		959	Delhi	All constructed
		246	Uttar Pradesh	All constructed
Ganga Action Plan Project (Varanasi)	Loan	110	Uttar Pradesh	45 under constructing 65 under planning
Orissa Integrated Sanitation Improvement Project	Loan	45	Odisha	All constructed
Husa in Sagar Lake and Catchment Area Improvement Project	Loan	7	Telangana	5 constructed
Regional Development Project through Self-Help and Leadership training in Kovalam	Grassroots T/C	42	Tamil Nadu	ECOSAN Toilet, All constructed
Total		3415		

Data Collection Survey Operations In Sanitation

To consider future projects focusing on sanitation facilities, JICA conducted a survey in 2014

Terms of Reference of the JICA survey

- I. Collection of update information about Sanitation and Gender in India
 - a. Gender and Sanitation policy of the GoI and survey areas
 - On-going government initiatives
 - Roles of Central Government, State Government and related departments
 - Goals set by 12th Five year plan and the new government including budget allocation
 - b. Challenges of Gender and Sanitation sector in India
 - c. Experiences and lessons of other development partners and NGOs in India
- II. Target areas and sectors for JICA's support
- III. Suggestion of possible projects under JICA scheme



Data Collection Survey Operations In Sanitation

What we found in Survey

Key Findings

- ✓ Public health are not appreciated by people
- ✓ Women are often demand generator, social mobilizer, and O&M operator; men are the final decision-maker to construct toilets.
- ✓ Advocacy at the state level becomes also important
- ✓ Census town, where needs are high but no effective intervention is being done.

Proposed Cooperation

1. Alignment with GOI initiatives
2. Holistic approaches in combination with STP and sewer networks development as well as toiletry installation
 - combination with ongoing loan project (YAP, GAP)
2. Women Empowerment
3. Integrated Sanitation Improvement Project in Census Town

Our Focus Operations In Sanitation

	Infrastructure			Capacity & Awareness
	STP	Sewer	Toilet	
Urban				SBM urban Possible area to be assisted (YAP)
Rural				SBM rural Possible area to be assisted (Loan)

Note: JICA (YAP, GAP, etc.) is associated with the Urban row, and (Loan) is associated with the Rural row.

Tables

1. JICA and its approaches
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3. Future Cooperation Plan

Future cooperation 3. Future Cooperation Plan

Triggering a chain reaction

Behavioral Change

Infrastructure	Capacity & Awareness
<ul style="list-style-type: none"> • More sanitation facilities • Better quality and appropriate techniques 	<ul style="list-style-type: none"> • More appropriate maintenance • Better recognition on sanitation facilities and Education • Gender consideration

Development of sanitation system (STP, Sewer network & toilets)	Capacity Development and Institutional Reforms	Social Development and Public Awareness
---	--	---

Our Holistic Approach:

1. Alignment with GOI, States and GOI policy
2. Cooperation for Hard and Soft components (Infrastructure, Capacity & Awareness)
3. Developing sanitation system as a whole (STP, Sewage network and Toilets)
4. Partnership with ULB, state/central government

3. Future Cooperation Plan

1) Loan for dynamic impact

JICA Three Layers Approach 3. Future Cooperation Plan

We are partnering three tiers of GOI, in which support for Central government has effectively dynamic impacts.

JICA 3. Future Cooperation Plan

2) T/C could bring sustainable outcome in behavioral change

JICA Challenges in Sustainability 3. Future Cooperation Plan

Possible Technical Cooperation for sustainability & behavior change

Kind	Concern	Potential Partner	Scheme
Capacity Development	Better Planning, Implementation, Operation and Maintenance	<ul style="list-style-type: none"> Municipality State government 	<ul style="list-style-type: none"> JICA experts Soft Components of Loan Training
Awareness	Gender consideration	<ul style="list-style-type: none"> NGOs 	<ul style="list-style-type: none"> Soft Components of Loan JICA partnership program (grassroots T/C)
	Better understanding on sanitation facilities	<ul style="list-style-type: none"> NGOs 	<ul style="list-style-type: none"> Soft Components of Loan JICA partnership program (grassroots T/C)

Survey for T/C preparation on environmental improvement in Varanasi is on going.

JICA 3. Future Cooperation Plan

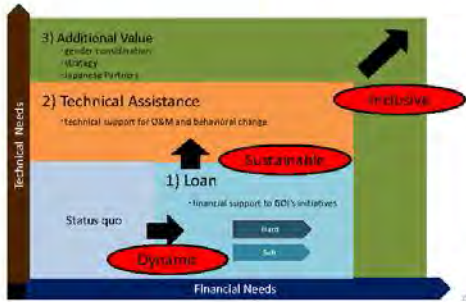
3) Japan can offer some additional value to make it more inclusive and effective

JICA Gender 3. Future Cooperation Plan

- Sanitation is strongly connected to gender
 - The result of the survey
 - women could play critical roles on improvement of sanitation as **demand generators, social mobilizers and O&M operators**
- Japanese government's commitment to address gender issue

JICA Current Ideas 3. Future Cooperation Plan

- Feedback system from other on-going/ future projects
- Strategy to expand the impact (national/state)
- Partnership with Japanese companies



Thank you for listening

セミナー参加者リスト

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バラナシセミナー発表資料

バラナシセミナー発表資料

<p style="text-align: center;">India-Japan Seminar for Environment Solution</p> <hr/> <p style="text-align: center;">Data Collection and Clarification Study on Improvement of Environment in Varanasi City, Republic of India</p> <p style="text-align: center;">17th November 2015 Ichiro KONO Consultant for JICA Kokusai Kogyo Co.,Ltd.</p>	<p style="text-align: center;">Contents</p> <hr/> <ol style="list-style-type: none"> 1. Outline of the Study 2. Study Results as of Sep 2015 <ol style="list-style-type: none"> 1. Water Supply Management 2. Sewage Management 3. Waste Management 4. Sanitation management <hr/> <p style="text-align: right;">2</p>																																																										
<p style="text-align: center;">Objectives of the Study</p> <hr/> <ul style="list-style-type: none"> □ To assess current situation of water environment management as well as sanitation facilities in Varanasi <ul style="list-style-type: none"> ■ Water Supply Management ■ Sewage Management ■ Wastes management ■ Sanitation Facilities □ To propose the possibility of new technical cooperation projects in line with current and future JICA Projects in Varanasi. <hr/> <p style="text-align: right;">3</p>	<p style="text-align: center;">Study Area</p> <hr/> <ul style="list-style-type: none"> □ Urban Local Bodies (2 out of 3) <ul style="list-style-type: none"> ■ Varanasi Municipal Corporation ■ Ram Nagar Municipal Board <p style="text-align: center;"><small>Population around 50,000</small></p> □ Rural Local Bodies (3 out of Gram Panchayat=702, (Census Town=34)) <ul style="list-style-type: none"> □ Sir Gobardhanpur :Population around 11 Thousands □ Suzabad: Population around 15 Thousands □ Sivdasapur:Block Panchayat <hr/> <p style="text-align: right;">4</p>																																																										
	<p style="text-align: center;">Study Schedule</p> <hr/> <table border="1"> <thead> <tr> <th rowspan="2">Year</th> <th colspan="6">2015</th> <th colspan="3">2016</th> </tr> <tr> <th>7</th> <th>8</th> <th>9</th> <th>10</th> <th>11</th> <th>12</th> <th>1</th> <th>2</th> <th>3</th> </tr> </thead> <tbody> <tr> <td>Study in India</td> <td colspan="2">Field Study</td> <td colspan="3">Interview</td> <td>Site Study</td> <td>Site Study</td> <td></td> <td></td> </tr> <tr> <td>Study in Japan</td> <td>Site Study</td> <td>Site Study</td> <td></td> <td></td> <td></td> <td>Site Study</td> <td>Site Study</td> <td>Site Study</td> <td></td> </tr> <tr> <td>Report</td> <td>△</td> <td></td> <td></td> <td>△</td> <td></td> <td></td> <td>△</td> <td>△</td> <td></td> </tr> <tr> <td>Study Purpose</td> <td colspan="2">1st Phase</td> <td colspan="3">2nd Phase</td> <td colspan="3">3rd Phase</td> </tr> </tbody> </table> <hr/> <p style="text-align: right;">5</p>	Year	2015						2016			7	8	9	10	11	12	1	2	3	Study in India	Field Study		Interview			Site Study	Site Study			Study in Japan	Site Study	Site Study				Site Study	Site Study	Site Study		Report	△			△			△	△		Study Purpose	1st Phase		2nd Phase			3rd Phase		
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Study Methods

- Literature Survey
 - City Sanitation Plan for Varanasi in 2011
 - City Development Plan for Varanasi, 2041, March 2015
 - Detailed Project Report for Reduction of NRW in Varanasi
 - Home page of relevant organizations
- Field Investigation
- Public Opinion Survey to households and institutions

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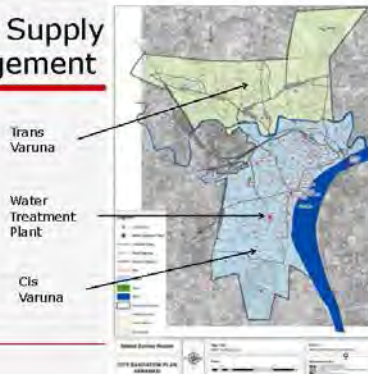
2. Study Results as of Sep 2015

Water and Sanitation Status in Varanasi

1. Water Supply Management
2. Sewage Management
3. Waste Management
4. Sanitation Facilities

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Water Supply Management



Water Supply Management
2015
City Sanitation Plan for Varanasi

Water Sources

Source		Intake Amount (MLD)	%
Surface Water	Ganges River	125 MLD	37%
	Tube Well	190 MLD	
Ground Water	Mini Tube Well	14 MLD	63%
	Hand Pump	10 MLD	
Total		339 MLD	100%

Source: Development Strategy for Reduction of NRW in Varanasi

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Bhelupur Water Works(WTP)

1. Water Supply System was commenced 100 years ago
2. Extension Work was Carried out several times
3. Latest WTP (250MLD) was constructed in 1994 by Jal Nigam
4. WTP was handed over to Jal Kal in 2011
5. O & M was carried out by Jal Kal
6. Treatment Methods are Coagulation Sedimentation, Rapid Sand filter, Chlorination Disinfection



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Water Quality

Item	Regulation	Dry Season		Rainy Season	
		Before Treatment	After Treatment	Before Treatment	After Treatment
Turbidity	<2.5NTU	70 NTU	0.4 NTU	1200 NTU	0.466 NTU
pH		7.84	7.5	7.67	7.52
DO	>4ppm	4.4 ppm	6.4 ppm	4.1 ppm	6.53 ppm

Source: City Sanitation Plan in 2011.

1. Water quality at WTP within the regulation
2. Water supply network is old and leakages and impurity penetration are the issues

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Water Supply at Ram Nagar MB

1. Source: Deep well (180 m)
2. Chlorination Disinfection only
4. Elevated Water Tank
5. Water charge: 120Rs/year



Water Tariff in Varanasi

Annual Water Tariff per household

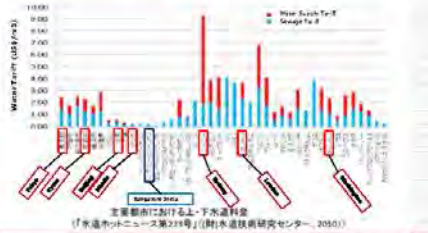
No	Annual Rental Value (Rs/year)	Annual Water Charge for 10mm domestic connection (Rs/year)
1	0 - 350	750
2	361 - 2,000	998
3	2,001 - 3,500	1,477
4	3,501 - 5,000	1,957
5	5,001 and above	2,463

Volume of Water per Kilo Liter: 3.15 (Rs/KL) = 0.05 US\$/m³

Source: Development Strategy for Reduction of NRW in Varanasi

1. Water charge is depend on the above tariff or 12.5% of ARV, whichever highest.
2. Volume based charge is not adopted.
3. Tariff is as low as one fortieth of Japan

Water and Sewage Tariff in Major Cities in the World



Source: Water Technology Research Center in 2010 15

Revenue from Water and Sewage Charges

Unit: Lakh Rs

Item of Revenue	Fiscal Year				
	2008	2009	2010	2011	2012
Total Demand (徴収金額)					
Arrears (滞納額)	1,898	1,911	1,516	1,468	1,145
Current (滞りなし)	1,592	1,948	2,070	2,311	2,492
Sub Total	3,390	3,859	3,586	3,779	3,637
Collection Efficiency (徴収率)					
Arrears (滞納額)	311	622	102	1,000	1,000
Current (滞りなし)	1,381	1,426	1,184	1,170	1,145
Sub Total	1,752	1,923	1,286	2,170	2,145
Collection Efficiency (徴収率)					
Arrears (滞納額)	358	498	506	1,026	1,026
Current (滞りなし)	758	758	808	878	878
Sub Total	1,116	1,256	1,314	1,904	1,904

Source: City Development Plan for Varanasi in 2012

1. Collection efficiency is improved year by year as 87% in 2012.
2. Arrears is decreasing year by year to 1,145 Lakhs in 2012

Expenditure for Water and Sewage Operation (Jal Kal)

unit: Lakh Rs

Item of Expenditure	2008	2009	2010	2011	2012
Income (収入) Rs. Lakhs	1,784	1,853	2,146	2,487	2,522
Expenditure (支出)					
Salaries (賃金)	1,747	1,480	1,440	1,928	2,777
Supplies and Chemicals	178	153	118	109	135
General Repairs	130	122	41	83	185
Electricity and Energy	136	161	26	18	18
Others	545	478	35	303	341
Total Operating Expenses	2,887	2,497	1,710	2,458	3,428

Source: City Development Plan for Varanasi in 2011

1. Revenue and Expenditure are almost balanced
2. 80% of the Expenditure is for salaries for workers
3. Electricity bill is mostly covered by State Government
4. Management staff of Jal Kal are employed by Jal Nigam

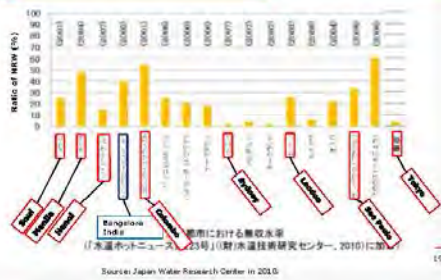
Non Revenue Water

System Type	Type of Water	Amount (Lakh Rs)	
		Amount	%
Water Losses	Public Metered Consumption	0	0
	Public Unmetered Consumption	124.0	39.0%
	Domestic Metered Consumption	0	0
	Domestic Unmetered Consumption	1,252.0	39.1%
	Commercial Consumption	18.0	0
	Government Office Buildings	0	0
	Public Health Buildings	0	0
	Leakage and Overflow in storage Tanks	140.1	0
	Leakage and Overflow in distribution Mains	0	0
	Leakage and Overflow in service Mains	172.4	60.5%
Sub Total	319.2	100.0%	
Revenue Water		29.0%	
Non Revenue Water		81.0%	

Source: Developing Strategy for Reduction of NRW in Varanasi

1. 292 households are investigated to determine individual water consumption.
2. Most of NRW was caused by physical leakage on transmission and distribution mains

Ratio of Non Revenue Water in Major Cities in the World



Key Issues for Water Supply

- Reduction of NRW
 - Renovation of old facilities, supply network.
 - Collaboration with Jal Nigam
- Financial Sources for Water Supply
 - Revision of Water Tariff
 - Support from State Government
- Waster Source and Quality
 - Rely on Ground Water
 - Improvement of Surface Water inGanges

Sewage Management



Sewage Network



Waste Water and Treatment in Varanasi

- Generation: 233MLD
- Treatment at STP: 101.8MLD (43%)
- Onsite Treatment: 35MLD (15%)
- Discharge without Treatment: 96MLD (42%)

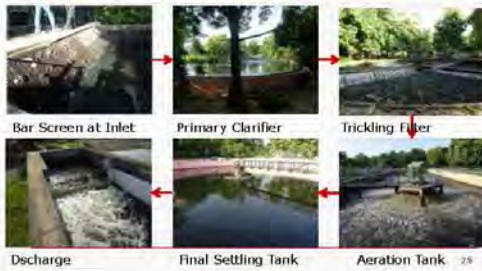
↓
Proposed STP by JICA Fund :140MLD

Source: City Sanitation Plan for Varanasi in 2011

Sewage Treatment Plant in Varanasi

STPs	Capacity	Treatment Methods	Remarks
Dinapur STP	80 MLD	Trickling Filter+Activated Sludge	Operational in 1992, Biggest STP at Varanasi, located outside VMC area. 140 MLD new STP is going to be built.
BHU/Bhangwanpur STP	8MLD + 1.8 MLD	Activated Sludge Line+ trickling Filter Line	Operational in 1994 STP for BHU was extended
DLW STP	12 MLD	Activated Sludge	STP within Diesel Locomotive Works

Treatment Process



Auxiliary Facilities at STP



Responsible Organization of Sewage and Storm Water Drainage

Sector	Description	State Level			City Level			
		UPPCB	SUDA	UPIN	Jaikaj	VMC	VD A	DUDA
Sewerage	Plan, Design, Construction			○				
	HH Connection				○			
	Operation & Maintenance				○			
	Sewerage Treatment Plant			○				
Storm Water Drainage	Disposal	○		○				
	Plan, Design, Construction					○		
	Operation & Maintenance					○		

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Financial Situation

- Sewage charge is collected together with water supply charges by Jal Kal
- Sewage charge rate is 25% of water charge rate
- Collection Rate of Water and Sewage charge is 87% in 2012.
- Revenue is 33.5 crore Rs and Expenditure is 34.3 crore Rs in 2012
- Most of electricity charges is born by State Government
- Sewage Treatment Plan run by Jal Nigam

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Future Sewage Zones and STP

Zone	Location	Future Population	Waste Water	Treatment Plant
I	Old town along the Ganga River	800,000	101MLD	Dinapur STP 80MLD
IIA	South of Varanasi, west of old town	847,000	120MLD	Next to Dinapur STP (140MLD)
IIB & IIC	West of IIA		76MLD	Lohata STP (50MLD)
III	Along the Assi River	337,000	53MLD	Ramna STP (50MLD)
IV	North of the Varanasi River	976,000	120MLD	Golbaha STP (120MLD)

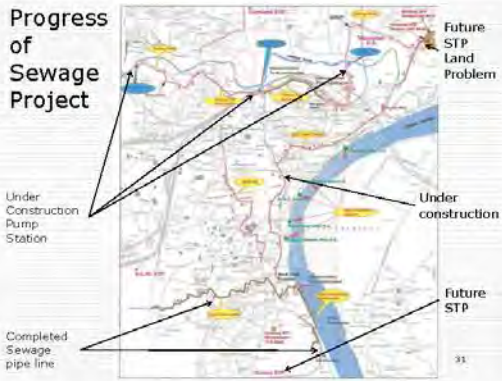
Source: JICA Assisted Ganga Action Plan Project in Varanasi

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处理区



Progress of Sewage Project



Key Issues

- Investigation and Renewal of Old Sewage Network and Facilities
 - Renewal of old sewage network which was constructed 100 years ago.
 - Renewal of branch line in dense populated area.
- Extension of STPs
 - Proceed the current ongoing sewage projects including STPs
- Management Structure
 - Confirmation of State Government Involvement
 - Monitoring of current Sewage Projects

Solid Waste Management in Varanasi

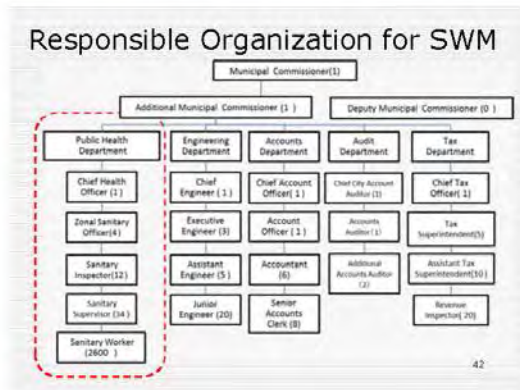
Basic Indicators of SWM in Varanasi

No	Indicator	Current Situation
1	Waste Generation	600 ton per day
2	Waste Collection	480 ton per day
3	Collection Frequency (Primary Collection)	Everyday (by 2,600 sanitation workers)
4	Primary Collection Depot (+ Container)	38 places (120 pieces)
5	Secondary Transportation (from depo to Final Disposal Site)	47 trucks, 2-3trps/day
6	Final Disposal Site	Officially one (Fence only)
7	Recycling Plant	Karsana LTP
8	Waste Collection Charges	Free
9	Responsible Organization in VMC	Health Department

Source: City Development Plan For Varanasi in 2015

SWM Facilities





VMC Revenue

Unit: Lakhs Rs. (10 75 Rs)

Item of Revenue	Fiscal Year					
	2008	2009	2010	2011	2012	%
Tax Revenue						
Property Tax	1,188	1,238	1,284	2,900	2,600	
Consolidated Tax	133	198	234	406	408	
Sub Total	1,318	1,436	1,518	2,906	3,008	14%
Non Tax Revenue						
Grant from Municipal Corporation	130	188	147	885	805	
Building Permit fees	247	570	917	1,100	2,200	
Fees from licenses	13	13	15	22	22	
Charter income fees	88	450	849	1,000	1,200	
Other taxes and charges	1,818	1,297	1,892	3,513	3,265	
Service fees and charges	142	251	321	328	349	
Others	78	111	153	598	577	
Sub Total	2,480	3,179	4,104	7,219	8,109	44%
Assigned Revenue and Grants						
General Expenses	28	4	2,282	750	750	
Life Insurance for State Gov Employees	18	18	4	30	30	
Education Grant	8	24	19	39	40	
Other State Gov Grant	154	210	200	600	200	
Family Planning	39	30	80	150	100	
State Election Commission	3,738	4,188	5,217	8,000	7,500	
Sub Total	4,015	2,582	7,809	7,489	8,720	42%
Total	7,794	8,257	13,631	17,624	20,837	100%

Source: City Development Plan for Varanasi in 2015

VMC Expenditure

Unit: Lakhs Rs. (10 75 Rs)

Item	Fiscal Year					
	2008	2009	2010	2011	2012	%
Salaries						
Finance and Revenue Department	492	464	561	725	838	
General Administration	243	285	322	443	398	
Public Works	353	393	471	642	805	
Public Health Department	2,990	3,014	3,254	4,740	4,505	
Other Department	228	222	140	160	151	
Pension, PF and others	859	828	859	1,000	2,000	
Water Works (Jalka)	1,242	0	2,073	853	2,159	
Sub Total	8,357	8,204	7,681	9,163	10,448	54%
Operation and Maintenance						
General Administration	373	320	1,044	8,598	5,470	
Public Works	117	170	148	225	210	
Education, Sports and youth welfare	11	11	11	8	8	
Public Health Department	47	25	12	448	428	
Solid Waste Management	210	197	215	212	212	
Zonal & Other Department	74	89	49	128	121	
Water Works (Jal Kal)	920	0	3,714	74	2,458	
Sub Total	1,742	732	4,183	4,679	8,903	48%
Total	8,099	8,936	11,864	13,792	19,349	100%

Source: City Development Plan for Varanasi in 2015

Key Issue on SWM

1. Improvement of Discharge Manner
2. Improvement of Waste Collection Services
3. Environmental Condition of Primary Collection Depo
4. Environmental Conditions of Final Disposal Site
5. Review Recycling Plan

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Sanitation Facilities Individual Toilet

Area	Number Households	Households not having latrine facility within the premises (%)	Households not having latrine facility within the premises (%)
Varanasi Municipality	100,835	94.8	5.2
Ramnagar Municipality	7,729	86.0	14.0
Sir Gobardhan (GP)	1,706	86.5	11.5
Suzabad (GP)	2,514	48.4	51.6
Shivdaspur (GP)	2,614	89.5	10.5

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Public Toilet/Community Toilet

- As of Sep 2015, 12 Public Toilets exist. 45, 40, and 46 more public toilet will be constructed through Ganga Action Plan.
- As for Community Toilets, 90 toilets exist and operation and maintained by 4 organizations.



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Toilets in Public Schools in Rural Area

Category	No. of School	No. of School Without toilet	No of without toilet (%)
PRIMARY	857	31	3.62
UPPER PRIMARY	304	14	4.61
SECONDARY	19	0	0.00
HIGHER SECONDARY	18	0	0.00
Total	1,198	45	3.76

Some of Toilets in school were provided through CSR activities

Source: HRA Baseline Survey in 2012

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Key Issues

- Individual Toilet
 - Individual Toilets were constructed through NBA and SBM.
 - % of HH which have individual toilet are high
- Septage Management
 - Extraction of sludge from septic tank will be a important issue in future
 - Extracted sludge shall be treated properly.

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Public Opinion Survey

Study Area : VMC 100 HH, RMB:50 HH, 3GPs (Sir Gorbardhanpur, Shivdhaspur, Suzabad) 50 HH each **Total 300 HH**

