What makes a ban on plastic bags effective? The case of Nepal

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ONLINE APPENDIX

Appendix 1. Retailers Survey Questionnaire

Retailers survey on good carry behavior

We are planning to collect some information on plastic and other types of bags you provide to the customers. Your identity will be confidential and information will be used for research purpose only.

1. Would you be interested in participating? 1. Yes (continue)   2. No (find replacement store)

1.1				1.2		1.3	1.4	1.5
Municipality Code				Cluster code		Retailer code	Enumerator	Cluster Name
		0	0	0		0	0			

2. Socio economy and information on shop

2.1	2.2	2.3	2.4	2.5	2.6
Location	Market type	Situated	Are you a local resident?	Do you own house in the municipality?	FNCCI member
1 = Core city 0 = Other	0: Open air 1: permanent	1: Isolated 2: Crowded 3: Medium	0: Local 1: Migrant 2: Other	0 = No 1 = Yes	0 = No 1 = Yes

2.7	2.8	2.9	2.10	2.11	2.12
Registered in Municipality	Education	Sex	Age	Good type	Value based
1: Yes 0: No	Years of education	Male=1 Female=0	Year	0: Wet 1: Dry 2: Both	0: General 1: High 2: Mix

2.13	2.14	2.15	2.16	2.17	2.18
Pack type	Type of shop	Yesterday's transaction	Average yearly Transaction	Yesterday's sales income?	Nature of retail
1: packed 0: open 2: Both	1 = Groceries 2 = Dairy 3 = Meat 4 = Fruit /Veg. 5 = Clothes 6 = Medical 7 = Other	Number of transactions	Average annual number of transactions	NPR (Nepalese rupees)	1: Big 2: Medium 3: Small

3. Acceptance and awareness

3.1	3.2.1	3.2.2	3.3
Can you list bad impact of plastic trash?	How do you take the plastic bag ban decision?		Do you know using SUPB and < 20 m is an offence?
	Do you know?	How do you take?	
Yes = 1 No = 0	0: Know 1: Don't know	0: Bad 1: Good	Yes = 1 No = 0

4. Involvement

4.1	4.2	4.3	4.4		4.5
Are you a member of TLO ?	What is your family profession?	How many hours a day do you watch TV and listen to radio?	Do you feel that:		
	1 = retail 0 = other		Municipality is doing well?	FNCCI is doing well?	
1: Yes 0: No		Hours a day	0: No 1: Yes 2: Don't know	0: No 1: Yes 2: Don't know	

5. Bag supply behavior

5.1	5.2	5.3	5.4	5.5	5.6
PB is available to buy in stock?	Is PB supplied at shop?	Substitute is available to buy in stock?	Is substitute supplied at shop?	Is it hard to comply with the ban?	Reason for 5.5
0 = No 1 = Yes	0 = No 1 = Yes	0 = No 1 = Yes	0 = No 1 = Yes	1 = Yes 0 = No	

6. What is the quantity and cost of different type of good carry bag you provide to consumer?

Capacity/ strength	Plastic bag type being used?	Price of Good carry bag [Purchase]			How many days does the following last for?		How much do you charge the customer?
		If in pack		If in kg, NPR per kg			
Kg	1: Thin 0: Thick	NPR per pack	Weight per pack		1 packet	1 kg	NPR per piece
Half kg							
1 kg							
2 kg							
5 kg							
10 kg							

7. What is the quantity and cost of different type of reusable bag you provide to consumer?

Capacity/ strength	Price of plastic bag		How many days does 1 kg last?	How many bags are used daily?	How much does customer pay?
Kg	NPR per kg	NPR per piece	Days		NPR per piece
Half kg					
1 kg					
2 kg					
5 kg					
10 kg					

8. PB ban and probability of being caught

8.1		8.2		8.3	8.4
What do you provide to the customer? Please tick the types used		Have you ever been caught for providing a plastic bag?		Did you pay fine?	How do you know about plastic bag ban?
Types of good carry		Yes = 1 No = 0		1 = Yes 0 = No	1: Radio 2: TV 3: Newspaper 4: Other ….. …………….
1. Black thin plastic					
2. Other thin plastic bag					
3. Reusable plastic bag					
4. Reusable bags like jute					
5. Paper bag and Thunga					
6. Other					

If you use plastic bag or violate the plastic bag ban rule, how much do you think that

QN	Description	Probability of being					
		Sure	Very high	High	Low	Not at all	Don't know
8.5	You will be caught						
8.6	You will be fined						

9. The reason for

9.1 Why do you obey plastic bag ban?	9.1 Why do you disobey plastic bag ban?
1: It's my duty to obey 2: It is a good decision 3: Other [specify : _____	1: Substitutes are costly 2: It's a worthless thing 3: Other [specify]: _____

Appendix 2: Consumer Survey Questionnaire

Consumer/citizen survey on good carries behavior

We are planning to collect some information on good carry bags you are using. We will keep your identity confidential and information that you have given will be used for research purpose only.
1. Would you be interested in participating? 1. Yes (continue)   2. No (find replacement store)

(*Note to enumerator: Pleases observe what kind of bag the consumer is carrying and fill the following question*)

1.2			1.3		1.4	1.5	1.6
Municipality Code			Cluster code		Consumer code	Enumerator	Cluster Name
	0	0	0		0	0			

QN	Description	Option				Response
2	What is the consumer carrying with him/her?	1: Black plastic bag		4: Habitual bag		
		2: Other plastic bag		5: Reusable plastic bag		
		3: Reusable bag		6: Without bag		
3	What is consumer travelling in?	1: Walking 2: Two wheeler 3: Four Wheeler 4: Other				
4	What is the purpose of using good carry bag?	1: Shopping 2: Habitual 3: Household activities 4: Other purpose				

5. Socio-economic and Locality Information

5.1	5.2	5.3	5.4	5.5	5.6	5.7
How far is your home from main city area?	Locality of living?	Age	Marital Status	Are you a migrant?	Sex	Education
in minutes	1: Rural 2: Urban 3: Suburb	Year	0: Single 1: Other	0: Local 1: Migrant 2: Outsider	0: Female 1: Male	Years of school

5.8	5.9	5.10	5.11	5.12
Have you studied environmental education during school years?	Rent or own home?	Family size	How many are employed?	How many family members are children?
1 : Yes 0 : No	1: Own House 0: Rental	Number of people in family	Numbers in family	Numbers in family

5.13	5.14	5.16	5.17	5.18
What is your occupation?	What is your family occupation?		Income of previous month?	How many rooms do you have?
1. Own-farm agriculture 2. Off-farm hired agriculture labor 3. Self-owned small business 4. Salaried in private enterprise	5. Salaried in govt enterprise 6. Student 7. Old/ Handicapped 8. Unemployed	9. Collection of forest products 10. Livestock maintenance 11. Family work	NPR per month for household	Number of rooms

6. Good carry behavior

6.1	6.2	6.3	6.4	6.5
Where do you get this bag?	How many trips you and your family make to local store?	What do other people in your community use?	Do you think plastic bag ban is necessary?	At what price will you start carrying own bag?
1: Bought from Home 2: Buy from shopkeeper 3: Free from shopkeeper 4: Other	Number of trips by all family in a week	0: Plastic bag 1: Reusable Bag 2: Both 4: Other	1: Yes 0 : No 2: Don't know	NPR per plastic bag

6.6	6.7	6.8	6.9
Are you satisfied with services and development activities of Municipality?	Are you a member of TLO [Tol Level Organization]?	Is plastic bag ban hard to comply?	How many hours do you spend in watching TV and listening radio?
0: Satisfied 1: Not satisfied	1: Yes 0: No	1: Yes 0: No 2: Don't know	Number of hours per day

7. For municipalities with ban:

7.1	7.2	7.2.1	7.3	7.4
Do you know about plastic bag ban?	If yes, do you know about the fine?	If yes in 7.2, how do you know about plastic bag ban?	Have you ever been	
			Caught for PB use?	Do you pay fine?
1: Yes 0: No→ go Q7.3	1: Yes 0: No	1: Radio 2: TV 3: Newspaper 4: Other	1: Yes 0: No	1: Yes 0: No

If you use plastic bag or violate the plastic bag ban rule, how much do you think that

QN	Description	Probability of being					
		Sure	Very high	High	Low	Not at all	Don't know
7.5	You will be caught						
7.6	You will be fined						

8. Daily bag use behavior: How many plastic bags did you use last week?

Type	Grocery	Dairy	Meat	Vegetable & Fruit	Clothes	Medicine	Other
Reusable bag							
Plastic bag							

9. Average weight carried:

Number of good carry bags used		Cost in NPR		Total weight of good carried
Type of bag	Number	Good carry only	Total good	in grams
Plastic				
Reusable bag				