Kansas State University (KSU)

Department of Agricultural Economics

Addressing Economic Constraints of Technology Adoption for Postharvest Practices and Rice Seed Storage in Bangladesh

Conducted by: Helen Keller International

CONSENT OF RESPONDENT

Good morning/afternoon. I am _____ from the Helen Keller International, Bangladesh. Together with the Kansas State University, we are conducting two rounds of survey combined with an intervention that will provide necessary information to carry out research in accordance with the Feed the Future Innovation Lab for the Reduction of Post-Harvest Loss (PHLIL). The USAID PHLIL is supporting researches that help promote the welfare of Bangladeshis; particularly, to improve agricultural technology, food consumption and nutrition of the people and women's status via promoting better post-harvest practices. Your household has been chosen by a random selection process.

We are inviting you to be a participant in this study. We value your opinion and there are no wrong answers to the questions we will be asking in the interview. We will use approximately 2.5 hours of your time to collect all the information. We will ask several questions on socio-economic characteristics and your agricultural production and storage practices. During the survey, we will also ask you to make a bid for a hermetic storage bag and you will be asked to pay the amount of your bid if you win in exchange for the bag. There will be no risk as a result of your participating in the study. Your participation in this research is completely voluntary. You are free to withdraw your consent and discontinue participation in this study at any time.

This study is conducted anonymously. You will only be identified through code numbers. Your identity will not be stored with other information we collect about you. Your responses will be assigned a code number, and the list connecting your name with this number will be kept secured and then will be destroyed once all the data has been collected and analyzed. The collected data without identifiers will be stored in public data repository and may will be used for future research.

Your participation will be highly appreciated. The answers you give will help provide better information to policy-makers, practitioners and program managers so that they can plan for better services that will respond to your needs.

The researcher read to me orally the consent form and explained to me its meaning. I agree to take part in this research. I understand that I am free to discontinue participation at any time if I so choose, and that the investigator will gladly answer any question that arise during the course of the research.

Please tick mark on the right box depending on the respondent's consent Consent given:	Yes
	No

Contact Person:

Names of the Principal Investigators:

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Signature of the Enumerator: _____ Date: /_____/_____/_____/

Part 1: Household Charateristics

Section 1: Identification and household characteristics

Sl. No.	Questions	Coding Categories	Skip
1.1	District	See codebook	
1.2	Upazila	See codebook	
1.3	Union	See codebook	
1.4	Village	See codebook	
1.5	Treatment group	1= Treatment-1 2= Treatment-2 3= Control	
1.6	Household identification number		
1.7	Name of the Respondent		
1.8	Does your HH or outside HH (as on request) have any Mobile Number to reach you?	0= No 1= Yes	
1.9	Is this your own mobile?	0= No (on request) 1= Yes, Household Head/Husband/Wife 2= Yes, Other member of the household	
1.10	Please write the contact/mobile number of the respondent.		
1.11	Gender of respondent	0= Male 1= Female	
1.12	Religion	1= Muslim 2=Hindu 3=Christian 4=Buddha 77= Other (Please specify)	
		Please specify:	
1.13	Ethnicity	1= Bangali 2= Adibashi	
1.14	GPS coordinate		

Section 2: Detailed information of HH members (Insert information using given codes)

Household (HH) Member Sl. Number	Name	Status If 1→2.8 If 2-->2.2b If 3—>2.2c	Why is [NAME] no longer in the HH? →Next person	Why was [NAME] not in the HH during the first round?	Relationship with HH head	Sex 1= Male 2=Female	Age	Marital status	Age at marriage	Is this woman pregnant?	Class pass	Main Occupation in the last one year	Type of work	Main occupation in last week	Wage rate in last week's main occupation (BDT/unit)	Total hours worked in past week?	Receiving support from any GO/NGO program?	Is this person disabled? (i.e. unable to work due to physical or mental condition)	On a scale of 1 to 5, how would you rate the health of [NAME]?
2.1.	2.2.	2.2a	2.2b	2.2c	2.3.	2.4.	2.5.	2.6.	2.7.	2.8.	2.9.	2.10.	2.11.	2.12	2.13	2.14	2.15.	2.16.	2.17
1																			
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Status 1= Present in the HH during the last survey 2= No longer in HH 3= New HH member **Reason not in household** 1= Married out/living with spouse 2= Seek employment/labor migration 3= Sick 4= Divorced/separated 5= Died 6= Left with relative 7= To be close to school 8= Helping care for someone in a different HH 9= Was not a member in baseline survey (i.e. mistake) 10= No longer working in HH 77= Others (Specify……) **Reason joined household** 1= Married in/living with spouse 2= Returning migrant worker 3= Seeking employment in area 4= Sick/to be looked after 5= Divorced/separated 6= Birth 7= Came with relative 8= To be close to schoo 9= To be looked after 10= Not captured in baseline survey (mistake) 77= Others (Specify……)	**Relationship with Household head** 1=Head Him/ her selves *2* = Spouse 3 = Children 4 = Grand Children 5 = Brother/ sister 6 = Parent *7* = Parent in Law 8= Son/daughter in law 9 = Other in law 10 =Cousin 77 = Other (specify) **Marital status** 0= Unmarried 1= Married 2= Widow 3= Divorce/ 4= Separated/Deserted **Is this woman pregnant?** 1= Pregnant 2= Lactating 88= Not Applicable	**Class pass** 0= No education/no class passed 1= 1 Class passed 2= 2 Class passed 3= 3 Class passed 4= 4 Class passed 5= 5 Class passed 6= 6 Class passed 7=7 Class passed 8= 8 Class passed 9= 9 Class passed 10= SSC/Dakhil 11= HSC/Aleem/Diploma 12= Degree (pass)/Fajil 13= Degree (Honors)/Fajil (Honors) 14= Masters/Kamil 15= MBBS,/Engineer 16= Functional education 17=Currently going to school 88= Don't Know	**Main Occupation** 0=Does not work 1= Farmer (Paddy) 2= Farmer (Other than paddy) 3= Agriculture Day laborer 4= Unskilled day laborer 5= Skilled day laborer 6= Rickshaw/van/cart puller /baby taxi driver / boatman 7= Fisherman 8= Salaried worker 9= Professional 10= Businessman 11= Petty businessman 12= Household help 13= Jum farmer 14= No income/did not work for income 15= Poultry/ Livestock 16= Handicrafts 17= Vegetable Cultivation 18= Fish cultivation 19=Industrial labor 20= Collect resource from forest/hill 21= Labour in sea fishing 22= Collect fish fry/other 23= Student 77= Others (Specify……) 88= Don't know	**Type of Occupation/Work** 1= Self employed 2=Employed by other as unpaid worker 3= Employed by other as regular paid worker 4= Employed by other as irregular paid worker 88= Not Applicable **Wage Rate** 66= No wage due to self-employment 77= Payment in form of labor (i.e. exchnage labor) 88= Not applicable (other) **Wage unit** 1= Hour 2= Half-day 3= Day 4= Week 5= Month	**GO/NGO program** 0= Presently not under any program/package 1= Cash for education 2= Food for work 3= VGD 4= VGF 5= Old age allowance 6= Widow allowance 7= Freedom Fighter allowance 8= Disable allowance 9= Cash for work 10= Fortified biscuit from school (WFP) 11= Fortified blended food from community clinic (SRPV/SHED) 12= EFSN 13= COVID-19 emergency cash assistance from GoB 14= COVID-19 emergency cash assistance from NGOs 15= COVID-19 emergency food assistance from GoB 16= COVID-19 emergency food assistance from NGOs 17= COVID-19 emergency agricultural assistance from GoB 18 = COVID-19 emergency agricultural assistance from NGOs 77= Others (Specify……)

Section 3: Household Socioeconomic background

Sl. No.	Questions	Coding categories	Skip
3.1.	How much agricultural land does your household own in decimal at present?	☐☐☐☐	
3.2.	Asset - Improved seed storage (e.g. sealing bucket)	**Does the household asset exist and is it functioning?** **(1 = Yes , 0 = No)**	
3.3.	What is the main source of drinking water used by members of your household?	**Piped water** 11 = Piped into dwelling 12 = Piped to yard / plot 13 = Piped to neighbour 14 = Public tap / standpipe	

		21 = Tube well / borehole **Dug well** 31 = Protected well 32 = Unprotected well **Spring** 41 = Protected spring 42 = Unprotected spring 51 = Rainwater 61 = Tanker-truck 71 = Cart with small tank 72 = Water kiosk (water selling plant) 81 = Surface water (river, dam, lake, pond, stream, canal, rrigation channel) **Packaged water** 91 = Bottled water 92 = Sachet water 77 = Others (Specify……) 88 = Don't know	
3.4.	What is the main source of electricity of your household?	0 = No electricity 1 = Grid electicity 2 = Generator 3= Solar electricity 77 = Others (Specify……) 88 = Don't know	
3.5.	Did you make any major changes to your house in the past year. (Select multiple)	0 = No 1 = Yes, expanded living space 2 = Yes, upgraded roof material 3 = Yes, upgraded floor material 4 = Yes, upgraded water or sanitation system 5 = Yes, upgraded electricity/power system 6 = Yes, upgraded heating system 77 = Yes, others (Specify……) 88= Don't know	

Section 4: Accessibility

Location	Time to reach (Minutes)	Distance to reach (Km)
4.1. Weekly/periodic market/bazaar		
4.2. Market to sell paddy		
4.3. Rice mill		
4.4. Seed dealer		
4.5. Fertilizer dealer		

Section 5: Productive assets of household (reorganize the lists – by subgroup)

Sl. No.	List of assets types	Does the household asset exist ? If yes, what is the number of the asset? *(No = 0, If Yes provide the number)*	If Yes, what is the total value of productive assets (if you sold today,how much do you think it would be)
5.1.	Poultry (chicken, ducks, etc…)		
5.2.	Small Livestock (sheep, goat etc)		
5.3.	Big Livestock (cow, buffalo)		
5.4.	Camels, Horses, Donkeys		
5.5.	Plough animals (Oxen)		
5.6.	Cultivable Plots		
5.7.	Ponds for fishing		
5.8.	Bicycles		
5.9.	Motorcycle		
5.10.	Drum thresher		
5.11.	Winnowing machine		

Section 6: Ledger of Assets

List of assets types	Estimated Current Net Value (BDT)
6.1. Savings (cash)	
6.2. Business stock	
6.3. Stored agricultural products	
6.4. Loans given out (i.e. owed to household)	

List of assets types	Estimated Current Net Value (BDT)
6.5. Loans taken in (i.e. owed to other)	
6.6. Other investments	

Section 7: Borrowing and Credit uptake

Credit uptake	
7.1. Loans taken during the past one year?	**Yes/No [If No→7.10]**

Name of Organization? (Code- 16-B)	**Amount of loan**	**Amount of instalment per week/month? (Taka)**	**Total number of installment you have to pay to repay the loan?**	**What time of the year are loans taken?**	**What were the main purposes of the credit loaned?**	**How long does it take to repay loans?**	**What is the amount of outstanding loan at present?**
7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9
7.2.1. Loan cooperatives							
7.2.2. State-owned bank							
7.2.3. Private bank							
7.2.4. Specialized bank							
7.2.5. Input seller							
7.2.6. Friends/Relatives							
7.2.7. Moneylender							

7.10 In the last 1 year, how many times have you applied for a loan and been rejected?	[If 0→
7.10.1 Source of most recent rejection	[codebook] [END SECTION]
7.11 Would a bank or microfinance institute lend money to you if you applied?	Yes/No [If 7.2.1 or 7.2.2 or 7.2.3 or 7.2.4>0→
7.11.1 Why did you not apply?	[codebook] [END SECTION]
7.11.2 If you were certain that a bank or microfinance institute would approve your loan, would you apply?	Yes/No [If Yes→END SECTION]
7.11.3 Why not?	[codebook]

7.2 Name of Organization 1 = Loan cooperatives 2 = State-owned bank 3 = Private bank 4 = Specialized bank 5 = Input seller 6 = Friends/Relatives 7 = Moneylender	**7.6 Time of the year are loans taken** 1= Preparing time 2= Planting time 3= Growing time 4= Harvesting time	**7.7 Main purposes of the credit loaned** 1= Buying farm equipment 2= Purchasing inputs 3= Repaying older loans 4= Purchasing or leasing land 5= Financing farming operating costs 6= Consumption needs (food) 7= Regular Household expenditures (non-food) 8=Overcoming a natural disaster 9= Financing a wedding/education/health treatment/funeral etc 77= Other
7.8 How long does it take to repay loans 1= Before the promised/due date 2= At the promised/due date 3= After the promised/due date 4= At harvest time	**7.11.1. & 7.11.3. Reasons for not taking credit** 1 = I do not need a loan. 2 = The interest rate is too high. 3 = Farming does not give me enough to repay a debt. 4 = I prefer working with my own liquidity. 5 = I do not want to put my land or assets at risk. 6 = I do not want to be worried; I am afraid. 7 = Formal lenders are too strict; they are not as flexible as informal ones. 8 = Formal lenders do not offer refinancing. 9 = The branch is too far away. 10 = There is too much paperwork; the costs associated with loan application are too high.	

Section 8: 2020 Farm land holding

Land Use Land holding *(**FI**: Convert local measurement unit like Bigha/Pakhi/Kani to decimal 1 local unit …… =….. decimal*)	Decimal			Approximate total price of assets in BDT *Value (BDT), rental price (BDT), mortgage amount (BDT), or share of harvest (%)*		Does this land have problems with salinity or water shortage? *(1=Yes 2=No)*
	Boro (2020)	Aus (2020)	Aman (2020)			
8.1. Homestead area						
8.2. Water body						
8.2.1. Own pond						
8.2.2. Leased pond						
8.2.3. Jalmahal						
8.3. Cropped land						
8.3.1. Cultivated land – own						
8.3.2. Land rented/mortgaged in (+)						
8.3.3. Mortgaged in (+)						
8.3.4. Sharecropped in (+)						
8.4. Cropped land owned but not cultivated						
8.4.1. Land rented out (-)						
8.4.2. Land mortgaged out (-)						
8.4.3. Land sharecropped out (-)						

Section 9: Rice/paddy production during the last 12 months?

*[FI: Please collect detail information for each crop **cultivated** and fill the Grid below. Start from the most recent season. State the largest three plots for each crop.]*

Rice/paddy crop	Plot ID	Crop Duration (Days)	Planting Month	Planting Week	Harvesting Month	Harvesting Week	Seed type [code book]	Source of seed [code book]	If you purchased the seed, what was the price (Tk/kg)	Amount of seed purchased (kg)	Seed storage method [codebook]	Seed storage length (Days)	Cropped area (decimal)
	9.1.	9.2.	9.3a.	9.3b.	9.4a.	9.4b.	9.5.	9.6.	9.7.1	9.7.2	9.8.	9.9.	9.10.
Aman 1													
Aman 2													
Aman 3													

Rice/paddy crop	Plot ID	Crop Duration (Days)	Planting Month	Planting Week	Harvesting Month	Harvesting Week	Seed type [code book]	Source of seed [code book]	If you purchased the seed, what was the price (Tk/kg)	Amount of seed purchased (kg)	Seed storage method [codebook]	Seed storage length (Days)	Cropped area (decimal)
	9.1.	9.2.	9.3a.	9.3b.	9.4a.	9.4b.	9.5.	9.6.	9.7.1	9.7.2	9.8.	9.9.	9.10.
Aus 1													
Aus 2													
Aus 3													
Boro 1													
Boro 2													
Boro 3													

9.3a. and 9.4a. Month
1= January-2020 (পৌষ- মাঘ ১৪২৬)
2= February-2020 (মাঘ- ফাল্গুন ১৪২৬)
3= March-2020 (ফাল্গুন- চৈত্র ১৪২৬)
4= April-2020 (চৈত্র ১৪২৬- বৈশাখ ১৪২৭)
5= May-2020 (বৈশাখ- জৈষ্ঠ্য ১৪২৭)
6= June-2020 (জৈষ্ঠ্য-আষাঢ় ১৪২৭)
7= July-2020 (আষাঢ়- শ্রাবণ ১৪২৭
8= August-2020 (শ্রাবণ- ভাদ্র ১৪২৭)
9= September-2020 (ভাদ্র- আশ্বিন ১৪২৭)
10= October-2020 (আশ্বিন- কার্তিক ১৪২৭)
11= November-2020 (কার্তিক- অগ্রাহায়ন ১৪২৭)
12= December-2020 (অগ্রাহায়ন- পৌষ ১৪২৭)
13= January-2021 (পৌষ- মাঘ ১৪২৭)
14= February-2021 (মাঘ- ফাল্গুন ১৪২৭)

9.5. Seed Type
1= BR 28
2= Bina 7
3= BR 11
4= BR 26
5= BR 29
6= BR 32
7= BR 36
8= BR 39
9= BR 49
10= BR 52
11= BR 58
12= BR 67
13= BR 69
14= BR 71
15= BR 72
16= BR 74
17= Chini Saile
18= Dhani Gold
19= Esphahani
20= Ghoti Dhan
21= Ghoti Swarna
22= Hira
23= Hori Dhan
24= Hybrid Super
25= Jabra
26= Jira
27= Lal Diga
28= Masranga Dhan
29= Miniket
30= Nazir Sail
31= Paijam
32= Painal
33= Rajmorol
34= Ratiol
35= Shati
36= Shishu Moti
37= Swarna
38= Swarna
39= Tej Gold
40= Tulshimala
41= Vojan
77= অন্যান্য - উল্লেখ করুন

9.6. Seed Source
1= Stored seed from own production
2= Stored seed from other farmers
3= Purchased from local market (Unpacked)
4= Purchased from Contract Farmers
5= Packet seed from local producers
6= Packet seed from BADC agent
7= Packet seed from private companies
8= Packet seed from NGOs
9= Seedling
77= Others

9.8. Seed Storage Method
1= Traditional Woven Container (e.g. Dole, Gola)
2= Earthen Container (e.g. Motka)
3= Steel drum
4= Gunny sack
5= Plastic/Polythene bag
6= Plastic/polythene inside of gunny sack
7= Plastic/polythene inside of fertilizer bag
8= Plastic Drum
9= Plastic/Polythene inside of plastic drum
10= Hermetic storage
77= Other

Section 10: Use of rice/paddy production from the last 12 months

*[FI: Please collect detail information for each crop **cultivated** and fill the Grid below. Start from the most recent season. Use same plot ID as section 6.]*

Rice/paddy crop	Plot ID	Planting Method	Total Production (kg)	Harvest Method	Total left unharvested (kg—estimate)	Rice/paddy for human consumption				Seed				
						Total Quantity (kg)	Amount sold (kg)	Sale value (Tk)	Consumed at HH (kg)	Total Quantity (kg)	Amount sold (kg)	Sale value (Tk)	Place/type of Sale [codebook]	Stored for the next season's seed (kg)
	10.1.	10.1e	10.2.	10.2e	10.2f	10.3.	10.4.	10.5.	10.6.	10.7.	10.8.	10.9.	10.10.	10.11.
Aman 1														
Aman 2														
Aman 3														
Aus 1														
Aus 2														
Aus 3														
Boro 1														
Boro 2														
Boro 3														

10.1e Planting Method
1=Transplant own seedlings by hand
2=Transplant purchased/given seedlings by hand
3=Transplant own seedlings by machine
4=Transplant purchased/given seedlings by machine
5=Direct seed

10.2e Harvest Method (primary)
1=Manual (e.g. sickle)
2.=Reaper
3=Combine Harvester

10.10. Place/type of Sale
1= In this village (direct sale to farmer)
2= In this village (a dedicated seed aggregator)
3= In this village (periodic market)
4= Outside the village, within union (direct sale to farmer)
5= Outside the village, within union (a dedicated seed aggregator)
6= Outside the village, within union (periodic market)
7= Outside the union, within upazila (direct sale to farmer)
8= Outside the union, within upazila (direct sale to seed aggregator)
9= Outside the union, within upazila (periodic market)
10= Outside the upazila (direct sale to farmer)
11= Outside the upazila (direct sale to seed aggregator)
12= Outside the upazila (periodic market)

Section 11: Storage of rice/paddy production from the last 12 months

*[FI: Please collect detail information for each crop **cultivated** and fill the Grid below. Start from the most recent season. Use same plot ID as section 6.]*

		Stored for home consumption						Stored for sale						Stored for seed					
Rice/paddy crop	Plot ID	Total Quantity (kg)	Start Month	Start Week	End Month	End Week	Method [codebook]	Total Quantity (kg)	Start Month	Start Week	End Month	End Week	Method [codebook]	Total Quantity (kg)	Start Month	Start Week	End Month	End Week	Method [codebook]
	11.1.	11.2.	11.3a.	11.3b.	11.4a.	11.4b.	11.5.	11.6.	11.7a.	11.7b.	11.8a.	11.8b.	11.9.	11.10.	11.11a.	11.11b	11.12a.	11.12b.	11.13.
Aman 1																			
Aman 2																			
Aman 3																			
Aus 1																			
Aus 2																			
Aus 3																			
Boro 1																			
Boro 2																			
Boro 3																			

11.3a., 11.4a., 11.7a., 11.8a, 11.11a., 11.12a Month

1= January-2020 (পৌষ- মাঘ ১৪২৬)
2= February-2020 (মাঘ- ফাল্গুন ১৪২৬)
3= March-2020 (ফাল্গুন- চৈত্র ১৪২৬)
4= April-2020 (চৈত্র ১৪২৬- বৈশাখ ১৪২৭)
5= May-2020 (বৈশাখ- জৈষ্ঠ্য ১৪২৭)
6= June-2020 (জৈষ্ঠ্য-আষাঢ় ১৪২৭)
7= July-2020 (আষাঢ়- শ্রাবণ ১৪২৭
8= August-2020 (শ্রাবণ- ভাদ্র ১৪২৭)
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11= November-2020 (কার্তিক- অগ্রাহায়ন ১৪২৭)
12= December-2020 (অগ্রাহায়ন- পৌষ ১৪২৭)
13= January-2021 (পৌষ- মাঘ ১৪২৭)
14= February-2021 (মাঘ- ফাল্গুন ১৪২৭)

11.5., 11.9., 11.13. Seed Storage Method

1= Traditional Woven Container (e.g. Dole, Gola)
2= Earthen Container (e.g. Motka)
3= Steel drum
4= Gunny sack
5= Plastic/Polythene bag
6= Plastic/polythene inside of gunny sack
7= Plastic/polythene inside of fertilizer bag
8= Plastic Drum
9= Plastic/Polythene inside of plastic drum
10= Hermetic storage
77= Other

Section 12: Input use for rice/paddy production from the last 12 months

*[FI: Please collect detail information for each crop **cultivated** and fill the Grid below. Start from the most recent season. Use same plot ID as section 6.]*

		Fertilizer			Herbicide			Pesticide		
Rice/paddy crop	Plot ID	Total Quantity (kg)	Expenditure (kg)	Source [codebook]	Total Quantity (kg)	Expenditure (kg)	Source [codebook]	Total Quantity (kg)	Expenditure (kg)	Source [codebook]
	12.1.	12.2.	12.3.	12.4.	12.5.	12.6.	12.7.	12.8.	12.9.	12.10.
Aman 1										
Aman 2										
Aman 3										
Aus 1										
Aus 2										
Aus 3										
Boro 1										
Boro 2										
Boro 3										

12.4., 12.7. and 12.10. Source of Input (Fertilizer, Herbicide and Pesticide)

1= Local market
2= From BADC agent
3= From NGO
4= From Govt. distribution point
5= From private company agent
77= Other

Section 13: Rice/Paddy Seed Quality in last 12 months

Source of seed [replicate 11.1.6]	In the last 12 months, with seed obtained from [source], how did you inspect for quality prior to planting (upto 3 methods)? [codebook]			In the last 12 months, with seed obtained from [source], did you experience…. [yes/no]			Did these problems cause you to stop using seed from [source] (Yes/No)	On a scale of 1 to 5, with five being "extremely serious" and 1 being "not at all serious", how serious of a problem is seed quality obtained from [source]
				Poor germination	Fidelity (i.e. wrong variety)	Poor performance (e.g. lower than expected yield)		
13.1.	13.2.			13.3.	13.4.	13.5.	13.6.	13.7.

13.2. Seed Insepction Techniques
1= Visual inspection for spots/mold/lesions
2= Visual inspection for fidelity
3= Visual inspection for shape
4= Visual inspection for insect-damaged seeds
5= Visual inspection for weed seed contaminants
6= Visual inspection for inert materials such as soil.
7= Seed germination test
8= Soaking to check for floating seed
77= Other

13.7. Likert
1= Extremely serious
2= Serious
3= Moderate
4= Not serious
5= Not at all serious

Section 14: Rice/paddy Seed Access

14.1. [if Source of Seed in 9.6. is "stored" during Aman] What is your primary reason for using seed from your own storage during aman? [codebook]
14.2. [if Source of Seed in 9.6. is "stored" during Aman] What is the second most important reason for using seed from your own storage during aman ? [codebook]
14.3. [if Source of Seed in 9.6. is "stored" during boro] What is your primary reason for using seed from your own storage during boro? [codebook]
14.4. [if Source of Seed in 9.6. is "stored" during boro] What is the second most important reason for using seed from your own storage during boro? [codebook]
14.5. Compared to last Aman season (2019), how easy was it to purchase the seed variety you wanted to use during Aman 2020? [codebook]
14.6. Compared to last Boro season (2019), how easy was it to purchase the seed variety you wanted to use during Boro 2019? [codebook]
14.7 In the last year, has anyone provided training or instruction in the storage of seed or paddy? 1. Yes, paddy 2. Yes, seed 3. Yes, both 4. No If 4→end section
14.8 Who provided the training? 1. DEA/government extension 2. NGO 3. Private company 4. Other
14.9 As a result of your experience during COVID_19, which of the following best describes your attitudes towards saving paddy seed? (1) I am more likely to produce and save my own seed (2) I am less likely to produce and save my own seed (3) My attitude is unchanged

14.1., 14.2., 14.3. and 14.4. Reasons for Seed Use from Own Storage	**14.5. and 14.6. Level of Ease in Case of Purchasing the Preferred Variety of Seed**
1= Cost of purchasing seed is too high	1= Much easier
2= Would purchase seed at cost but do not have cash at planting time	2= A little easier
3= Assurance of seed quality	3= The same
4= Assurance of seed variety fidelity	4= A bit more difficult
5= Cannot obtain purchased seed at planting time	5= Much more difficult
77= Other	

Section 15: Farm labor allocation from the last 12 months

Activity	Household labor (days)						Hired labor (days)		
	Aman (2020)		Aus (2020)		Boro (2020)		Aman (2020)	Aus (2020)	Boro (2020)
	M	F	M	F	M	F			
15.1. Seed bed preparation									
15.2. Land preparation									
15.3. Planting/transplanting									
15.4. Fertilization									
15.5. Weeding									
15.6. Irrigation (don, earthen canal)									
15.7. Insecticide application									
15.8. Harvesting									
15.9. Threshing									
15.10. Winnowing									
15.11. Others									
15.12. Total									

Section 16: Average cost of the hired labor from the last 12 months (non-government)

Activity	Hired labor (Tk/day)		
	Aman (2020)	Aus (2020)	Boro (2020)
16.1. Seed bed preparation			
16.2. Land preparation			
16.3. Planting/transplanting			
16.4. Fertilization			
16.5. Weeding			
16.6. Irrigation (don, earthen canal)			
16.7. Insecticide application			
16.8. Harvesting			
16.9. Threshing			
16.10. Winnowing			
16.11. Others			
16.12. Total			

Section 17: Household income in last 12 months

Household income in last 12 months	How many months worked in the last 12 months?	Monthly average income in BDT
17.1. Agricultural Daily Labour		
17.2. Day labour in sea fishing		
17.3. Skilled Labour (Specify)		
17.4. Other Daily Labour (minti, Kulietc)		
17.5. Child labour		
17.6. Working as domestic support		
17.7. Rick/van/boat/bullock/pushcart puller		
17.8. Drive Motorised Van/nasimen/tomtom etc.		
17.9. Transport Worker (Bus, Truck, Tempo, etc.)		
17.10. Own Agricultural Produce		
17.11. Fishing/ Fish farming/ Aquaculture		
17.12. Livestock / Poultry / Pig rearing/ Ducks		
17.13. Business/middle/ petty (Specify)		
17.14. Cottage Industry / Handicraft		
17.15. Service/ Industrial Garment Labour		
17.16. Resource collection from forest/hills (fuel wood etc.) and selling/use Collection of fish fry/ immature crab/oyster etc.		
17.17. Cash for work/ Food for work		
17.18. Government Allowance under social safety net program and others (disability allowance; VGD / VGF; widows allowance; old age allowance; freedom fighter allowance; education allowances; Covid relief.)		
17.19. Support from NGOs		
17.20.Begging/ Fetra / Zakat		
17.21. Training Allowance from GoB / NGO		
17.22. Donation from Relatives		
17.23. Savings Withdrawal/ Loan Taken		
17.24 Residual crop collection		

Section 18: Household's food consumption/expenditure

Code	List of Food	Total consumption of amount		Price per unit (Tk)	Code	List of Food	Total consumption of amount		Price per unit (Tk)
		Unit 1= Gram 2=Kg./liter 3= Mound 4= Number / Pon / Kadi	Consumption amount				Unit 1= Gram 2=Kg./liter 3= Mound 4= Number / Pon / Kadi	Consumption amount	
In the Last Week(food grain)					**In the Last Month (Spices)**				
18.1.	Rice				18.34.	Turmeric			
18.2.	Wheat				18.35.	Chilli (kacha)			
18.3.	Flour				18.36.	Chilli (paka)			
18.4.	Chira/Muri (fried rice)				18.37.	Onion			
18.5.	Semolina				18.38.	Garlic			
In the Last Week(Pulses)					18.39.	Ginger			
18.6.	Lentil				18.40.	Other (specify)			
18.7.	Chola				**In the Last Month (Others food)**				
18.8.	Mash Kalai				18.41.	Potato			
18.9.	Khesari				18.42.	Maize			
18.10.	Mung				18.43.	Fruit			
18.11.	Boots				18.44.	Misti/ Batasa/ Jilapi			
18.12.	Anchor				**In the Last Month (Others food)**				
In the Last Week(Edible oil)					18.45.	Green Vegetables (Leafy)			
18.13.	Soybean				18.46.	Vegetables			
18.14.	Mustard				18.47.	Fish (large)			
18.15.	Dalada				18.48.	Fish (Small)			
18.16.	Ghee				18.49.	Dri Fish			
18.17.	Palm oil				18.50.	Nappi			
18.18.	Sesame				18.51.	Hotel / Food purchased from restaurant			
18.19.	Other (specify)				18.52.	Soft Drinks			

In the Last Month (Meat, eggs and milk)					18.53.	Biri / cigarette / tobacco			
18.20.	Beef				18.54.	Betel leaf/ BetelNut /Chewing tobacco / Catechu Etc.			
18.21.	Pork				18.55.	Biscuit			
18.22.	Buffalo meat				18.56.	Chanachur			
18.23.	Mutton				18.57.	Tea/tea leaves			
18.24.	Chicken (Deshi)								
18.25.	Chicken (Farm)								
18.26.	Duck				**In the Last Month (Others food)**				
18.27.	Pigeon meat				18.59.	Other (specify)			
18.28.	Egg				18.60.	Other (specify)			
18.29.	Milk								
In the Last Month (Others food)									
18.30.	Liver / brain								
18.31.	Sugar / molasses / honey								
18.32.	Milk powder								
18.33.	Salt								

Section 19: Household Non-food expenditure

Code	Expenditure sectors	Price (Taka)	Code	Expenditure sectors	Price (Taka)
In the last Month (Fuel)			**In the last Month (Personal care product use and consumption of households)**		
19.1.	Fuel Wood /Coal / Charcoal		19.25.	Clothes washing soap	
19.2.	Dry leaves / dung / Jute stick / rice bran / straw		19.26.	Soap / shampoo	
19.3.	Kerosene		19.27.	Hair oil / powder / Cosmetics	
19.4.	Match		19.28.	Shaving / hair cut / saving cream	

Code	Expenditure sectors	Price (Taka)	Code	Expenditure sectors	Price (Taka)
19.5.	Other (specify)		19.29.	Other (specify)	
in the last Month (local transportation)			**In the last Month(Entertainment**		
19.6.	Rickshaw / van / bus fare		19.30.	Movies / Travel / Drama / picnic / fairs etc.	
19.7.	Car oil		19.31.	Sport	
In the last Month (Miscellaneous)					
19.8.	Candles		**In the last Month (Travel expenses , not local)**		
19.9.	Micro- loan payment		19.32.	Transport Costs(Bus/ Micro/minibus)	
19.10.	Loan given		19.33.	Other (specify) Transport (Hotel / eating etc.)	
19.11.	The amount of cash paid to children				
19.12.	Other (specify)				
In the last Month (Electricity / water / gas / Other bills)			**In the last Month Other (specify)**		
19.13.	Electricity bill		19.34.	Salon / parlor	
19.14.	Water bill		19.35.	Laundry	
19.15.	Gas Bill		19.36.	Other (specify)	
19.16.	LP Gas Bill		**In the last Month Other (Not for any occasion)**		
19.17.	Generator bill		19.37.	Footwear	
19.18.	Solar power plant / installment		19.38.	Clothing	
19.19.	Cable connection bill		19.39.	Healthcare	
			19.40.	Essential equipment	
In the last Month (Hhouse / land rent)			19.41.	Education	
19.20.	House rent		19.42.	Household Repair / Construction	
19.21.	Land rent		19.43.	Household Furniture	
19.22.			19.44.	Livestock Purchase	
			19.45.	Land purchase / Mortgage	
			19.46.	Vehicle repair / purchase	
In the last Month (communication)			19.47.		
19.23.	Mobile & Other Telephone Expenses		19.48.	Fishing equipment	
19.24.	Postal		19.49.	Drugs (cigarette, tobacco, alcohol ..)	
			19.50.	Tax	
			19.51.	Agricultural Inputs	
			19.52.	others	

Code	Expenditure sectors	Price (Taka)	Code	Expenditure sectors	Price (Taka)
			19.53.	others	
			19.54.	others	

Section 20: Major income shocks in last one year

Types of Income shock			Expenditure incurred	Cost of coping	Source of coping cost (multiple)
20.1. Any family member got seriously ill?					
20.2. Any livestock or cattle that got lost, stolen or died?					
20.3. Any loss to the crop? (early stage)					
20.3. Any loss to the crop? (later stage)				N/A	N/A
20.4. Any loan given outside the family that was not returned?					
20.5. Any family member who lost job or income?					
20.6. Major loss in business					
20.8. Death of any income earner in the family?					
20.10. Dowry or large expenses related to marriage					
			N/A		
20.14. Any loss from a flood?					
20.15. Any loss from pests/insects or diseases?					

Code list for Source of Coping

1 Could not able to cope
2 From regular income
3 From savings
4 Borrow money without interest
5 Borrow money with interest
6 Selling permanent asset (Land, house etc)
7 Leasing permanent asset (Land, house etc)
8 Selling temporary asset (furniture, tv etc)
9 Leasing temporary asset (furniture, tv etc)
10 Spliting household
11 Reducing expenditure
12 Discontinuing child's education
13 Insurance
14 Other

Section 21: Covid Information

Code	Questions	Coding categories	Skip
21.1	Did you have difficulties locating or were you unable to travel to purchase agricultural inputs during Boro or Aman due to COVID-19?	0=No, I did not have a problem like this 1=Yes, during Aman 2=Yes, during Boro 3=Yes, during both seasons	***If 0→skip to 21.3***
21.2	Which inputs did you have difficulty obtaining due to COVID-19?	1=Seeds 2=Fertilizer 3=Both seeds and fertilizer 4=Other (specify)	
21.3	Did you have difficulty hiring agricultural labour during Boro or Aman due to COVID-19?	0=No, I did not have a problem like this 1=Yes, during Aman 2=Yes, during Boro 3=Yes, during both seasons	***If 0→skip to 21.6***
21.4	For which activity did you face a labor shortage due to COVID-19? (select all)	0=Land preperation 1=Planting/transplanting 2=Harvest 3=Weeding	
21.5	What best describes the type of labor shortage due to COVID-19?	1=Price of workers was too high 2=Could not find enough workers at a reasonable price 3=Could not find enough workers at any price 4=Other (specify)	
21.6	Did you have increased difficulty selling or marketing any agricultural output after March 2020 due to COVID-19?	0=No, I did not have a problem like this 1=Yes, during Aman 2=Yes, during Boro 3=Yes, during both seasons 4=Yes, all throughout the year	***If 0→skip to 21.9***
21.7	Did any agricultural products rot or spoil as a result of difficulties in marketing or selling due to COVID-19?	0=No 1=Yes	***If 0→skip to 21.9***
21.8	If so, what products, when did the product spoil, and the approximate value due to COVID-19?	Product 1: ___ [Crop code] Produtct 1 time: [Month] Product 1 value: _____ [Birr] Product 2: ___ [Crop code] Produtct 2 time: [Month] Product 2 value: _____ [Birr]	

		Product 3: ___ [Crop code] Produtct 3 time: [Month] Product 3 value: _____ [Birr]	
21.9	Were you forced to accept a lower price than usual as a result of difficulties in marketing or selling during the pendamic?	0=No 1=Yes	***If 0→skip to 21.11***
21.10	If so, what products, when did you sell, and the approximate discount during the pendamic?	Product 1: ___ [Crop code] Produtct 1 time: [Month] Product 1 value: _____ [%] Product 2: ___ [Crop code] Produtct 2 time: [Month] Product 2 value: _____ [%] Product 3: ___ [Crop code] Produtct 3 time: [Month] Product 3 value: _____ [%]	
21.11.	Have you or anyone in your household been negatively affected in any way by the Corona virus or by any community or personal changes done to prevent the spread of the coronavirus?	0 ---------- No 1 ---------- Yes	If "0" skip to question Q1_4
21.12	If yes, then what are the problems please specify	1---------- Fell ill 2----------Feeling stressed/worried 3----------Reduced Income 4----------Lost work or Job 5----------Increased cost of food 6----------Reduced food available in market 7----------Face food scarcity in HH level 8----------Face scarcity of daily commodities 9----------Decreased food consumption 10----------Face limited access of medical facilities 11----------Interruption of children's education 12----------Closed transportation system 13----------Unable to go out for emergency needs 14----------Trouble with paddy harvest (getting labor, etc.) 15----------Unable to pray / go to religious activities	If "2" skip to question Q1_3_2 If "3" skip to question Q1_3_3

		16----------Problems in taking self-produced products to the market 17----------Market price of self-produced products is low 18----------Lost remittance/returning migrant worker 99----------Other specify	
21.13.	Please mention the average amount of income reduced during this pandemic		
21.14.	Please mention the number of month that you or any other member of your households were unemployed		
21.15.	Overall, how badly has the coronavirus pandemic affected your household's livelihood, including cash income and food availability?	1----------Not at all 2----------Very little 3----------Somewhat 4----------To a great extent 88----------Don't know	
21.16.	During COVID 19/Lockdown, did any members of your household face problems in getting or continuing job?	0----------No 1----------Yes	
21.17.	In addition of food, any basic need (clothing, housing, medicines, educational materials etc) that you couldn't fulfil due to economic crisis for Lockdown	0----------No 1----------Yes	
21.18.	Did you have to sell any household assets during economic crisis due to COVID 19/ Lockdown	0----------No 1----------Yes	
21.19.	Have you received any external assistance in the past one month	0----------No 1----------Yes	If "0" skip to end
21.20.	If yes, then what kind of support did you receive?	1-------Cash 2-------Food 3-------Personal Protective Equipment (PPE) 4------- Antiseptic Elements (e.g. disinfectants) 5--------Employment 6--------Emergency Medical Services 7--------Awareness training 8--------Access to information on Coronavirus 9--------Transportation service during an emergency 99------Others Specify	

Section 22: Satisfaction of BDM winners (Only ask this module to the baseline BDM winners)

	Question	Answer
22.1.	How satisfied are you with the hermetic bag? (Rate from 0 to 5)	
22.2.	Would you recommend hermetic bag to other farmers? (1=Yes, 2=No)	
22.3.	Are the storage benefits of hermetic bags visible over traditional storage methods? (1=Yes, 2=No)	
22.4.	How different are the hermetic bags from traditional storage methods? (Rate from 0 to 5)	
22.5.	Is the size of the hermetic bag adequate? (1=Yes, 2=No, too small , 3=No, too big)	
22.6.	What did you use the the hermetic bag for? (1=Yes, 2=No)	
22.6.1.	Rice storage for Future Consumption	
22.6.2.	Rice storage for Sale in Market	
22.6.3.	Paddy Seed Storage for personal use	
22.6.4.	Paddy seed storage for Sale in Market	
22.6.5	Other crop storage	
22.6.6	Other seed storage	
22.6.7	Did not use bag	
22.7.	How likely are you to use any hermetic bag in the future? (Rate from 0 to 5)	
22.8.	How likely are you to use hermetic bags in the future for all storage purposes? (Rate from 0 to 5)	
22.9.	How likely are you to use the hermetic bags in future for the following purposes? (Rate from 0 to 5)	
22.9.1.	Rice storage for Future Consumption	
22.9.2.	Rice storage for Sale in Market	
22.9.3.	Seed Storage for personal use	
22.9.4.	Seed storage for Sale in Market	
22.9.5	Other crop storage	
22.9.6	Other seed storage	
22.9.7	Will not use bag	

Section 23: Satisfaction of Treatment 1 (warranty holders, only ask this module to the Baseline BDM winners)

	Question	Answer
23.1.	Did you redeem the warranty? (1=Yes, 2=No)	
23.2.	How satisfied are you with the warranty service? (Rate from 0 to 5)	

23.3.	Why did you redeem the warranty? (1=Loss of seed, 2=you didn't think hermetic bag was a fair value of money)	
23.4.	How likely were you to buy this bag if warranty was not offered? (Rate from 0 to 5)	

Part 2: BDM and risk and time preferences

Section 1: Identification

		Entry
Name of the Respondent		
Respondent ID (from section 2, part 1)		
Household ID		

Section 2: BDM Auction

This section conducts a Becker-DeGroot-Marshack (BDM) auction to find out willingness to pay for a hermetic bag. Please refer to the enumerators manual in order to explain the procedure to the participants.

	Questions	Answer	Remark
2.1.	Group assignment (1=T1, 2=T2, 3=C)		
2.2.	Group assignment (1=INFO, 2=NOINFO)		
2.3.	Mock round bid		
2.4.	Did the respondent fail any of the mock round tests? (Yes = 1 ,No = 0)		
2.5.	Did the respondent fully comprehend the the mock round tests? (Yes = 1 ,No = 0)		Skip to 2.5 if the answer to 2.3 is No.
2.6.	Actual bid for the GrainPro bag		
2.7.	Did the respondent fail any of the tests in the actual bidding session? (Yes = 1 ,No = 0)		Skip to 2.7 if the answer is No. Skip to 2.6 if the answer is Yes.
2.8.	Was the respondent was able to fully comprehend the actual bid? (Yes = 1 ,No = 0)		Skip to 2.8 if the answer to 2.6 is No.
2.9.	Revised actual bid for the GrainPro bag		
2.10.	Randomly drawn price		
2.11.	Did the respondent win? (Yes = 1 ,No = 0)		
2.12.	Did the respondent pay immediately (Yes = 1, No = 0)?		Only ask for the group T2.

Section 3: Potential Consumption decisions

Consumption questions	
3.1. Given an option, are you willing to buy more than one bag? (1= Yes, 0= No)	
3.2. If yes, how many bags are you willing to buy?	
3.3. At what price, are you willing to buy the bags?	

Section 4: BDM auction of other agricultural input (soap or an ag input)

	Questions	Answer	Remark
4.1.	Group assignment (1=T1, 2=C)		
4.2.	Group assignment (1=RP, 2=NRP)		
4.3.	Mock round bid		
4.4.	Actual bid		
4.5.	Did the respondent fail any of the tests in the actual bidding session? (Yes = 1 ,No = 0)		Skip to 2.7 if the answer is No. Skip to 2.6 if the answer is Yes.
4.6.	Was the respondent was able to fully comprehend the actual bid? (Yes = 1 ,No = 0)		Skip to 2.8 if the answer to 2.6 is No.
4.7.	Revised actual bid		
4.8.	Randomly drawn price		
4.9.	Did the respondent win? (Yes = 1 ,No = 0)		
4.10.	Did the respondent pay immediately (Yes = 1, No = 0)?		Only ask for the group T2.

Section 5: Risk Preference (Holt and Laury 2002: Hypothetical)

Suppose you will be paid based on the chances and the payouts that are listed in the table below. For all 5 pairs, please choose what would you prefer between Options A and B.

Pair No.	Option A	Option B	Your Choice (A/B)

5.1.	**The bag has 2 red balls and 8 blue balls: If you draw a red ball, you win BDT 170 and if you draw a blue ball, you win BDT 136.**	**The bag has 2 red balls and 8 blue balls: If you draw a red ball, you win BDT 327 and if you draw a blue ball, you win BDT 8.**	
5.2.	**The bag has 4 red balls and 6 blue balls: If you draw a red ball, you win BDT 170and if you draw a blue ball, you win BDT 136.**	**The bag has 4 red balls and 6 blue balls: If you draw a red ball, you win BDT 327 and if you draw a blue ball, you win BDT 8.**	
5.3.	**The bag has 6 red balls and 4 blue balls: If you draw a red ball, you win BDT 170and if you draw a blue ball, you win BDT 136.**	**The bag has 6 red balls and 4 blue balls: If you draw a red ball, you win BDT 327 and if you draw a blue ball, you win BDT 8.**	
5.4.	**The bag has 8 red balls and 2 blue balls: If you draw a red ball, you win BDT 170and if you draw a blue ball, you win BDT 136.**	**The bag has 8 red balls and 2 blue balls: If you draw a red ball, you win BDT 327 and if you draw a blue ball, you win BDT 8.**	
5.5.	**The bag has 10 red balls and 0 blue balls: If you draw a red ball, you win BDT 170and if you draw a blue ball, you win BDT 136.**	**The bag has 10 red balls and 0 blue balls: If you draw a red ball, you win BDT 327 and if you draw a blue ball, you win BDT 8.**	

Section 6: Loss Aversion (Hypothetical)

Lottery Choice Task

Lottery (following a coin toss)	Accept	Reject	Notes
6.1. if heads, you lose 50 BDT; if tails, you win 150 BDT			**If Accept→Q2** **If Reject→end section**
6.2. if heads, you lose BDT 75; if tails, you win 150 BDT			**If Accept→Q3** **If Reject→end section**
6.3. if heads, you lose BDT 110; if tails, you win 150 BDT			**If Accept→Q4** **If Reject→end section**
6.4. if heads, you lose BDT 125; if tails, you win 150 BDT			**If Accept→Q5** **If Reject→end section**

6.5. if heads, you lose BDT 150; if tails, you win 150 BDT			**If Accept→Q6** **If Reject→end section**
6.6. if heads, you lose BDT 175; if tails, you win 150 BDT			