

Innovative Agriculture for Smallholder Resilience (iNASHR) Project
Farm Household and Socio-economic Survey Questionnaire
For the 2021/2022 (October 2021 – September 2022) Cropping Season

INTERVIEWER: Please explain to the respondent that this survey is a follow up to the one conducted last year. Please explain again that this questionnaire is intended to collect data for the following two purposes and the data will not be used in any way that will hurt them:

- 1) **PART I-** To study what percentage of farmers are using the improved technology package disseminated by the iNASHR project and what benefits they are getting in terms of yield, income, water saving, soil salinity management, etc.
- 2) **PARTII-** To assess which technology dissemination methods used by the iNASHR project are better to enhance adoption of the different components of the technology packages introduced by the project.

PART I: ADOPTION AND IMPACT ESTIMATION

A) Farm identification and location

A1. Q No.: **A2.** Date: **A3.** Name of interviewer:;
A4. Farmer's name **A5.** Telephone no **A6.** Governorate:
A7. District: **A8.** Village:; **A9.** Distance from nearest market _____km

C) About the respondent

C1. Is the Respondent the Head of Household? _____ (1=Yes, 0=No); If yes please continue to Section D, If No, answer the following: **C2.** Sex (1=Male, 0= Female) _____ **C3.** Age _____ years;
C4. Number of years of education _____; **C5.** Years of experience in agriculture? years;
C6. The respondent makes major agricultural decisions for the household: _____ (1=Yes, 0=No);

D) Land acquisition in feddans (f) in 2021/2022

D1	Total area cultivated (regardless of ownership)fd	D2	Total area of agricultural land owned: fd
D3	Area of agricultural land leased in: fd	D4	Area sharecropped in: fd
D5	Total number of plots cultivated?	D6	Total area allocated to wheatfd
D7	Total area allocated to faba-beans (FB)fd	D8	Number of wheat plots _____;
D9	Number of faba_bean plots _____.	D9	

G. Production in the year 2021/2022 (October 2021-September 2022). Please collect data for all plots sown with wheat and Faba-beans (FB) during the winter season

	Item	Plot 1	Plot 2	Plot 3	Plot4	Plot 5	Plot 6
	A. General						
GA1	Plot name						
GA2	Area (ha)						
GA3	Tenure (1-owned 2- leased in 3- share cropped in; 4- other)						
GA4	If rented, rental cost (LE)						
GA5	Soil salinity (1-low salinity 2-medium 3- high salinity)						

	Item	Plot 1	Plot 2	Plot 3	Plot4	Plot 5	Plot 6
GA6	Actual measurement of average salinity (dS/m)						
GA7	GPS-Coordinate – Latitude (N)						
GA8	GPS-Coordinate – Longitude (E)						
GA9	Soil depth (1-shallow 2-medium 3-deep)						
GA10	Water table (1-shallow 2-medium 3-deep)						
GA11	Type of drainage (0=None, 1=Open; 2= closed)						
GA12	If 1 or 2 above condition of drainage: 1=poor, 2=Medium; 3= good;						
GA13	Distance to main road (km)						
GA14	Type of raised bed: 0= None; 1= mechanized; 2= manual						
GA15	If mechanized raised bed, number of years since you first adopted the technology on this plot?						
GA16	If mechanized raised bed, number of years since current beds were constructed?						
GA17	Cost of machinery for constructing the raised beds in 2021/2022?						
GA18	If manual raised bed, number of years since you first adopted on this plot?						
GA19	If manual raised bed, number of years since current beds were constructed?						
GA20	Cost of machinery for constructing the manual raised beds in 2021/2022?						
GA21	Total number of adult male family labor days used for constructing the manual raised beds in 2021/2022?						
GA22	Total number of adult female family labor days used for constructing the manual raised beds in 2021/2022?						
GA23	Total number of child (below 15 years old) male family labor days used for constructing the manual raised beds in 2021/2022?						
GA24	Total number of child (below 15 years old) female family labor days used for constructing the manual raised beds in 2021/2022?						
GA25	Length of each raised bed (cm)						
GA26	Width of each raised bed (cm)						
GA27	Width of furrow between beds (cm)						
GA28	Depth of furrow between beds (cm)						
GA29	Are there other soil and water conservation (SWC) structures on the plot? (0=No; 1=Yes)						
GA30	If yes to other SWC structures, specify 1= XXX; 2= YYY						
GA31	Number of times you grew pulses on this plot in the last 5 years						
GA32	Average number of crops you grow per year on this plot?						
GA33	Crop type that is grown on this field in this (2020/2021) season						

	Item	Plot 1	Plot 2	Plot 3	Plot4	Plot 5	Plot 6
GA34	Name of variety for the crop grown this season						
GA35	Seed source in this season: (1= own saved, 2 =seed company, 3 = other farmers, 4 = market, 5= Research and extension, 6 = iNASHR project; 7=Another project; 8=Others)						
	B. Winter Crops (2021/2022)						
GB1	Crop type grown on this plot this winter season (Wheat or FB only).						
GB2	Name of variety grown in 2021/2022?						
GB3	Is the variety improved? 1=Yes, 0=No						
GB4	If yes when did you start using it (year)						
	Tillage and planting						
GB5	Number of times the plot was tilled this season						
GB6	Total number of adult male family labor days used for tillage and planting						
GB7	Total number of adult female family labor days used for tillage and planting						
GB8	Total number of child (below 15 years old) male family labor days used for tillage and planting						
GB9	Total number of child (below 15 years old) female family labor days used for tillage and planting						
GB10	Cost of hired male labor for tillage and planting (LE/day)						
GB11	Cost of hired female labor for tillage and planting (LE/day)						
GB12	Cost of hired child labor for tillage and planting (LE/day)						
GB13	Date of planting						
GB14	Total cost of machinery used for tillage and planting (LE)						
GB15	Cost of hired labor for land preparation (LE/day)						
	Seeds						
GB16	Total amount of seed used (kg)						
GB17	Seed source: (1= own saved, 2 =seed company, 3 = other farmers, 4 = market, 5= Research and extension, 6 = iNASHR project; 7=Another project; 8=Others)						
GB18a	If the seed you used was purchased, when (year) did you purchase it?						
GB18b	If purchased, was the seed you used certified? (1=Yes, 2=No)						
GB19	If you bought the seed, price paid (LE/kg)						
GB20	Sowing method (1=broadcasting, 2 =row)						
GB21	Sowing was 0>manual; 2 = mechanical						
GB22	Seed cleaning (1= Yes, 0=No)						
GB23	Seed treatment (1= Yes, 0=No)						
GB23a	If seed was cleaned, who did it? (1=male family members; 2= female family members; 3= male hired						

	Item	Plot 1	Plot 2	Plot 3	Plot4	Plot 5	Plot 6
	labor; 4= female hired labor)						
GB23b	If seed was treated, who did it? (1=male family members; 2= female family members; 3= male hired labor; 4= female hired labor)						
	Fertilizer						
GB24	Did you use organic fertilizers (1= Yes, 0= No)						
GB25	Quantity of organic fertilizer (kg)						
GB26	Price of organic fertilizers (LE/kg)						
GB27	Cost of applying organic fertilizer (LE)						
GB28	Quantity of TSP (kg)						
GB29	Date of TSP application (date, month)						
GB30	Quantity of first urea dose (kg)						
GB31	Date of application of the first urea dose (date, month)						
GB32	Method of fertilizer application (1= manual, 2=mechanical)						
GB33	Fertilizer application strategy (1=broadcasting, 2 =row)						
GB34	Total number of adult male family labor days used for fertilizer application						
GB35	Total number of adult female family labor days used for fertilizer application						
GB36	Total number of child (below 15 years old) male family labor days used for fertilizer application						
GB37	Total number of child (below 15 years old) female family labor days used for fertilizer application						
GB38	Cost of hired male labor for fertilizer application (LE/day)						
GB39	Cost of hired female labor for fertilizer application (LE/day)						
GB40	Cost of hired child labor for fertilizer application (LE/day)						
GB41	Cost of machinery for fertilizer application (LE)						
GB42	Fertilizer source (1= Bank, 2=scheme, 3= market, 4= other)						
GB43	Date start using urea and TSP (date, month)						
GB44	Farm price of TSP (LE/kg)						
GB45	Farm price of urea (LE/kg)						
GB46	If farmer didn't apply fertilizers, reasons? 1= Not necessary, 2= expensive 3= Not available in time 4= not profitable						
GB47	Intensity of weed infestation (1= high, 2=medium, 3=low)						
	Weed control						
GB48	Dominant weeds (1=narrow leaf weeds, 2= broad leaf weeds)						
GB49	Method of weed control (1=chemical, 2= manual, 3=no control)						
GB50	Cost of herbicides (LE)						
GB51	Most important pests (1=aphids, 2= termites, 3=birds,						

	Item	Plot 1	Plot 2	Plot 3	Plot4	Plot 5	Plot 6
	4=others)						
GB52	Intensity of pest infestation (1= high, 2=medium, 3=low)						
GB53	Use of pest control (1=Yes, 2=No)						
GB54	Method of pest control (1=Manual, 2= chemicals, 3= IPM)						
GB55	Cost of pesticides (LE)						
GB56	Total number of adult male family labor days used for pest and weed control						
GB57	Total number of adult female family labor days used for pest and weed control						
GB58	Total number of child (below 15 years old) male family labor days used for pest and weed control						
GB59	Total number of child (below 15 years old) female family labor days used for pest and weed control						
GB60	Cost of hired male labor for pest and weed control (LE/day)						
GB61	Cost of hired female labor for pest and weed control (LE/day)						
GB62	Cost of hired child labor for pest and weed control (LE/day)						
	Irrigation						
GB63	Irrigation water source (1 = Canal water, 2= ground water; 3=drainage water; 4= Canal+ground; 5=Canal+drainage; 6=Ground+drainage; 7=canal+ground+drainage)						
GB64	Irrigation type (1= fully irrigated, 2=supplementary irrigation)						
GB65	Irrigation system (1=gravity irrigation, 2 sprinkler irrigation, 3=drip irrigation)						
GB66	Total number of irrigations						
GB67	Irrigation interval (vegetative growth)						
GB68	Irrigation interval (reproductive growth)						
GB69	Discharge capacity of your pump (m3/second)						
GB70	Average time taken per irrigation (in hours)						
GB71	Amount of irrigation water(m ³) Per one irrigation						
GB72	Fixed fee for irrigating from the scheme (LE/hour)						
GB73	If own pump, cost of fuel, lubricants and maintenance for irrigations (LE)						
GB74	Total number of adult male family labor days used for irrigation						
GB75	Total number of adult female family labor days used for irrigation						
GB76	Total number of child (below 15 years old) male family labor days used for irrigation						
GB77	Total number of child female family labor days used for irrigation						
GB78	Cost of hired male labor for irrigation (LE/day)						

	Item	Plot 1	Plot 2	Plot 3	Plot4	Plot 5	Plot 6
GB79	Cost of hired female labor for irrigation (LE/day)						
GB80	Cost of hired child labor for irrigation (LE/day)						
	Harvest and threshing						
GB81	Time of harvesting (date, month)						
GB82	Method of harvesting (1= Manual cutting and mechanical threshing 2= combine harvester; 3= Mechanical cutting and mechanical threshing)						
GB83	Based on method of threshing, total number of adult male family labor days used for harvesting and threshing						
GB84	Total number of adult female family labor days used for harvesting and threshing						
GB85	Total number of child (below 15 years old) male family labor days used for harvesting and threshing						
GB86	Total number of child (below 15 years old) female family labor days used for harvesting and threshing						
GB87	Cost of hired male labor for harvesting and threshing (LE/day)						
GB88	Cost of hired female labor for harvesting and threshing (LE/day)						
GB89	Cost of hired child labor for harvesting and threshing (LE/day)						
GB90	If manually harvested, cost of mechanical thresher (LE)						
GB91	Cost of combine harvester (LE)						
GB92	Cost of bags for grain (LE)						
GB93	Distance of market (km)						
GB94	Mode of transport used (Code A)						
GB95	Cost of transport (LE/100kg)						
GB96	Place of sale (Code B)						
GB97	To whom sold (Code C)						
GB98	In which month did you sell it?						
GB99	Total production of main product (wheat or FB in kg)						
GB100	Price of main product (LE /kg)						
GB101	Straw production (kg)						
GB102	Straw price (LE/kg)						
GB103	Amount of production used for own consumption (kg)						
GB104	Amount of straw used for own livestock (kg)						
GB105	Seed retained (kg)						
GB106	Gift, donations given out (kg)						
GB107	If rented standing crop for grazing, revenue (LE)						
GB108	If rented crop residues for grazing, revenue (LE)						

	Item	Plot 1	Plot 2	Plot 3	Plot4	Plot 5	Plot 6
	C. Nili Crops grown on the plot (2021/2022)						
GC1	Type of crop grown in the immediate past Nili season (0=None; 1=wheat; 2= faba-bean (FB); 3=other cereals; 4= vegetables or Spices (specify_____); 5= cotton; 6= other (specify_____); 7= None						
GC2	Total adult male labor used (days)						
GC3	Total adult female labor used (days)						
GC4	Total of child (below 15 years old) male labor used (days)						
GC5	Total of child (below 15 years old) male labor used (days)						
GC6	Total cost of machinery (LE)						
GC7	Total cost of fertilizers (LE)						
GC8	Total cost of herbicides (LE)						
GC9	Total cost of pesticides (LE)						
GC10	Total other costs (LE)						
GC11	Total production of main product (kg)						
GC12	Price per of main product (LE/kg)						
GC13	Total production of byproducts (kg)						
GC14	Price per of byproducts (LE/kg)						
	D. Summer Crops (2021/2022)						
GD1	Type of crop grown in the immediate past summer season (1=wheat; 2= faba-bean (FB); 3=other cereals; 4= vegetables or Spices (specify_____); 5= cotton; 6= other (specify_____))						
GD2	Total adult male labor used (days)						
GD3	Total adult female labor used (days)						
GD4	Total of child (below 15 years old) male labor used (days)						
GD5	Total of child (below 15 years old) male labor used (days)						
GD6	Total cost of machinery (LE)						
GD7	Total cost of fertilizers (LE)						
GD8	Total cost of herbicides (LE)						
GD9	Total cost of pesticides (LE)						
GD10	Total other costs (LE)						
GD11	Total production of main product (kg)						
GD12	Price of per main product (LE/kg)						
GD13	Total production of byproducts (kg)						
GD14	Price per of byproducts (LE/kg)						

Code A: mode of transport used	1=Own truck		2=Rented truck		3= Animal drawn cart		4=Animals					
Code B: market or place of sale	1=Farm gate		2=Village market		3=town market		4=District market		5=Cooperative		6= Other (specify)	
Code C: buyer type	1=Rural consumers	2=Urban consumers	3= Other wheat farmers	4=Brokers	5=Traders	6=Processing companies		7=Retail shops	8=government		Other (specify) _____	

H. Income from major sources during the previous 12 months?

- Type of incentive you received from the government to use improved/certified seeds for

H1. Wheat (0=None, 1=subsidized urea, 2= other (specify)) _____; **H2.** Faba_beans _____

H3. Did you need credit? _____ (1=Yes; 0=No); **H4.** . If yes did you try to get credit? _____

(1=Yes; 0=No); **H5.** If yes, did you get it? _____ (1=Yes; 0=No); **H6.** If No, why not?

	Income source	Annual income (LE)
H7	Total income (LE)	
H8	Sales of wheat	
H9	Sales of wheat straw	
H10	Sales of faba-beans	
H11	Sales of faba_bean straw	
H12	Sales of other field crops	
H13	Sales of tree crops	
H14	Sales of live animals	
H15	Sales of animal products	
H16	Employment on others' farms	
H17	Other non-farm employments	
H18	Government employment	
H19	Private sector employment	
H20	Money transfer from family members	
H21	Other sources	

H22. Share of agriculture in total household annual income _____%

H23. Share of crops in total household income _____%

H24. Share of livestock in total household income _____%

H25. Share of off-farm employment in total household annual income _____%

H26. Share of wheat in total crop income _____%

H27. Share of faba_bean in total crop income _____%

PART II. IMPACTS OF DISSEMINATION STRATEGIES

I. About information acquisition

I1. Number of visits to/by extension agents in the 2021/2022 _____

I2. Number of visits to/by researchers in the 2021/2022 _____

- I3. Is there an agricultural cooperative in your village? 1-Yes 0-No
 I4. Are you a member of the cooperative? 1-Yes 0-No
 I5. How often did you exchange agricultural information with other farmers? _____ (1=Never
 2= Rarely 3= sometimes 4=often)
 I6. Have you participated in any training course in agriculture? _____ 1= Yes 0= No
 I7. Did you ever participate in field days? 0=No, 1=Yes.
 I8. Did you ever host demonstration fields on your own field? _____ 0=No, 1=Yes.
 I9. Did you ever participate in harvest days? _____ 1= Yes 0= No
 I10. Have you participated in projects other than iNASHR (including government programs) that promoted or are still promoting wheat technology package(s)? (1=Yes, 0=No) _____
 I11. If yes to the above question, please mention the name of the project. _____
 I12. If yes, what are the components of the recommended technology package _____
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J. The effectiveness of different methods of technology dissemination for farmers

PART A- Mobile Applications

- J1. Who do usually call on your mobile phone? _____ 1- Family, relatives, and neighbors; 2- Agricultural Association; 3-Agricultural Directorate; 4-Fertilizer and seed sellers; 5-Pesticide sellers; 6-Development Bank / other banks
 J2. The reasons related to agriculture that push you to communicate with authorities: 1- To know the prices of pesticides and seeds; 2- To get agricultural news and tips; 3-To know the dates of the seminars; 4-To get news of excellent varieties; 5-To get news of excellent seeds
 J3. Is the information contained in agricultural applications via mobile phone reliable for you? _____ 0=No, 1=Yes. If No, Why not? _____
 J4. Do mobile applications provide complete information that needs no further explanation _____ 0=No, 1=Yes; If No, Why not? _____
 J5. Do you find it difficult to use the mobile application? _____ 0=No, 1=Yes.
 If yes, why? _____
 J6. What do you want to add or be present in the application? _____
 J7. Would you recommend this application to relatives and neighbors? _____ 0=No, 1=Yes;
 J8. If No, Why not? _____

K. Information for evaluating other dissemination methods

	Please answer the following questions for each dissemination method	Training of Trainers	Farmer field school (FFS)	Field demo	Harvest Days	Video Screenings	Posters
K1	Did you participate in this extension method? (0=No, 1=Yes)						
K2	What encouraged you to attend/use this method? (Code E)						
K3	Do you think the place where this extension method was conducted suitable? ____ (1=Yes; 0=No)						

	Please answer the following questions for each dissemination method	Training of Trainers	Farmer field school (FFS)	Field demo	Harvest Days	Video Screenings	Posters
K4	Was the place where this was conducted close to you? _____ (1=Yes; 0=No)						
K5	Was the season/timing during which it was conducted suitable for you? _____ (1=Yes; 0=No)						
K6	Were the concepts explained in this method clear? ____ (1=Yes; 0=No)						
K7	Were the steps explained to you in the session about (MRB) easy for you to implement? ____ (1=Yes; 0=No)						
K8	Was the information presented to you sufficient or you need more? ____ (1=Yes; 0=No)						
K9	From what you learned, would you be able to use the mechanized raised bed without asking somebody else? _____ (1=Yes; 0=No)						
K10	Will you tell what you learned to your relatives and/or neighbors? ____ (1=Yes; 0=No)						
K11	Will you encourage others to participate in this method in the future? ____ (1=Yes; 0=No)						
K12	Based on the information you got from this method, do you think the new varieties will increase your yield? ____ (1=Yes; 0=No)						
K13	Based on the information you got from this method, do you think MRB will increase your yield? ____ (1=Yes; 0=No)						
K14	Based on the information you got from this method, do you think rotation will increase your yield? ____ (1=Yes; 0=No)						
K15	Were the recommendations you heard useful for you? _____ (1=Yes; 0=No)						
K16	If you need more information, who would you ask or from which place? Code B						
K17	If you want to implement the recommendations that you learned, from where would you get the inputs and equipment's? Code B						
K18	Did you already apply the recommendations that you heard? _____ (1=Yes; 0=No)						
K19	Was the time during which the recommendations were presented sufficient? _____ (1=Yes; 0=No)						
K20	Do you think this is a good method of learning new agricultural practices? ____ (1=Yes; 0=No)						

	Please answer the following questions for each dissemination method	Training of Trainers	Farmer field school (FFS)	Field demo	Harvest Days	Video Screenings	Posters
K21	If we want to give you more information, which method do you prefer for us to use?						
K22	If we want to send you videos, how would you like us to send to you? (Code D)						
K23	Did you learn new things from this method of extension communication? ____ (1=Yes; 0=No)						
K24	In the first time you saw the poster, did you understand what is taking about? ____ (1=Yes; 0=No)						
K25	Did you find a difference between the new practices you learned and your old practices? ____ (1=Yes; 0=No)						
K26	Was the plot of land in the clarification of technology sufficient in terms of its area size? ____ (1=Yes; 0=No)						
K27	If you contact the extension agents, call friends, read leaflets, listen to the radio or watch TV, what are the main topics that you want to get information on? (Code E)						

Code B: 1. Visit from extension agents; 2. Cooperatives; 3. Relatives; 4. Neighbors; 5. Merchants
6. Radio; 7. TV; 8=Agricultural project. 9=Text message (SMS) on your mobile phone; 10= Videos through social media such as Whatsup & Facebook. 11 = Other (specify)_____

Code D	1- Organizing field visits to display the video
	2-Social media applications on the mobile phone
	3-Download an agricultural application via the mobile phone that updates the videos during a periodic period

Code E	1-Knowing the recommendations for modern varieties.	2-Knowing the recommendations for fertilizer and irrigation components
	3-Learn about planting and harvesting recommendations	4-Get answers to the problems you face on your farm