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English version

REPUBLIC OF RWANDA





NATIONAL INSTITUTE OF STATISTICS OF RWANDA

MINISTRY OF AGRICULTURE AND ANIMAL RESOURCES

SEASONAL AGRICULTURAL SURVEY (SAS) PLOT QUESTIONNAIRE AGRICULTURAL SEASON: 2021

Self-introduction: Introduc	e to the farmer	about the survey
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My name is......, I work for the National Institute of Statistics of Rwanda. We are conducting the Seasonal Agricultural Survey in which farmers are asked to provide information on the crops grown in 2020/2021 agricultural year. The purpose of this survey is to provide data for estimating crops productivity during this season and monitoring agriculture policy and practices in Rwanda. Individual reports are kept confidential. You are among operators, whose plots/farms have been sampled for this survey. The reason why you are asked to provide informations related to this Survey

Section I: GENERAL INFORMATION

S	egment identification
1.1 Province: I=Kigali city, 2=South, 3=West, 4=North, 5=East	Write the convenient name & code of the province the segment/LSF farm is located
1.2 District name & code	Write the convenient name & code of the district the segment/LSF farm is located (See district codes on the last page)/
Stratum: 10=Agricultural land on hillside 20=Agricultural land in marshland; 30=Rangeland; 40=Mixed NB: If LSF write NA, then go to Q1.5	Write the convenient code of the stratum the segment is located
1.4 Segment	Write the convenient number of the segment:
1.5 LSF/Farmer's names	Write the name of LSF/the farmer :
1.6 Farmer ID/LSF ID	Write the ID of the farmer/LSF :
1.7 Farmer/LSF type(1): If the answer is 2 or 4, →Q. 1.10	Write the farmer/LSF type as mentionned (1) :
I.8 Gender : I=M ; 2=F	Write the gender of the farmer :
1.9 Age	Write the age of the farmer :
1.10 Sector	Write the sector name where the farmer lives/stays:
I.II Cell	Write the cell name where the farmer lives/stays:
1.12 Village	Write the village name where the farmer lives/stays:
1.13 Farmer's phone No: If the respondent is the farmer	Write the phone number of the farmer : _
1.14 Did the farmer respond him/herself? 1=Yes;2=No; if yes,→Q. 1.18	Use the convenient code
1.15 Names of respondent	Write the names of respondent if is not the farmer himself:
1.16 Respondent's phone No	Write the phone number of the respondnt :
1.17 Relationship of respondent to the farmer (2):	Write the convenient code for the relationship of respondent to the farmer :
1.18 Enumerator's names and ID :	Write your full names & code as enumerato ;/
1.19 District Team leader's names and ID:	Write the full names & code of your Team Leader

• Main crops grown

2.1 Plot No	2.2 Plot area (m²)			Crops planted in the plot	
		2.3 Number of main crops to be surveyed on during this season in the plot.		2.5 Number of plants in this plot (for perennial crops)	2.6 Number of plants to be harvested in this season for perennial crops
			Crop I		
			Crop 2		
			Crop 3		
			Crop 4		
			Crop 5		
			Crop 6		
			Crop 7		

• Seeds sown

2. 7 Sowing date (4)	2.8 Expected period for crop	2.9 Did you use improved seed for	Where did	2.11 Type of seeds sown in this plot:	2.12 Is the seed sown in this plot for the current season?		Trac	litional see	ds			Improved seeds	sown
	harvesting (5)	this crop in any of your plots in this		I=Traditional seeds 2= Improved	I=Yes 2=No -If No, skip to Q 2.19 -If Yes, and the answer is 2 on Q2.11, skip to 2.16	tradition sown in	this plot	Quantity of traditional	spent for the purchase of traditional seeds for this plot (Rwf)	2.16 Quanti improved se this plot	ty of eds sown in	Quantity of improved seeds purchased and	2.18 Amount spent for the purchase of improved seeds sown in this plot (Rwf)
		season? N.B: Outside segment included I = Yes 2 = No If No, skip to Q 2.11	N.B: Outside segment included	seeds 3= 1&2		2.13.1 Unit (7) -If "NA", skip to 2.15	2.13.2 Quantity	seeds purchased and sown in the plot		2.16.1 Unit (7) If "NA", skip to 2.18	2.16.2 Quantity	sown in this plot	

• Crop production

2.19 Quantity already harvested in this season (in Kg)	2.20 Remaining quantity to be harvested (in Kg)	2.21 Total quantity of harvest for this season (in Kg)	2.22 Explanation on crop production status (8) (Order the explanations starting by the main that you have been told by operators.)						
			2.22.1 Explanation	2.22.2 Explanation ₂	2.22.3 Explanation ₃				

• Use of production for the current season

quantity produced/to be produced by this crop	total production of this crop what was the quantity transformed/to be transformed at farm level? (Kg)	On the total production of this crop what is the quantity that has been sold/to be sold? (Kg)	(9)	What was the selling price per kilogram? (Rwf/Kg)	production of this crop what is the quantity that has been used to be used by the household (auto consumption)?	the total production of this crop what is the quantity that has been used/to be used as	the total production of this crop which quantity has been used /to be used as farm rent? (Kg)	the total production of this crop what is the quantity that has been offered/to be offered as a gift?	the total production of this crop what is the quantity that has been exchanged/	the total production of this crop what is the quantity that has been used/to be used as seeds?	the total production of this crop what is the quantity that has been used/to be used as fodder? (Kg)	the total production of this crop what is the quantity that has been stored/to	facility used during this agricultural season? (10)	Quantity of production stored in public storage (kg)	On the total production of this	2.39 On the total production of this crop what is the quantity that has been used /to be used in any other way not mentioned before ? (Kg)
						- 6/			<u> </u>							

Losses

	Pre	e-harvest losses		Post harvest losses							
the total quantity stollen ? (kg)	damaged by insects	total quantity lost due to birds or other animals? (kg)	the total quantity of Stalks fallen to the ground? (kg)	was the total quantity lost during	was the total quantity lost in transport of produce? (kg)	What was the total quantity lost at	was the total quantity lost during processing?	was the total	2.49 What was the total quantity lost at sales? (kg)		

SECTION III: INPUTS USED

• Use of organic Fertilizer

2.1	3.1 Did you use organic	3.2 Where did	3.3 Have you used	3.4 Total	3.5 Was the quantity	3.6 If the organic fertilizer used was not
Plot	fertilizer in any of your	organic fertilizer	organic fertilizer in this	cost of	of organic fertilizer	sufficient, what are the main reasons of
No	plots during this season?	used came from?	plot during this season?	organic	used sufficient for you	not using the quantity needed?
				fertilizer	compared to the	
	N.B : Outside segment	I = Own preparation	I = Yes	purchased	quantity needed?	I= No livestock at home
	included	(manure, compost,	2= No	(Frw)		2=Few livestock at home
		Biogas, etc.)			I=Yes	3=Not available on market
	I = Yes	2=Bought	-If No, skip to 3.7		2=No	4=Lack of financial means
	2= No	3=Received for free	-If Yes, and not bought			5=Lack of transport facilities
		4=Other(Specify)	on Q 3.2, skip to Q 3.5		If Yes, skip to 3.7	6=Other reason (specify)
	If 2, skip to 3.7	NB: Source may be				NB: List 2 main reasons
		more than one				

SECTION III: INPUTS USED (CONT'D)

• Use of inorganic fertilizers and pesticides/fungicides

2.1 Plot no	3.7 Did you use inorganic fertilizer in any of your plots during this season? N.B: Outside segment included I = Yes 2 = No If 2, skip to 3.16	3.8 What is the main source of fertilize r used? (11)	3.9 Have you used inorganic fertilizer in this plot during this season? I=Yes 2= No If 2, skip to 3.16	3.10 Type of inorg anic fertili zer used (12)	Ind 3.11 Meas urem ent unit (13)	3.12 Total quantit y used in this plot	3.13 Quanti ty purcha sed and used in this plot	3.14 Unit price (Rwf)	3.15 Main crop s to be fertili zed?	3.16 Did you use any type of micronutrients in any of your plots in this season? N.B: Outside segment included I = Yes 2 = No	3.17 Did you use any type of micr o- nutri ents in this plot durin g this seas on? I = Yes 2 = No	3.18 Did you use pesticide/ Fungicide in any of your plots during this season? N.B: Outside segment included I = Yes 2 = No If No, skip to 3.25	Have you used pesticid e/ Fungici de in this plot during this current season? I = Yes; 2= No If 2, skip to 3.25	Pestic 3.20 Type of pestici de/fun gicide used (14)	ide/ful 3.21 Mea sure men t unit (13)	3.22 Total quanti ty used	3.23Qu antity purchas ed and used in the plot	3.24 Total amou nt spent on quant ity purc hase d (Frw)	3.25. Is this plot located in consolidated site in this season? N.B: Outside segment included I = Yes 2 = No If No, skip to 4.1	3.26 What do you gain as support from land consolidation program? (15)

SECTION IV: AGRICULTURAL PRACTICES

• Soil erosion control measures

2.1 Plot No	4.1 What is the degree of erosion on this plot? (16)		4.3 Is there any anti-erosion activity on this plot?	4.4 Were these anti-erosion activities done during the current agricultural season?	4.5 What is the total cost of anti-erosion activities done during this season (Frw)?
		N.B: Outside segment included	I=Yes	I=Yes	
		2=No	2=No	2=No	
		If No, skip to 4.6	If No, skip to 4.6	If No, skip to 4.6	

SECTION IV: AGRICULTURAL PRACTICES (Cont'd)

• Soil preparation and Irrigation

2. 1 Plo	4.6 Did you use	4.7 Did you use					Agricultu	re mecha		4.11 Amount									
1 Plo t No	you use any mechani cal equipme nt for agricultu re activities in any of your plots during this agricultu	you use any mechani cal equipme nt for agricultu re activities on this plots during this agricultu ral	4.8.1 Have you used ploughi ng animals (oxen) in this plot during this	have you used animal ploughin g? (17)	4.8.3	4.9.1 Have you used a ploughin g tractor in this plot during this season? 1=Yes	use of trace 4.9.2 At which stage of agriculture practice have you used ploughin g tractor?	ctor	4.10 Use 4.10.1 Have you used any other mechani cal equipme nt not mention ed in this plot	of other me 4.10.2 At which stage of agricultur e practices have you used other mechanic al equipme	4.10.3 Name of other mechanical equipme nt used during this season	4.10.4 Amount paid for the other mechani cal equipme nt in this season? (Rwf)	Amount spent on hired labor used to prepare land, sowing and any other agricultu ral activity until harvesti	in any of your plots during this agricultu ral season?	Has this plot been irrigated during this agricultu ral season? 1=Yes 2=No	4.14 What is irrigation	4.15 What is the source of water for irrigatio	4.16 What is the irrigati on tool have you used? (20)	4.17 What is the cost spent for irrigatio n activitie s? (Rwf)
	ral season? N.B: Outside segment included 1=Yes 2=No If No skip to 4.11	season? 1=Yes 2=No If No skip to 4.11	season? 1=Yes 2=No If No, skip to 4.9			2=No If 2, skip to 4.10	(17)		during this season? 1=Yes 2=No If No, skip to 4.11	nt? (17)			ng in this season (Rwf) (All steps)	Outside segment included 1=Yes 2=No If No, skip to the section V	If No, skip to the section V				

CODE 1:

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(1) Farmer type: I- Small scale farmer as individual; 2- Small Scale farmer as Coperative/Company/Association, 3- Large scale farmer as individual,
                   4-Large scale farmer as Coperative/Company/Association
(2) Codes for the relationship of respondent to the farmer: I = Spouse: 2 = Adopted child: 4 = Relative: 5 = Parent: 6 = housekeeper: 7 = Manager
                                                                8= Other
(3) Crop names: 101- Maize, 102- Paddy rice, 103- Sorghum, 104- Wheat, 105- Other cereal(specify), 106- Bush bean, 107- Climbing bean, 108- Pea,
                 109- Other pulse (specify), 110- Irish potato, 111- Sweet potato, 112-Taro, 113-Yams, 114-Other tubers(specify), 115- Tomato, 116-Cabbage,
                 117- Cauliflower, 118- Onion, 119-Carrot, 120-Eggplant, 121-Other seasonal vegetables(specify), 122- Soybean, 123- Groundnut, 124- Sun flower,
                 125- Black eggplant, 126-Sweet pepper, 127-Amaranth, 128-Celery, 129- Spinach, 130- Small red bean, 131- Sugar beet, 132- Garlic,
                 133-African cabbage, 134- Leek, 135-French beans, 136- Letus, 137- Brocolli, 138- Millet, 139- Cucumber, ,140-Other seasonal crops(specify).
                 201- Pyrethrum, 202-Pepper, 203-Pumpkin, 204-Napia grass, 205-Sugar cane, 206-Other annual crops (specify).
                 300-Banana, 301- Cooking banana, 302- Dessert banana, 303-Banana for beer, 304-Coffee, 305-Cassaya, 306-Mulberry, 307-latropha,
                 308-Stevia, 309-Macadamia, 310-Tea, 311- Other perennial crop (Specify).
                 401-Tree tomato, 402-Pineapple, 403-Ayocado, 404-Passion fruits, 405-Palm, 406-Mango, 407-Apple, 408-Papaya, 409-Orange, 410-Lemon,
                 411- Guava, 412-Olive, 413-Water melon, 414-Mandaline, 415-Jack fruits, 416-Gooseberry, 417-Strawberry, 418-Sugar apple/Coeur de boeuf/Annona
                 squamosa, 419- Other fruits (specify).
                 501-Napia grass for fodder, 502-Maize for fodder, 503- Soybean for fodder, 504-Leucena, 505-Desmodium, 506-Mucuna, 507-Setaria,
                 508-Tripsacum, 509-Herbaceous 510- Other fodder crop (specify).
(4) Sowing dates: Season A: I- Before 01/07; 2-Between 01-15/07; 3-Between 16-31/07; 4-Between 01-15/08; 5-Between 16-31/08;
                               6- Between 01-15 /09; 7- Between 16- 30/09; 8- Between 01-15/10; 9- Between 16- 31/10; 10- After 31/10;
                               II-Other season (for perennial crops only)
                    Season B: 12-Before 01/01; 13-Between 01-15/01; 14-Between 16-31/01; 15-Between 01-15/02; 16-Between 16-28/02;
                                17- Between 01- 15/03; 18- Between 16 -31/03; 19- After 31/03; 20-Other season (for perennial crops only)
                    Season C: 21- Before 01/05; 22- Between 01- 31/05; 23- Between 01- 30/06; 24- Between 01-31/07; 25- After 31/07
(5) Expected period of harvesting:
    Season A: I-Before 01/12: 2-Between 01-15/12: 3-Between 16-31/12: 4-Between 01-15/01: 5-Between 16-31/01: 6-Between 01-28/02: 7-After Feb:
               8-Other season (for perennial crops only)
    Season B: 9-Before 01/05; 10-Between 01-15/05; 11-15-31/05 12- Between 01-15/06; 13- Between 16-30/06; 14- Between 01-15/07; 15-Between 16-31/07;
               16- Between 01-31/08; 17- After August; 18-Other season (for perennial crops only)
    Season C: 19- Before 01/08; 20- Between 01-15/08; 21- Between 16-31/08; 22- Between 01-15/09; 23- Between 16-30/09; 24- After 30/09
(6) Source of improved seeds used: I - Government (MINAGRI/RAB/NAEB); 2 - Recognized seed multipliers; 3-Agro dealers; 4-NGOs; 5 -Market;
                          6-Agriculture cooperative; 7-other (specify)
(7) Seeds Units: I - Kg; 2- g; 3- Cuttings; 4- Not applicable (NA)
(8) Explanation on production status: I - Drought; 2- Heavy rainfall/Hailstones; 3- Insufficient rainfall; 4-insufficient/Lack of fertilizers;
                                         5- Late sowing; 6- Flood; 7- Landslide; 8-Crop destroyed by animals (grazes); 9- Diseases and pests;
                                         10- Unfertile soil; 11- Inappropriate seeds; 12- Good harvest as it was expected; 13- lack of improved seed;
                                         14- Strong winds: 15- Perennial crops not yet mature: 16-Other reason (Specify)
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CODES₁

- (10) <u>Types of storage facilities</u>: I-Own storage; **2-**Public storage ; **3-** Storage owned by Cooperatives or private companies **4-**Other storage(specify)
- (11) <u>Main source of fertilizers</u>: I Government (MINAGRI/RAB/NAEB); 2- Agro-dealers; 3- NGOs; 4-Market; 5-Agriculture cooperative; 6- other place
- (12) <u>Type of inorganic fertilizers</u>: I- NPK 17-17-17; **2-** NPK 20-10-10; **3-** NPK 25-5-5; **4-** NPK 22-6-12; **5-Other** NPK; **6-**Urea; **7-** liquid urea (Mbonea Majimaji); **8-** DAP; **9-** TSP; **10-** KCL/MOP, **11-**Omax; **12-** Winner; **13-**Yara Viva; **14-**Amidas; **15-** Cereal; **16-**Boaster; **17-**DI Grow; **18-**Dyna gro; **19-** Other type of fertilizer (specify).
- (13) Fertilizer and Pesticide unit: 1-Kg; 2-g; 3-L, 4-Cc
- (14) <u>Type of pesticides/fungicides</u>: I- Dithane; 2- Ridomil; 3- Dimethoate (DUDU); 4- Cypermethrin; 5-Dursiban; 6-Tilt; 7- Pilkare; 8-Rocket; 9-Beam; 10-Lava; 11-Rodazim; 12-Thiovit; 13-Safari max; 14-Victory; 15-Copper (akaribata); 16-Supra; 17-Alfatox; 18-Daconil; 19-Vendex; 20-Ortivatop; 21-Mastercop; 22-Atoce; 23-Lambdex; 24- Evisect; 25- Prove; 26- Abamectin; 27-Fenvalerate; 28- Copper oxychloride; 29- Othello; 30- Balcolex; 31- Cabrio; 32- Commando; 33- Confidor; 34- Cypro; 35- Easygrowth
 - 36- Endofil; 37- Indofil M 45; 38- Safari; 39- Jacket; 40- Lambda; 41- Mancozeb; 42-Millmax; 43- Miovit; 44- Octiva;
 - **45** Orius; **46** Ramdan; **47** Profex super; **48** Round all; **49** Safari Zeb; **50** Scower; **51** Sumithio; **52** Vital; **53**-other pesticides/fungicides(specify)
- (15) <u>Benefits from land consolidation program</u>: I=Seeds, 2=Fertilizer, 3=Access to irrigation facilities, 4=Access to storage facilities, 5=Access to market, 6=Extension services, 7=No benefit, 8= Other (Specify)
- (16) <u>Degree of erosion</u>: I-Severe (Rill erosion, Gully erosion, Mass movement/landslides); 2- Moderate (Diffuse overland flow Erosion, Overland flow erosion, erosion by Infiltration); 3- Low (Wind erosion), 4- Very Low (Splash erosion)
- (17) <u>Stages of agriculture practices</u>: 1-Ploughing; 2- Soil leveling; 3- Raking; 4-Manuring; 5- Sowing; 6- Weeding; 7- Irrigation; 8-Harvesting; 9- Threshing; 10- Winnowing; 11-Harvest packing; 12- Pesticides Spraying; 13-Other stage of agriculture practice (Specify)
- (18) <u>Irrigation Techniques</u>: I Surface irrigation; **2**-Flood irrigation (especially for rice); **3** Drip irrigation; **4** Sprinkler irrigation; **5** Pivot irrigation **6**-Traditional techniques
- (19) <u>Irrigation water source:</u> I-Rainwater harvesting; **2**-Water treatment plant; **3**-Underground water; **4**-Lake/stream water; **5** Water catchment (dam); **6** Other source (specify).
- (20) <u>Irrigation tools</u>: I-Irrigation machine; 2-Pump; 3- Tube wells; 4-Water can; 5-Water channels; 6-Jerycan/basin;7-Other tool(specify)
- (21) Consequences of Covid 19 on agriculture activities: 1-Lack of inputs' market; 2-Expensive inputs than expected; 3-Lack of farms' manpower as they cross a long distance which was not allowed; 4-Enability to reach plots located far away from home due curfew; 5-Lack of extension services; 6-Lack of agricultural production market; 7-Low selling price cost of agricultural production compared to expectation; 8-Lack of market of agricultural Materials; 9-Expensive agricultural materials' than expected; 10-Other consequences on agriculture not stated (state them); 11- No consequence

DISTRICTS CODES₂:

Province	District code	District name	Province	District code	District name	Province	District code	District name
Kigali city	11	Nyarugenge	South	28	Kamonyi	North	43	Musanze
Kigali city	12	Gasabo	West	31	Karongi	North	44	Burera
Kigali city	13	Kicukiro	West	32	Rutsiro	North	45	Gicumbi
South	21	Nyanza	West	33	Rubavu	East	51	Rwamagana
South	22	Gisagara	West	34	Nyabihu	East	52	Nyagatare
South	23	Nyaruguru	West	35	Ngororero	East	53	Gatsibo
South	24	Huye	West	36	Rusizi	East	54	Kayonza
South	25	Nyamagabe	West	37	Nyamasheke	East	55	Kirehe
South	26	Ruhango	North	41	Rulindo	East	56	Ngoma
South	27	Muhanga	North	42	Gakenke	East	57	Bugesera

List of season C crops

Crop name	Crop code	Crop name	Crop code
Other cereals	105	Black eggplant	125
Bush beans	106	Sweet pepper	126
Climbing beans	107	Amaranths	127
Pea	108	Celery	128
Other pulses	109	Spinach	129
Irish potato	110	Small red bean	130
Sweet potato	111	Suger beet	131
Tomato	115	Garlic	132
Cabbage	116	African cabbage	133
Cauliflower	117	Leek	134
Onion	118	French beans	135
Carrot	119	Lettuce	136
Eggplant	120	Broccoli	137
Other seasonal vegetables	121	Other seasonal crop	140
Soybeans	122	Other tubers	114
Pepper	202	Watermelon	413

CROP CATEGORIES CODES₃:

SEASONAL CROPS	101- Maize, 102- Paddy rice, 103- Sorghum, 104- Wheat, 105- Other cereal(specify), 106- Bush bean,107- Climbing bean, 108- Pea, 109- Other pulse, 110- Irish potato, 111- Sweet potato, 112-Taro, 113-Yams, 114-Other tubers, 115- Tomato, 116-Cabbage, 117-Cauliflower, 118- Onion, 119-Carrot, 120-Eggplant, 121-Other seasonal vegetables(specify), 122- Soybean, 123- Groundnut, 124- Sun flower, 125- Black eggplant, 126-Sweet pepper, 127-Amaranth, 128-Celery, 129- Spinach, 130- Small red bean, 131- Sugar beet, 132- Garlic, 133-African cabbage, 134- Leek, 135-French beans, 136- Letus, 137- Brocolli, 138- Millet, 139- Cucumber, ,140-Other seasonal crops.			
ANNUAL CROPS	201- Pyrethrum ,202-Pepper, 203-Pumpkin, 204-Napia grass, 205-Sugar cane, 206-Other annual crops (specify).			
PERENNIAL CROPS	300-Banana, 301- Cooking banana, 302- Dessert banana, 303-Banana for beer, 304-Coffee, 305-Cassava, 306-Mulberry, 307-Jatropha, 308-Stevia, 309-Macadamia, 310-Tea, 311- Other perennial crop (Specify).			
FRUITS TREES	401- Tree tomato, 402- Pineapple, 403- Avocado, 404- Passion fruits, 405- Palm, 406- Mango, 407- Apple, 408- Papaya, 409- Orange, 410- Lemon, 411- Guava, 412- Oliver, 413- Water melon, 414- Mandaline, 415- Jack fruits, 416- Gooseberry, 417- Strawberry, 418- Sugar apple/Coeur de boeuf/Annona squamosa, 419- Other fruits (specify).			
FODDER CROPS	501 -Napia grass for fodder, 502 -Maize for fodder, 503 - Soybean for fodder, 504 -Leucena, 505 -Desmodium, 506 -Mucuna, 507 -Setaria, 508 -Tripsacum, 509 -Herbaceous 510 - Other fodder crop (specify).			