**PLOT ID** |\_\_\_||\_\_\_||\_\_\_||\_\_\_||\_\_\_||\_\_\_||\_\_\_||\_\_\_|

**English version**

 **REPUBLIC OF RWANDA**

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| **NATIONAL INSTITUTE OF STATISTICS****OF RWANDA** | **MINISTRY OF AGRICULTURE AND ANIMAL RESOURCES** |

**PLOT QUESTIONNAIRE FOR SEGMENT 2017-2018**

**AGRICULTURAL SEASON: ………..**

**1. GENERAL INFORMATION**

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| **Identification** | **Name** | **Code** |
| **1.1** Province | ……………………………………………… | |\_\_\_| |
| **1.2** District | ……………………………………………… | |\_\_\_| |
| **1.3** Stratum |   | |\_\_\_| |\_\_\_| |
| **1.4** Segment |   | |\_\_\_| |\_\_\_| |
| **1.5** Date of interview  | ………………/………………/……………… |  |
| **1.6** Enumerator’s names and ID | ……………………………………………… | |\_\_\_| |\_\_\_| |\_\_\_| |
| **1.7** District Team leader’s names and ID | ……………………………………………… | |\_\_\_| |\_\_\_| |

***Self-introduction to the respondent:***

*Introduce yourself to the operator. Rephrase the following in your own words. “My name is…………., I am working in National Institute of Statistics of Rwanda, particularly in Seasonal Agricultural Survey in which farmers are asked to provide information on the crops they are growing in 2017/2018 agricultural year. The purpose of this survey is to provide data for estimates of the areas of crops being grown in Rwanda during this season. Individual reports are kept confidential. Your plot is in the area of land surveyed that has been selected for this survey (point out the segment)”.*

**PART II: CROP PLANTED, SEEDS USED AND PRODUCTION**

 **Crop planted**

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| **2.1** Plot No | **2.2** Plot area (m2) | **2.3** Operator’s address | Crops planted in the plot  |
| **2.4**Cropping system in the plot; ***1=Pure; 2=Mixed*** | **2.5** Number of main crops in the plot  | **2.6** Crop name  **(1)** | **2.7** Crop area in square meters |
|   |  | **2.3.1** Names: ………………………………   |   |   |    |  |
|  | **2.3.2** Sector: ……………………………… |    |  |
|  | **2.3.3** Cell: ………………………………   |    |  |
|  | **2.3.4** Village: ………………………………   |    |  |
|  | **2.3.5** Tel : ………………………………   |    |  |
|  **(1) Crop codes and 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,  **111-** Irish potato, **112-** Sweet potato, **114-** Tomato, **115-**Cabbage, 116**-** Cauliflower, **117-** Onion, **118-** Carrot, **119-**Eggplant, **120-** Other seasonal vegetable, **128-** Soybean,  **129-** Groundnut,  **130-** Sun flower, **134-** Other seasonal crop**, 135-** Black eggplant, **136-** Sweet pepper, **138-** Amaranth, **139-** Celery, **140-** Spinach, **141-** Small red bean,**142-** Sugar beet, **143-** Garlic**, 144-**African cabbage,  **145-** Leek, **146-**French bean, **147-** Letus, **148-** Brocolli, **162-** Millet, **165 –** Other tuber (specify), **167-** Cucumber, **168**- Watermelon, **213-**Taro, **214-**Yam, **220-** Other annual vegetable, **233-** Pyrethrum, **234-** Other annual crop, **237-** Pepper, **249-** Napia grass, **257-** Tree tomato, **265 -** Other tuber, **266-** Pumpkin,**310-** Cassava, **320-** Other perennial vegetable, **321-** Cooking banana, **322-** Dessert banana, **323-** Banana for beer, **324-** Pineapple, **325-**Avocado, **326-** Passion fruit **327-** Other fruit, **331-** Other oil seed, **332-**Coffee, **334-** Other perennial crop, **350-** Sugar cane, **352-** Macadamia, **353-** Olive, **354-** Mango, **355-** Apple, **356-** Papaya, **358-** Orange, **359-** Lemon, **360-** Guava, **361-** Mulberry, **363-** Stevia, **364-** Jatropha, **368-** Palm, **369-** Tea, **511**-Napia grass for fodder, **512**-Maize for fodder, **513**- Soybean for fodder, **514**-Leucena**, 515**-Desmodium, **516**- Mucuna, **517**- Setaria, **518-**Tripsacum, **519-** Other fodder crop (specify). **(2): Crop proportion & density Codes**: **1-** 10% to 20%; **2-** 21% to 30%; **3-** 31% to 40%; **4-** 41% to 50%; **5-** 51% to 60%; **6-** 61% to 70%; 7**-**71% to 80%; **8-** 81% to 90%; **9-** 91% to 100% **10**- Above 100 %. |

**PART II: CROP PLANTED, SEEDS USED AND PRODUCTION (Cont’d)**

 **Seeds used**

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| 2.1 Plot No | **2. 8** Sowing date**(1)** | **2.9** Expected period of harvesting **(4)**  | **2.10** Type of seeds sown: 1=Traditional seeds; 2= Improved seeds;  3= 1&2; ***If 2, skip to 2.14.1***  | **Traditional seeds** | **Improved seeds sown**  |
| **2.11** Quantity of traditional seeds sown  | **2.12** Quantity of traditional seeds purchased and sown in the plot  | **2.13** Amount spent for the purchase of traditional seeds (Rwf) *If only traditional seeds were used, skip to 2.19* | **2.14** Quantity of improved seeds sown | **2.15** Quantity of improved seeds purchased and sown  | **2.16** Amount spent for the purchase of improved seeds (Rwf) | **2.17** Where did improved seeds sown come from?**(3)** | **2.18.1** Number of trees grown in the plot | **2.18.2** Number of trees harvested/to be harvested in the plot |
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| **2.11.1** Unit**(2)** | **2.11.2** Quantity of traditional seeds sown  | **2.14.1** Unit **(2)** | **2.14.2** Quantity |
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| 1. **Sowing date codes:**

**Season A: 1=**Before 30/06**; 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=** Between16- 31/10**; 10=** After 31/10 **Season B**: **11=**Before 31/12**; 12=**Between 01-15/01**; 13=**Between 16-31/01**; 14=**Between 01-15/02**; 15=**Between 16-28/02**; 16=** Between 01- 15/03**; 17=** Between16 –31/03**; 18=** After 31/03; **Season C**: **19=** Before 30/04**; 20=** Between 01- 31/05**; 21=** Between 01- 30/06**; 22=** Between 01-31/07**; 23=** After 31/07**(2) Seeds Units: 1=** Kg**; 2=** g**; 3=** Not applicable1. **Source of seeds used codes**: **1** = Government(MINAGRI/RAB/DISTRICT); **2** = Recognized seed multipliers; **3**=Agro dealers; **4**=NGOs; **5** =Market; **6** =Agriculture cooperative ;7=Other (specify)

**(4)** **Harvesting date codes**: **Season A:** 1= 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 28/02;**Season B:** 8=Before May; 9= Between 01-15/05; 10= Between 16-31/05; 11 = Between 01- 15/06; 12= Between 16 -30/06; 13 = Between 01-31/07; 14= Between 01-31/08; 15= After August**Season C:** 16= Before 30/07;17= Between 01-15/08; 18= Between 15-30/08; 19= Between 01-15/09; 20= Between 16 -30/09; 21=After September  |

**PART II: CROP PLANTED, SEEDS USED AND PRODUCTION (Cont’d)**

***Crop production***

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| 2.1 Plot number | 2.6 Crop name**(1)** | **2.19** Quantity already harvested (in Kg) | **2.20** Remaining quantity to be harvested (in Kg) | **2.21** Total quantity of harvest (in Kg) | **2.22** Explanation on production status **(2)** |
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| (1) Crop codes: See codes on page 1 |
| (2) Explanation on production status : 1= Drought; 2= Heavy rainfall; 3= Insufficient rainfall; 4= Inadequate fertilizer; 5=Lack of fertilizers ; 6= Late sowing; 7= Flood; 8= Landslide; 9=Crop destroyed by animals (grazes); 10= Diseases and pests ; 11= Unfertile soil; 12= Inappropriate seeds; 13= Good harvest as it was expected; 14=Lack of trainings on agricultural practices ;15= Use of traditional seed ; 16= violent rain(hailstones) ; 17= Winds ;18= Perenial crops not yet mature ; 19= Other reason (Specify  |

***Use of production***

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| **2.6** Crop name | **2.23**What was the total quantity produced/to be produced during this agricultural season? *(Kg)* | **2.24** On the total production of this crop what was the quantity processed/to be processed at farm level? (Kg) | **2.25** On the total production of this crop what is the quantity that has been sold/to be sold? (Kg) |  **2.26 On** which market this crop was sold?(**1**) | **2.27** What was the selling price per kilogram? *(RwF/Kg)* | **2.28 On** the total production of this crop what is the quantity that has been used/ to be used by the household? (Kg)  | **2.29 On** the total production of this crop what is the quantity that has been used/to be used as wage for hired labour? Kg) | **2.30** On the total production of this crop which quantity has been used to be used as farm rent? (Kg) | **2.31** On the total production of this crop what is the quantity that has been offered to be offered as a gift ? (Kg) | **2.32 On** the total production of this crop what is the quantity that has been exchanged to be exchanged with other things? (Kg) | **2.33** **On** the total production of this crop what is the quantity that has been used to be used as seeds? (Kg) | **2.34** On the total production of this crop what is the quantity that has been used to be used as fodder? (Kg) | **2.35** On the total production of this crop what is the quantity that has been stored to be stored? (Kg) | **2.36** What is the storage facility used during this agricultural season ? **(2)** | **2.37** On the total production of this crop what is the quantity that has been damaged? (Kg) | **2.38** On the total production of this crop what is the quantity that has been been used to be used in any other way not mentioned before? (Kg) |
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| 1. **Type of market: 1=**Farm-gate; **2**=Local market; **3**=District modern market; **4**=Regional market; **5**=Contract farming; **6**=Contract with exporter;**7**=other market
2. **Types of storage facilities: 1-**Own storage;  **2-**Public owned storage **; 3-** Storage owned by Cooperatives or private companies **;4=**Traditional storage; **5-**Other storage
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**PART III: INPUTS USED**

***Use of organic Fertilizer***

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| 2.1 Plot No | **3.1** Have you used organic fertilizer in this plot during this season? *1= Yes;**2= No;* ***If 2, skip to 3.5*** | **3.2** Quantity of Organic fertilizer used (in Kg)  | **3.3** Quantity of Organic fertilizer purchased *(in Kg)* | **3.4** Cost of Organic fertilizer purchased *(Frwf)* |
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**PART III: INPUTS USED**

 ***Use of inorganic fertilizer s and pesticides***

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| **2.1 Plot no**  | **3.5** Have you used inorganic fertilizer in this plot during this season*1= Yes;**2= No****If 2, skip to 3.13*** | **Inorganic fertilizer** | **3.13**Have you used pesticide in this plot during this season?*1= Yes;**2= No****If 2, skip to 4.1*** | **Pesticide** |  |
| **3.6** Type **(1)** | **3. 7** Unit **(2)** | **3.8** Total quantity used  | **3.9** Quantity purchased and used in the plot  | **3.10** Unit price per measurement unit (Rwf) | **3.11** What is the main source of fertilizer used? **(3)** | **3.12** What was the main crop the fertilizer was applied? | **3.14** Type **(4)** | **3.15** Unit **(2)** | **3.16** Total quantity used  | **3.17** Quantity purchased and used in the plot | **3.18**  Total amount spent on quantity purchased (Frw) | **3.19**What was the main crop the pesticide was applied? |
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| **(1) Type of inorganic fertilizers: 1=** NPK 17-17-17; 2**=** NPK 20-10-10; **3=** NPK 25-5-5; **4=** Urea; 5**=** liquid urea; 6**=** DAP; **7=** TSP; **8=** KCL/MOP; **9=** Other inorganic fertilizer (specify)**(2)   Units:** **1=** Kg; **2=** g; **3=** l; 4**=** Cc**(3) Main source of fertilizers:** **1=** Agro-dealers **2=** NGOs; 3**=**Market; 4=MINAGRI / RAB / NAEB; 5=Agriculture cooperative ;6**=** Other place (specify) **(4)** **Type of pesticides:**  1= Dithane; 2= Ridomil; 3= Dimethoate; 4= Cypermethrin; 5= Dursiban; 6= Tilt; 7= Pilkare; 8= Rocket; 9=Beam; 10= Other Pesticide (specify) |

**PART IV: AGRICULTURAL PRACTICES**

**Soil erosion control measures**

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| 2.1 Plot No | **4.1** What is the degree of erosion on this plot? **(1)**  | **ANTI-EROSION ACTIVITIES** | **FENCES** |
| **4.2** Is there any anti-erosion activity on this plot? 1=Yes; 2=No***If 2, skip to 4.6*** | **4.3** Types of anti-erosion activities existing in the plot **(2)** | **4.4** Was this anti-erosion activity done during the current agricultural season? 1=Yes; 2=No***If 2, skip to 4.6*** | **4.5** What is the total cost of anti-erosion activity done during this season (Frw)?   | **4.6** Is this plot fenced? 1=Yes; 2=No***If 2, skip to Q. 4.9*** | **4.7** Was this fence done during the current agricultural season? 1=Yes; 2=No***If 2, skip to Q. 4.9*** | **4.8** Activity cost (Frw)  |
| Activity name |   |
|   |   |   |    |   |   |   |   |   |
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| **(1)   Degree of erosion**: **1=**Severe (Rill erosion, Gully erosion **,** Mass movement/landslides) **2=** Moderate (Diffuse overland flow erosion, Overland flow erosion, erosion by infiltration)  |
|  **3=** Low (Splash erosion, Wind erosion)  |
| **(2)   Types of anti-erosion activities**: **1=** Ditches; **2=** Trees / Wind break/Shelterbelt; **3=** Bench terraces; **4=** Progressive terraces; **5=** Cover plants/grasses; **6=** Water drainage;  **7=** Mulching; **8=**Beds/ridges; **9=**others (specify) |
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**PART IV: AGRICULTURAL PRACTICES (Cont’d)**

 ***Irrigation and Soil preparation***

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| 2.1Plot No           |  **Cost for soil preparation**  | **Irrigation** |
| **Manpower**  |  | **Mechanization** |  |
| **4.9** Amount spent on hired labor used to prepare land, sowing and any other agricultural activities in this season (Rwf) |  Use of ploughing animals (oxen) | use of tractor |  | Use of other mechanical equipments  | **4.17** Has this plot been irrigated during this season? *1=Yes;* *2=No****If 2, end the interview*** | **4.18** What is the source of water for irrigation? **(2)**  | **4.19** What is irrigation techniques used on this plot? **(3)** | **4.19A**What is the irrigation tool have you used? **(4)**  | **4.20** What is the cost of hired labor used for irrigation technique? | **4.21** What was the main crop being irrigated |
| **4.10.1**  Have you used ploughing animals (oxen) during this season? 1=Yes; 2=No***If 2, skip to 4.12*** | **4.10.2** At which stage of agriculture practice have you used animal ploughing**? (1)** | **4.11** Amount paid on rent of ploughing animals during this season (Rwf)  | **4.12.1**  Have you used a ploughing tractor during this season? *1=Yes; 2=No****If 2, skip to 4.14*** | **4.12.2**  At which stage of agriculture practice have you used ploughing tractor **? (1)** | **4.13** Amount paid on rent of ploughing tractor (Rwf) | **4.14** Have you used any other mechanical equipment during this season? *1=Yes;* *2=No****If 2, skip to 4.17*** | **4.15** At which stage of agriculture practice have you used other mechanical equipment**? (1)**  | **4.16** Rent cost for the other mechanical equipment (Rwf) |
|     |     |     |  |   |     |   |  |     |   |  |     |  |  |  |  |
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| 1. **1-**Ploughing 2- Soil leveling; 3- Raking; 4-Manuring; 5- Sowing; 6- Weeding; 7-Irrigation ;8-Harvesting; 9- Threshing; 10- Winnowing; 11- Pesticides Spraying;12- padelling; 13-Ploughing and Soil levelling; 14- Ploughing, Soil levelling and Sowing; 15-Other stage of agriculture practice(Specify)
2. **Irrigation water source:** **1**=Rainwater harvesting; 2=Water treatment plant; **3**=Underground water; 4=Lake/stream water; 5= Water catchment (dam); 6= Other (Specify)
3. **Irrigation Techniques :** **1**= Surface irrigation ; 2=Flood irrigation (especially for rice) ; **3**= Drip irrigation ; 4= Sprinkler irrigation ; **5**= Traditional techniques
4. **Irrigation tools: 1-** Irrigation machine;  **2-** Generator+Pumb; **3-** Pumps/tube wells;  **4-** Water can;  **5-** Water channels
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**PART V: LAND STATUS AND TENURE.**

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| 2.1 Plot No | 5.1 Is this plot owned or rented? 1= Owned; 2= free rending; 3= Rented ***If 2, go to the next plot******If 3, skip to 5.5*** | 5.2 Ownership category: 1= heritage; 2= Gift; 3= Exchange; 4= Bought***If 1, 2 or 3 skip to next plot*** | 5.3 When has this plot been bought? 1=This season; 2= Previous  seasons***If 2, skip to next plot*** | 5.4 If the plot was purchased during this season, what was the cost? | 5.5 If the plot was rented, what kind of payment have you agreed on during this season? 1=Payment by cash; 2=Payment by production share ***If 1, fill Q 4.6, then skip to next plot******If 2, skip to 4.7*** | 5.6 If the rented plot was paid by cash, what is the amount for this season?    | 5.7 What are crops in this plot that have been chosen for production share for this season? | 5.8 If the rented plot was paid byproduction share, what is the percentage share from the total production of this crop? (%) |
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