The Republic of Rwanda

NATIONAL INSTITUTE OF STATISTICS OF RWANDA

UPGRADED SEASONAL AGRICULTURAL SURVEY 2020 ANNUAL REPORT

UPGRADED SEASONAL AGRICULTURAL

SURVEY

2020

ANNUAL REPORT

Upgraded Seasonal Agricultural Survey (SAS) 2020 annual report was produced by National Institute of Statistics of Rwanda (NISR).

Additional information about Upgraded Seasonal Agricultural Survey 2020 report may be obtained at NISR Website: www.statistics.gov.rw

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FOREWORD

The National Institute of Statistics of Rwanda (NISR) has been conducting an annual agricultural survey since November 2012 for the estimation of the national agricultural crop area and production estimates. In 2019/2020 agricultural year, the NISR conducted the second edition of theUpgraded Seasonal Agricultural Survey (USAS) covering the three agricultural seasons. The USAS incorporated an increased sample size to provide more precise estimates. The USAS allows information for monitoring progress on agriculture programs and policies in Rwanda.

The 2020 USAS was implemented by the National Institute of Statistics of Rwanda (NISR) in partnership with the Ministry of Agriculture and Animal Resources (MINAGRI), National Agriculture Export Board (NAEB), and the Rwanda Agricultural Board (RAB). This published report has likewise been enhanced to reflect the importance of the SAS information for use as a tool to assist addressing the key agricultural issues and information needs that will inform policy makers and other stakeholders and allow more effective identification of priority intervention needs.

Therefore, I recommend stakeholders, government, researchers, partners and general public to optimally make use of the findings of this report.

I am grateful to the NISR staff and other partners who worked tirelessly to ensure the 2020 Upgraded Seasonal agricultural survey was successfully implemented.

Yusuf MURANGWA

Director General, NISR

EXECUTIVE SUMMARY

The National Institute of Statistics of Rwanda (NISR) conducted the second edition of Upgraded Seasonal Agriculture Survey (USAS) in 2019/2020 agricultural yearcovering the threeusual agricultural seasons. Main agricultural seasons are Season A (which starts from September to February of the following year) and Season B (which starts from March to June). Season C isthe shortest agricultural season with vegetables and sweet potato predominantly grown in swamps and Irish potato mostly grown in volcanic agro-ecological zone. This report therefore consolidates the findings of all seasons and hence, highlightsthe findings mainly related to:

1. Land use:
    - Agricultural land: this indicates land potential for agriculture, including land currently being used for farming as well as land that can be brought back into cultivation (fallow or pastureland).
    - Arable land: land able to be grown and produce crops for food and feeds supply purpose. This area excludes land under permanent crops[1] and permanent pasture.
    - Physical crop cultivated area: area occupied by crops. In other words, it can be called cropland;
    - Pastureland: area under natural grasses reserved for livestock or occupied with fodder crops;
    - Fallow land: cultivable land free for cultivation in a temporal period (less than 5 years);

2. Crop land: Cultivated land devoted to each grown crop.
3. Crop production: Amount of harvested crop used for food or livestock (quantified into kilograms or tons.)
4. Crop yield: It is a measurement of the amount of crop harvested per unit of land area (kg per hectare). It is used to determine the efficiency of food production.
5. Use of inputs (this assesses the use of improved seeds, fertilizers and pesticides)
6. Agricultural practices (practice of irrigation and soil protected against erosion) and others.

Estimates for major crops are prepared mainly to give timely and current district and national totals and averages. They are based on data obtained by a sample of surveyed small-scale plots and large-scale farmers.Survey data are supplemented by tea and coffee data from National Agriculture Export Board (NAEB) collected through the routineactivities of monitoring coffee and tea production, and coffee census conducted every five years.

Land use

USAS 2020 results estimate agricultural land at 1.4 million hectares (59 percent of total country land), from which 1.14 million of hectares and 1.19 million hectares was arable land in season A and B respectively. In 2019/2020 agricultural year, the total physical crop area under cultivation was estimated at 1.1million hectares (81 percent of total agricultural land) and increased by 2 percentwhencompared to 2018/2019

[1]Permanent crops are crops produced from plants which last for many seasons, rather than beingreplanted after each harvest. Those crops are fruit trees, sugar cane, coffee, tea, banana, tree plantations, nuts trees…).

agricultural year. Out of physical cultivated area, 1 million hectares was used for seasonal crops while 0.5 million hectares of land was covered by permanent crops.

Crop area, yield and production

The overall crop area for the year 2019/2020 has increased by 2 percent compared to the previous year. With such an increase, the contribution from individual crops such as beans (11 percent), maize (2 percent) and sorghum (5 percent) was noticeable among others, while the area of some other crops decreased including paddy rice (-10 percent) and Irish potatoes (-3 percent), banana (-2 percent).

The overall annual crop production for the year 2019/2020 has increased by 5% as compared to previous year. With such rise, the contribution from individual crops such as banana 12%, maize and sorghum 7% each and cassava 8% was noticeable among others.While the production of paddy rice, Irish potatoes and beans decreased by 11 percent, 12 percent and 9 percent respectively.

As indicated by USAS 2020 results, the annual average yield for of main crops in Rwanda varied by crops as well as by categories of farmers[2]. Without a surprise, the average yields for large scale farmers were relatively higher as compared tosmall scale farmers (see section III). Overall, the average yield for maize was 1.5 t/ha, 1 t/ha for sorghum, 3.9 t/ha for paddy rice, 1t/ha for wheat, 14.6t/ha for cassava, 7.1/ha for sweet potato, 8.2t/ha for Irish potato, 6.5 t/ha for yams and taro, 18.04 t/ha for cooking banana, 15.79 t/ha for desert banana, 9.8 t/ha for banana for beer, 9.07 t/ha for banana as whole, 0.68 t/ha for bean, 0.45 t/ha for groundnut, 0.81 t/ha for pea, 0.49 t/ha for soybean, 9.4 t/ha for vegetables and 4.96 t/ha fruits.

Use of inputs

The resultsof USAS 2020prove that35.2%,15.6% and 30.6% of farmers used improved seeds in season A B and Crespectively. In addition, 63.6%, 51.7% and 76.1% used organic fertilizers while 33.8%,25.8% and 67.5% used inorganic fertilizers in respective seasons. Moreover 21.2%,15.3% and 64.1% of farmers used pesticides.Most of improved seed used were sourced from agro-dealers. In terms of specific fertilizers, DAP, UREA and NPK are inorganic fertilizers mostly used in 2020 agricultural year while Rocket, Dithane and Cypermethrin were reported as most used pesticides in 2020.

Agricultural practices

The findings also show that nearly 90% ofinterviewed farmers protected the cultivated land against erosion throughout the year, with 28% of farmerswere involved in irrigation, while about 32% of interviewed farmers practiced agroforestry. Here underin the table 0, main indicators covered during the USAS 2020 are summarised.

[2] The farmers covered in the survey are both large scale farmers and small-scale farmers

Table 0. Summary of Seasonal Agricultural Survey main indicators

SAS main indicators	SAS 2018			SAS 2019			SAS 2020		
	Season A	Season B	Season C	Season A	Season B	Season C	Season A	Season B	Season C
Cultivated area for major crops (Ha)									
Maize	218,179	78,151	-	215,159	73,139	-	221,521	72,918	
Sorghum	27,151	116,986	-	30,467	131,383	-	33,295	136,124	
Paddy rice	16,938	16,739	-	14,671	18,225	-	14,507	15,077	
Wheat	4,490	7,735	-	5,487	7,747	-	4,187	8,122	
Cassava	194,717	188,485	-	195,135	187,511	-	190,447	192,156	
Sweet potato	87,456	79,983	5,683	97,639	80,919	5,331	89,427	84,545	5,583
Irish potato	50,836	60,644	7,740	49,728	49,244	8,618	51,516	43,950	9,028
Yams & Taro	11,406	19,287	-	12,695	15,469	-	18,058	14,565	
Banana	224,053	232,420	-	253,996	236,417	-	272,500	207,635	
Cooking banana	85,524	90,175		86,707	81,010		106,409	62,054	
Dessert banana	30,110	34,153		32,036	37,398		39,688	30,911	
Banana for beer	111,213	108,091		135,252	118,009		126,403	114,670	
Bean	287,218	269,105	885	299,443	282,099	1,128	362,199	283,104	2,681
Pea	15,121	10,612	228	17,658	6,859	255	10,530	6,229	502
Groundnut	20,474	20,983	-	23,929	19,990	-	14,609	21,292	
Soybean	24,011	30,431	351	24,593	21,543	559	24,677	22,974	837
Vegetables	13,794	12,480	3,017	15,012	14,976	3,744	18,246	15,939	5,912
Fruits	5,975	6,677	-	8,383	7,454	-	7,256	7,824	
Harvested area for major crops (Ha)									
Maize	218,179	78,151	-	215,159	73,139	-	221,521	72,918	
Sorghum	27,151	116,986	-	30,467	131,383	-	33,295	136,124	
Paddy rice	16,938	15,842	-	14,671	18,225	-	14,507	15,077	
Wheat	4,490	7,735	-	5,487	7,747	-	4,187	8,122	
Cassava	35,897	56,216	-	36,960	44,667	-	41,160	46,509	
Sweet potato	87,456	79,983	5,683	97,639	80,919	5,331	89,427	84,545	5,583
Irish potato	50,836	60,644	7,740	49,728	49,244	8,618	51,516	43,950	9,028
Yams & Taro	11,411	19,287	-	12,695	15,469	-	14,450	14,565	
Banana	61,976	63,140	-	82,523	74,733	-	99,876	79,107	
Cooking banana	21,389	19,767		25,340	20,155		35,735	22,089	
Dessert banana	5,165	7,355		8,342	10,517		14,980	11,337	
Banana for beer	35,397	36,018		48,841	44,060		49,161	45,681	
Beans	287,218	269,105	885	299,443	282,099	1,128	362,199	283,104	2,681
Pea	15,121	10,612	228	17,658	6,859	255	10,530	6,229	502
Groundnut	20,474	20,983	-	23,929	19,990	-	14,609	21,292	
Soybean	24,011	30,431	351	24,593	21,543	559	24,677	22,974	837
Vegetables	13,649	12,480	3,017	14,801	14,972	3,744	4,778	15,945	5,912
Fruits	4,263	4,522	-	6,585	5,623	-	9,988	4,978	

Table 0. Summary of Seasonal Agricultural Survey main indicators(cont'd)

SAS main indicators	SAS 2018			SAS 2019			SAS 2020		
Crop area under permanent crop (%)									
Banana	17.3			18.8					
Coffee	2.4			3.5					
Tea	2.6			2.5					
Fruits	0.5			0.6					
Pasture	8.9			8.3					
	Season A	**Season B**	**Season C**	**Season A**	**Season B**	**Season C**	**Season A**	**Season B**	**Season C**
Production for major crops (MT)									
Maize	332,670	91,534	-	331,090	90,128	-	353,999	94,634	
Sorghum	36,581	118,111	-	37,584	122,042	-	42,231	128,258	
Paddy Rice	57,934	55,946	-	59,286	72,291	-	52,225	64,279	
Wheat	5,950	7,525	-	7,082	8,605	-	4,138	8,673	
Cassava	486,440	640,759	-	523,117	658,708	-	578,545	701,037	
Sweet potato	661,583	498,790	26,358	674,257	546,788	26,539	635,007	611,425	29,182
Irish potato	439,512	396,064	80,487	468,931	422,266	82,211	427,471	352,441	78,609
Yams & Taro	70,653	97,331	-	71,104	100,700	-	85,414	102,628	
Banana	952,684	817,013	-	1,020,141	830,491	-	1,100,082	931,991	
Cooking banana	406,044	353,652	-	456,351	364,566	-	502,972	410,259	
Dessert banana	112,283	117,057	-	112,937	128,273	-	120,868	138,090	
Banana for beer	434,356	346,304	-	450,853	354,930	-	476,241	383,641	
Bean	251,189	233,540	1,027	252,569	230,744	938	226,570	209,383	2,782
Pea	9,001	5,689	137	9,115	6,136	149	7,933	5,668	352
Groundnut	12,546	9,734	-	9,362	10,200	-	5,762	10,542	
Soybean	12,156	10,427	227	13,638	10,588	299	12,284	10,955	516
Vegetables	162,938	145,272	40,417	158,927	155,506	36,072	160,114	166,272	52,492
Fruits	35,883	17,711		48,791	29,002	-	23,542	24,830	
Yield for major crops (Kg/ha)									
Maize	1,525	1,171	-	1,647	1,183	-	1,598	1,298	-
Sorghum	1,347	1,010	-	1,234	954	-	1,268	942	-
Paddy Rice	3,420	3,532	-	4,041	4,008	-	3,600	4,264	-
Wheat	1,325	973	-	1,291	1,111	-	988	1,068	-
Cassava	13,540	11,398	-	14,153	14,842	-	14,056	15,073	-
Sweet potato	7,565	6,236	4,638	6,918	6,757	4,979	7,101	7,232	5,227
Irish potato	8,646	6,531	10,399	9,953	8,688	9,540	8,298	8,019	8,707
Yams & Taro	6,194	5,047	-	5,601	6,510	-	5,911	7,046	-
Banana	15,378	12,940		12,362	11,113		10,861	11,781	-
Cooking banana	19	18,970	17,891	18			13,794	18,573	-
Dessert banana	21.7	21,693	15,915	13.5			7,927	12,180	-
Banana for beer	12.3	12,271	9,615	9.2			9,606	8,398	-
Beans	875	868	1,160	891	841	831	626	740	1,038
Pea	595	536	600	516	895	585	753	910	702
Groundnut	613	464	-	391	510	-	394	495	-
Soybean	506	343	646	555	501	535	498	477	617
Vegetables	11,938	11,641	-	10,738	10,386	-	8,775	10,428	8,879
Fruits	8,418	3,916	-	7,409	5,373	-	4,927	4,988	-

Table 0. Summary of Seasonal Agricultural Survey main indicators(contd')

	SAS 2018			SAS 2019			SAS 2020		
	Season A	Season B	Season C	Season A	Season B	Season C	Season A	Season B	Season C
Share of pure crop in agricultural land									
Small Scale Farmers	36	32	78	23.3	34	68.6	28.3	32.3	74.3
Large Scale Farmers	95.3	96.6	-	97.6	98.3	-	96.6	93.5	-
Percentage of plots with improved seeds	-	-	-	11	6	13	27.8	11.2	16.74
Percentage of plots with organic fertilizer use	-	-	-	52.8	43.8	66.7	61.9	52.4	67
Percentage of plots with inorganic fertilizers use	-	-	-	26	21	43	28	20.7	50.9
Percentage of plots with pesticides use	-	-	-	18.1	14.7	42.3	16.02	11.2	54.4
Percentage of farmers who used improved seeds	-	-	-	22.4	11.8	14.6	35.2	15.6	30.6
Percentage of farmers who used organic fertilizer	-	-	-	53.3	47	67	63.6	51.7	76.1
Percentage of farmers who used inorganic fertilizers	-	-	-	26.1	23.1	42.4	33.8	25.8	67.5
Percentage of farmers who used pesticides	-	-	-	17.6	15	42	21.2	15.3	64.1
Percentage of farmers who practiced irrigation	-	-	-	3.1	3.5	26.4	6.5	11.8	66.9
Percentage of farmers who practiced anti-erosion activities	-	-	-	72.5	74	86	88.9	88.0	94.6
Percentage of land area sown with improved seeds	-	-	-	10.9	6	12	34.3	15.2	20.5
Percentage of fertilized land with organic fertilizer	-	-	-	57.2	46.5	70.6	59.9	48.7	66.1
Percentage of fertilized land with inorganic fertilizer	-	-	-	26.3	21	56	32.1	24.0	64.4
Percentage of land with pesticides application	-	-	-	17.1	14.2	58.9	19.6	14.1	67.4
Total land area (,000Ha)	-	-	-	2,377	2,377		2,377	2,377	-
Agriculture land (,000Ha)	-	-	-	1,411	1,415	-	1,395	1,395	-
Percentage of agricultural area	-	-	-	59	60	-	58.7	58.7	-
Area under permanent crops (,000Ha)	-	-	-	514	496	-	554	592	-
Area under permanent pasture (,000Ha)	-	-	-	147	151	-	147.9	140.7	-
Modern irrigated agricultural land (,000Ha)	-	-	-	18	21	-	19	22	-
Area under seasonal crops(,000Ha)	-	-	-	1,041	1,025	-	1,042	1,069	-
Temporary fallow land(,000Ha)	-	-	-	108	115	-	105	129	-
Temporarily meadow and pasture(,000Ha)	-	-	-	8	8	-	10.6	13.8	-

Table of contents

FOREWORD i
EXECUTIVE SUMMARY ii
Table of contents vii
List of tables viii
List of figures ..... **Error! Bookmark not defined.**
Acronyms xi
I. INTRODUCTION 1
1.1 Objective of the Survey 1
II. SURVEY DESIGN 3
2.1 Sample frame design 3
2.1.1 Land classification 3
2.1.2 Stratification 4
2.1.3 Sampling procedures 6
2.1.4 Weighting Procedures 8
2.2 Data Collection design 8
2.2.1 USAS timeframe and agricultural seasons in Rwanda 9
2.2.2 Data collection tools and materials 9
2.2.3 Field data collection procedures 10
2.3 Data processing and analysis 10
2.4 Concepts, definitions and estimation methods 11
III. MAIN FINDINGS OF USAS 2020 14
3.1 Agricultural land use (1000Ha) for 2020 Season A and B 14
3.2 Crop area, yield and production for major crops 15
3.3. Agricultural inputs 17
3.4 Agricultural practices 20
3.5 Sowing dates 20
3.6 Gross Value Added (GVA) 21
MAIN TABLES 22

List of Tables

Table 1: List of Rwanda land cover classes 3
Table 2. List of strata 5
Table 3. Population size per district by stratum (number of segments) 5
Table 4: Allocation of sampled segments per district by stratum 6
Table 5: Main crops Gross Value Added in current prices (Value RWF/ha) 21
Table 6.Season A 2020_Agricultural land use per district (,000Ha) 23
Table 7.Season B 2020_Agricultural land use per district (,000Ha) 24
Table 8. Area under agricultural practices 24
Table 9. Season B 2020_Cultivated area by crop type per district (ha) 27
Table 10. Season C 2020_Cultivated area by crop type per district (ha) 28
Table 11. Season A 2020_Harvested area by crop type per district (ha) 29
Table 12. Season B 2020_Harvested area by crop type per district (ha) 30
Table 13. Season C 2020_Harvested area by crop type per district (ha) 30
Table 14. Season A 2020_Average yield by crop type per district (Kg/Ha) 32
Table 15. Season B 2020_Average yield by crop type per district (Kg/Ha) 33
Table 16. Season C 2020_Average yield by crop type per district (Kg/Ha) 34
Table 17. Season A 2020_Average yield on Large scale farmers by crop type and district (Kg/Ha) 35
Table 18. Season B 2020_Average yield on Large scale farmers by crop type and district (Kg/Ha) 36
Table 19. Season C_Average yield by crop type and district-SITE (Kg/Ha) 36
Table 20. Season A 2020_Crop production by crop type per district (MT) 38
Table 21. Season B 2020_Crop production by crop type per district (MT) 38
Table 22. Season C 2020_Crop production by crop type per district (MT) 39
Table 23. Season A 2020_ Use of crop production by farmers (%) 41
Table 24. Season B 2020_Use of crop production by farmers (%) 42
Table 25. Season C 2020_ Use of crop production by farmers (%) 43
Table 26. Sowing date per season and District in 2020 (%) 44
Table 27. Sowing dates per season and crop type in 2020 (%) 44
Table 28. Cultivated area by cropping system, per season and district (%) in 2020 46
Table 29:Season A 2020_ Use of seeds by farmer type per district (%) 47
Table 30: Season B 2020_Use of seeds by farmer type per district (%) 48
Table 31:Season C 2020_Use of seeds types per district (%) 49
Table 32:Seed use by crop type in 2020 (%) 50
Table 33:Source of improved seeds per district in 2020 (%) 51
Table 34:Source of improved seeds by season per crop type in 2020 (%) 52
Table 35: Season A 2020_Use of organic fertilizer by farmer type per district (%) 53
Table 36:Season B 2020_Use of organic fertilizer by farmer type per district (%) 54
Table 37:Season C 2020_Use of organic fertilizer per district (%) 55
Table 38:Season A2020_Use of inorganic fertilizer by farmer type per district (%) 56
Table 39:Season B2020_Use of inorganic fertilizer by farmer type per district (%) 57
Table 40:Season C 2020_Use of inorganic fertilizer per district (%) 58

Table 41. level of fertilize Use per districts and farmer types (percentages) 59
Table 42:Percentage of farmers by source of inorganic fertilizers per district in Season A 2020 60
Table 43:Percentage of farmers by source of inorganic fertilizers per district in Season B 2020 61
Table 44:Percentage of farmers by source of inorganic fertilizers per district in Season C 2020 62
Table 45:Source of inorganic fertiliser by type of fertilizer in Season A 2020 (%) 63
Table 46: Source of inorganic fertilizer by type of fertilizer in Season B 2020 64
Table 47: Source of inorganic fertiliser by type of fertilizer in Season C 2020 (%) 65
Table 48: Type of inorganic fertilizer, per season and district (%) 66
Table 49: Season A 2020_Use of pesticides by farmer type per district (%) 67
Table 50: Season B 2020_ Use of pesticides by farmer type per district (%) 68
Table 51: Season C 2020_Use of pesticides per district (%) 69
Table 52: Type of pesticides, per season and district in 2020 (%) 70
Table 53: Percentage of farmers by agricultural practices in Season A 2020 71
Table 54: Percentage of farmers by agricultural practices in Season B 2020 72
Table 55: Percentage of farmers by agricultural practices in Season C 2020 73
Table 56: Irrigation type, per season and district in 2020 (%) 74
Table 57: Source of water used for irrigation, per season and district in 2020 (%) 75
Table 58: Type of anti-erosion activities, per season and district in 2020 (%) 76

List of Figures

Figure 1: Agricultural seasons calendar 9
Figure 2: Agricultural land use for Season A and B 2020 (in thousands of hectares) 14
Figure 3: Use of improved and traditional seeds (%) 17
Figure 4: Use of organic fertilizers (%) 18
Figure 5: Use of inorganic fertilizer (%) 19
Figure 6: Use of pesticides (%) 19
Figure 7:Practice of irrigation,erosion control measures, agroforestry and use mechanical equipments 20

List of Maps

Map 1: Rwanda land classification map 4
Map 2: Map showing square cluster(segment) with 25 sampled points 7
Map 3: Percentage of area under permanent crop (tea) in 2020 Agricultural year 79
Map 4: Percentage of area under permanent crop (banana) in 2020 Agricultural year 80
Map 5: Percentage of area under permanent crop (fruits) in 2020 Agricultural year 81
Map 6: Percentage of area under permanent crop (pasture) in 2020 Agricultural year 82

Acronyms and Abbreviations

%: Percentage
AHS: Agricultural Household Survey
CAPI: Computer Assisted Personal Interviewing
Cs Entry: Census and Survey Processing data collection application
CSPro: Census and Survey Processing System
DAP: Diammonium Phosphate
GIS: Geographic Information System
GPS: Global Positioning System
Ha: Hectares
KCL/MOP: Potassium Chloride or Muriate of Potash
Kg: Kilograms
LSF: Large-Scale Farmer
MINAGRI: Ministry of Agriculture and Animal Resources
MFS: Multiple-Frame Sampling
MT: Metric Tones
NAEB: National Agriculture Export Board
NGOs: Non- Governmental Organization
NISR: The National Institute of Statistics of Rwanda
NPK: Nitrogen, Phosphorus and Potassium
NST1: National Strategy for Transformation
PSUs: Primary Sampling Units
PSTA: Strategic Plan for Agriculture Transformation
RAB: Rwanda Agriculture Board
SAS: Seasonal Agricultural Survey
Sqm: Square meter
SSF: Small Scale Farmer
SSUs: Second Sampling Units
STATA: Software for Statistics and data Science
Survey 123: Electronic instrument or questionnaire for farmer interview data collection
System, suite of data processing tools
USAS: Upgraded Seasonal Agricultural Survey

I. INTRODUCTION

Agriculture continues to be one of the most important growth pillars for Rwanda, and a much emphasis for agriculture transformation has been underpinned under the new national development strategy. In recognition of its potential in economic development, food security and poverty reduction, the government has set an ambitious agricultural agenda under the new strategy for transformation of agriculture (PSTA 4) aiming at transformation of Rwandan agriculture from a sector characterised by low productivity to a sector using knowledge to increase productivity and investing in value addition and commercialization.

Agriculture statistics are therefore essential to evaluate the performance of national agricultural programs, with the aim to inform policy makers and potential users in the agriculture sector.In that regard, the National Institute of Statistics of Rwanda (NISR) in collaboration with the Ministry of Agriculture and Animal Resource (MINAGRI) conduct Seasonal Agricultural Survey (SAS) in order to cover various information mainly related to potential agricultural land use, crop area, yield, production, agricultural inputs, agricultural practices and other relevant agricultural information. In addition, survey's data are supplemented by administrative records on tea and coffee from the National Agriculture Export Board (NAEB) collected through its routineactivities. Other agriculture related information is obtained from MINAGRI working closely with Rwanda Agriculture Board (RAB), Districts agronomists and other partners working in agriculture sector.

The NISR has steered the second upgraded Seasonal Agriculture Survey edition that covered three main agricultural seasons A,B and C, providing more comprehensive data on Rwandan agriculture sector.To ensure more precise estimates at the district level the number of secondary sampling units(segments) were increased from 780 up to 1200 segments.

1.1 Objective of the Survey

The main objective of SAS is to provide timely, accurate, reliable and comprehensive agricultural statistics that describe the structure of agriculture in Rwanda mainly in terms of land use, crop area, yield and crop production to monitor current agricultural and food supply conditions and to facilitate evidence-based decision making for the development of the agricultural sector.

Therefore, thisreport presents thoroughly the findingsof 2020 Upgraded Seasonal Agricultural Surveyin relation to:

1.Land use:

- Agricultural land: this includes land under farming and land that can be taken back into cultivation (fallow or pastureland). Agricultural land indicates the potential land for agriculture.
- Arable land: land able to be grown and produce crops for food and feeds supply purpose. This area of land excludes land under permanent crops and permanent pasture.
- Physical crop cultivated area: this is the area of land occupied by crops.
- Pastureland: area under natural grasses reserved for livestock or occupied by fodder crops;
- Fallow land: cultivable land free for cultivation in a temporal period (less than 5 years);

2. Crop land: Cultivated land devoted to anygrowncrop

3. Crop production: Quantity of harvested crop produce used for food/livestock (kilograms or tons)

4. Crop yield: It is a measurement of the quantity of crop harvested per unit of land area (kg per hectare). It is used to determine the efficiency of food production at a certain period.

5. Use of inputs (this assesses the level of use of improved seeds, fertilizers, pesticides and other soil remedies)

6. Agricultural practices (practices of irrigation and erosion control measures) and others.

II. SURVEY DESIGN

2.1 Sample frame design

The USAS used a Multiple-Frame Sampling (MFS) methodology providing the basis for conducting probability surveys. This approach is mainly based on complete coverage of the area and enables to avail agricultural data with precise survey estimates. The methodology encompasses two sample frames: the area frame from which the main survey sample is drawn and a list frame of large-scale farmers (LSF)to complement the area frame, with the aim to cover crops mostly grown by large scale farmers which are not easily covered in the area frame. The large-scale farmer should have at least 10 hectares of agricultural holdings to be included. The process of area frame construction is a three-pronged process involving the following steps: land cover classification, land stratification and sampling of segment.

2.1.1 Land classification

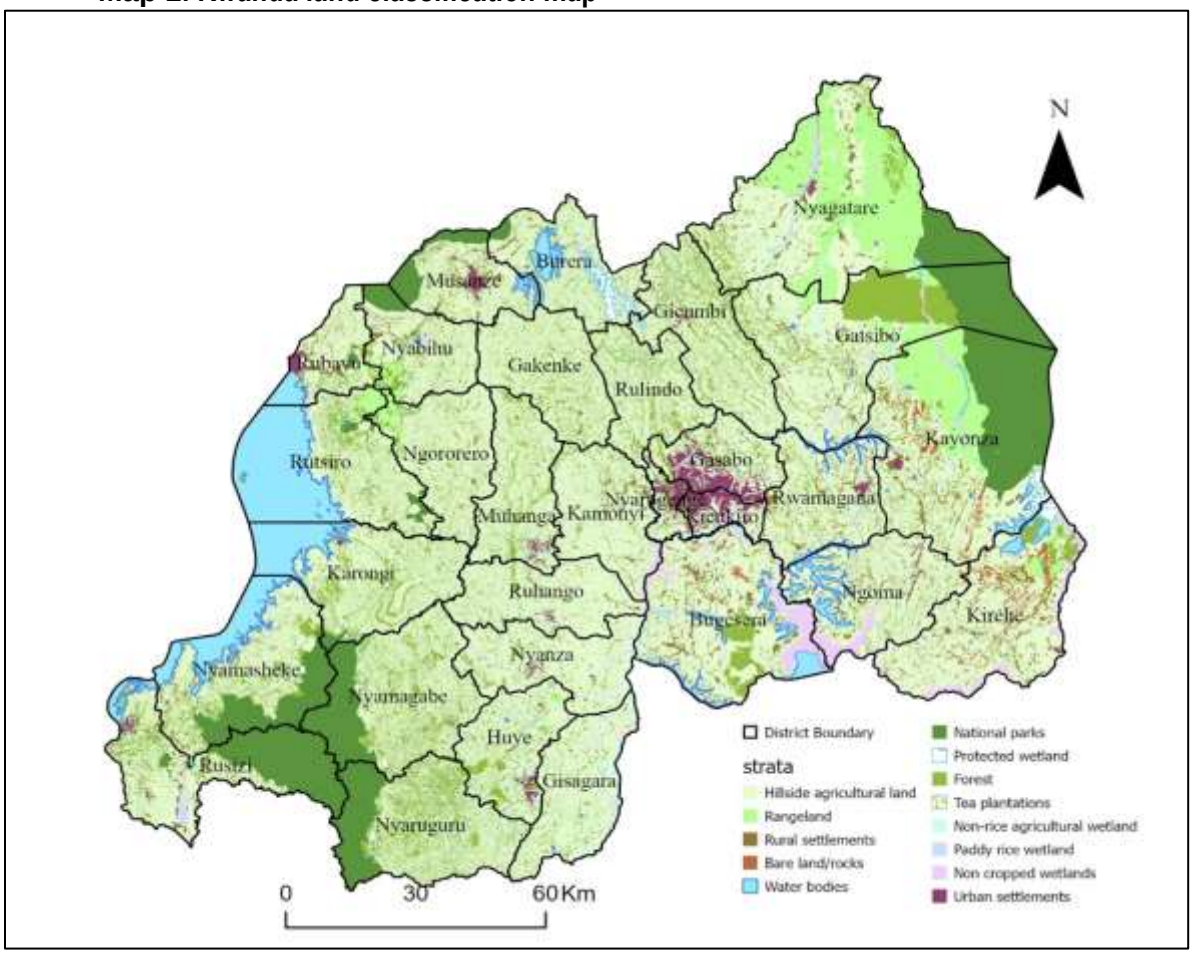
Land classification was done using Rwanda land cover map combining different geographical layers available in the country, plus a photo interpretation of a series (2010 to 2019) of high-resolution satellite images from Worldview. As a result, the Rwanda land cover map has been divided into 13 land cover classes (as shown in Table 1).

Table 1: List of Rwanda land cover classes

Code	Land cover class name	Area (Ha)	Percentage share
1.0	Consolidated tea plantations	17,821	0.7
1.1	Hillside agricultural land	1,343,933	53.1
2.1	Non-rice agricultural wetland	55,807	2.2
2.2	Paddy rice wetland	21,848	0.9
2.3	Non cropped wetlands	37,743	1.5
3.0	Rangeland	144,490	5.7
4.1	Urban settlements	31,612	1.2
4.2	Rural settlements	78,928	3.1
5.0	Bare land/rocks	15,404	0.6
6.0	Water bodies	135,295	5.3
7.0	National parks	241,455	9.5
8.0	Protected wetland	12,201	0.5
9.0	Forest plantations	395,001	15.6

Source: NISR, SAS, 2020

Map 1: Rwanda land classification map



Source: NISR, SAS 2020

Among 13 land cover classes, some of them are related to agricultural activities. The next step of building the area sample frame was to group land cover classes into strata in order to identify agricultural strata to be considered in sample frame.

2.1.2Stratification

Out of 13 land cover classes, 5 are considered for the agricultural survey frame. These classes are tea plantation, hillside agricultural land, non-rice agricultural land, paddy rice agricultural wetland, and rural settlement (potential for agricultural production of kitchen gardens crops, fruit trees, and livestock). The remaining land cover classes are considered as excluded from the frame of potential land for agriculture. The sampling frame is made of a set of square clusters(segments) of9 hectares each covering the whole country. By overlapping the clusters layer with land cover classes layer, each cluster was assigned a dominant land cover class as a stratum definition, basing on a defined threshold as follow:

Table 2. List of strata

Stratum	Stratum name	Definition
1.0	Dominant hill crop land stratum	Clusters with Hillside agricultural land cover class greater or equal to 60 percent of the total area of the cluster
2.0	Dominant Wetland crops stratum	Clusters with non-rice wetland land cover class greater than 25 percent of total area of the cluster
3.0	Dominant rangeland	Clusters with rangeland land cover class greater or equal to 60 percent of the total area of the cluster
4.0	Mixed stratum	The rest of other possible combinations
9.0	Excluded stratum	All clusters with excluded land cover classes greater or equal to 50 percent of the total area of the cluster

Source: NISR, SAS, 2020

In addition, tea plantation class data are recorded by the National Agriculture Export Board and large-scale farms which are completely enumerated during the Seasonal Agricultural Survey, were not considered in the agricultural strata taken in sample frame. This means that only dominant hill crop land stratum, dominant wetland crops stratum, dominant rangeland stratum and mixed stratum were considered as area frame from which a sample segment was selected.

Table 3.Population size per district by stratum (number of segments)

Stratum District	Dominant hill crop land	Dominant wetland crops	Dominant rangeland	Mixed stratum	Excluded stratum	Total
Nyarugenge	515	238	-	114	605	1,472
Gasabo	2,111	296	-	405	1,959	4,771
Kicukiro	517	148	-	90	1,099	1,854
Nyanza	5,847	522	-	418	678	7,465
Gisagara	5,485	684	-	520	858	7,547
Nyaruguru	3,783	388	-	1,290	5,757	11,218
Huye	3,869	369	-	837	1,375	6,450
Nyamagabe	5,577	226	-	1,194	5,134	12,131
Ruhango	5,631	338	-	475	508	6,952
Muhanga	5,003	340	-	662	1,177	7,182
Kamonyi	5,605	406	-	679	636	7,326
Karongi	6,039	114	-	675	1,924	8,752
Rutsiro	4,673	-	353	691	1,639	7,356
Rubavu	2,668	-	-	574	525	3,767
Nyabihu	3,766	-	272	607	1,324	5,969
Ngororero	5,630	112	359	545	872	7,518
Rusizi	3,866	159	-	839	5,322	10,186
Nyamasheke	4,849	137	-	923	4,640	10,549
Rulindo	4,209	312	-	622	1,167	6,310
Gakenke	5,919	255	-	669	986	7,829
Musanze	3,241	120	-	634	1,859	5,854
Burera	4,437	259	-	510	1,965	7,171
Gicumbi	5,919	214	-	868	2,202	9,203
Rwamagana	5,130	173	-	1,098	1,162	7,563
Nyagatare	6,688	532	9,057	1,160	3,869	21,306
Gatsibo	7,358	434	1,048	1,074	7,675	17,589
Kayonza	7,376	280	3,857	1,262	8,694	21,469
Kirehe	7,874	-	548	1,337	3,445	13,204
Ngoma	6,379	-	-	1,035	2,244	9,658
Bugesera	8,155	452	-	1,626	4,135	14,368
National	**148,119**	**7,508**	**15,494**	**23,433**	**75,435**	**269,989**

Source: NISR, SAS, 2020

2.1.3Sampling procedures

Out of 5 defined agricultural strata, only dominant hill crop land stratum, dominant wetland crops stratum, dominant rangeland stratum and mixed stratum were considered as land potential for agriculture. The remaining stratum is the non-agricultural land. Note that clusters covered by tea plantations were not considered in the area sample frame due to reasons stated above. Thus, SAS is conducted on 4 above mentioned strata to cover other major crops. In 2020 agricultural year, the sample of segments was increased in order to improve agriculture statistics where sample increased from 780 (sample used from 2018 to 2019) to 1200 segments. At first stage,1200segments were selected and allocated at district level based on the power allocation approach (Bankier[3], 1988). Sampled segments inside each district were distributed among strata with a proportional-to-area criterion.

Table 4: Allocation of sampled segments per district by stratum

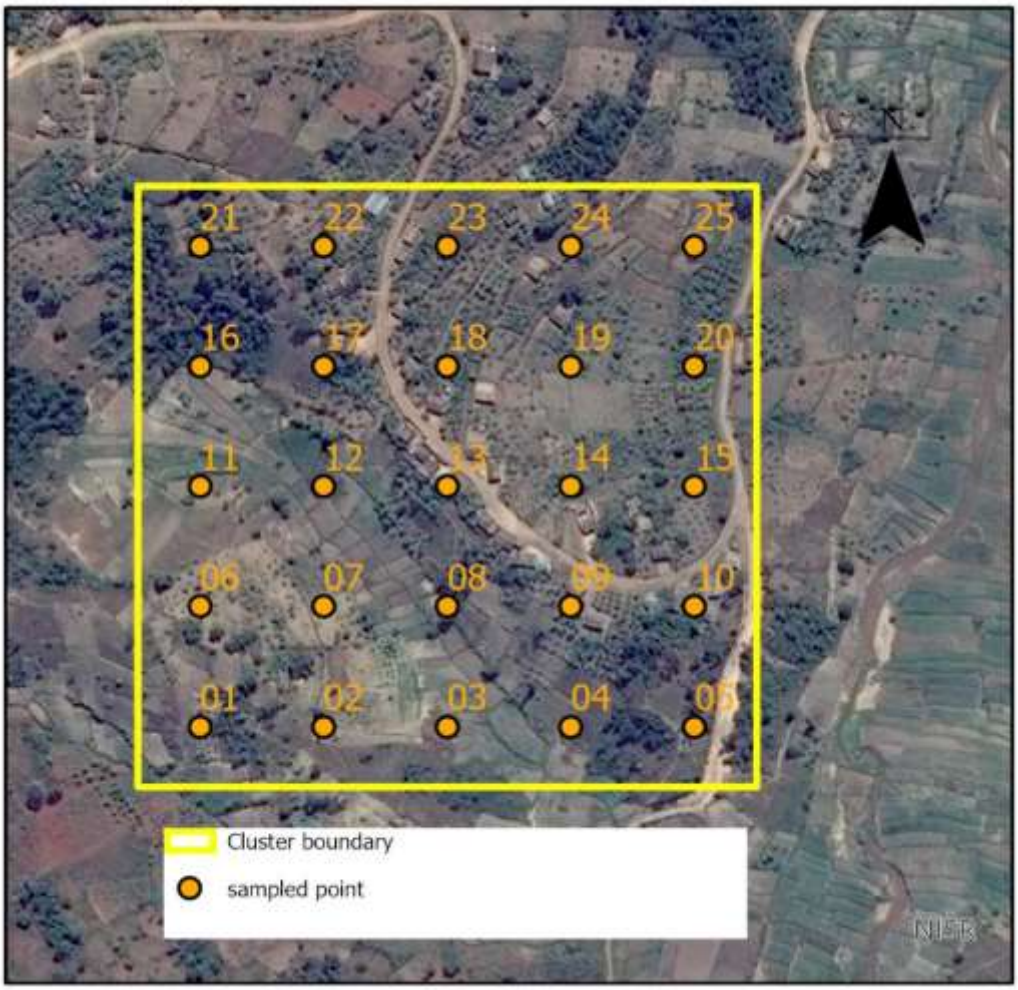
Stratum District	Dominant hill crop land	Dominant wetland crops	Dominant rangeland	Mixed stratum	Total A & B	Season C
Nyarugenge	12	6	-	2	20	10
Gasabo	22	4	-	3	29	14
Kicukiro	13	5	-	2	20	9
Nyanza	37	4	-	2	43	21
Gisagara	33	5	-	3	41	18
Nyaruguru	25	3	-	7	35	20
Huye	27	3	-	5	35	17
Nyamagabe	36	2	-	6	44	17
Ruhango	36	3	-	3	42	18
Muhanga	33	3	-	4	40	13
Kamonyi	36	3	-	4	43	17
Karongi	38	2	-	3	43	11
Rutsiro	32	-	2	4	38	7
Rubavu	21	-	-	4	25	30
Nyabihu	27	-	2	3	32	37
Ngororero	36	2	2	3	43	10
Rusizi	27	2	-	5	34	2
Nyamasheke	31	2	-	5	38	11
Rulindo	28	3	-	4	35	13
Gakenke	37	2	-	4	43	14
Musanze	24	2	-	4	30	37
Burera	30	2	-	3	35	46
Gicumbi	37	2	-	5	44	14
Rwamagana	34	2	-	6	42	14
Nyagatare	31	5	25	7	68	21
Gatsibo	38	3	5	5	51	20
Kayonza	32	2	13	5	52	11
Kirehe	45	-	3	6	54	8
Ngoma	39	-	-	6	45	8
Bugesera	45	3	-	8	56	15
Total	**942**	**75**	**52**	**131**	**1200**	503

Source: NISR, SAS, 2020

[3]Bankier M.D. (1988) Power allocations: determining sample sizes for subnational areas. The American Statistician, Vol. 42, n. 3 pp. 174-177.

At second stage, 25 sample points were systematically selected, following a special distance of 60 meters between points. Sample points are reporting units within each segment, where enumerators go to every point, locate and delineate plots in which the sample points fall, and collect records of land use and related information. The recorded information represents the characteristics of the whole segment which are extrapolated to the stratum level and hence the combination of strata within each district provides district area related statistics.

Map 2: Map showing square cluster(segment) with 25 sampled points



Source: NISR, SAS, 2020

2.1.4Weighting Procedures

Based on the stratified two-stage sample design used with the new area frame, the first stage sampling probability for the sample segments in each stratum is calculated as:

$$p_{1h} = \frac{n_h}{N_h}$$

where:

p_{1h} = probability of selection of sample segments in stratum h (district by stratum)

n_h =number of sample segments selected in stratum h

N_h = Total number of segments in the area frame for stratum h in each stratum

The second stage probability was calculated at the plot level based on the assumption that the plots within each sample segment were implicitly selected with PPS using the area of the plot as the measure of size. Therefore, the second stage probability of selection can be expressed as follows:

$$p_{2hi} = \frac{g_{hi} \times A_{hij}}{A_{hi} \times g_{hij}}$$

Where:

$p2_h$= Probability of selection of the plot in segment h

ghi = Number of grid squares selected in the i-th sample segment of stratum h;

Ahij = Area of the j-th sample plot selected in the i-th sample segment of stratum h

Ahi = Area of the i-th sample segment of stratum h;

ghij = Number of selected grid squares in the j-th sample plot of the i-th sample segment of stratum h

The weight of a sample plot is equal to the inverse of the first and second stage probabilities of selection:

$$W_{Phij} = \frac{1}{p_{1h} \times p_{2hi}} = \frac{N_h \times A_{hi} \times g_{hij}}{n_h \times g_{hi} \times A_{hij}}$$

Where:

W_{Phij} =weight for the j-th sample plot in the i-th sample segment in stratum h

2.2 Data Collection design

During the USAS 2020 exercise, data collection was conducted into two separate phases: the first phase, known as screening activity (post-planting phase), consists of visiting all sampled segments and demarcating all plots with sampled points with the aim of covering the information related to land area, planted crops and land use. While the second phase involves capturing of production data by visiting sampled agricultural plots identified from screening activity as well as all Large-Scale Farmers (LSF). To ensure the smooth completion of the USAS workload, NISR employed 152 Enumerators, 31 Team Leaders

and 3 Editors. All fieldwork staff hold a degree in agriculture sciences and were consistently trained by NISR headquarter staff before starting data collection in each season.

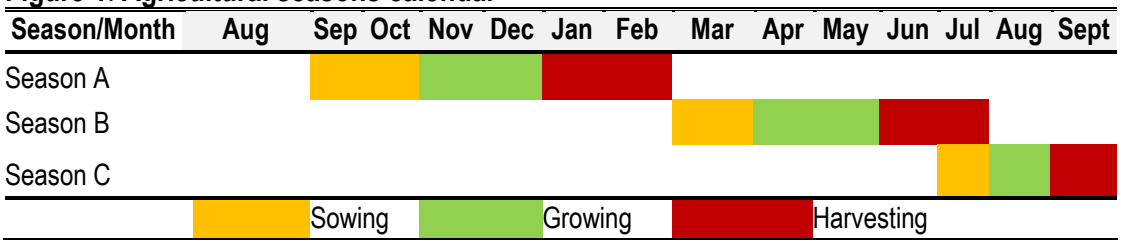
Moreover, a higher-level supervision was organised and done by staff from NISR who frequently visited the field teams during each phase of data collection in order to ensure the quality of collected data.

2.2.1 USAS timeframe and agricultural seasons in Rwanda

The upgraded Seasonal Agriculture Survey (USAS) data collection was conducted following the three ordinary agricultural seasons. The USAS field activities were carried out during the regular seasons' calendar that covers the approximate monthly periods as follows:

- Season A started in September 2019 and ended with February 2020
- Season B started in March 2020 and ended with 2020; while
- Season C that starts in July and ends in September of the same year, it is a short agricultural season with vegetables and sweet potato predominantly grown in marshlands, whereas Irish potato are grown in volcanic agro-ecological zone.

Figure 1: **Agricultural seasons calendar**



Source: NISR, SAS, 2020

Specifically, During the 2020 USAS, the field work for season A covered the period from 2nd December 2019 to 4th February 2020 while season B data collection was conducted from 02nd June to 16th July 2020.In both cases, data collection was carried out in 1,200 segments and 293 large-scale farmers' holdings. Besides, the data collection was carried out in 1502 sites potential to grow season C crops in addition to 503segments and covered the period from 2nd to 23rd August.

2.2.2 Data collection tools and materials

Upgraded Seasonal Agricultural Survey used two questionnaires:

- **Screening Questionnaire:** Screening questionnaire is used to collect information on the delineated plot. This information is mainly related to land use, plot area and crop cultivated.

- **Plot Questionnaire:** Plot questionnaire is used to collect information mainly related to crop production, inputs used (seeds, fertilizers and pesticides), and agricultural practices in the sampled plots.

The computer assisted personal interview (CAPI) data collection methodology was used during the USAS exercise and it mainly comprises three different software applications:

- **Collector:** which is GIS based application, is used to identify and navigate the enumerator team to the exact GPS sample-point location and for mapping the plot boundary for GIS area determination,
- **Survey 123:** which is GIS based application, used to collect screening data for Large-scale farmers.
- **CS Entry application**, which is a CSPro data entry application used on Android tablets to collect data for interview of plot questionnaire.

In addition, each enumerator and team leader had adequate materials composed of enumerator's instruction manual, android tablet, charger, Power banks, pens, notebooks, pencils, calculator, weighing scales, Global Positioning System (GPS), boots, etc. Teams were given vehicles for transport facilitation.

2.2.3 Field data collection procedures

Before proceeding to the field, enumerators and their team leaders must check if they have required materials for their fieldwork. Filed workers use Explorer software to direct them to sampled segment. Data are collected as follows:

- **Screening Activity of the Segment:** Arriving at the segment, field workers use GPS to direct them to the sampled point inside the segment. Arriving at the point, enumerators identify plot boundary with the guide of the farmer and delineate the plot using collector with external GPS connected to the tablet. For large scale farmers, complete enumeration of plots with at least 10 hectares is done.
- **Farm Interview:** After screening activity, only agricultural plots are given to enumerators to collect information provided in the plot questionnaire.

2.3 Data processing and analysis

CAPI data collection method allows enumerators to collect and enter data using tablets and send those data to the server at headquarter where data are received by NISR staff, checked for consistency and thereafter transmitted to analysts for tabulation and reporting using STATA Excel software.

2.4 CONCEPTS, DEFINITIONS AND ESTIMATION METHODS

1. Total land area

Total land area at district level is the district area excluding area under inland water bodies. The definition of inland water bodies generally includes major rivers and lakes.

2. Agricultural area

Agricultural area includes arable land, land under permanent crops and permanent pasture.

3. Arable land

Arable land includes land defined by the FAO as land under temporary crops (double-cropped areas are counted only once), temporary meadows for mowing or pasture, land under market and kitchen gardens and land temporarily fallow (less than five years).

The abandoned land resulting from shifting cultivation is not included in this category. Data for arable land are not meant to indicate the amount of land that is potentially cultivable.

4. Permanent crop land

Permanent crops are sown or planted once and occupy the land for some years and do not need to be replanted after each annual harvest, such as cocoa, coffee and rubber. This category includes flowering shrubs, fruit trees, nut trees and vines, but excludes trees grown for wood or timber. The following crops are considered as permanent crops in SAS: Cooking banana, Dessert banana, Banana for beer, Avocado, Coffee, Sugar cane, Macadamia, Olive, Mango, Apple, Papaya, Orange, Lemon, Guava, Mulberry, Stevia, Jatropha, Palm, and Tea.

5. Permanent pastureland

Land used permanently (five years or more) for herbaceous forage crops, either cultivated or growing wild (wild prairie or grazing land).

6. Irrigated agricultural land

Area equipped for irrigation, which is actually irrigated, (sometimes expressed as a percentage of the total land area). Part of the area equipped for irrigation refers to area equipped to provide water to crops and includes areas equipped for full/partial control irrigation, equipped lowland areas, and areas equipped for spate irrigation. Part of the area equipped for irrigation which is actually irrigated refers to physical areas. Irrigated land that is cultivated more than once a year is counted only once.

7. Physical area

Physical area refers to the total area of the plot as physically measured. The physical agricultural area in a district is estimated by aggregating all weighted individual agricultural plots area for that district.

8. Crop area (cultivated area)

Crop area refers to the area occupied by a given crop in a plot considering its density or occupation. In context of Rwanda as well as many African countries, mixed cropping system is a general practice in agriculture. This practice makes it complex to estimate area under crop cultivation. In case of pure stands (for crop completely covering a plot), crop area is equal or less to physical plot area (if a crop is partially covering the plot, the share is estimated then applied to the plot area). In case of mixed crops, the share of each crop in the plot is estimated by enumerator by eye estimation method and applied to the physical area of the plot to obtain area for each specific crop planted in plot. In this context, the crop share is eye estimation of crop density or occupation in a plot (in %) basing on spacing between plants. Cultivated area at district level is equal to the total weighted crop areas within plots in the whole district.

Examples

- In case of pure stands, crop area will be equal to the physical area if the crop entirely covers the whole plot. Otherwise, the crop area will be less than physical area. For example, a plot of 1 hectare in which maize was grown and completely occupies the whole plot (100 % occupied), it means that cultivated area for maize is 1 hectare. On the other side let us assume that the maize crop occupies 80 % of the total plot area. In that case the area of maize equals 0.8 hectares (1hectare times 0.8).
- In case of mixed cropping system, specifically seasonal crops the crop area is less than physical area. For example, a plot of 1 hectare grown with maize and beans which occupies 60 % and 40 % of total plot area respectively.

  The maize area will be 0.6 hectare (1hectare times 0.6), and beans area will be 0.4(1hectare times 0.4). It is important to note that sum of shares of seasonal crops do not exceed one hundred percent.
- When seasonal and perennial crops are mixed in same plot, since perennial crops are permanent crops in nature, their shares are treated separately from seasonal crops. The sum of seasonal crops share does not exceed 100 %, while for perennial crops shares are given based on density (spacing between trees) and it may exceed 100 percent. For example, a plot of 1 hectare grown with maize, bean and cassava with 60 %, 40 % and 50% shares respectively.
- Maize area will be 0.6 hectare (1hectare times 0.6), beans area will be 0.4(1hectare times 0.4), while cassava area will be 0.5 hectare (1hectare times 0.5).

9. Developed area

Developed area is the land covered by crops. Due to mixed cropping (over exploitation of agriculture land or under exploitation in case pure cropping), developed area can be less or greater than the physical area.

Basing on the example provided above of the plot in which maize, beans and cassava have been mixed, maize has 0.6, beans has 0.4 while cassava has 0.5 ha. The developed area equals the sum of the crops area equivalent to 1.5 ha.

10. Harvested area

Area harvested is defined as the total number of hectares for all crops that is harvested in a given agriculture season. In case of crops considered as seasonal, the harvested area is assumed to be equal to the cultivated area. For perennial crops a farmer can decide to harvest a portion of land and stores the remaining production in the farm or harvest the whole plot for commercial or other purposes. In this case, the proportion of harvested area is estimated and applied to the plot area to obtain actual harvested area. For example, cassava which occupies 0.5 hectare has 5,000 trees of cassava. if the farmer only harvested 1,250 trees. In this case, the farmer has harvested only a quarter (0.125hectares) of the cultivated area.

11. Crop yield

Crop yieldis defined as total reported quantity of harvested crop over the harvested area of that crop.

12. Crop production

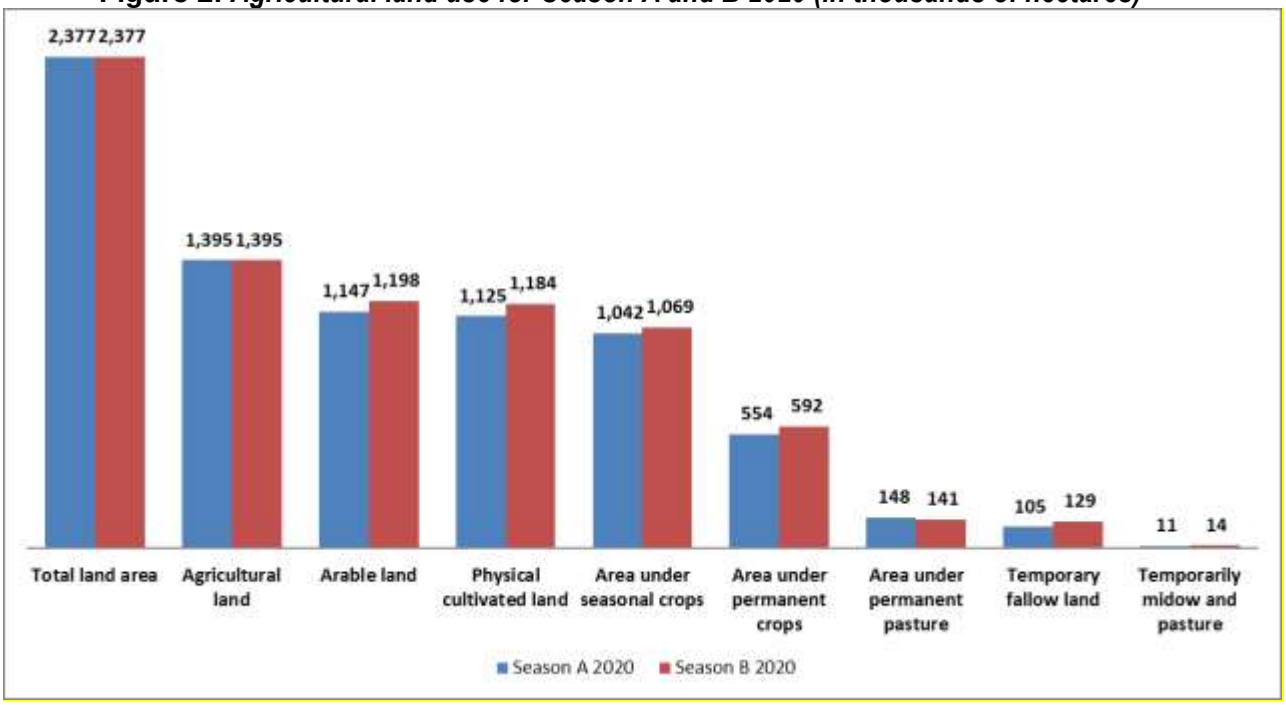
Crop production is the product of crop yield and crop area (harvested). At district level, crop production is estimated by taking crop yield of crop produces times the total harvested area in the district.

III.MAIN FINDINGS OF USAS 2020

This section presents the main findings covered during the USAS 2020seasons A, B and C. These results are mainly related to area (physical land use, cultivated area, and harvested area), crop yield and production, agricultural inputs as well as agricultural practices in Rwanda.

3.1 Agricultural land use (1000Ha) for2020 Season A and B

Figure 2: ***Agricultural land use for Season A and B 2020 (in thousands of hectares)***



Source: NISR, SAS, 2020

Figure 5 shows that during 2020-year, agricultural land at 1.4 million hectares (59 percent of total country land), from which 1.14 million of hectares and 1.19 million hectares was arable land in season A and B respectively. In 2019/2020 agricultural year, the total physical crop area under cultivation was estimated at 1.1million hectares (81 percent of total agricultural land) and increased by 2 percent when compared to 2018/2019 agricultural year. Out of physical cultivated area, 1 million hectares was used for seasonal crops while 0.5 million hectares of land was covered by permanent crops.

3.2 Crop area, yield and production for major crops

Maize:

- The results of 2020 Season A show that the cultivated area under maize was 221,521 ha, which is up by 3 percent compared to 2019 season A. Likewise, in the same season, the total production increased by 7 percent when compared with 2019 season A, with the general production of 353,999 MT. The average yield of maize was estimated at 1,598 kilograms per hectare.

- The results of 2020 Season B show that the cultivated area under maize remained unchanged as compared to 2019 season B estimates, with an estimated area of 72,918ha. However, the total production noted an increment of 5 percent from 2019 season B estimates with the overall production of 94,634 MT. The average yield of maize was estimated at 1,298 kilograms per hectare (see district details in table 8- 19).

Sweet potato:

- The results of 2020 season A indicate that the cultivated area for sweet potato was 89,427 ha, down by 8 percent compared with 2019 season A. Similarly, the production decreased by 6 percent compared to 2019 season A production with a total of 635,007 MT generally produced. The average yield of sweet potato was estimated at 7,101 kilograms per hectare
- The results of 2020 Season B, indicate that the cultivated area under sweet potato was 84,545 ha, an increase of 4 percent compared to 2019 season B. The production increased by 12 percent compared with 2019 season B, with the overall 611,425 MT produced. The average yield of sweet potato was estimated at 7,232 kilograms per hectare
- The results of 2020 season C shows that the cultivated area under sweet potatoes was 5,583 ha an increase of 5 percent compared to 2019 season C. Likewise, the production for 2020 season C increased by 10 percent when compared to the same season of the previous year. The average yield of sweet potato was estimated at 5,227 kilograms per hectare (see district details in table 8-19).

Irish potatoes:

- The results of 2020 season A show that cultivated area under Irish potato was 51,516 ha an increase of 4 percent when compared to 2019 season A. The production decreased by 9 percent when compared to 2019 season A with a total of 427,471 MT produced. The average yield of Irish potato was estimated at 8,298 kilograms per hectare
- The results of 2020 Season B revealed that the cultivated area under Irish potato totaled 43,950 ha, recording a decrease of 11 percent when compared to 2019 season B estimates. The production dropped by 17 percent when compared to 2019 season B, with overall production of 352,441 MT. The average yield of Irish potato was estimated at 8,019 kilograms per hectare (see district details in table 8-19).
- The results of 2020 season C show that the cultivated area under Irish potatoes was 9,028 ha an increase of 5 percent when compared to 2019 season C. By contrast, the production dropped down to

4% with the overall production estimated at 78,609MT. The average yield for Irish potatoes was estimated at 8,707 kilograms per hectare (see district details in table 8-19).

Cassava:

- The results of 2020Season A, the cultivated area under cassava was estimated at 190,447 ha, down by 2 percent when compared to 2019 season B. The production increased by 11 percent compared with 2019 season A estimates with the overall production of 578,545 MT. The average yield of cassava was estimated at 14,056 kilograms per hectare.
- The results of 2020 Season B show that cassava cultivated area was estimated at 192,156 ha, an increase of 2% recorded against 2019 season B. Similarly, the production was estimated at 701,037 MT an increase of 6 percent as compared to 2019 season B. The average yield of cassava was estimated at 15,073 kilograms per hectare (see district details in table 8- 19).

Paddy rice:

- The results of 2020 season A show that the cultivated area under rice was estimated at 14,507 ha, a slight decrease of 1 percent when compared to the 2019 season A. The production decreased by 12 percent when compared to 2019 season A, with the overall production of 52,225 MT. The average yield of paddy rice was estimated 3,600 kilograms per hectare.
- The results of 2020 season B show that the cultivated area under rice was estimated at 15,077 ha, a decrease of 17 percent compared to the 2019 season B. Similarly, paddy rice production decreased by 11 percent when compared to 2019 season B with seasonal production of 64,279 MT. The average yield of paddy rice was estimated at 4,264 kilograms per hectare (see district details in table 8-19).

Banana:

- The results of 2020Season A show that the overall cultivated area under banana at 272,500 ha, which is an increase of 7 percent compared to 2019 season A. Banana production increasedby8 percent when compared to 2019 season A with a total production of 1,100,082 MT. The average yield of banana was estimated at 10,861kilograms per hectare.
- The results of 2020Season B, show that the cultivated area under banana was estimated at 207,635, a decrease of 12 percent when compared to 2019 season B. However, the production increased by 12 percent when compared to 2019 season and was estimated at 931,991 MT. The average yield of banana is estimated 11,781 kilograms per hectare (see district details in table 8-19).

Beans:

- The results of 2020Season A show that the cultivated area under beans increased considerably by 21 percent when compared to 2019 season A, with total area of 362,199 ha. However, the production dropped down by10 percent when compared to 2019 season A with the overall production of 226,570 MT. The average yield of beans was estimated at 626 kilograms per hectare.

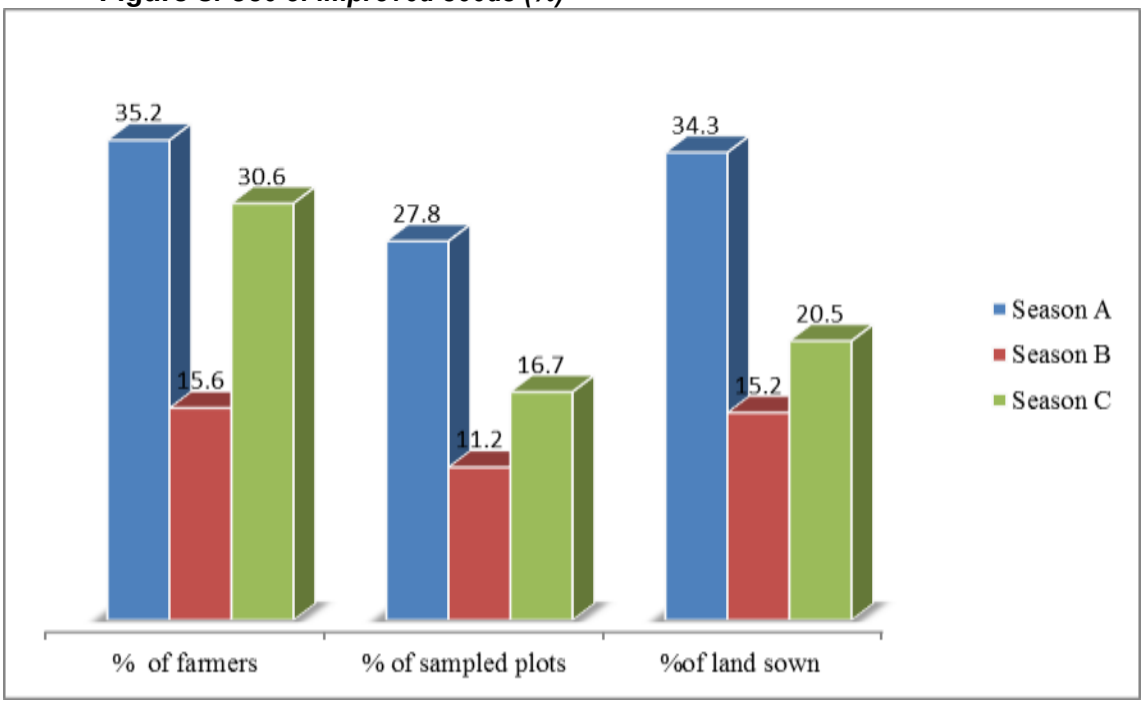
- The results of 2020Season B, the cultivated area under beans was estimated at 283,104 ha, and remained unchanged from 2019 season B. Beans production dropped down by9 percent from the 2019 season B with the overall production of 209,383 MT. The average yield of beans was estimated at 740 kilograms per hectare.
- The results of 2020Season C show that both cultivated area and production for beans have significantly increased by 138% and 197% with overall estimates of 2,681 ha and 2,782 MT respectively. The average yield was estimated at 1,038 kilograms per hectare (see district details in table 8-19).

3.3. Agricultural inputs

The findings related to the use of agricultural inputs (seeds, fertilizers and pesticides) are presented percentage and reflect the farmers who used such agricultural inputs.

3.3.1 Use of seeds

Figure 3*: Use of improved seeds (%)*



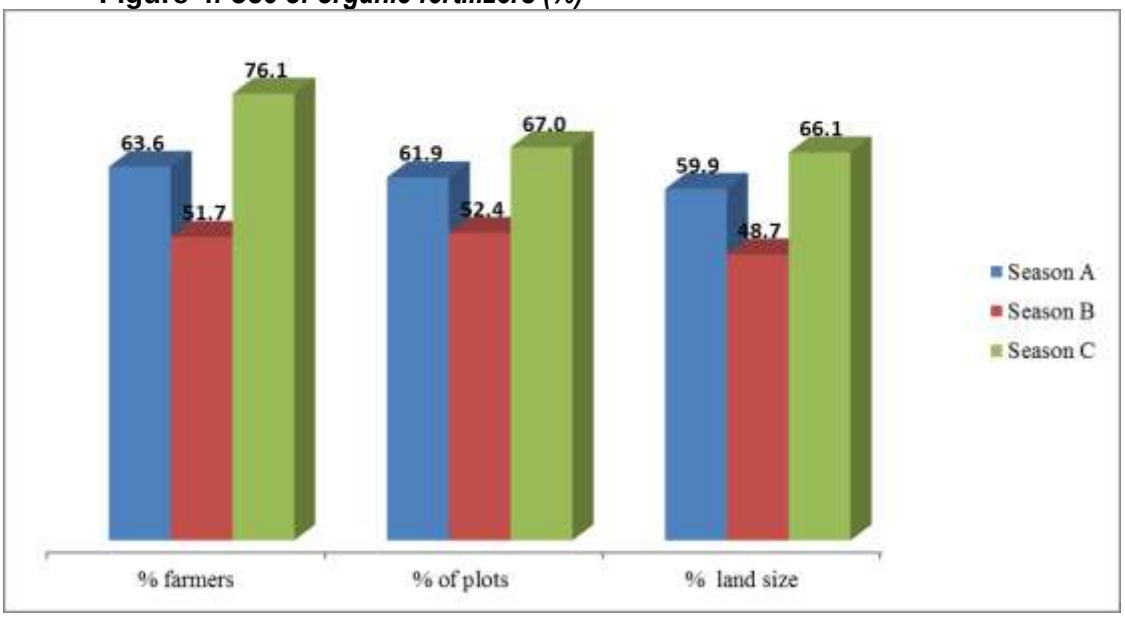
Source: NISR, SAS, 2020

The results of USAS 2020 show that out of the total cultivated land, improved seeds were applied on 34.3 percent, 15.2 percent and 20.5 percent of total cultivated land in season A, Band C respectively. In addition, 35.2 percent,15.6 percent and 30.6 percent of interviewed farmers have sown improved seeds in season A, B and C respectively. Regarding plots visited, improved seeds were sown on 27.8 percent, 11.2 percent and 16.7 percent of cultivated plots in respective seasons. In terms of source of seeds used, majority of improved seeds were sourced from agro-dealers (36.6 percent in season A, 41.6 percent in season B, and 48.4 percent in season C). In season A, the highest ratio (57.8 percent) of farmers who used

improved seeds were found in Ngoma District, while in season B, Nyabihu had the highest number of farmers who applied improved seeds in their farms with 41.1 percent(see district details in table 29-34).

3.3.2 Use of organic fertilizer

Figure 4*: Use of organic fertilizers (%)*

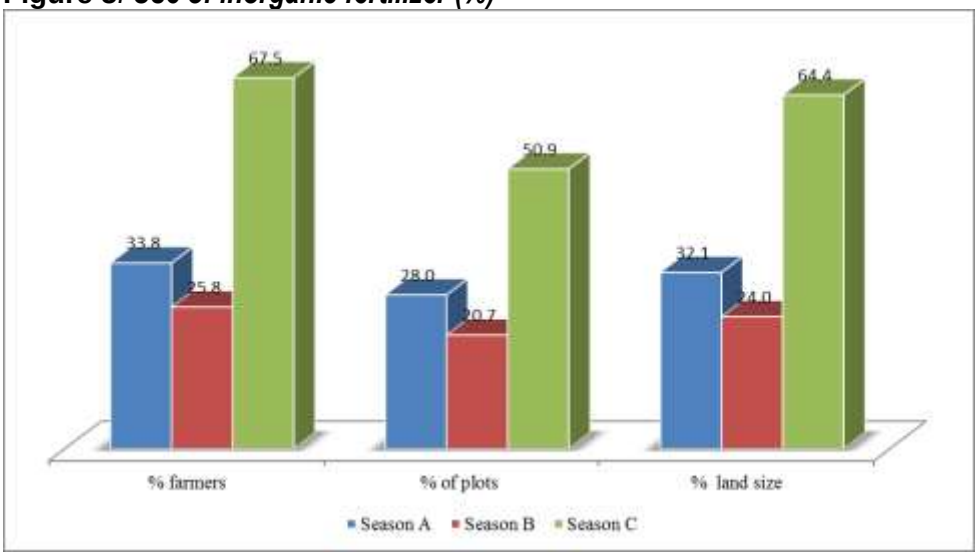


Source: NISR, SAS, 2020

The results show that organic fertilizers were applied on 59.9 percent, 48.7 percent and 66.1 percent of total cultivated area in season A, Band C respectively. Organic fertilizer was applied on 61.9 percent, 52.4 percent and 67 percent of cultivated plots in season A, Band C. In addition, 63.6 percent, 51.7 percent and 76.1 percent of farmers have applied the organic fertilizer in their farms during season A, Band C. During season A, Gakenke and Nyaruguru districts were the topmost users of organic fertilizers with 90.9 percent and 85.2 percent respectively, whereas for season B , Gicumbi and Ngororero districts had the highest ratios of farmers who used organic fertilizers with 80.7 percent and 79.9 percent respectively(see district details in table 35-37).

3.3.3 Use of inorganic fertilizer

Figure 5*: Use of inorganic fertilizer (%)*

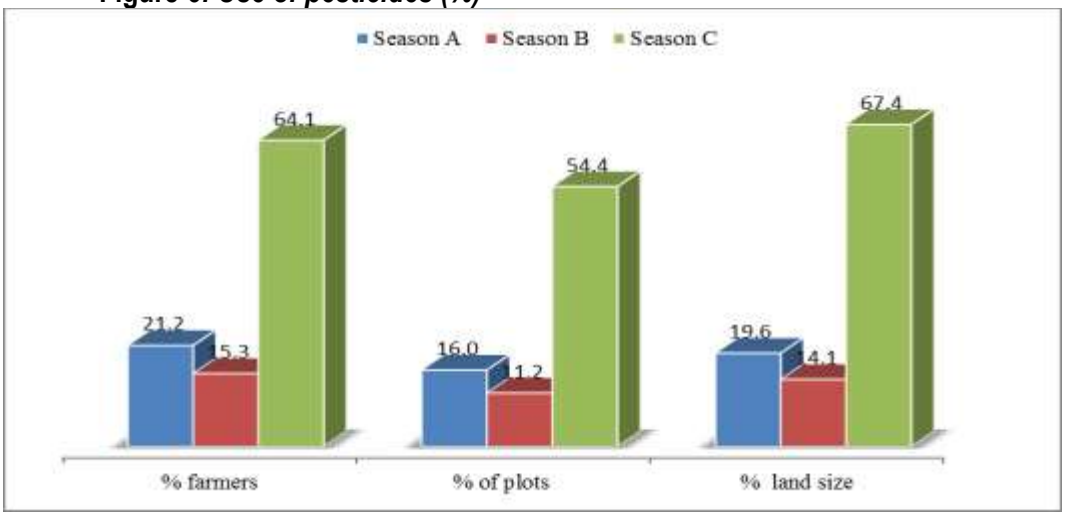


Source: NISR, SAS, 2020

Results show that inorganic fertilizer was applied to 28.0 percent and 20.7 percent and 50.9 percent of cultivated plots in both Season A, Band C, corresponding to 32.1 percent, 24.0 percent and 64.4 percent of total cultivated area in season A, B and C respectively. Regarding farmers, 33.8 percent and 25.8 percent and 67.5 percent of farmers applied different chemical fertilizers in season A, B and C respectively. DAP was most used in Season A and B (43.0 percent and 40.8 percent), followed by UREA (38.2 percent and 33.9 percent) and NPK (15.3 percent and 18.8 percent). (see district details in table 38-47)

3.3.4 Use of pesticides

Figure 6*: Use of pesticides (%)*



Source: NISR, SAS, 2020

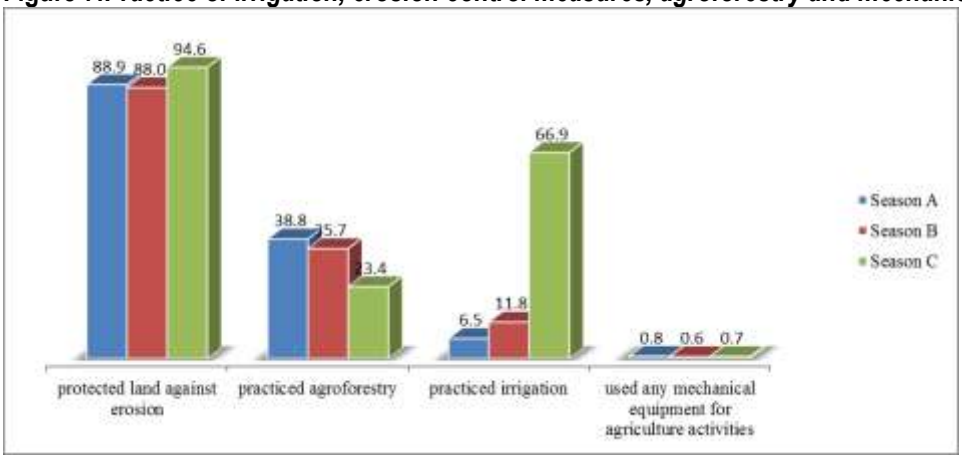
Figure 6 shows that pesticide was applied to 16.0 percent, 11.2 percent and 54.4 percent of cultivated plots in Season A, Band C respectively, corresponding to 19.6 percent,14.1 percent and 67.4 percent of cultivated land in season A, Band C. In regards to number of farmers, pesticides were used by 21.2 percent, 15.3 percent and 64.1 percent of farmers in Season A and B respectively while 64.1 percent of farmers applied pesticides in season C. Rocket was the most used pesticide in both season A and B (35.2 percent and 27.8 percent), whereas Dithane was widely used in season C with 31.4 percent (see district details in table 48-51).

3.4 Agricultural practices

During the USAS 2020, information about agricultural practices were collected and the data are presented in terms of percentage of farmers who were involved into such practices.

3.4.1 Irrigation practices

Figure 7*:Practice of irrigation, erosion control measures, agroforestry and mechanical equipment*



Source: NISR, SAS, 2020

The results show that throughout the 2020 agricultural year, 6.5 percent, 11.8 percent and 66.9 percent of farmers irrigated their land in season A, B and C respectively. Traditional techniques were predominantly used as irrigation practice with 71.5 percent in Season A, 47.1 percent in Season B and 81.3 percent in Season C. Stream/lake water was the most important source of water used for irrigation of crops throughout seasons(see district details in table 52-58).

Regarding erosion control activities, results indicate that 88.9 percent, 88.0 percent and 94,6 percent of farmers devised anti-erosion measures on their land in Season A, B and C. Among erosion control practices, cover plants emerged as the category of anti-erosion control measure highly practiced by many farmers 50 percent in season A, 49.3 percent in season B and 33.8 percent in season C.

Results show further that 53 percent of plots faced low erosion (splash erosion, wind erosion), 12 percent faced moderate erosion (diffuse overland flow erosion, overland flow erosion), while the rest faced severe erosion (rill erosion, gully erosion, mass movement/landslides).

Moreover,38.8 percent, 35.7 percent and 23.4 percent of farmers practiced agroforestry in season A, B and C respectively whereas less than 1 percent of farmers used any mechanical equipment in their agricultural activities in both seasons. (see district details in table 52-58).

3.5 Sowing dates

The USAS 2020 Season A results indicate that 22.7 percent of crops were sown in October in the dates between 01-15/10 2019, and those crops include maize, bush beans, soybeans and groundnuts;15.8 percent of crops were sown in September 2019, while the rest of crops have been sown after October 2019. For 2020 season B, 30.9 percent of the crops were sown before January 2019, 11.4 percent in January 2019, 26.9 percent in February and March 2019 while the rest have been sown after 31/3/ 2019. For Season C 2020, 38.3 percent of crops were grown in June 2020 and 33.9 percent in July 2019 (see district details in table 26 and 27).

3.6 Gross Value Added (GVA)

The Gross Value-Added value of different crops is shown in current prices at constant price of 2017. The results shown that during the 2020 year the gross value added of crops such as maize, sorghum, cassava, sweet potatoes, banana for beer, pea and groundnuts. increased comparing to the 2019 year. While cooking banana, dessert banana, beans, paddy rice, wheat, Irish potatoes, soybean decreased compared to previous year.

Table 5: Main crops Gross Value Added in current prices (Value RWF/ha)

Crops	GVA at constant price of 2017				
	2016	2017	2018	2019	2020
Maize	402,114	309,457	365,527	373,066	389,059
Sorghum	274,987	296,000	298,689	274,485	280,068
Paddy rice	1,304,073	1,633,520	1,492,544	1,718,397	1,691,890
Wheat	237,012	282,068	306,210	329,278	289,132
Cassava	177,496	305,145	1,377,459	1,629,739	1,642,935
Sweet potato	808,499	784,244	899,497	890,254	932,227
Irish potato	1,230,891	1,713,831	1,444,199	1,700,490	1,544,227
Cooking banana	185,884	199,565	3,715,919	3,623,122	3,180,479
Dessert banana	122,667	117,981	2,163,072	1,481,763	1,162,979
Banana for beer	108,416	102,332	1,122,757	879,672	931,198
Beans	401,317	391,605	410,264	391,121	318,642
Pea	1,086,082	1,060,761	964,611	1,049,992	1,365,309
Groundnut	177,694	187,362	221,069	183,218	187,008
Soybean	55,189	52,694	48,631	61,358	57,232
Overall GVA	**853,218**	**906,817**	**965,556**	**1,013,106**	**-**

Source: NISR, SAS, 2020

MAIN TABLES

Table 6.Season A 2020_Agricultural land use per district (,000Ha)

District	Total land area	Agricultural land	% of agricultural land	Arable land	Physical cultivated land	Area under seasonal crops	Area under permanent crops	Temporary fallow land	Temporarily meadow and pasture	Area under permanent pasture
Nyarugenge	13.1	6.2	47.2	4.9	5.6	4.3	3.3	0.6	-	-
Gasabo	42.7	19.3	45.2	17.9	17.7	16.6	7.4	1.2	0.7	0.4
Kicukiro	16.6	5.3	32.0	4.5	4.4	4.2	2.4	0.3	-	0.6
Nyanza	67.1	44.1	65.7	41.8	39.8	38.1	15.4	3.8	0.4	0.5
Gisagara	67.3	44.4	65.9	41.4	36.4	35.5	17.4	5.9	0.1	2.2
Nyaruguru	100.7	37.8	37.6	32.0	30.7	27.7	11.0	4.3	0.7	-
Huye	58.1	32.4	55.8	30.7	29.7	28.4	13.8	2.3	0.1	0.4
Nyamagabe	109.1	46.8	42.9	41.0	40.8	36.8	13.2	4.2	0.4	-
Ruhango	62.6	45.1	72.1	42.3	40.5	37.8	12.6	4.4	0.7	0.2
Muhanga	64.4	38.8	60.3	33.9	33.7	28.8	17.7	5.1	0.6	-
Kamonyi	65.8	44.0	66.8	37.1	40.2	33.4	19.2	3.6	0.5	0.1
Karongi	78.9	45.1	57.2	37.0	37.8	32.0	15.7	5.1	0.5	0.4
Rutsiro	66.0	41.5	62.9	30.0	30.2	26.0	17.2	4.0	0.4	6.2
Rubavu	33.8	23.8	70.5	22.2	22.3	21.2	5.8	1.0	0.5	0.1
Nyabihu	53.6	36.3	67.8	30.7	28.2	28.1	6.1	2.6	0.1	4.2
Ngororero	67.5	44.3	65.7	38.3	37.0	35.2	18.9	3.1	0.3	3.2
Rusizi	91.4	36.0	39.3	33.4	34.1	32.1	13.2	1.3	0.1	-
Nyamasheke	94.8	43.6	46.0	34.3	38.7	32.2	18.0	2.1	0.8	-
Rulindo	56.7	37.6	66.4	33.1	32.8	30.9	12.6	2.2	0.2	1.1
Gakenke	70.1	49.0	69.9	43.6	46.9	41.6	20.6	2.0	0.2	0.1
Musanze	50.9	29.8	58.5	29.1	28.4	27.8	4.1	1.3	0.2	-
Burera	58.4	36.8	62.9	36.4	33.8	33.5	5.3	3.0	0.2	-
Gicumbi	82.5	50.4	61.2	45.6	42.7	40.3	9.6	5.4	1.0	-
Rwamagana	65.3	45.9	70.2	40.5	40.3	37.6	23.1	2.9	0.4	2.7
Nyagatare	191.1	145.9	76.3	70.0	70.6	68.0	89.7	2.0	0.3	73.3
Gatsibo	153.6	73.5	47.9	59.2	62.4	56.8	37.7	2.3	0.1	8.8
Kayonza	179.2	93.3	52.1	62.3	55.1	53.0	47.0	9.2	0.1	29.0
Kirehe	114.9	70.2	61.1	62.4	60.7	57.7	28.7	4.8	0.1	4.8
Ngoma	80.5	53.6	66.5	48.3	47.1	44.2	23.8	4.1	0.2	2.3
Bugesera	120.4	74.1	61.5	62.7	56.1	52.2	23.4	10.6	0.6	7.4
National	**2,377.1**	**1,394.9**	**58.7**	**1,146.6**	**1,124.6**	**1,042.1**	**554.1**	**104.5**	**10.6**	**147.9**

Source: NISR, SAS 2020

Table 7.Season B 2020_Agricultural land use per district (,000Ha)

District	Total land area	Agricultural land	% of agricultural land	Arable land	Physical cultivated land	Area under seasonal crops	Area under permanent crops	Temporary fallow land	Temporarily meadow and pasture	Area under permanent pasture
Nyarugenge	13.1	6.2	47.2	4.8	6.2	4.3	3.6	0.5	0.0	0.0
Gasabo	42.7	19.3	45.2	20.0	19.4	17.9	7.9	2.1	1.0	0.4
Kicukiro	16.6	5.3	32.0	5.2	5.2	4.8	2.5	0.4	0.0	0.5
Nyanza	67.1	44.1	65.7	42.7	39.5	37.5	15.5	5.2	0.5	0.4
Gisagara	67.3	44.4	65.9	40.1	35.0	33.7	15.6	6.4	0.2	0.3
Nyaruguru	100.7	37.8	37.6	30.3	28.0	24.7	10.7	5.6	0.7	-
Huye	58.1	32.4	55.8	31.0	29.1	27.6	13.8	3.4	0.1	-
Nyamagabe	109.1	46.8	42.9	41.5	41.1	36.9	14.5	4.6	0.3	-
Ruhango	62.6	45.1	72.1	56.6	55.4	52.7	15.6	3.8	0.8	0.2
Muhanga	64.4	38.8	60.3	43.6	45.1	37.1	25.0	6.5	0.7	0.2
Kamonyi	65.8	44.0	66.8	41.5	43.7	38.0	20.6	3.5	0.6	-
Karongi	78.9	45.1	57.2	41.2	41.8	34.0	21.2	7.2	0.4	0.1
Rutsiro	66.0	41.5	62.9	31.1	28.6	24.0	18.3	7.2	0.3	5.9
Rubavu	33.8	23.8	70.5	22.2	23.0	20.7	6.0	1.4	0.7	0.2
Nyabihu	53.6	36.3	67.8	31.4	24.7	24.3	6.2	7.1	0.5	4.2
Ngororero	67.5	44.3	65.7	36.4	34.9	30.4	19.3	6.0	0.3	3.5
Rusizi	91.4	36.0	39.3	32.2	35.0	30.7	13.5	1.5	-	0.1
Nyamasheke	94.8	43.6	46.0	32.2	37.6	30.0	19.5	2.2	0.3	0.1
Rulindo	56.7	37.6	66.4	38.2	38.0	35.3	15.5	2.9	0.3	0.8
Gakenke	70.1	49.0	69.9	41.4	44.5	36.6	21.2	4.7	0.1	-
Musanze	50.9	29.8	58.5	28.5	25.7	25.1	4.2	3.4	0.3	-
Burera	58.4	36.8	62.9	38.6	34.2	33.8	4.6	4.8	0.2	-
Gicumbi	82.5	50.4	61.2	48.6	47.6	44.5	12.0	4.1	0.8	-
Rwamagana	65.3	45.9	70.2	45.4	45.1	42.0	24.5	3.4	0.3	2.6
Nyagatare	191.1	145.9	76.3	74.4	76.3	72.1	89.5	2.2	0.0	71.3
Gatsibo	153.6	73.5	47.9	58.8	63.8	55.1	35.3	3.7	2.6	6.2
Kayonza	179.2	93.3	52.1	60.7	58.3	55.0	48.8	5.7	0.1	30.4
Kirehe	114.9	70.2	61.1	60.5	62.3	56.8	28.4	3.7	0.1	4.1
Ngoma	80.5	53.6	66.5	45.6	45.3	39.9	24.2	5.7	0.5	2.4
Bugesera	120.4	74.1	61.5	73.4	70.0	62.9	33.8	10.4	1.0	7.0
National	**2,377.1**	**1,394.9**	**58.7**	**1,197.9**	**1,184.4**	**1,068.5**	**591.5**	**129.4**	**13.8**	**140.7**

Source: NISR, SAS 2020

Table 8. Area under agricultural practices

District	Modern irrigated agricultural land (Ha)			Agricultural area under erosion control (Ha)			Agricultural area under agroforestry trees			Agricultural area under fertilizer application					
										Inorganic fertilizer			Organic fertilizer		
	Season A	Season B	Season C	Season A	Season B	Season C	Season A	Season B	Season C	Season A	Season B	Season C	Season A	Season B	Season C
Nyarugenge	133	60	81	2,773	4,005	700	2,677	2,128		400	542	305	2,977	2,525	147
Gasabo	265	269	93	13,326	13,422	639	6,745	10,046	203	3,227	2,473	280	7,927	6,899	364
Kicukiro	36	133	7	2,343	1,936	140	1,829	2,559	8	1,437	797	112	2,364	1,355	49
Nyanza	563	778	34	31,796	32,273	1,767	15,686	14,011	190	6,334	5,111	185	18,767	15,720	515
Gisagara	1,616	2,329	83	23,797	22,993	1,923	15,007	13,175	215	10,770	7,705	138	19,751	12,501	178
Nyaruguru	310	35	92	30,390	28,613	1,949	11,330	8,330	123	14,163	10,419	468	21,008	16,979	853
Huye	1,077	998	14	25,454	23,375	1,008	9,612	8,460	81	5,798	4,566	195	16,942	12,920	348
Nyamagabe	-	9	19	40,854	42,674	1,147	18,831	14,586	214	12,987	12,898	131	24,866	25,163	317
Ruhango	914	850	16	33,706	44,799	1,655	12,990	19,399	256	4,386	4,647	155	20,089	24,748	430
Muhanga	158	272	0	35,747	45,772	572	15,280	16,598	67	3,078	4,804	67	22,260	26,421	150
Kamonyi	518	272		36,126	34,619	880	8,485	10,583	48	4,048	3,541	83	20,920	19,836	186
Karongi	-	1	28	28,244	41,142	416	12,080	14,885	44	10,128	8,079	28	20,394	21,076	73
Rutsiro	-		0	27,397	32,453	200	12,992	13,136	75	9,350	8,774	33	18,335	16,671	55
Rubavu	-			17,934	19,566	16,337	3,575	5,345	5,066	10,015	10,667	1,271	6,973	8,110	570
Nyabihu	-			24,439	26,942	23,931	14,825	14,574	13,990	16,025	14,904	3,532	18,407	13,987	3,420
Ngororero	-	468		35,232	32,865	232	16,893	12,113	24	14,707	11,368	37	28,647	24,089	86
Rusizi	1,572	455	34	21,639	26,887	1,514	19,117	18,837	307	17,080	7,577	102	20,061	9,531	68
Nyamasheke	342	358	1	32,974	33,840	554	21,188	22,965	308	14,962	12,152	148	22,020	21,720	228
Rulindo	76	47		30,476	37,325	1,038	12,756	11,339	261	8,029	8,075	406	23,796	24,630	521
Gakenke	122		0	43,075	43,208	756	12,998	14,684	210	20,490	13,772	208	37,735	31,794	287
Musanze	23		5	21,966	22,334	21,450	13,050	10,441	9,023	11,444	10,820	2,050	17,405	14,511	2,063
Burera	-		0	31,276	27,813	26,411	7,164	3,633	8,035	12,206	7,427	2,451	24,570	20,916	2,107
Gicumbi	-			40,575	45,061	580	9,930	12,482	96	10,595	9,249	121	30,962	36,388	210
Rwamagana	475	653	91	32,059	40,234	342	19,103	20,484	46	12,517	9,142	234	23,057	16,207	47
Nyagatare	3,040	3,058	241	38,837	36,389	2,705	53,009	50,818	548	20,709	18,979	455	23,311	18,016	323
Gatsibo	1,144	1,827	0	51,457	52,003	2,383	34,551	29,145	334	18,716	14,068	195	33,493	25,677	215
Kayonza	718	1,403	10	24,285	24,401	498	30,116	37,645	99	10,784	10,611	186	18,693	13,861	145
Kirehe	3,035	3,685	49	41,247	35,880	155	32,248	30,807	70	19,739	11,149	63	33,781	17,862	73
Ngoma	989	2,189	12	33,285	26,966	169	27,951	22,673	58	17,140	6,765	73	26,950	13,142	87
Bugesera	1,934	1,624	46	29,674	34,335	251	23,937	28,642		12,101	12,174	113	15,940	20,435	87
National	**19,058**	**21,774**	**957**	**882,384**	**934,123**	**112,303**	**495,956**	**494,524**	**39,997**	**333,368**	**263,255**	**13,825**	**622,402**	**533,692**	**14,201**
SSF	3,767	5,339	871	861,765	911,527		492,991	484,557		311,453	245,005	13,566	610,635	523,823	13,980
LSF	15,291	16,435	87	20,619	22,596		2,965	9,967		21,915	18,250	259	11,767	9,869	221

Source: NISR, SAS 2020

Table 8. Season A 2020_Cultivated area by crop type per district (ha)

District	Maize	Sorghum	Paddy rice	Wheat	Other cereals	Cassava	Sweet potato	Irish potato	Yarms & Taro	Bananas	Beans	Pea	Groundnut	Soybean	Vegetables	Fruits	Fodder Crops	Other crops	Total developed land
Nyarugenge	643					1,052	295	82	59	1,973	2,335		42	202	296	57	48	849	7,933
Gasabo	2,844		242		11	4,156	1,286	471	138	4,724	7,394	76	423	306	843	42	1,211	756	24,922
Kicukiro	1,098		17		4	370	538	14	146	1,076	1,730	7	94	115	110	16	608	137	6,082
Nyanza	5,486	300	404		26	12,980	2,228	250	798	9,519	17,846	71	891	1,518	627	15	866	2,085	55,910
Gisagara	6,501	438	2,379		276	7,209	2,341	295	308	9,426	14,840	57	507	2,234	283	309	2,326	876	50,605
Nyaruguru	6,799			16	7	5,037	4,415	1,367	549	5,551	8,325	261	92	1,058	401	150	900	3,808	38,736
Huye	4,094		1,009		341	9,358	2,675	654	564	7,402	12,542	193	277	1,837	402	133	438	1,614	43,534
Nyamagabe	4,529			44	25	7,743	6,885	2,470	616	6,896	10,219	1,340	6	1,290	442	169	294	3,310	46,277
Ruhango	2,964	71	1,019		55	16,724	1,501	471	882	8,481	14,355	96	1,151	2,154	372	17	776	1,204	52,293
Muhanga	1,715	6	150		11	8,528	3,778	356	2,485	16,282	6,906	68	50	1,634	345	128	435	857	43,734
Kamonyi	3,549		183		11	10,845	2,200	539	524	12,234	14,387	66	849	2,516	705	984	478	3,349	53,420
Karongi	7,802			71	28	8,508	5,153	986	1,292	10,050	5,896	494		1,007	612	63	951	3,103	46,016
Rutsiro	7,033			320		2,343	3,274	3,059	1,118	6,721	4,206	463		659	263	639	6,539	2,851	39,489
Rubavu	1,534	127				686	538	6,175	94	3,136	9,320	108		216	1,664	86	582	1,337	25,602
Nyabihu	2,875	972		1,021		857	2,630	8,961	105	1,475	7,657	771			677	120	4,227	539	32,889
Ngororero	5,539	907		464		4,272	4,753	2,182	1,288	12,196	11,212	613		941	293	183	3,362	919	49,123
Rusizi	7,632	89	1,386			14,315	1,759	239	1,085	6,261	11,574	113	339	1,070	850	391	54	4,160	51,316
Nyamasheke	4,993	51	328	35	191	10,973	4,083	111	1,838	7,263	7,764	127	229	1,455	381	171	815	7,087	47,895
Rulindo	4,185		17	47	17	4,394	5,146	1,359	105	7,477	11,459	701	124	264	956	196	1,386	1,257	39,091
Gakenke	11,525		122	119	296	6,559	6,022	1,219	1,590	13,860	8,987	439	110	502	441	223	220	1,995	54,230
Musanze	8,107	1,901		868	29	93	2,057	4,024	128	2,297	7,691	832		65	661	458	191	902	30,304
Burera	8,504	1,606		890		197	2,730	5,251	81	3,234	11,461	1,130		23	263	90	221	17	35,697
Gicumbi	4,694	298		277	8	3,479	6,308	2,874	133	6,433	18,148	1,374	178	101	448	588	870	1,175	47,385
Rwamagana	9,070	26	298		78	4,494	1,922	1,004	286	13,953	18,395	203	1,496	215	1,006	551	3,008	1,630	57,637
Nyagatare	26,033	12,432	1,552		306	4,103	2,043	419	50	11,080	18,542	436	1,656	797	1,004	165	73,590	215	154,422
Gatsibo	16,441	4,108	1,222	14	217	5,856	2,373	2,349	422	22,219	19,814	74	1,991	570	781	390	8,879	3,122	90,840
Kayonza	12,320	3,436	641		561	13,824	2,475	1,540	386	12,050	19,641	89	906	410	1,321	319	29,090	1,034	100,043
Kirehe	19,984	1,918	1,057		205	7,268	1,814	1,077	648	20,070	24,031	222	337	734	778	107	4,892	1,146	86,288
Ngoma	12,842	182	825		215	7,443	2,446	1,355	211	18,034	17,738	50	652	493	468	340	2,646	961	66,901
Bugesera	10,186	4,428	1,656		165	6,779	3,757	363	131	11,125	17,785	59	2,208	292	553	156	8,018	2,436	70,096
National	**221,521**	**33,295**	**14,507**	**4,187**	**3,082**	**190,447**	**89,427**	**51,516**	**18,058**	272,500	**362,199**	**10,530**	**14,609**	**24,677**	**18,246**	**7,256**	**157,920**	**54,732**	**1,548,710**
SSF	215,307	33,256	1,268	4,167	3,082	190,377	89,410	51,364	18,057	272,314	361,498	10,529	14,602	23,900	18,149	7,001	150,729	54,076	1,519,089
LSF	6,214	39	13,239	20		70	16	152	1	185	701	1	7	777	97	255	7,191	656	29,621

Source: NISR, SAS 2020

Table 9. Season B 2020_Cultivated area by crop type per district (ha)

District	Maize	Sorghum	Paddy rice	Wheat	Other cereals	Cassava	Sweet potato	Irish potato	Taro & Yams	Bananas	Beans	Pea	Groundnut	Soybean	Vegetables	Fruits	Fodder crops	Other crops	Total developed land
Nyarugenge	113	534				789	103	10	28	1,410	1,142	9	79	178	335	46	14	1,026	5,815
Gasabo	906	5,679	237		19	1,324	949	579	104	3,082	5,088	39	220	215	708	57	767	323	20,296
Kicukiro	375	1,533	20			328	362	48	20	931	1,273	10	73	151	67	37	17	127	5,370
Nyanza	1,792	6,282	597		51	6,417	2,470	325	457	3,458	9,526	21	1,131	1,112	452	235	427	1,442	36,197
Gisagara	1,860	4,552	2,434		291	8,574	2,095	206	188	4,123	13,971	34	746	1,974	366	579	165	463	42,622
Nyaruguru	488	3,723		422	7	3,210	3,681	1,424	328	1,868	3,442	162	49	634	231	169	605	3,223	23,663
Huye	457	8,047	957		24	4,238	2,324	257	420	2,480	6,264	21	319	1,824	190	127	117	1,275	29,340
Nyamagabe	401	5,111	18	1,046	62	5,533	6,584	2,149	306	4,472	5,181	1,544	19	800	393	137	203	3,240	37,198
Ruhango	1,018	3,490	765		49	32,901	2,901	230	478	7,053	10,625	71	1,962	1,965	478	163	792	1,021	65,961
Muhanga	263	173	147		9	15,015	5,936	102	1,631	16,275	9,044	32		2,000	369	210	605	558	52,370
Kamonyi	2,084	3,696	195		17	8,343	3,286	612	1,038	13,615	9,758	92	731	1,862	946	378	614	2,261	49,529
Karongi	585	2,272		284	68	7,685	5,126	710	906	12,980	6,689	349		1,898	491	25	346	2,966	43,379
Rutsiro	1,861	31		477		2,443	3,110	3,416	1,336	5,094	4,894	471		453	301	852	207	3,154	28,098
Rubavu	1,416	626				593	644	5,868	176	2,173	3,437	152		141	2,269	70	568	1,413	19,548
Nyabihu	3,346	72		1,334		231	2,425	6,436	45	1,271	2,004	193		42	1,016	79	349	2,641	21,484
Ngororero	1,871	9		1,455		1,600	6,652	1,525	933	9,087	3,451	222		734	455	111	276	720	29,099
Rusizi	1,099	59	1,420			16,763	1,806	32	596	3,240	6,840	127	59	404	187	651		3,279	36,563
Nyamasheke	525	14	358	46	5	10,705	3,208	66	929	3,708	4,291	121	628	1,784	467	159	297	7,410	34,722
Rulindo	1,025	4,089	17	408		6,536	3,173	1,079	139	7,513	9,938	155	62	167	543	137	201	1,058	36,241
Gakenke	1,468	507	30	334		5,194	6,409	1,085	1,117	13,537	10,748	189	21	383	350	244	113	1,821	43,549
Musanze	2,573	1,020		530		187	1,391	3,995	201	1,391	5,779	156			1,242	342	242	2,182	21,230
Burera	2,356	5,161		1,591	28	179	3,148	3,974	135	1,925	11,209	571			323	66	198	21	30,886
Gicumbi	1,570	17,145		196		2,591	5,718	2,875	161	6,580	11,547	888	347	34	368	301	734	995	52,049
Rwamagana	3,345	8,439	383		41	6,918	988	1,272	680	10,108	8,894	71	1,383	181	887	1,029	306	1,457	46,383
Nyagatare	18,556	8,384	1,598		20	11,131	1,893	871	173	10,854	31,124	78	3,285	1,309	761	201	17	175	90,428
Gatsibo	7,020	9,091	1,557		9	1,731	1,031	1,765	378	13,236	16,946	84	4,330	914	202	156	2,567	3,000	64,015
Kayonza	5,540	14,906	977		144	10,242	1,753	2,090	341	7,570	15,415	130	1,303	223	283	592	133	834	62,477
Kirehe	2,918	11,875	943		177	7,222	1,501	446	919	9,489	19,719	197	621	680	404	188	50	941	58,294
Ngoma	1,733	3,627	828		372	10,292	1,510	236	257	14,110	18,703	41	644	356	349	282	398	831	54,571
Bugesera	4,354	5,977	1,595		29	3,241	2,369	269	147	15,001	16,159		3,280	558	505	202	681	1,038	55,405
National	**72,918**	**136,124**	**15,077**	**8,122**	**1,422**	**192,156**	**84,545**	**43,950**	**14,565**	**207,635**	**283,104**	**6,229**	**21,292**	**22,974**	**15,939**	**7,824**	**12,010**	**50,895**	**1,196,782**
SSF	71,376	136,050	328	8,076	1,422	192,099	84,529	43,660	14,564	207,570	281,223	6,175	21,290	22,406	15,837	7,629	11,370	50,360	1,175,964
LSF	1,542	75	14,749	46	-	57	16	290	2	65	1,880	54	3	569	102	196	640	534	20,819

Source: NISR, SAS 2020

Table 10. Season C 2020_Cultivated area by crop type per district (ha)

District/Crop	Sweet potato	Irish potato	Yarms & Taro	Beans	Bush bean	Climbing bean	Pea	Soybean	Vegetables	Developed land
Nyarugenge	26	1	-	206	206	-	-	106	290	629
Gasabo	76	4	-	2	2	-	-	-	374	456
Kicukiro	35	-	-	24	24	-	-	4	128	191
Nyanza	211	1	-	137	96	41	115	2	302	769
Gisagara	426	-	-	185	185	-	22	377	252	1,262
Nyaruguru	738	258	-	282	277	5	46	11	78	1,414
Huye	327	5	-	214	211	4	82	4	212	843
Nyamagabe	428	20	-	35	26	9	7	5	50	546
Ruhango	360	-	-	33	33	-	10	-	197	600
Muhanga	208	32	-	91	89	1	37	83	94	544
Kamonyi	177	16	-	330	330	0	44	28	271	867
Karongi	144	34	-	1	1	-	2	11	65	257
Rutsiro	69	51	-	0	0	-	38	-	28	187
Rubavu	137	882	-	76	-	76	24	-	267	1,386
Nyabihu	131	2,668	-	396	73	324	15	-	393	3,603
Ngororero	64	32	-	-	-	-	-	11	-	107
Rusizi	-	-	-	-	-	-	-	-	78	78
Nyamasheke	115	1	-	0	0	-	-	-	138	254
Rulindo	141	292	-	3	3	-	1	44	114	594
Gakenke	83	185	-	41	41	-	0	127	57	493
Musanze	154	1,939	-	350	95	255	54	-	549	3,046
Burera	557	2,278	-	57	1	56	0	-	105	2,998
Gicumbi	116	217	-	49	49	-	-	-	53	434
Rwamagana	113	6	-	129	129	-	0	6	223	477
Nyagatare	174	65	-	-	-	-	0	0	360	600
Gatsibo	175	6	-	8	8	-	-	-	266	456
Kayonza	74	23	-	3	3	-	-	0	249	351
Kirehe	87	11	-	11	10	1	3	15	339	465
Ngoma	67	0	-	7	7	-	1	0	132	207
Bugesera	173	0	-	8	8	-	-	2	247	429
National	**5,583**	**9,028**	**-**	**2,681**	**1,908**	**773**	**502**	**837**	**5,912**	**24,542**
2019C	**5,331**	**8,618**	**-**	**1,128**	**924**	**204**	**255**	**559**	**3,744**	**19,635**
Change	**5%**	**5%**	**0%**	**138%**	**106%**	**280%**	**96%**	**50%**	**58%**	**25%**

Source: NISR, SAS 2020

Table 11. Season A 2020_Harvested area by crop type per district (ha)

District name	Maize	Sorghum	Paddy rice	Wheat	Other cereals	Cassava	Sweet potato	Irish potato	Yarms & Taro	Bananas	Beans	Pea	Groundnut	Soybean	vegetables	Fruits	Fodder crops	Other crops	Developed land
Nyarugenge	643	-	-	-	-	171	295	82	59	1,060	2,335	-	42	202	296	33	16	847	6,081
Gasabo	2,844	-	242	-	11	875	1,286	471	138	1,805	7,394	76	423	306	843	38	768	197	17,716
Kicukiro	1,098	-	17	-	4	40	538	14	33	460	1,730	7	94	115	110	9	-	104	4,374
Nyanza	5,486	300	404	-	26	3,650	2,228	250	184	3,345	17,846	71	891	1,518	627	6	381	141	37,354
Gisagara	6,501	438	2,379	-	276	998	2,341	295	308	3,752	14,840	57	507	2,234	283	-	169	181	35,559
Nyaruguru	6,799	-	-	16	7	1,041	4,415	1,367	549	1,903	8,325	261	92	1,058	401	123	900	2	27,258
Huye	4,094	-	1,009	-	341	2,587	2,675	654	564	2,721	12,542	193	277	1,837	402	-	56	9	29,962
Nyamagabe	4,529	-	-	44	25	1,705	6,885	2,470	190	2,592	10,219	1,340	6	1,290	442	137	294	70	32,237
Ruhango	2,964	71	1,019	-	55	3,935	1,501	471	275	2,472	14,355	96	1,151	2,154	372	-	606	506	32,003
Muhanga	1,715	6	150	-	11	1,524	3,778	356	2,485	6,114	6,906	68	50	1,634	345	106	435	291	25,974
Kamonyi	3,549	-	183	-	11	1,729	2,200	539	524	4,193	14,387	66	849	2,516	705	904	384	1,884	34,623
Karongi	7,802	-	-	71	28	1,593	5,153	986	1,292	3,997	5,896	494	-	1,007	612	57	555	320	29,863
Rutsiro	7,033	-	-	320	-	177	3,274	3,059	1,118	2,846	4,206	463	-	659	263	497	361	1,636	25,914
Rubavu	1,534	127	-	-	-	-	538	6,175	94	1,499	9,320	108	-	216	1,664	23	483	988	22,768
Nyabihu	2,875	972	-	1,021	-	109	2,630	8,961	105	387	7,657	771	-	-	677	42	73	419	26,700
Ngororero	5,539	907	-	464	-	949	4,753	2,182	1,288	3,799	11,212	613	-	941	293	173	141	538	33,792
Rusizi	7,632	89	1,386	-	-	1,508	1,759	239	1,085	2,797	11,574	113	339	1,070	850	208	54	452	31,155
Nyamasheke	4,993	51	328	35	191	2,473	4,083	111	826	2,218	7,764	127	229	1,455	381	65	815	512	26,657
Rulindo	4,185	-	17	47	17	693	5,146	1,359	105	2,280	11,459	701	124	264	956	140	265	800	28,558
Gakenke	11,525	-	122	119	296	938	6,022	1,219	1,590	6,334	8,987	439	110	502	441	178	97	396	39,315
Musanze	8,107	1,901	-	868	29	27	2,057	4,024	128	726	7,691	832	-	65	661	254	191	902	28,463
Burera	8,504	1,606	-	890	-	42	2,730	5,251	81	594	11,461	1,130	-	23	263	84	221	-	32,879
Gicumbi	4,694	298	-	277	8	547	6,308	2,874	133	1,669	18,148	1,374	178	101	448	447	870	-	38,373
Rwamagana	9,070	26	298	-	78	1,002	1,922	1,004	286	5,572	18,395	203	1,496	215	1,006	380	355	354	41,665
Nyagatare	26,033	12,432	1,552	-	306	1,341	2,043	419	50	4,887	18,542	436	1,656	797	1,004	157	270	163	72,088
Gatsibo	16,441	4,108	1,222	14	217	1,618	2,373	2,349	46	8,901	19,814	74	1,991	570	781	168	66	74	60,825
Kayonza	12,320	3,436	641	-	561	4,747	2,475	1,540	386	4,018	19,641	89	906	410	1,321	188	131	170	52,980
Kirehe	19,984	1,918	1,057	-	205	1,404	1,814	1,077	188	7,309	24,031	222	337	734	778	74	133	81	61,345
Ngoma	12,842	182	825	-	215	2,842	2,446	1,355	211	6,824	17,738	50	652	493	468	181	297	167	47,788
Bugesera	10,186	4,428	1,656	-	165	895	3,757	363	131	4,216	17,785	59	2,208	292	553	104	600	252	47,649
National	221,521	33,295	14,507	4,187	3,082	41,160	89,427	51,516	14,450	101,290	362,199	10,530	14,609	24,677	18,246	4,778	9,988	12,455	1,031,918
SSF	215,307	33,256	1,268	4,167	3,082	41,147	89,410	51,364	14,449	101,176	361,498	10,529	14,602	23,900	18,149	4,618	9,376	12,038	1,009,338
LSF	6,214	39	13,239	20	-	12	16	152	1	114	701	1	7	777	97	160	612	417	22,580

Source: NISR, SAS 2020

Table 12. Season B 2020_Harvested area by crop type per district (ha)

District	Maize	Sorghum	Paddy rice	Wheat	Other cereals	Cassava	Sweet potato	Irish potato	Yarms & Taro	Bananas	Beans	Pea	Groundnut	Soybean	vegetables	Fruits	Fodder crops	Other crops	Developed land
Nyarugenge	113	534	-	-	-	191	103	10	28	735	1,142	9	79	178	335	19	14	115	3,603
Gasabo	906	5,679	237	-	19	345	949	579	104	1,313	5,088	39	220	215	708	50	767	209	17,427
Kicukiro	375	1,533	20	-	-	81	362	48	20	402	1,273	10	73	151	67	7	17	76	4,515
Nyanza	1,792	6,282	597	-	51	1,557	2,470	325	457	1,118	9,526	21	1,131	1,112	452	124	427	927	28,370
Gisagara	1,860	4,552	2,434	-	291	2,812	2,095	206	188	1,648	13,971	34	746	1,974	366	19	165	266	33,628
Nyaruguru	488	3,723	-	422	7	1,354	3,681	1,424	328	631	3,442	162	49	634	231	123	605	762	18,063
Huye	457	8,047	957	-	24	887	2,324	257	420	930	6,264	21	319	1,824	190	21	117	1,018	24,076
Nyamagabe	401	5,111	18	1,046	62	1,174	6,584	2,149	306	1,418	5,181	1,544	19	800	393	81	140	1,048	27,474
Ruhango	1,018	3,490	765	-	49	6,665	2,901	230	478	2,160	10,625	71	1,962	1,965	478	112	739	678	34,385
Muhanga	263	173	147	-	9	2,574	5,936	102	1,631	6,750	9,044	32	-	2,000	369	155	605	436	30,227
Kamonyi	2,084	3,696	195	-	17	1,004	3,286	612	1,038	4,420	9,758	92	731	1,862	946	259	558	1,548	32,106
Karongi	585	2,272	-	284	68	1,851	5,126	710	906	4,820	6,689	349	-	1,898	491	12	346	1,111	27,517
Rutsiro	1,861	31	-	477	-	948	3,110	3,416	1,336	2,209	4,894	471	-	453	301	765	207	2,200	22,676
Rubavu	1,416	626	-	-	-	506	644	5,868	176	947	3,437	152	-	141	2,269	47	523	1,165	17,919
Nyabihu	3,346	72	-	1,334	-	37	2,425	6,436	45	388	2,004	193	-	42	1,016	79	349	2,576	20,343
Ngororero	1,871	9	-	1,455	-	218	6,652	1,525	933	3,717	3,451	222	-	734	455	106	276	176	21,798
Rusizi	1,099	59	1,420	-	-	7,731	1,806	32	596	1,215	6,836	127	59	404	187	292	-	1,363	23,227
Nyamasheke	525	14	358	46	5	4,037	3,208	66	929	1,172	4,291	121	628	1,784	467	139	237	3,410	21,437
Rulindo	1,025	4,089	17	408	-	1,089	3,173	1,079	139	2,542	9,938	155	62	167	549	76	195	537	25,241
Gakenke	1,468	507	30	334	-	1,047	6,409	1,085	1,117	5,749	10,748	189	21	383	350	195	113	1,444	31,187
Musanze	2,573	1,020	-	530	-	26	1,391	3,995	201	432	5,779	156	-	-	1,242	311	242	2,075	19,972
Burera	2,356	5,161	-	1,591	28	30	3,148	3,974	135	546	11,209	571	-	-	323	289	198	21	29,581
Gicumbi	1,570	17,145	-	196	-	451	5,718	2,875	161	1,752	11,547	888	347	34	368	279	734	207	44,272
Rwamagana	3,345	8,439	383	-	41	1,519	988	1,272	680	3,774	8,894	71	1,383	181	887	704	306	735	33,602
Nyagatare	18,556	8,384	1,598	-	20	1,576	1,893	871	173	4,146	31,124	78	3,285	1,309	761	162	17	75	74,027
Gatsibo	7,020	9,091	1,557	-	9	668	1,031	1,765	378	5,211	16,946	84	4,330	914	202	88	2,567	2,389	54,249
Kayonza	5,540	14,906	977	-	144	2,439	1,753	2,090	341	3,068	15,415	130	1,303	223	283	52	133	425	49,222
Kirehe	2,918	11,875	943	-	177	1,916	1,501	446	919	4,279	19,719	197	621	680	404	73	50	301	47,022
Ngoma	1,733	3,627	828	-	372	1,423	1,510	236	257	5,398	18,706	41	644	356	349	222	398	499	36,601
Bugesera	4,354	5,977	1,595	-	29	354	2,369	269	147	6,217	16,159	-	3,280	558	505	119	620	415	42,966
National	**72,918**	**136,124**	**15,077**	**8,122**	**1,422**	**46,509**	**84,545**	**43,950**	**14,565**	**79,107**	**283,104**	**6,229**	**21,292**	**22,974**	**15,945**	**4,978**	**11,665**	**28,205**	**896,733**
SSF	71,376	136,050	328	8,076	1,422	46,504	84,529	43,660	14,564	79,050	281,223	6,175	21,290	22,406	15,843	4,911	11,026	27,966	876,397
LSF	1,542	75	14,749	46	-	6	16	289	2	57	1,880	54	3	569	102	67	639	239	20,336

Source : NISR, SAS 2020

Table 13. Season C 2020_Harvested area by crop type per district (ha)

District/Crop	Sweet potato	Irish potato	Yarms & Taro	Beans	Bush bean	Climbing bean	Pea	Soybean	vegetables	Developed land
Nyarugenge	26	1	-	206	206	-	-	106	290	629
Gasabo	76	4	-	2	2	-	-	-	374	456
Kicukiro	35	-	-	24	24	-	-	4	128	191
Nyanza	211	1	-	137	96	41	115	2	302	769
Gisagara	426	-	-	185	185	-	22	377	252	1,262
Nyaruguru	738	258	-	282	277	5	46	11	78	1,414
Huye	327	5	-	214	211	4	82	4	212	843
Nyamagabe	428	20	-	35	26	9	7	5	50	546
Ruhango	360	-	-	33	33	-	10	-	197	600
Muhanga	208	32	-	91	89	1	37	83	94	544
Kamonyi	177	16	-	330	330	0	44	28	271	867
Karongi	144	34	-	1	1	-	2	11	65	257
Rutsiro	69	51	-	0	0	-	38	-	28	187
Rubavu	137	882	-	76	-	76	24	-	267	1,386
Nyabihu	131	2,668	-	396	73	324	15	-	393	3,603
Ngororero	64	32	-	-	-	-	-	11	-	107
Rusizi	-	-	-	-	-	-	-	-	78	78
Nyamasheke	115	1	-	0	0	-	-	-	138	254
Rulindo	141	292	-	3	3	-	1	44	114	594
Gakenke	83	185	-	41	41	-	0	127	57	493
Musanze	154	1,939	-	350	95	255	54	-	549	3,046
Burera	557	2,278	-	57	1	56	0	-	105	2,998
Gicumbi	116	217	-	49	49	-	-	-	53	434
Rwamagana	113	6	-	129	129	-	0	6	223	477
Nyagatare	174	65	-	-	-	-	0	0	360	600
Gatsibo	175	6	-	8	8	-	-	-	266	456
Kayonza	74	23	-	3	3	-	-	0	249	351
Kirehe	87	11	-	11	10	1	3	15	339	465
Ngoma	67	0	-	7	7	-	1	0	132	207
Bugesera	173	0	-	8	8	-	-	2	247	429
National	**5,583**	**9,028**	**-**	**2,681**	**1,908**	**773**	**502**	**837**	**5,912**	**24,542**
2019C	**5,331**	**8,618**	**-**	**1,128**	**924**	**204**	**255**	**559**	**3,744**	**19,635**
Change	**5%**	**5%**	**0%**	**138%**	**106%**	**280%**	**96%**	**50%**	**58%**	**25%**

Source: NISR, SAS 2020

Table 14. Season A 2020_Average yield by crop type per district (Kg/Ha)

District	Maize	Sorghum	Paddy rice	Wheat	Other Cereals	Cassava	Sweet potatoes	Irish potatoes	Yams & Taro	Cooking Banana	Dessert banana	Banana for beer	Bush bean	Climbing bean	Peas	Ground nuts	Soya beans	Vegetables	Fruits	Fodder crops	Oher crops
Nyarugenge	1,856	-	-	-	-	9,931	6,979	5,407	6,226	8,836	8,596	11,900	666	476	-	413	520	9,405	5,304	14,766	43,394
Gasabo	1,170	-	3,790	-	646	11,192	6,790	4,981	4,005	12,106	8,987	10,069	581	747	1,259	483	475	7,665	937	9,860	1,396
Kicukiro	1,742	-	3,621	-	554	10,188	8,016	2,321	5,309	10,516	11,038	9,311	634	421	211	350	496	9,265	5,560	-	4,066
Nyanza	1,148	720	4,245	-	509	15,652	6,219	4,588	2,070	6,940	7,471	9,181	584	640	787	305	351	8,499	-	19,347	927
Gisagara	1,587	1,106	3,243	-	527	15,904	6,516	3,754	6,906	6,245	7,078	8,457	521	483	884	279	473	6,912	-	31,921	1,160
Nyaruguru	1,613	-	-	971	174	9,749	9,558	5,114	6,088	10,729	8,297	10,096	525	583	820	196	404	10,555	1,155	6,210	24,752
Huye	1,475	-	3,744	-	605	18,587	6,086	4,153	2,423	9,359	8,217	11,662	740	874	1,115	490	571	8,400	-	14,756	18,003
Nyamagabe	1,458	-	-	743	195	8,633	6,544	5,330	6,653	6,671	7,241	8,857	444	549	1,238	428	418	7,748	1,818	12,586	458
Ruhango	1,436	1,009	3,038	-	713	22,875	7,128	3,008	4,772	10,512	7,248	9,068	531	627	550	263	519	7,516	-	13,537	14,954
Muhanga	1,077	527	2,117	-	737	13,088	6,990	3,438	8,354	10,134	8,649	8,895	413	549	1,149	310	464	7,920	1,828	12,219	5,992
Kamonyi	1,378	-	4,077	-	260	13,847	5,095	3,704	2,114	11,148	7,585	9,870	494	503	405	287	452	8,704	6,179	15,354	415
Karongi	1,930	-	-	435	1,158	8,195	6,832	8,127	6,131	13,180	12,735	11,905	742	826	1,063	-	553	11,821	-	5,186	4,968
Rutsiro	1,652	-	-	266	-	11,853	8,033	8,679	7,933	13,884	8,192	10,956	550	698	891	-	499	11,064	4,989	9,649	9,226
Rubavu	1,891	888	-	-	-	-	8,074	9,803	3,444	10,428	7,168	13,441	597	826	532	-	1,035	10,243	9,266	13,701	13,019
Nyabihu	1,243	907	-	1,114	-	10,398	7,853	12,170	-	10,421	7,066	7,728	694	644	763	-	-	24,975	2,418	3,716	220
Ngororero	747	690	-	499	-	16,803	6,060	4,085	7,001	7,484	7,057	7,964	294	530	864	-	334	8,093	10,557	14,780	20,347
Rusizi	1,182	376	4,493	-	-	10,197	5,786	4,114	7,154	8,181	7,494	9,893	588	475	549	761	756	5,764	5,075	2,966	13,445
Nyamasheke	1,313	1,060	4,331	515	464	9,871	3,548	4,651	5,856	7,894	7,554	7,661	606	653	831	299	560	8,255	784	8,201	8,552
Rulindo	1,474	-	1,616	567	1,017	11,623	6,927	3,929	4,513	10,624	8,778	9,579	525	633	440	476	760	12,496	5,898	9,137	66,787
Gakenke	1,621	-	1,112	532	533	14,392	8,230	6,454	4,574	11,783	8,816	10,130	426	577	638	718	468	8,094	11,706	8,965	6,091
Musanze	1,884	1,773	-	1,161	979	5,541	8,075	11,797	1,756	15,433	7,865	11,078	529	773	567	-	593	7,225	6,286	13,948	13,909
Burera	2,000	1,548	-	1,351	-	11,707	9,575	9,825	3,520	13,932	5,124	8,917	484	856	785	-	435	8,285	2,624	4,549	-
Gicumbi	1,260	263	-	1,032	550	13,290	9,509	10,642	3,627	12,586	7,804	9,326	526	746	526	619	562	7,022	2,359	23,899	-
Rwamagana	1,794	47	3,945	-	808	19,063	8,061	5,375	1,300	16,414	7,564	7,898	543	585	699	353	380	4,568	2,285	13,346	16,543
Nyagatare	1,640	1,567	3,970	-	765	14,902	3,876	6,910	484	18,189	8,155	10,825	688	762	234	519	597	5,557	4,726	11,673	260
Gatsibo	1,638	879	3,287	-	423	12,662	8,679	4,259	546	15,915	7,066	8,718	610	653	518	492	602	3,420	2,322	10,952	56
Kayonza	1,509	718	3,475	-	693	12,553	5,175	3,136	7,637	17,366	8,263	8,320	685	695	387	423	499	8,772	3,796	49,397	7,187
Kirehe	1,685	1,430	3,998	-	521	14,803	4,996	4,530	3,014	15,846	7,500	9,941	594	1,004	695	306	524	6,953	15,420	14,548	101
Ngoma	1,982	548	3,605	-	809	10,617	7,400	6,216	3,607	16,559	7,308	10,113	569	782	705	425	301	9,247	5,206	14,450	2,240
Bugesera	1,652	1,223	3,189	-	678	16,965	7,199	2,833	3,790	14,757	7,218	8,563	712	770	501	304	458	10,070	7,794	13,774	6,004
National	**1,598**	**1,268**	**3,600**	**988**	**626**	**14,056**	**7,101**	**8,298**	**5,911**	**13,794**	**7,927**	**9,606**	**595**	**685**	**753**	**394**	**498**	**8,775**	**4,927**	**12,981**	**14,178**
SSF	1,599	1,269	3,277	989	626	14,056	7,101	8,305	5,911	13,792	7,927	9,606	595	685	753	394	497	8,775	5,022	12,719	14,500
LSF	3,756	1,637	3,649	1,400	-	16,050	6,769	16,134	1,896	19,218	7,123	6,962	867	908	371	494	717	9,501	13,584	13,553	3,066

Source: NISR, SAS 2020

Table 15. Season B 2020_Average yield by crop type per district (Kg/Ha)

District	Maize	Sorghum	Paddy rice	Wheat	Other Cereals	Cassava	Sweet potatoes	Irish potatoes	Yams & Taro	Bananas	Banana	Banana for beer	Beans	Bush bean	Climbing bean	Peas	G-nuts	Soya beans	Vegetables	Fruits	Fodder crops	Other crops
Nyarugenge	1,239	799	-	-	-	11,257	5,446	2,413	6,894	8,639	19,949	7,725	6,977	620	617	823	563	350	455	6,328	9,672	17,417	33,375
Gasabo	1,112	873	4,104	-	838	11,966	5,895	3,370	2,307	11,783	17,607	11,782	7,541	645	645	649	652	472	346	11,129	4,482	9,994	891
Kicukiro	1,051	1,047	3,887	-	-	14,068	10,628	3,518	5,431	13,538	20,296	15,205	9,222	812	809	1,053	537	414	664	8,419	-	3,133	20,874
Nyanza	1,321	870	5,536	-	1,107	18,982	7,986	2,787	4,039	9,013	11,921	7,676	8,935	759	783	679	532	387	323	10,735	4,847	11,834	1,004
Gisagara	999	714	3,913	-	1,059	17,171	6,187	2,250	4,107	10,338	15,311	10,021	8,938	555	526	785	526	366	463	8,494	6,011	8,505	886
Nyaruguru	1,941	673	-	872	1,233	14,267	8,591	7,135	11,195	9,784	14,977	8,048	7,820	861	611	925	1,181	365	465	11,744	2,891	19,236	1,066
Huye	1,513	762	3,756	-	1,073	21,291	8,420	3,511	4,323	9,587	11,055	10,517	8,546	687	625	793	687	351	489	11,157	3,317	13,568	1,143
Nyamagabe	1,334	621	2,776	1,178	1,008	11,862	6,971	7,781	8,389	6,732	9,497	12,884	5,941	668	500	714	979	115	333	8,317	4,203	10,202	657
Ruhango	1,023	659	3,648	-	1,122	18,309	4,346	3,701	7,451	8,060	17,880	12,847	6,855	728	707	775	1,253	642	389	6,874	10,883	16,101	11,429
Muhanga	1,111	703	3,918	-	1,413	17,352	6,931	3,488	7,190	8,091	14,723	10,048	7,558	598	566	665	430	-	521	10,232	6,856	9,473	3,986
Kamonyi	631	1,086	3,906	-	880	16,118	5,329	1,663	8,511	9,109	18,559	11,184	7,813	610	602	688	949	329	444	9,328	4,612	15,028	1,577
Karongi	1,517	624	-	885	1,045	13,812	9,244	4,151	8,661	9,293	17,027	13,080	8,818	779	744	794	1,129	-	421	9,035	4,096	11,398	1,471
Rutsiro	1,501	1,362	-	404	-	14,216	7,014	4,075	7,130	15,024	25,792	19,122	9,703	759	612	787	723	-	406	10,106	6,110	6,690	5,618
Rubavu	1,936	1,681	-	-	-	8,214	6,279	11,350	5,701	12,061	19,494	13,347	10,016	863	609	876	1,243	-	1,161	13,770	3,474	2,276	16,275
Nyabihu	1,644	-	-	1,221	-	9,313	6,650	11,882	7,302	9,163	16,481	8,738	7,095	849	-	849	664	-	321	11,706	4,618	5,988	269
Ngororero	1,277	642	-	688	-	10,709	6,042	3,489	7,759	8,686	17,537	12,065	7,799	642	552	660	990	-	362	7,391	7,416	10,252	6,279
Rusizi	1,308	717	6,748	-	-	8,831	8,510	8,082	7,344	13,120	18,303	19,093	8,827	757	743	781	1,266	756	533	12,147	5,607	-	4,732
Nyamasheke	1,125	1,493	5,294	819	1,230	11,794	8,382	3,138	6,470	12,361	21,796	15,416	10,781	796	589	866	827	397	626	8,998	3,098	2,797	1,744
Rulindo	1,043	940	3,140	823	-	14,851	7,350	5,745	7,028	11,499	20,385	12,425	8,850	772	639	900	433	587	355	8,405	1,988	11,114	44,443
Gakenke	1,300	1,112	3,501	1,735	-	18,151	11,045	5,709	8,399	11,852	23,238	12,849	9,364	941	639	957	677	548	513	9,695	5,931	7,790	2,561
Musanze	1,658	1,241	-	1,158	-	11,651	10,959	10,965	10,644	9,199	16,000	7,513	8,468	1,134	1,145	1,133	1,463	-	-	8,016	4,675	6,420	3,202
Burera	1,534	1,387	-	1,436	961	11,710	7,131	11,584	7,256	14,109	21,034	12,329	8,206	1,035	648	1,081	903	-	-	7,638	750	15,310	1,216
Gicumbi	1,205	1,038	-	758	-	20,282	6,929	8,577	7,352	12,838	22,174	11,196	9,590	991	603	1,170	887	567	884	10,429	6,799	15,194	3,772
Rwamagana	1,137	1,172	4,119	-	771	16,575	4,538	4,171	6,691	15,318	18,721	9,693	7,758	603	590	1,289	369	333	397	11,574	2,050	14,366	4,587
Nyagatare	1,284	865	4,806	-	1,720	20,617	3,708	3,829	3,629	14,908	18,967	12,947	8,759	737	734	798	267	715	651	9,378	4,360	6,385	13,163
Gatsibo	1,482	1,133	4,483	-	882	16,768	9,790	4,434	8,298	13,659	18,326	11,170	9,401	712	708	754	732	535	616	11,935	4,878	49	2,214
Kayonza	1,051	1,055	4,402	-	1,127	16,311	4,174	3,310	6,119	15,805	18,034	14,110	8,896	666	662	1,226	691	409	574	14,490	12,720	28,953	968
Kirehe	1,729	844	5,326	-	1,056	17,356	4,697	2,468	4,445	16,728	21,259	14,485	8,531	674	618	781	1,091	469	497	11,914	1,046	13,583	3,114
Ngoma	941	999	4,232	-	1,136	17,110	7,598	4,859	3,413	15,550	17,597	12,384	10,866	737	706	985	582	396	439	11,433	6,189	10,096	2,618
Bugesera	1,014	717	1,207	-	1,051	21,988	4,093	2,525	6,456	9,438	14,653	12,468	7,736	623	622	704	-	394	340	12,489	15,091	11,819	486
National	**1,298**	**942**	**4,264**	**1,068**	**1,083**	**15,073**	**7,232**	**8,019**	**7,046**	**11,781**	**18,573**	**12,180**	**8,398**	**740**	**662**	**897**	**910**	**495**	**477**	**10,428**	**4,988**	**9,128**	**4,114**
SSF	1,258	942	3,704	1,067	1,083	15,072	7,232	7,952	7,047	11,778	18,578	12,179	8,398	740	661	897	902	495	471	10,457	4,982	8,923	4,116
LSF	3,136	1,193	4,276	1,300	-	20,876	4,868	18,198	1,879	16,244	16,614	15,458	10,354	716	715	1,062	1,771	635	721	5,933	5,395	12,654	3,804

Source: NISR, SAS 2020

Table 16. Season C 2020_Average yield by crop type per district (Kg/Ha)

District/Crop	Tubers and Roots	Sweet potatoes	Irish potatoes	Bush bean	Climbing bean	Peas	Soya beans	Vegetables
Nyarugenge	3,555	3,548	3,677	892	-	-	464	5,626
Gasabo	3,756	3,960	-	566	-	-	-	8,136
Kicukiro	8,419	8,419	-	1,097	-	-	791	8,876
Nyanza	3,848	3,852	3,013	886	752	699	612	8,179
Gisagara	3,483	3,483	-	749	-	1,041	633	8,154
Nyaruguru	4,134	3,693	5,395	931	581	412	263	6,867
Huye	5,925	5,951	4,244	881	1,072	687	503	9,758
Nyamagabe	5,991	5,944	6,978	1,053	1,892	1,121	333	15,027
Ruhango	6,141	6,141	-	626	-	1,031	-	7,398
Muhanga	6,057	6,130	5,585	752	647	869	614	7,932
Kamonyi	6,291	6,601	2,934	957	-	749	1,033	8,375
Karongi	5,759	5,905	5,132	1,262	-	-	512	10,388
Rutsiro	6,082	5,740	6,546	-	-	816	-	6,374
Rubavu	10,933	5,766	11,733	-	1,875	1,203	-	9,855
Nyabihu	8,153	5,364	8,290	1,049	881	440	-	14,242
Ngororero	5,318	4,259	7,457	-	-	-	865	-
Rusizi	-	-	-	-	-	-	-	11,859
Nyamasheke	3,577	3,598	-	979	-	-	-	12,531
Rulindo	4,552	4,533	4,562	1,290	-	862	803	9,804
Gakenke	6,443	8,043	5,725	756	-	-	648	6,049
Musanze	8,070	6,650	8,183	906	1,733	416	-	7,217
Burera	9,243	5,152	10,243	-	2,028	-	-	11,938
Gicumbi	6,500	5,962	6,786	671	-	-	-	13,099
Rwamagana	4,449	4,425	4,899	1,349	-	-	729	9,351
Nyagatare	5,711	6,122	4,608	-	-	415	-	7,812
Gatsibo	6,745	6,825	4,541	729	-	-	-	9,077
Kayonza	6,908	7,537	4,926	-	-	-	-	9,667
Kirehe	4,736	4,537	6,283	832	594	-	-	6,687
Ngoma	5,349	5,355	1,107	1,112	-	-	-	10,640
Bugesera	5,548	5,551	1,071	470	-	-	-	7,359

Source: NISR, SAS 2020

Table 17. Season A 2020_Average yield on Large scale farmers by crop type and district (Kg/Ha)

Crop/District	Maize	Sorghum	Paddy rice	Wheat	Cassava	Sweet potatoes	Irish potatoes	Yams & Taro	Bananas	Cooking Banana	Dessert banana	Banana for beer	Bush bean	Climbing bean	Peas	Ground nuts	Soya beans	Vegetables	Fruits	Fodder crops	Other crops
Gasabo	3,177	-	3,790	-	5,713	12,534	-	-	20,360	20,360	-	-	560	-	-	-	460	2,643	1,402	6,027	4,717
Kicukiro	1,787	-	3,621	-	-	-	-	-	8,280	8,232	8,535	-	-	-	-	-	1,178	6,622	-	-	705
Nyanza	2,703	-	4,449	-	-	-	-	-	5,547	34,886	13,729	3,923	420	-	-	-	-	15,630	-	-	-
Gisagara	1,493	-	3,207	-	-	-	-	-	29,671	29,671	-	-	312	98	-	-	-	1,661	-	4,283	-
Nyaruguru	4,122	-	-	-	-	-	23,422	-	6,637	7,667	8,001	3,833	925	-	-	-	-	-	-	13,117	24,752
Huye	2,025	-	3,744	-	-	3,339	-	-	8,960	8,960	-	-	186	918	-	-	283	5,919	-	-	43,356
Nyamagabe	1,620	-	-	-	-	-	8,807	-	-	-	-	-	-	154	-	-	-	-	-	-	-
Ruhango	378	-	2,997	-	21,659	-	-	-	6,991	4,768	8,029	9,160	203	-	212	-	-	-	-	-	2,757
Muhanga	2,373	-	2,117	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kamonyi	3,978	-	4,077	-	-	-	-	-	-	-	-	-	310	-	-	-	1,507	1,709	-	-	113
Karongi	2,797	-	-	-	-	-	-	-	-	-	-	-	602	-	-	-	-	2,683	-	-	2,448
Rubavu	4,018	-	-	-	-	-	15,805	-	33,983	33,983	-	-	196	-	108	-	-	34,543	-	23,231	1,229
Rusizi	5,012	-	4,493	-	-	-	-	-	6,772	12,312	-	4,925	447	-	-	-	173	-	2,331	-	133
Nyamasheke	1,124	-	4,331	-	6,992	-	-	-	-	-	-	-	214	-	-	300	-	-	-	-	347
Rulindo	4,665	-	1,616	571	-	-	18,602	-	8,449	7,565	8,370	10,003	955	970	264	-	-	4,166	-	2,824	465
Gicumbi	-	-	-	2,747	-	-	16,887	-	-	-	-	-	-	894	-	-	-	-	-	14,764	-
Rwamagana	3,144	-	3,945	-	17,071	7,660	7,793	2,481	15,573	15,911	5,899	6,906	1,012	1,042	-	696	1,408	5,250	2,194	9,939	9,947
Nyagatare	5,607	2,721	4,098	-	10,338	6,304	6,505	-	17,106	20,396	4,495	7,162	590	683	-	1,159	1,312	8,566	11,790	4,825	1,447
Gatsibo	3,694	1,203	3,287	-	15,096	5,569	9,679	-	17,595	21,771	7,510	6,526	780	1,629	-	417	1,076	4,861	4,634	5,607	-
Kayonza	6,587	797	3,734	-	29,628	2,041	12,812	1,843	19,626	21,089	4,284	13,971	513	1,067	653	-	609	18,785	26,147	13,299	-
Kirehe	5,030	-	3,962	-	-	-	-	-	-	-	-	-	1,357	-	-	-	505	14,487	-	-	187
Ngoma	2,596	-	3,605	-	-	-	8,999	-	21,667	31,313	8,969	10,002	-	-	-	-	-	5,898	10,129	-	6,829
Bugesera	2,447	-	3,152	-	15,303	6,346	8,201	-	20,017	23,133	7,802	11,925	810	-	362	723	802	4,985	36,648	18,113	1,690
National	**3,756**	**1,637**	**3,649**	**1,400**	**16,050**	**6,769**	**16,134**	**1,896**	**16,989**	**19,218**	**7,123**	**6,962**	**867**	**908**	**371**	**494**	**717**	**9,501**	**13,584**	**13,553**	**3,066**

Source: NISR, SAS 2020

Table 18. Season B 2020_Average yield on Large scale farmers by crop type and district (Kg/Ha)

District	Maize	Sorghum	Paddy rice	Wheat	Cassava	Sweet potatoes	Irish potatoes	Yams & Taro	Bananas	Cooking Banana	Dessert banana	Banana for beer	Beans	Bush bean	Climbing bean	Peas	Ground nuts	Soya beans	Vegetables	Fruits	Fodder crops	Other crops
Gasabo	2,348	-	4,104	-	-	3,277	-	-	6,223	5,715	16,723	-	660	660	-	-	-	465	9,273	4,736	20,593	-
Kicukiro	378	-	3,887	-	-	-	-	-	18,213	20,636	13,064	-	901	901	-	-	-	-	3,251	-	13,019	179
Nyanza	1,684	-	5,599	-	-	-	8,889	-	4,304	5,121	2,520	3,546	-	-	-	-	-	-	5,297	-	-	458
Gisagara	617	-	3,949	-	-	5,352	-	-	17,462	17,462	-	-	287	287	-	-	-	724	701	873	6,200	1,353
Nyaruguru	3,698	-	-	856	-	-	23,662	-	18,855	10,734	11,730	28,952	882	882	-	-	-	-	-	-	14,566	-
Huye	1,602	-	3,756	-	-	-	-	-	13,166	13,166	-	-	-	-	-	-	-	-	-	-	13,019	-
Nyamagabe	1,824	-	-	1,359	-	-	11,298	-	-	-	-	-	-	-	-	1,058	-	-	-	-	-	-
Ruhango	3,604	680	3,668	-	18,000	12,435	-	6,859	15,625	22,604	12,108	8,793	989	988	1,034	1,253	-	-	318	-	13,019	560
Muhanga	-	-	3,918	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kamonyi	2,786	-	3,906	-	-	-	-	-	-	-	-	-	679	679	-	-	-	1,215	5,830	-	-	-
Karongi	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,782
Rubavu	-	-	-	-	-	-	16,316	2,935	14,132	14,132	-	-	-	-	-	-	-	-	-	-	67,967	167
Rusizi	-	-	6,748	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8,677
Nyamasheke	-	-	5,294	-	-	-	-	-	-	-	-	-	112	112	-	-	191	178	-	-	-	1,703
Rulindo	2,654	1,481	3,140	1,725	-	6,967	9,209	-	22,428	23,828	15,474	-	1,020	1,047	799	1,020	-	-	-	-	13,019	2,640
Gicumbi	-	-	-	1,197	-	-	14,880	-	-	-	-	-	-	-	-	-	-	-	-	-	35,968	-
Rwamagana	3,365	2,092	4,119	-	18,142	4,815	3,460	2,460	19,924	20,196	6,252	6,600	753	753	-	-	295	1,137	7,564	4,716	12,592	16,383
Nyagatare	1,752	780	4,806	-	27,372	3,871	14,279	-	22,009	23,710	12,472	11,321	493	493	1,223	-	1,074	880	4,567	1,004	6,385	1,928
Gatsibo	2,023	-	4,483	-	20,660	6,256	3,353	-	20,678	21,849	10,080	10,715	739	733	1,179	-	-	660	2,043	-	12,881	-
Kayonza	2,090	1,272	4,402	-	14,538	8,663	14,070	754	8,969	8,962	10,397	10,357	560	560	-	72	897	816	2,811	8,463	5,015	1,210
Kirehe	4,451	-	5,297	-	-	5,352	11,298	-	-	-	-	-	1,113	1,113	-	1,975	-	641	9,803	-	-	-
Ngoma	2,088	-	4,232	-	-	1,235	-	-	19,730	21,415	11,882	-	330	330	-	-	-	407	1,266	6,844	8,428	1,506
Bugesera	1,222	567	1,106	-	18,532	2,345	6,537	-	15,509	14,884	17,959	8,580	555	555	-	-	506	11	1,380	790	9,883	241
National	**3,136**	**1,193**	**4,276**	**1,300**	**20,876**	**4,868**	**18,198**	**1,879**	**16,244**	**16,614**	**15,458**	**10,354**	**716**	**715**	**1,062**	**1,771**	**635**	**721**	**5,933**	**5,395**	**12,654**	**3,804**

Source : NISR, SAS 2020

Table 19. Season C_Average yield by crop type and district-SITE (Kg/Ha)

	Sweet potatoes	Irish potatoes	Bush bean	Climbing bean	Peas	Soya beans	Vegetables
Nyarugenge	3,717	-	625	-	-	547	10,607
Gasabo	4,010	-	566	-	-	-	9,017
Kicukiro	8,305	-	1,097	-	-	791	7,402
Nyanza	6,486	3,013	955	-	657	202	9,471
Gisagara	4,448	-	786	-	1,041	752	6,764
Nyaruguru	4,963	4,834	911	581	1,142	-	8,199
Huye	4,712	4,244	882	1,072	655	503	8,985
Nyamagabe	5,237	7,985	1,121	-	1,215	-	10,787
Ruhango	4,085	-	1,207	-	1,023	-	9,417
Muhanga	4,563	5,585	746	647	881	719	6,929
Kamonyi	5,576	-	1,131	-	822	-	8,034
Karongi	4,889	5,132	1,262	-	-	-	9,390
Rutsiro	5,323	6,521	-	-	830	-	6,374
Rubavu	-	7,984	-	-	-	-	8,847
Nyabihu	5,364	10,520	-	-	-	-	17,796
Ngororero	5,948	-	-	-	-	744	-
Rusizi	-	-	-	-	-	-	-
Nyamasheke	3,607	-	979	-	-	-	10,199
Rulindo	7,215	5,080	1,620	-	862	-	12,252
Gakenke	7,276	6,231	846	-	-	504	6,729
Musanze	5,584	9,325	1,590	-	1,011	-	7,739
Burera	4,298	9,787	-	-	-	-	9,469
Gicumbi	6,845	6,385	821	-	-	-	9,968
Rwamagana	5,877	17,742	1,308	-	-	1,419	9,774
Nyagatare	5,883	7,185	-	-	415	-	7,519
Gatsibo	4,467	4,541	729	-	-	-	8,809
Kayonza	5,785	6,592	-	-	-	-	10,433
Kirehe	4,885	6,283	852	594	-	-	6,717
Ngoma	4,724	1,107	1,112	-	-	-	10,954
Bugesera	4,890	1,071	470	-	-	-	6,837
National	**5,077**	**7,257**	**918**	**752**	**749**	**648**	**8,469**

Source: NISR, SAS 2020

Table 20. Season A 2020_Crop production by crop type per district (MT)

District	Cereals	Maize	Sorghum	Paddy rice	Wheat	Other Cereals	Tubers&Roots	Cassava	Sweet potatoes	Irish potatoes	Yams & Taro	Bananas	Beans	Peas	Ground nuts	Soya beans	Vegetables	Fruits	Fodder crops	Other crops
Nyarugenge	1,193	1,193	-	-	-	-	4,566	1,697	2,060	442	367	11,027	1,546	-	17	105	2,785	176	238	36,770
Gasabo	4,251	3,327	-	917	-	7	21,428	9,797	8,732	2,345	554	19,390	4,340	95	204	145	6,459	36	7,568	276
Kicukiro	1,977	1,912	-	63	-	2	4,931	408	4,313	33	177	4,622	1,088	1	33	57	1,019	50	-	424
Nyanza	8,245	6,300	216	1,716	-	13	72,517	57,136	13,855	1,145	380	27,339	10,535	56	272	533	5,331	-	7,377	131
Gisagara	18,663	10,319	485	7,714	-	145	34,362	15,874	15,252	1,107	2,129	28,467	7,698	50	141	1,056	1,956	-	5,406	210
Nyaruguru	10,981	10,963	-	-	16	1	62,675	10,144	42,198	6,993	3,339	18,993	4,739	214	18	428	4,230	142	5,587	40
Huye	10,022	6,038	-	3,778	-	206	68,453	48,090	16,283	2,715	1,365	27,534	9,643	216	136	1,050	3,381	-	824	157
Nyamagabe	6,643	6,605	-	-	33	5	74,195	14,716	45,053	13,164	1,262	21,148	5,298	1,658	3	540	3,427	250	3,703	32
Ruhango	7,462	4,256	71	3,095	-	39	103,450	90,018	10,702	1,418	1,312	22,139	7,927	53	302	1,117	2,795	-	8,204	7,560
Muhanga	2,176	1,848	3	317	-	8	68,331	19,942	26,406	1,224	20,759	55,615	3,381	78	15	758	2,734	194	5,321	1,743
Kamonyi	5,639	4,891	-	745	-	3	38,261	23,946	11,209	1,998	1,108	40,971	7,124	27	243	1,136	6,140	5,583	5,890	782
Karongi	15,122	15,059	-	-	31	32	64,197	13,055	35,206	8,014	7,922	49,051	4,696	525	-	557	7,240	-	2,878	1,589
Rutsiro	11,702	11,617	-	-	85	-	63,820	2,100	26,301	26,549	8,871	31,937	2,880	413	-	329	2,910	2,482	3,482	15,097
Rubavu	3,013	2,901	112	-	-	-	65,203	-	4,342	60,538	323	17,624	7,552	57	-	224	17,041	217	6,615	12,865
Nyabihu	5,592	3,573	882	-	1,138	-	130,854	1,134	20,655	109,065	-	3,171	4,937	588	-	-	16,904	101	272	92
Ngororero	4,995	4,138	626	-	232	-	62,680	15,940	28,807	8,915	9,018	29,299	5,488	529	-	314	2,372	1,821	2,088	10,953
Rusizi	15,285	9,022	33	6,230	-	-	34,299	15,375	10,178	982	7,764	25,438	6,578	62	258	809	4,900	1,057	160	6,073
Nyamasheke	8,140	6,557	54	1,422	18	88	44,251	24,409	14,487	517	4,837	17,111	4,956	105	69	815	3,144	51	6,681	4,377
Rulindo	6,240	6,169	-	28	27	17	49,515	8,054	35,648	5,339	475	22,297	6,714	308	59	201	11,948	827	2,421	53,448
Gakenke	19,039	18,683	-	135	63	158	78,193	13,493	49,557	7,870	7,272	65,126	4,970	280	79	235	3,572	2,079	873	2,414
Musanze	19,679	15,272	3,371	-	1,007	29	64,457	151	16,610	47,471	225	9,137	5,875	472	-	38	4,778	1,598	2,666	12,539
Burera	20,697	17,007	2,487	-	1,203	-	78,501	486	26,139	51,591	285	6,597	9,623	887	-	10	2,179	221	1,003	-
Gicumbi	6,281	5,913	78	-	286	5	98,309	7,264	59,981	30,583	481	17,366	12,341	722	110	57	3,147	1,055	20,801	-
Rwamagana	17,511	16,269	1	1,177	-	63	40,369	19,106	15,497	5,394	372	69,846	10,015	142	528	82	4,596	868	4,739	5,860
Nyagatare	68,569	42,693	19,479	6,163	-	234	30,819	19,983	7,918	2,894	24	71,679	12,921	102	860	476	5,579	743	3,157	42
Gatsibo	34,645	26,930	3,609	4,015	-	92	51,115	20,490	20,598	10,003	25	105,374	12,163	38	980	344	2,670	390	721	4
Kayonza	23,668	18,585	2,466	2,227	-	389	80,169	59,586	12,809	4,828	2,945	54,717	13,451	34	383	205	11,585	715	6,492	1,218
Kirehe	40,749	33,675	2,742	4,225	-	107	35,293	20,788	9,061	4,878	566	94,458	15,161	154	103	384	5,406	1,135	1,938	8
Ngoma	28,708	25,459	100	2,976	-	174	57,462	30,174	18,102	8,425	761	88,441	10,264	35	277	148	4,323	943	4,289	374
Bugesera	27,631	16,823	5,415	5,281	-	112	43,764	15,189	27,050	1,030	496	44,169	12,664	29	671	134	5,564	807	8,258	1,512
National 2020 A	**454,522**	**353,999**	**42,231**	**52,225**	**4,138**	**1,930**	**1,726,437**	**578,545**	**635,007**	**427,471**	**85,414**	**1,100,082**	**226,570**	**7,933**	**5,762**	**12,284**	**160,114**	**23,542**	**129,651**	**176,592**
National 2019 A	437,662	331,090	37,584	59,286	7,082	2,620	1,737,409	523,117	674,257	468,931	71,104	1,020,141	252,569	9,115	9,362	13,638	158,927	48,791	72,597	54,721
Change	**4%**	**7%**	**12%**	**-12%**	**-42%**	**-26%**	**-1%**	**11%**	**-6%**	**-9%**	**20%**	**8%**	**-10%**	**-13%**	**-38%**	**-10%**	**1%**	**-52%**	**79%**	**223%**

Source : NISR, SAS 2020

Table 21. Season B 2020_Crop production by crop type per district (MT)

District	Maize	Sorghum	Paddy rice	Wheat	Uther Cereals	Cassava	Sweet potatoes	Irish potatoes	Yams & Taro	Bananas	Beans	Peas	Ground nuts	Soya beans	Vegetables	Fruits	Fodder crops	Other crops
Iyarugenge	140	426	-	-	-	2,149	562	24	193	6,346	707	5	27	81	2,118	186	253	3,829
Gasabo	1,007	4,957	974	-	16	4,126	5,592	1,950	240	15,472	3,283	25	104	74	7,877	226	7,667	186
Kicukiro	394	1,606	78	-	-	1,146	3,846	167	109	5,444	1,034	5	30	100	561	-	53	1,594
Nyanza	2,367	5,463	3,306	-	57	29,555	19,729	905	1,847	10,077	7,233	11	438	360	4,849	602	5,052	931
Gisagara	1,859	3,252	9,521	-	308	48,292	12,958	464	774	17,033	7,758	18	274	913	3,108	114	1,407	236
Nyaruguru	947	2,504	-	368	8	19,317	31,620	10,157	3,677	6,169	2,964	191	18	295	2,711	354	11,629	812
Huye	692	6,128	3,595	-	25	18,879	19,568	901	1,816	8,919	4,301	15	112	892	2,121	70	1,581	1,163
Nyamagabe	535	3,175	49	1,232	62	13,927	45,897	16,722	2,568	9,547	3,460	1,513	2	266	3,266	339	1,430	689
Ruhango	1,042	2,299	2,792	-	55	122,035	12,606	850	3,558	17,408	7,732	88	1,259	764	3,288	1,220	11,894	7,746
Muhanga	292	122	575	-	12	44,672	41,143	357	11,729	54,620	5,407	14	-	1,042	3,771	1,063	5,734	1,738
Kamonyi	1,315	4,014	762	-	15	16,177	17,510	1,017	8,830	40,263	5,953	88	240	826	8,828	1,195	8,387	2,440
Karongi	888	1,419	-	251	71	25,560	47,389	2,945	7,846	44,792	5,213	394	-	799	4,438	51	3,939	1,634
Rutsiro	2,793	43	-	193	-	13,480	21,814	13,918	9,526	33,180	3,714	340	-	184	3,038	4,672	1,384	12,358
Rubavu	2,743	1,052	-	-	-	4,155	4,044	66,604	1,001	11,424	2,968	189	-	163	31,251	163	1,191	18,968
Nyabihu	5,500	-	-	1,629	-	348	16,128	76,475	325	3,556	1,701	128	-	13	11,898	363	2,092	693
Ngororero	2,389	6	-	1,001	-	2,336	40,193	5,320	7,241	32,289	2,216	220	-	266	3,360	785	2,827	1,102
Rusizi	1,438	43	9,582	-	-	68,273	15,372	262	4,374	15,945	5,176	160	44	215	2,276	1,636	-	6,450
Nyamasheke	591	21	1,893	38	6	47,608	26,895	208	6,008	14,485	3,415	100	249	1,116	4,206	429	664	5,947
Rulindo	1,069	3,844	54	336	-	16,172	23,322	6,198	976	29,227	7,670	67	37	59	4,614	151	2,165	23,857
Gakenke	1,909	563	105	579	-	18,996	70,792	6,191	9,381	68,133	10,114	128	12	196	3,397	1,158	877	3,697
Musanze	4,266	1,266	-	614	-	301	15,245	43,804	2,141	3,975	6,551	228	-	-	9,959	1,454	1,551	6,642
Burera	3,615	7,160	-	2,285	27	351	22,448	46,032	980	7,710	11,597	516	-	-	2,470	216	3,032	26
Gicumbi	1,891	17,802	-	149	-	9,153	39,621	24,660	1,181	22,496	11,444	788	197	30	3,838	1,898	11,158	782
Rwamagana	3,802	9,888	1,578	-	32	25,170	4,485	5,308	4,547	57,812	5,364	26	460	72	10,264	1,442	4,390	3,371
Nyagatare	23,832	7,256	7,678	-	34	32,486	7,020	3,333	626	61,803	22,943	21	2,350	852	7,134	708	111	990
Gatsibo	10,405	10,297	6,979	-	8	11,201	10,095	7,824	3,138	71,182	12,067	62	2,318	563	2,405	429	126	5,291
Kayonza	5,823	15,729	4,303	-	162	39,779	7,316	6,918	2,085	48,493	10,264	90	533	128	4,105	657	3,860	411
Kirehe	5,047	10,017	5,024	-	187	33,261	7,049	1,102	4,087	71,581	13,289	215	291	338	4,819	76	680	936
Ngoma	1,632	3,622	3,506	-	423	24,344	11,469	1,148	879	83,941	13,784	24	255	156	3,991	1,372	4,023	1,307
Bugesera	4,414	4,285	1,925	-	31	7,790	9,696	678	946	58,670	10,062	-	1,291	189	6,311	1,800	7,324	201
National 2020 B	**94,634**	**128,258**	**64,279**	**8,673**	**1,540**	**701,037**	**611,425**	**352,441**	**102,628**	**931,991**	**209,383**	**5,668**	**10,542**	**10,955**	**166,272**	**24,830**	**106,479**	**116,028**
National 2019 B	**90,128**	**122,042**	**72,291**	**8,605**	**1,473**	**658,708**	**546,788**	**422,266**	**100,700**	**830,491**	**230,744**	**6,136**	**10,200**	**10,588**	**155,506**	**23,315**	**98,177**	**88,985**
Change	**5.0%**	**5.1%**	**-11.1%**	**0.8%**	**4.6%**	**6.4%**	**11.8%**	**-16.5%**	**1.9%**	**12.2%**	**-9.3%**	**-7.6%**	**3.4%**	**3.5%**	**6.9%**	**6.5%**	**8.5%**	**30.4%**

Source : NISR, SAS 2020

Table 22. Season C 2020_Crop production by crop type per district (MT)

District/Crop	Sweet potatoes	Irish potatoes	Bush bean	Climbing bean	Peas	Soya beans	Vegetables	*Total*
Nyarugenge	93	5	184	-	-	49	1,630	1,960
Gasabo	300	-	1	-	-	-	3,043	3,344
Kicukiro	291	-	27	-	-	3	1,134	1,455
Nyanza	812	3	85	31	81	1	2,472	3,485
Gisagara	1,484	-	139	-	23	239	2,055	3,939
Nyaruguru	2,727	1,394	258	3	19	3	535	4,939
Huye	1,944	21	185	4	56	2	2,064	4,277
Nyamagabe	2,544	142	27	17	8	2	756	3,496
Ruhango	2,208	-	21	-	11	-	1,457	3,697
Muhanga	1,273	177	67	1	33	51	743	2,345
Kamonyi	1,166	48	316	-	33	29	2,271	3,863
Karongi	852	172	1	-	-	6	677	1,708
Rutsiro	398	335	-	-	31	-	176	940
Rubavu	788	10,354	-	143	28	-	2,631	13,944
Nyabihu	703	22,115	76	285	7	-	5,592	28,779
Ngororero	274	237	-	-	-	9	-	520
Rusizi	-	-	-	-	-	-	929	929
Nyamasheke	415	-	0	-	-	-	1,725	2,140
Rulindo	637	1,330	4	-	1	35	1,122	3,129
Gakenke	667	1,059	31	-	-	83	342	2,182
Musanze	1,021	15,865	86	442	22	-	3,965	21,402
Burera	2,868	23,338	-	114	-	-	1,259	27,578
Gicumbi	689	1,471	33	-	-	-	692	2,885
Rwamagana	499	29	174	-	-	4	2,090	2,796
Nyagatare	1,064	299	-	-	0	-	2,815	4,178
Gatsibo	1,197	29	5	-	-	-	2,419	3,651
Kayonza	556	116	-	-	-	-	2,412	3,084
Kirehe	392	70	9	0	-	-	2,266	2,737
Ngoma	361	0	7	-	-	-	1,402	1,771
Bugesera	959	0	4	-	-	-	1,817	2,780
National 2020C	**29,182**	**78,609**	**1,741**	**1,042**	**352**	**516**	**52,492**	**163,934**
National2019C	**26,539**	**82,211**	**706**	**232**	**149**	**299**	**36,072**	**146,209**
Change	**10.0%**	**-4.4%**	**146.5%**	**349.8%**	**135.6%**	**72.5%**	**45.5%**	**12.1%**

Source: NISR, SAS 2020

Table 23. Season A 2020_ Use of crop production by farmers (%)

Crops	Sold	Own consumption	Wages for hired labor	Farm rent	Offered as gift	Barter trade/Exchanged with other things	Seeds	Fodder purposes	Stored	Post harvesting losses	Other usage
Maize	25.0	61.1	1.0	1.4	6.8	0.1	2.0	0.3	1.7	0.3	0.3
Sorghum	41.2	41.4	1.2	2.3	6.9	0.1	4.1	0.0	1.7	0.9	0.2
Paddy rice	76.0	19.9	0.7	0.3	0.2	-	0.7	-	0.1	2.0	-
Wheat	35.5	42.8	0.1	-	6.2	0.3	15.0	0.0	0.0	0.0	-
Other cereals	10.5	69.0	0.4	1.5	6.8	0.1	8.7	-	1.6	1.1	0.3
Sweet potato	19.7	69.7	1.7	0.8	6.0	0.1	0.0	1.7	0.1	0.1	0.1
Irish potato	24.0	59.0	1.1	0.3	4.4	0.1	10.2	0.1	0.1	0.6	0.2
Yam & Taro	20.6	68.0	1.7	0.5	6.4	0.0	2.6	0.0	0.0	0.0	0.2
Cassava	24.5	65.6	1.7	1.2	5.2	0.0	0.0	0.4	0.3	0.6	0.4
Bush bean	15.5	58.4	1.5	1.6	4.9	0.1	15.0	0.0	2.2	0.6	0.3
Climbing bean	8.3	65.8	0.8	0.7	6.2	0.1	16.1	0.0	1.5	0.1	0.3
Pea	15.6	62.6	0.0	0.2	3.5	-	17.1	0.2	0.3	0.3	0.2
Groundnut	12.8	50.7	0.6	1.2	4.2	-	28.9	-	0.7	0.7	0.1
Soybean	15.6	56.4	0.7	0.7	3.7	0.4	20.7	0.3	1.3	0.2	0.1
Cooking banana	17.0	77.5	0.9	0.2	3.7	0.0	-	0.0	-	0.1	0.4
Dessert banana	56.4	39.2	0.2	0.3	2.7	0.0	-	0.1	-	0.5	0.6
Banana for beer	61.2	31.5	0.3	0.1	4.8	0.0	-	0.0	-	1.4	0.7
Vegetables	63.2	28.3	0.5	0.1	3.9	0.0	1.8	0.3	-	1.6	0.3
Fruits	57.1	36.7	0.1	-	3.3	0.0	0.5	0.1	-	0.1	2.0
Fodder crops	4.7	1.4	1.0	-	1.9	1.0	0.8	81.2	1.2	0.0	6.7
Other crops	75.6	13.1	-	0.2	4.6	0.1	0.2	1.2	-	1.0	4.1

Source: NISR, SAS 2020

Table 24. Season B 2020_Use of crop production by farmers (%)

Crop	Sold	Own consumption	Wages for hired labor	Farm rent	Offered as gift	Barter trade/Exchanged with other things	Seeds	Fodder purposes	Stored	Post harvesting losses	Other usage
Maize	28.0	61.1	1.4	1.8	4.4	0.1	1.3	0.5	1.0	0.2	0.2
Sorghum	45.1	39.1	1.0	2.3	5.3	0.1	3.6	0.0	2.8	0.3	0.4
Paddy rice	84.3	13.0	0.2	-	0.5	-	0.7	-	0.1	1.2	0.0
Wheat	41.7	44.5	0.6	0.1	5.2	-	7.5	0.0	0.2	0.1	0.1
Other cereals	15.5	76.2	0.0	0.7	2.9	-	3.3	-	0.8	0.2	0.3
Sweet potato	22.6	66.9	1.8	1.1	4.9	0.0	0.0	2.3	0.1	0.1	0.1
Irish potato	42.2	40.9	0.8	0.2	2.7	0.0	12.4	0.1	0.1	0.1	0.4
Taro & Yams	23.8	67.2	1.4	0.7	4.6	-	1.7	-	0.1	0.0	0.3
Cassava	37.1	56.1	0.9	1.4	3.5	0.0	-	0.2	0.2	0.3	0.2
Bush bean	21.4	59.0	1.3	1.8	3.0	0.1	11.8	0.0	1.1	0.2	0.3
Climbing bean	12.2	65.7	0.8	0.5	4.5	0.1	14.0	-	1.7	0.1	0.3
Pea	29.2	56.7	0.1	0.3	2.4	0.0	10.7	-	0.3	0.1	0.0
Groundnut	31.1	41.6	0.9	0.9	4.2	0.1	20.0	-	0.6	0.2	0.3
Soybean	21.3	59.1	0.5	0.8	3.1	0.1	14.5	0.0	0.3	0.1	0.0
Cooking banana	36.5	57.0	1.5	0.2	4.4	0.0	0.0	0.0	-	0.2	0.2
Dessert banana	65.7	30.9	0.4	0.1	1.8	0.1	-	0.0	-	0.6	0.4
Banana for beer	76.6	17.0	0.2	0.1	3.7	0.0	-	0.0	-	1.9	0.5
Vegetables	79.5	12.5	0.5	0.3	3.0	-	2.6	-	0.3	0.9	0.5
Fruits	71.4	24.1	-	-	3.3	-	0.2	-	-	0.4	0.6
Fodder crops	10.4	-	1.1	-	0.1	0.6	0.9	77.5	3.5	0.0	5.9
Other crops	91.1	4.7	0.0	0.2	0.8	-	0.2	0.6	0.0	0.2	2.3

Source: NISR, SAS 2020

Table 25. Season C 2020_ Use of crop production by farmers (%)

CropCategory	Sold	Auto consumption	Wages for hired labor	Farm rent	Offered as gift	Barter trade/Exchanged with other things	Seeds	Fodder purposes	Stored	Post harvesting losses	Other usage
Cereals											
Tubers and Roots											
Sweet potato	31.3	56.6	2.1	0.9	6.2	0.0	-	2.8	0.0	0.1	0.0
Irish potato	43.2	41.3	0.5	0.1	4.9	0.0	9.9	0.0	0.0	0.1	0.1
Legumes and Pulses											
Bush bean	10.8	68.5	0.4	0.2	3.6	0.2	14.5	-	1.7	0.1	0.0
Climbing bean	8.3	67.3	-	-	6.0	-	17.7	-	0.2	0.0	0.4
Pea	58.3	30.3	0.1	0.2	3.1	0.1	7.8	-	0.0	0.0	-
Groundnut	11.3	66.9	-	-	-	-	21.9	-	-	-	-
Soybean	25.8	51.7	0.1	0.6	6.0	0.2	15.5	-	0.1	0.0	-
Vegetables and fruits											
Vegetables	77.2	17.2	0.3	0.3	3.5	0.0	0.5	0.0	0.0	0.8	0.1
Fruits	83.8	15.1	-	-	1.1	-	-	-	-	-	-
Other crops	99.6	0.4	-	-	-	-	-	-	-	-	-

Source: NISR, SAS 2020

Table 26. Sowing date per Season and District in 2020 (%)

	Season A 2020								Season B 2020										Season C 2020					
District	Before 01/09	Between 01-15/09	Between 16-30/09	Between 01-15/10	Between 16-31/10	After 31/10	Other seasons for perennial	Total	Before 01/01	Between 01-15/01	Between 16-31/01	Between 01-15/02	Between 16-28/02	Between 01-15/03	Between16-31/03	After 31/03	Other seasons for perennial crops	Total	Before 01/05	Between 01-31/05	Between 01-30/06	Between 01-31/07	After 31/07	Total
Nyarugenge	2.4	5.8	18.9	31.2	4.9	2.5	34.4	**100.0**	4.0	5.5	2.1	17.1	14.0	7.9	3.3	0.9	45.3	**100.0**	4.9	23.5	50.0	21.6	0.0	**100.0**
Gasabo	6.9	17.7	21.6	15.3	3.6	3.8	31.2	**100.0**	4.2	8.3	3.3	8.5	19.1	10.6	3.7	4.4	37.9	**100.0**	20.1	43.5	24.0	12.3	0.0	**100.0**
Kicukiro	0.9	5.1	11.2	44.2	10.2	5.5	22.9	**100.0**	4.6	6.1	2.9	19.6	10.4	15.8	4.1	4.9	31.5	**100.0**	3.0	39.6	45.5	11.9	0.0	**100.0**
Nyanza	4.4	3.9	5.5	30.2	16.4	7.9	31.7	**100.0**	6.6	6.0	3.8	22.1	11.5	9.4	2.7	4.1	33.8	**100.0**	6.5	34.2	37.2	20.1	2.0	**100.0**
Gisagara	3.2	6.5	13.5	37.2	5.9	4.3	29.4	**100.0**	4.5	4.6	3.3	14.1	15.2	11.2	2.6	5.0	39.5	**100.0**	2.4	27.8	40.5	29.3	0.0	**100.0**
Nyaruguru	12.1	10.6	19.0	16.9	8.8	7.4	25.3	**100.0**	4.2	6.7	4.4	9.0	9.6	11.9	5.1	12.6	36.5	**100.0**	4.9	34.8	26.8	33.5	0.0	**100.0**
Huye	5.8	13.1	10.4	29.0	6.5	4.7	30.6	**100.0**	3.2	7.7	5.1	14.9	17.6	7.3	1.4	4.1	38.9	**100.0**	2.9	27.5	43.3	26.3	0.0	**100.0**
Nyamagabe	7.9	16.8	16.6	15.5	10.6	10.1	22.5	**100.0**	4.3	6.4	5.3	9.3	10.8	14.3	9.8	10.5	29.4	**100.0**	2.7	23.3	47.3	26.7	0.0	**100.0**
Ruhango	3.3	4.9	9.4	36.9	11.6	4.9	29.0	**100.0**	4.0	7.3	3.4	19.5	18.0	7.5	2.1	7.4	30.8	**100.0**	8.3	28.3	37.9	25.5	0.0	**100.0**
Muhanga	5.3	6.4	13.6	15.0	4.5	9.0	46.3	**100.0**	4.0	3.5	1.9	11.5	11.5	8.0	2.6	4.3	52.7	**100.0**	5.1	40.0	40.0	14.3	0.6	**100.0**
Kamonyi	2.9	4.7	11.6	35.7	8.3	7.5	29.4	**100.0**	5.9	4.8	6.1	20.5	10.0	7.0	2.8	5.2	37.8	**100.0**	2.2	33.8	29.4	33.8	0.7	**100.0**
Karongi	7.2	19.8	18.1	14.0	5.8	6.9	28.3	**100.0**	1.6	3.4	5.1	13.1	13.8	11.7	4.9	7.7	38.6	**100.0**	0.9	54.6	36.4	8.2	0.0	**100.0**
Rutsiro	18.2	21.2	13.2	9.0	4.6	7.0	26.9	**100.0**	6.9	1.7	2.2	11.1	11.5	8.8	5.4	8.9	43.6	**100.0**	3.7	22.3	29.8	43.6	0.5	**100.0**
Rubavu	31.3	26.0	13.5	6.6	2.3	3.1	17.4	**100.0**	7.0	6.2	4.0	17.6	11.5	10.3	7.2	7.5	28.8	**100.0**	9.8	31.5	38.0	20.7	0.0	**100.0**
Nyabihu	27.0	21.2	22.4	9.8	3.1	8.8	7.8	**100.0**	3.8	6.8	4.8	12.7	16.5	19.7	11.6	9.8	14.4	**100.0**	10.3	44.3	37.9	7.5	0.0	**100.0**
Ngororero	12.3	25.1	12.2	8.9	1.9	7.3	32.4	**100.0**	5.9	1.7	2.2	10.4	17.4	7.8	5.2	7.7	41.7	**100.0**	4.8	19.1	59.5	16.7	0.0	**100.0**
Rusizi	4.5	7.4	19.0	35.9	9.5	3.2	20.5	**100.0**	6.1	1.2	1.0	6.4	10.9	5.9	2.5	1.4	64.7	**100.0**	0.0	66.7	0.0	33.3	0.0	**100.0**
Nyamasheke	3.9	19.7	24.4	16.0	4.1	5.9	26.0	**100.0**	5.7	1.7	1.6	13.8	14.6	11.2	3.2	4.4	43.8	**100.0**	5.1	29.0	34.1	29.0	2.9	**100.0**
Rulindo	7.4	30.6	13.9	8.9	4.1	6.2	29.0	**100.0**	2.5	12.2	6.6	7.9	5.0	13.6	8.8	8.4	35.0	**100.0**	3.7	57.3	23.2	15.9	0.0	**100.0**
Gakenke	6.3	20.7	19.2	8.9	2.8	5.5	36.5	**100.0**	5.0	4.1	1.5	6.8	6.3	14.5	6.2	7.5	48.1	**100.0**	6.5	27.6	52.4	13.5	0.0	**100.0**
Musanze	24.6	28.0	17.0	9.1	2.1	9.2	9.9	**100.0**	3.8	3.6	3.1	5.5	7.2	26.9	20.2	15.5	14.3	**100.0**	3.1	17.7	51.0	27.6	0.5	**100.0**
Burera	16.2	40.3	13.9	9.7	3.2	7.8	8.9	**100.0**	3.7	15.5	5.5	10.8	8.1	15.4	16.9	13.2	11.0	**100.0**	6.4	40.0	44.7	8.9	0.0	**100.0**
Gicumbi	7.3	27.2	21.8	10.4	4.6	6.5	22.2	**100.0**	2.9	12.3	6.4	9.0	8.3	17.1	7.4	10.6	26.2	**100.0**	1.6	45.3	42.2	10.9	0.0	**100.0**
Rwamagana	4.3	11.5	13.9	26.4	3.9	3.8	36.2	**100.0**	7.0	9.8	2.3	11.7	11.7	9.9	4.0	2.3	41.3	**100.0**	3.3	20.2	33.8	41.8	0.9	**100.0**
Nyagatare	5.4	41.4	19.0	9.5	1.7	1.6	21.3	**100.0**	4.0	1.3	1.7	10.4	20.9	29.2	7.7	2.1	22.8	**100.0**	9.9	46.9	34.2	9.0	0.0	**100.0**
Gatsibo	3.3	16.1	24.1	16.6	3.1	0.9	36.1	**100.0**	4.1	3.9	1.8	8.2	12.1	17.8	6.2	2.5	43.5	**100.0**	11.8	38.7	30.1	19.4	0.0	**100.0**
Kayonza	5.2	15.3	20.1	25.4	5.8	3.0	25.3	**100.0**	4.0	10.3	2.9	7.6	10.2	22.9	6.5	2.6	33.1	**100.0**	9.6	36.2	40.4	12.8	1.1	**100.0**
Kirehe	1.5	5.4	13.1	41.5	8.2	2.7	27.6	**100.0**	8.1	10.1	3.1	13.7	12.5	11.2	1.5	0.7	39.0	**100.0**	5.8	37.0	32.8	24.3	0.0	**100.0**
Ngoma	2.6	10.6	17.7	23.2	5.7	2.9	37.3	**100.0**	2.8	6.6	2.8	6.1	13.8	15.1	4.9	0.4	47.4	**100.0**	0.0	55.8	25.0	17.3	1.9	**100.0**
Bugesera	5.8	4.7	8.9	44.2	8.2	6.3	22.1	**100.0**	4.0	8.0	1.8	6.2	13.3	32.1	7.6	2.6	24.4	**100.0**	5.7	31.1	42.5	18.9	1.9	**100.0**
National	**7.0**	**15.3**	**15.8**	**22.7**	**6.0**	**5.2**	**28.0**	100.0	**4.7**	**6.3**	**3.3**	**11.7**	**12.7**	**14.3**	**5.5**	**5.3**	**36.3**	100.0	**5.6**	**33.9**	**38.3**	**21.8**	**0.4**	100.0

Source: NISR, SAS 2020

Table 27. Sowing dates per Season and crop type in 2020 (%)

	Season A 2020								Season B 2020										Season C 2020					
Crops	**Before 01/09**	**Between 01-15/09**	**Between 16-30/09**	**Between 01-15/10**	**Between 16-31/10**	**After 31/10**	**Other seasons for perennial crops**	**Total**	**Before 01/01**	**Between 01-15/01**	**Between 16-31/01**	**Between 01-15/02**	**Between 16-28/02**	**Between 01- 15/03**	**Between16-31/03**	**After 31/03**	**Other seasons for perennial crops**	**Total**	**Before 01/05**	**Between 01- 31/05**	**Between 01- 30/06**	**Between 01-31/07**	**After 31/07**	**Total**
Fruits	6.1	4.6	1.8	6.4	3.1	8.8	69.2	100.0	1.6	5.2	0.8	0.4	0.8	2.4	1.6	3.2	84.0	100.0	6.7	26.7	20.0	46.7	0.0	100.0
Vegetables	18.1	17.7	12.6	20.8	8.9	21.9	-	100.0	8.9	6.8	4.5	14.3	11.1	15.1	14.2	25.1	0.0	100.0	7.8	38.7	34.6	18.5	0.4	100.0
Other crops	49.5	6.2	1.0	4.2	0.7	4.9	33.6	100.0	18.1	0.1	0.3	0.9	1.1	3.9	2.9	3.2	69.5	100.0	0.0	0.0	0.0	100.0	0.0	100.0
Other cereals	0.8	17.7	23.1	47.5	9.7	1.3	-	100.0	1.0	0.0	2.1	21.0	32.8	36.9	6.2	0.0	0.0	100.0						100.0
Taro & Yams	22.3	20.8	13.9	21.5	8.3	13.1	-	100.0	73.0	7.4	1.9	5.3	2.7	3.3	1.6	5.0	0.0	100.0						100.0
Fodder crops	79.0	6.9	2.6	3.4	2.6	5.2	0.4	100.0	79.8	1.2	1.2	4.1	1.7	3.7	4.1	4.1	0.0	100.0						100.0
Maize	6.7	24.0	24.2	34.9	7.9	2.4	-	100.0	0.6	3.2	2.9	23.4	32.8	28.4	7.2	1.5	0.0	100.0						100.0
Paddy rice	87.2	6.4	2.4	1.6	0.8	1.6	-	100.0	17.1	32.9	14.4	14.4	7.5	4.1	4.1	5.5	0.0	100.0						100.0
Sorghum	24.7	36.3	23.9	13.2	1.3	0.6	-	100.0	5.1	54.0	21.6	14.0	3.8	1.3	0.1	0.1	0.0	100.0						100.0
Wheat	5.6	12.2	16.8	29.9	18.7	16.8	-	100.0	0.0	0.0	0.4	1.4	5.3	23.0	32.2	37.8	0.0	100.0						100.0
Bush bean	0.9	15.4	24.0	46.8	11.6	1.5	-	100.0	0.2	0.5	0.9	21.5	29.1	36.2	9.7	1.9	0.0	100.0	1.2	7.6	36.2	53.8	1.2	100.0
Climbing bean	5.3	36.1	30.3	22.4	5.2	0.8	-	100.0	0.0	0.6	1.5	20.7	27.2	33.0	13.9	3.1	0.0	100.0	2.6	26.3	42.1	29.0	0.0	100.0
Pea	7.5	29.0	27.1	22.5	7.2	6.7	-	100.0	0.0	0.7	2.0	10.3	14.6	28.9	22.9	20.6	0.0	100.0	1.0	14.8	44.8	39.1	0.5	100.0
Irish potato	16.8	22.4	19.9	20.2	6.0	14.8	-	100.0	1.1	4.3	4.4	13.3	16.6	22.6	15.6	22.3	0.0	100.0	3.7	34.9	45.6	15.8	0.1	100.0
Sweet potato	19.2	10.7	8.7	14.9	10.4	36.2	-	100.0	7.0	8.3	5.2	15.7	10.0	15.3	9.5	29.2	0.0	100.0	6.8	44.9	34.9	13.0	0.4	100.0
Soybean	0.5	14.9	21.2	45.0	12.7	5.7	-	100.0	0.5	1.0	2.7	30.5	30.4	23.5	8.1	3.3	0.0	100.0	0.9	9.5	67.2	21.6	0.9	100.0
Groundnut	1.3	16.5	24.4	46.2	9.9	1.7	-	100.0	0.5	1.4	3.1	28.3	28.2	31.1	6.2	1.2	0.0	100.0	0.0	0.0	12.5	87.5	0.0	100.0
Cooking banana	1.3	1.1	0.4	0.4	0.3	0.4	96.2	100.0	1.5	0.1	0.0	0.1	0.1	0.1	0.0	0.2	98.0	100.0						100.0
Dessert banana	2.7	1.0	0.4	0.5	0.1	0.2	95.1	100.0	2.3	0.1	0.0	0.1	0.0	0.0	0.0	0.3	97.0	100.0						100.0
Banana for beer	1.4	0.6	0.2	0.5	0.2	0.3	96.8	100.0	1.2	0.3	0.0	0.1	0.1	0.1	0.1	0.2	98.0	100.0						100.0
Cassava	4.7	11.4	12.5	17.3	3.6	5.8	44.7	100.0	2.3	1.6	1.1	4.6	2.6	3.9	1.9	6.5	75.7	100.0						100.0
National	**7.0**	**15.3**	**15.8**	**22.7**	**6.0**	**5.2**	**28.0**	**100.0**	**4.7**	**6.3**	**3.3**	**11.7**	**12.7**	**14.3**	**5.5**	**5.3**	**36.3**	**100.0**	**5.6**	**33.9**	**38.3**	**21.8**	**0.4**	**100.0**

Source: NISR, SAS 2020

Table 28. Cultivated area by cropping system, per season and district (%) in 2020

District	Pure			Mixed		
	Season A	Season B	Season C	Season A	Season B	Season C
Nyarugenge	26.0	39.1	66.9	74.0	60.9	33.1
Gasabo	26.0	32.3	79.1	74.0	67.7	20.9
Kicukiro	16.6	23.0	70.8	83.4	77.0	29.2
Nyanza	27.6	27.3	68.1	72.4	72.7	31.9
Gisagara	28.2	26.5	67.3	71.8	73.5	32.7
Nyaruguru	38.5	46.4	77.2	61.5	53.6	22.8
Huye	20.2	22.5	63.8	79.8	77.5	36.2
Nyamagabe	27.6	37.0	76.4	72.4	63.0	23.6
Ruhango	32.3	29.0	68.9	67.7	71.0	31.1
Muhanga	28.4	26.3	66.7	71.6	73.7	33.3
Kamonyi	30.8	28.6	71.2	69.2	71.4	28.8
Karongi	40.7	41.1	71.3	59.3	58.9	28.7
Rutsiro	46.4	40.8	57.1	53.6	59.2	42.9
Rubavu	47.6	75.5	77.1	52.4	24.5	22.9
Nyabihu	51.8	63.5	79.2	48.2	36.5	20.8
Ngororero	24.1	37.9	75.3	75.9	62.1	24.7
Rusizi	22.3	49.5	77.3	77.7	50.5	22.7
Nyamasheke	36.1	41.0	50.4	63.9	59.0	49.6
Rulindo	31.2	34.6	70.3	68.8	65.4	29.7
Gakenke	31.1	35.3	53.5	68.9	64.7	46.5
Musanze	39.3	57.0	68.5	60.7	43.0	31.5
Burera	41.6	63.2	80.2	58.4	36.8	19.8
Gicumbi	41.7	41.5	77.8	58.3	58.5	22.2
Rwamagana	18.2	23.7	58.6	81.8	76.3	41.4
Nyagatare	29.7	19.4	75.9	70.3	80.6	24.1
Gatsibo	18.9	23.2	73.1	81.1	76.8	26.9
Kayonza	20.1	22.3	60.5	79.9	77.7	39.5
Kirehe	23.1	24.5	55.5	76.9	75.5	44.5
Ngoma	21.4	28.4	58.0	78.6	71.6	42.0
Bugesera	26.9	22.8	72.8	73.1	77.2	27.2
National	**29.8**	**33.4**	**73.4**	**70.2**	**66.6**	**26.6**
Small scale farmers	**28.3**	**32.3**		**71.7**	**67.7**	
Large scale farmers	**96.6**	**93.5**		**3.4**	**6.5**	

Source: NISR, SAS 2020

Table 29:Season A 2020_ Use of improved seeds by farmer type per district (%)

District	Percentage of farmers who used improved seeds			Percentage of sampled plots in which improved seeds was used			Percentage of land size in which improved seeds were used		
	Overall	SSF	LSF	Overall	SSF	LSF	Overall	SSF	LSF
Nyarugenge	24.9	24.9	-	21.3	21.3	-	24.4	24.4	-
Gasabo	30.3	28.3	90	25	25	63.3	30.6	29.2	91.6
Kicukiro	47.8	47.1	100	26.3	26.3	88.9	41.7	40.8	80.3
Nyanza	29	28	87.5	23	23	75	29	27.6	83.8
Gisagara	41.7	39.4	94.4	34.1	34.1	84	44.9	38.9	87.1
Nyaruguru	40.8	39.2	100	35.3	35.3	100	37.7	37.1	100
Huye	33.3	30.4	79.2	26.4	26.4	54.8	31.2	29	75
Nyamagabe	21.9	21.7	100	22.2	22.2	100	19.5	19.4	100
Ruhango	20.5	19.7	62.5	14.2	14.2	64.3	20	18.2	73.7
Muhanga	19.5	18.1	75	10.6	10.6	77.8	14.8	13.2	82.3
Kamonyi	27.9	26	100	26.8	26.8	88.9	24.6	22.6	99.8
Karongi	39.9	39.7	100	31.9	31.9	100	38.3	38.3	100
Rutsiro	21.8	21.8	-	18.9	18.9	-	19.5	19.5	-
Rubavu	18.7	17.9	100	14.1	14.1	85.7	17	16.9	98.6
Nyabihu	21.6	21.6	-	14.6	14.6	-	19.8	19.8	-
Ngororero	31.8	31.8	-	24.5	24.5	-	30.6	30.6	-
Rusizi	40.4	39.7	75	30.3	30.3	80	41.3	38.2	98.2
Nyamasheke	26.1	26	33.3	21.7	21.7	33.3	24.4	24.2	42.2
Rulindo	31.6	31.1	75	26.8	26.8	56.3	29.7	29.6	63.5
Gakenke	46.6	46.6	-	42.6	42.6	-	44.5	44.5	-
Musanze	30.3	30.3	-	25.2	25.2	-	30	30	-
Burera	38.3	38.3	-	30.6	30.6	-	36.1	36.1	-
Gicumbi	23.4	23.3	50	22	22	25	21.6	21.6	42.9
Rwamagana	46.6	44.6	84.6	35.2	35.2	56	43.4	43	68.9
Nyagatare	40.1	35.8	93.2	28.7	28.7	68.1	36.5	33.3	97.8
Gatsibo	38	36.3	94.4	27.1	27.1	74.4	39	36.5	99.1
Kayonza	41.9	40.7	76.9	33.5	33.5	31.3	41.1	40.3	79.9
Kirehe	43.6	42.9	90	37.9	37.9	91.3	42.6	39.9	98.3
Ngoma	57.8	57.5	72.7	50.9	50.9	69.2	56.1	56.2	51.7
Bugesera	47.2	44.3	100	40.7	40.7	78.7	44.3	42	98
National	**35.2**	**34**	**87**	**27.8**	**27.8**	**64.6**	**34.3**	**32.9**	**88.8**

Source: NISR, SAS 2020

Table 30: Season B 2020_Use of seeds by farmer type per district (%)

District	Percentage of farmers who used improved seeds			Percentage of sampled plots in which improved seeds was used			Percentage of land size in which improved seeds were used		
	Overall	SSF	LSF	Overall	SSF	LSF	Overall	SSF	LSF
Nyarugenge	13.3	13.3		12.1	12.1		12.2	12.2	
Gasabo	14.3	12.0	90.0	10.3	10.2	55.6	12.5	10.9	87.3
Kicukiro	8.9	8.2	50.0	4.3	4.3	50.0	8.7	8.6	21.3
Nyanza	18.9	18.0	85.7	13.3	13.3	75.0	17.8	16.9	69.0
Gisagara	17.1	15.0	85.7	9.4	9.4	61.9	21.0	14.8	97.2
Nyaruguru	12.0	10.1	87.5	7.6	7.6	78.6	10.5	9.7	90.3
Huye	10.7	8.2	65.0	7.4	7.4	59.1	9.5	7.2	67.8
Nyamagabe	13.4	13.4		9.2	9.2		11.6	11.6	
Ruhango	10.3	9.6	45.5	5.9	5.8	52.4	9.8	8.7	78.8
Muhanga	9.3	8.6	100.0	5.5	5.5	100.0	7.5	7.2	100.0
Kamonyi	14.5	13.6	100.0	12.4	12.4	66.7	11.6	11.1	94.3
Karongi	12.3	12.4	0.0	11.7	11.7	0.0	11.5	11.5	0.0
Rutsiro	13.9	13.9		15.0	15.0		13.3	13.3	
Rubavu	20.7	20.4	50.0	11.6	11.6	37.5	19.5	19.4	52.5
Nyabihu	41.1	41.1		39.1	39.1		40.2	40.2	
Ngororero	22.7	22.7		25.0	25.0		20.8	20.8	
Rusizi	14.9	12.4	88.9	12.5	12.4	90.9	19.8	12.5	99.2
Nyamasheke	10.0	9.5	37.5	8.9	8.9	30.0	10.0	9.6	42.8
Rulindo	15.2	14.2	83.3	10.5	10.5	31.6	15.6	15.6	26.2
Gakenke	8.9	8.9		6.7	6.7		7.6	7.6	
Musanze	16.7	16.7		12.2	12.2		17.4	17.4	
Burera	7.6	7.6		4.4	4.4		7.7	7.7	
Gicumbi	10.5	10.2	100.0	9.8	9.8	75.0	8.8	8.7	93.6
Rwamagana	17.1	13.5	88.9	11.9	11.9	43.1	13.2	12.0	79.2
Nyagatare	31.6	28.0	78.1	21.8	21.7	64.2	27.4	25.4	73.3
Gatsibo	19.1	17.4	82.4	10.4	10.4	67.9	18.2	16.4	65.8
Kayonza	22.8	20.4	93.3	15.4	15.4	72.2	21.1	19.2	96.1
Kirehe	6.8	5.5	100.0	3.6	3.6	70.3	8.3	5.2	83.3
Ngoma	6.2	5.0	72.7	3.2	3.2	70.8	8.7	7.1	81.4
Bugesera	25.6	21.9	91.2	17.5	17.5	64.8	22.5	20.0	94.2
National	**15.6**	**14.3**	**80.5**	**11.2**	**11.2**	**60.9**	**15.2**	**13.9**	**82.7**

Source: NISR, SAS 2020

Table 31:Season C 2020_Use of seeds types per district (%)

District	Percentage of farmers who used improved seeds			Percentage of sampled plots in which improved seeds was used			Percentage of land size in which improved seeds were used		
	Overall	SSF	SITE	Overall	SSF	SITE	Overall	SSF	SITE
Nyarugenge	39.7	29.2	46.2	17.4	17.2	47.9	39.0	39.0	43.1
Gasabo	66.1	65.4	66.3	52.0	52.0	65.0	69.0	69.0	68.1
Kicukiro	27.9	41.7	25.0	27.0	27.0	25.0	41.7	41.9	36.2
Nyanza	33.6	21.4	36.5	9.1	9.0	36.1	30.8	30.5	54.4
Gisagara	29.8	18.5	32.7	19.8	19.8	34.2	15.6	15.4	43.9
Nyaruguru	15.0	9.3	17.5	10.2	10.1	17.4	8.9	8.9	15.2
Huye	19.2	9.4	21.4	3.5	3.5	20.7	8.7	8.6	24.4
Nyamagabe	35.4	10.0	47.0	11.9	11.8	47.1	9.8	9.7	50.5
Ruhango	23.8	18.8	26.1	19.6	19.6	25.0	18.3	18.3	21.3
Muhanga	25.5	14.3	28.6	12.8	12.7	29.4	13.7	13.5	36.7
Kamonyi	42.7	17.9	52.9	16.9	16.9	52.1	26.5	26.3	63.1
Karongi	39.3	28.6	41.4	21.6	21.5	42.7	24.4	24.3	42.2
Rutsiro	23.1	0.0	25.0	0.6	0.0	25.2	4.3	0.0	36.9
Rubavu	47.0	26.0	78.8	16.5	16.4	80.0	26.2	26.1	79.0
Nyabihu	17.7	14.8	21.4	16.6	16.6	22.7	14.5	14.4	50.0
Ngororero	3.0	11.1	0.0	1.0	1.0	0.0	35.6	36.0	0.0
Rusizi	66.7	66.7		76.0	76.0		66.7	66.7	
Nyamasheke	45.0	47.4	44.3	35.5	35.5	43.6	48.7	48.7	56.2
Rulindo	15.2	12.5	19.2	7.1	7.1	18.5	19.5	19.4	69.4
Gakenke	15.1	13.9	15.5	9.2	9.2	15.2	12.6	12.6	12.9
Musanze	19.1	17.5	20.0	18.1	18.1	20.4	19.0	19.0	19.8
Burera	7.1	3.1	10.5	6.0	5.9	11.0	3.1	3.1	13.1
Gicumbi	25.0	13.0	28.4	9.9	9.8	26.4	12.5	12.2	19.3
Rwamagana	29.3	12.0	33.7	12.6	12.4	33.3	10.8	10.1	45.2
Nyagatare	35.1	52.2	27.5	52.0	52.1	26.9	49.1	49.9	23.1
Gatsibo	46.3	40.0	48.1	22.9	22.8	43.3	39.3	39.2	46.5
Kayonza	72.1	58.8	76.5	62.7	62.6	77.2	59.5	58.3	88.8
Kirehe	58.9	41.7	60.7	26.1	25.6	59.7	51.3	49.9	62.3
Ngoma	43.7	33.3	45.8	34.3	34.2	44.7	38.2	35.4	81.6
Bugesera	44.6	28.6	47.8	23.2	23.1	47.9	20.2	18.9	65.1
National	**30.6**	**20.4**	**34.5**	**16.7**	**16.7**	**34.6**	**20.5**	**20.2**	**44.5**

Source: NISR, SAS 2020

Table 32:Seed use by crop type and season in 2020 (%)

Crop	Traditional seeds			Improved seeds		
	Season A	Season B	Season C	Season A	Season B	Season C
Maize	47.3	62.2		52.7	37.8	
Paddy rice	27.7	38.7		72.4	61.3	
Sorghum	100.0	100.0		-	-	
Wheat	73.1	65.7		26.9	34.3	
Other cereal	100.0	100.0		-	-	
Bush bean	98.4	98.9	99.3	1.6	1.2	0.7
Climbing bean	98.8	99.5	97.4	1.2	0.5	2.6
Pea	100.0	100.0	98.6	-	-	1.4
Irish potato	96.6	94.6	89.8	3.5	5.4	10.2
Sweet potato	99.9	99.8	98.6	0.1	0.2	1.5
Taro & Yams	100.0	99.8		-	0.2	
Soybean	97.3	96.3	98.3	2.7	3.7	1.7
Groundnut	100.0	100.0	100.0	-	-	-
Cooking banana	98.8	99.4		1.2	0.6	
Dessert banana	97.8	97.8		2.2	2.2	
Banana for beer	99.3	99.1		0.7	0.9	
Cassava	99.1	99.3		0.9	0.7	
Vegetables	58.2	45.8	43.6	41.8	54.2	56.4
Fruits	61.4	49.2	6.7	38.6	50.8	93.3
Fodder	83.1	83.4		16.9	16.6	
Other crops	77.8	74.3	-	22.2	25.7	100.0
National	**87.0**	**92.8**	**73.4**	**13.0**	**7.2**	**26.6**

Source: NISR, SAS 2020

Table 33:Source of improved seeds per district and season in 2020 (%)

District	Government (MINAGRI/RAB/NAEB)			Recognized seed multipliers			Agro dealers			NGOs/Companies			Market			Agriculture cooperative			Other source		
	SA	SB	SC	SA	SB	SC	SA	SB	SC	SA	SB	SC	SA	SB	SC	SA	SB	SC	SA	SB	SC
Nyarugenge	31.4	14.7	0.0	-	8.8	0.0	58.8	55.9	37.5	-	0.0	0.0	7.8	20.6	56.3	2.0	0.0	6.3	-	0.0	0
Gasabo	9.9	12.3	0.0	5.8	10.8	3.2	63.6	52.3	39.4	1.7	0.0	0.0	16.5	24.6	54.3	1.7	0.0	1.1	0.8	0.0	2.13
Kicukiro	16.9	17.7	0.0	2.3	23.5	31.8	63.1	50.0	45.5	1.5	2.9	0.0	15.4	5.9	22.7	-	0.0	0.0	0.8	0.0	0
Nyanza	11.5	15.1	0.0	5.8	4.0	1.4	13.6	18.3	50.0	62.3	54.8	0.0	1.6	3.2	37.1	1.6	4.0	7.1	3.7	0.8	4.29
Gisagara	9.3	12.5	1.9	1.8	17.3	9.4	15.0	22.1	52.8	57.7	31.7	1.9	7.9	2.9	22.6	7.9	13.5	7.6	0.4	0.0	3.77
Nyaruguru	13.5	37.3	29.2	3.7	13.7	29.2	30.1	21.6	12.5	44.2	15.7	4.2	3.7	2.0	4.2	3.7	9.8	16.7	1.2	0.0	4.17
Huye	3.4	7.4	0.0	9.5	5.6	2.4	17.7	22.2	51.2	59.9	42.6	7.3	2.7	3.7	31.7	6.8	16.7	0.0	-	1.9	7.32
Nyamagabe	6.3	16.2	38.1	2.7	5.9	9.5	34.2	47.1	31.0	43.2	17.7	0.0	9.9	5.9	11.9	3.6	7.4	7.1	-	0.0	2.38
Ruhango	14.8	13.1	17.2	4.1	25.0	0.0	45.9	32.1	48.3	9.8	10.7	0.0	14.8	7.1	20.7	9.8	9.5	10.3	0.8	2.4	3.45
Muhanga	15.2	7.1	0.0	1.0	2.4	0.0	39.4	64.3	8.8	1.0	11.9	2.9	3.0	4.8	47.1	20.2	9.5	41.2	20.2	0.0	0
Kamonyi	7.8	18.5	0.0	5.2	7.6	1.9	45.1	57.6	80.8	10.5	4.4	0.0	13.1	6.5	9.6	16.3	5.4	7.7	2.0	0.0	0
Karongi	15.5	23.6	7.1	4.3	0.0	21.4	29.4	23.6	52.4	48.7	38.2	7.1	1.1	12.7	11.9	1.1	0.0	0.0	-	1.8	0
Rutsiro	13.3	16.7	0.0	3.3	0.0	9.7	34.4	53.3	38.7	40.0	30.0	3.2	4.4	0.0	48.4	3.3	0.0	0.0	1.1	0.0	0
Rubavu	11.8	4.3	2.2	16.5	5.4	4.4	38.8	47.3	80.0	1.2	1.1	0.0	27.1	39.8	13.3	2.4	2.2	0.0	2.4	0.0	0
Nyabihu	13.9	8.4	0.0	7.4	9.5	12.1	50.0	52.0	27.3	13.0	9.5	6.1	13.9	15.6	54.6	1.9	3.4	0.0	-	1.7	0
Ngororero	1.8	10.9	0.0	17.1	0.8	100.0	21.2	30.3	0.0	58.8	41.2	0.0	0.6	9.2	0.0	-	7.6	0.0	0.6	0.0	0
Rusizi	16.1	47.1	0.0	2.9	19.6	0.0	17.1	13.7	0.0	61.0	13.7	0.0	1.5	0.0	50.0	0.5	0.0	0.0	1.0	5.9	50
Nyamasheke	13.7	7.4	7.8	4.8	1.9	3.9	12.1	55.6	76.5	63.7	24.1	3.9	4.0	5.6	5.9	0.8	5.6	2.0	0.8	0.0	0
Rulindo	7.8	13.2	10.0	2.6	1.3	0.0	38.3	46.1	30.0	0.7	0.0	0.0	15.6	15.8	50.0	29.9	17.1	0.0	5.2	6.6	10
Gakenke	0.4	12.5	0.0	1.2	5.4	28.0	86.7	62.5	32.0	-	7.1	0.0	8.2	10.7	36.0	3.5	1.8	4.0	-	0.0	0
Musanze	12.8	14.1	24.3	20.3	12.1	21.6	61.5	57.6	32.4	0.5	2.0	0.0	2.7	5.1	18.9	1.1	8.1	2.7	1.1	1.0	0
Burera	16.2	6.0	47.1	0.9	16.0	17.7	75.7	68.0	17.7	-	0.0	0.0	2.6	6.0	5.9	4.7	4.0	0.0	-	0.0	11.76
Gicumbi	14.2	7.4	32.1	7.1	8.8	3.6	68.1	55.9	21.4	-	2.9	0.0	7.8	22.1	28.6	2.1	2.9	3.6	0.7	0.0	10.71
Rwamagana	7.5	4.6	0.0	8.8	15.6	1.9	35.0	44.8	78.9	39.5	24.7	1.9	3.3	10.4	15.4	4.6	0.0	0.0	1.3	0.0	1.92
Nyagatare	27.2	12.0	2.6	9.7	10.4	0.0	40.3	47.5	69.2	7.1	16.6	0.0	2.0	3.9	18.0	12.8	8.9	0.0	1.0	0.8	10.26
Gatsibo	12.4	16.8	2.3	2.0	7.5	13.6	27.8	19.7	65.9	53.5	52.0	2.3	0.7	1.2	2.3	3.0	2.9	0.0	0.7	0.0	13.64
Kayonza	22.2	11.1	4.6	6.0	13.4	0.0	15.3	39.6	47.0	44.0	27.2	0.0	6.9	5.5	48.5	3.2	1.8	0.0	2.3	1.4	0
Kirehe	27.4	26.7	1.0	2.9	12.0	1.0	18.4	25.3	44.1	28.8	12.0	0.0	3.2	10.7	52.9	17.6	8.0	0.0	1.7	5.3	0.98
Ngoma	36.3	23.7	0.0	3.6	11.9	0.0	15.9	33.9	34.1	41.4	23.7	4.6	1.3	1.7	61.4	0.8	5.1	0.0	0.8	0.0	0
Bugesera	34.8	7.3	0.0	4.0	8.9	4.7	41.7	49.6	62.8	8.6	12.3	4.7	2.3	16.9	20.9	8.1	5.0	7.0	0.6	0.0	0
National	**16.5**	**13.1**	**5.8**	**5.4**	**9.6**	**6.6**	**36.6**	**41.6**	**48.4**	**28.8**	**20.0**	**1.7**	**5.4**	**9.4**	**31.0**	**6.1**	**5.3**	**3.9**	**1.4**	**0.9**	**2.66**

Source: NISR, SAS 2020

Table 34:Source of improved seeds by season per crop type in 2020 (%)

District	Government (MINAGRI/RAB/NAEB)			Recognized seed multipliers			Agro dealers			NGOs/Companies			Market			Agriculture cooperative			Other source		
	Season A	Season B	Season C	Season A	Season B	Season C	Season A	Season B	Season C	Season A	Season B	Season C	Season A	Season B	Season C	Season A	Season B	Season C	Season A	Season B	Season C
Fruits	31.7	8.59	-	37.40	29.69	-	15.10	52.34	42.86	1.40	0.78	-	10.10	7.03	57.14	3.60	1.56	-	0.70	-	-
Vegetables	3.1	0.29	2.66	4.10	5.51	2.95	51.40	44.64	53.47	5.80	1.45	1.14	32.30	45.80	34.35	1.70	1.45	3.04	1.70	0.87	2.38
Other crops	42.5	42.63	-	31.50	4.78	-	1.40	39.04	100.00	13.70	1.59	-	2.70	1.59	-	6.90	7.97	-	1.40	2.39	-
Taro & Yams		-			-			66.67			33.33			-			-			-	
Fodder crops		16.67			14.29			54.76			2.38			7.14			4.76			-	
Maize	15.6	7.05		2.40	4.63		40.10	45.73		32.30	33.72		4.00	5.09		4.80	3.39		0.80	0.39	
Paddy rice	0.8	1.10		38.60	40.66		3.20	6.59		-	2.20		-	2.20		57.50	47.25		-	-	
Wheat	20.6	25.45		5.90	2.73		67.70	57.27		2.90	6.36		-	4.55		2.90	3.64		-	-	
Bush bean	10.9	20.34	-	9.70	6.78	11.11	22.30	20.34	11.11	49.10	30.51	33.33	4.00	5.08	33.33	3.40	13.56	-	0.60	3.39	11.11
Climbing bean	24.6	26.09	100.	16.40	13.04	-	29.50	17.39	-	26.20	30.43	-	3.30	4.35	-	-	8.70	-	-	-	-
Irish potato	24.4	25.68	33.67	42.30	50.00	39.80	9.00	5.41	11.22	2.60	1.35	1.02	7.70	5.41	1.02	14.10	12.16	12.24	-	-	1.02
Sweet potato	-	70.00	32.0	50.00	10.00	28.00	-	10.00	-	25.00	10.00	16.00	12.50	-	-	-	-	4.00	12.50	-	20.00
Soybean	42.9	51.22	-	8.60	17.07	-	28.60	17.07	-	8.60	12.20	-	2.90	-	33.33	8.60	2.44	66.67	-	-	-
Cooking banana	26.8	14.29		46.30	35.71		-	25.00		4.90	10.71		4.90	7.14		2.40	7.14		14.60	-	
Dessert banana	21.0	25.00		40.70	22.83		1.20	35.87		11.10	5.43		4.90	2.17		3.70	3.26		17.30	5.43	
Banana for beer	31.8	27.08		27.30	16.67		2.30	41.67		2.30	4.17		-	-		2.30	2.08		34.10	8.33	
Cassava	53.0	45.16		22.70	9.68		-	29.03		4.60	9.68		7.60	3.23		3.00	3.23		9.10	-	

Source: NISR, SAS 2020

Table 35: Season A 2020_Use of organic fertiliser by farmer type per district (%)

District	Percentage of farmers who applied organic fertilizer			Percentage of plots in which organic fertilizer was applied			Percentage of land size in which organic fertilizer was applied		
	Overall	SSF	LSF	Overall	SSF	LSF	Overall	SSF	LSF
Nyarugenge	61.3	61.3		58.4	58.4		63.3	63.3	-
Gasabo	51.2	50.8	63.6	42.0	42.0	51.0	47.3	46.3	86.0
Kicukiro	50.2	49.3	100.0	40.8	40.7	83.3	54.4	53.8	79.0
Nyanza	54.4	54.2	62.5	47.6	47.6	76.9	51.9	51.7	63.2
Gisagara	59.7	59.7	61.1	56.8	56.8	63.0	58.8	58.8	58.8
Nyaruguru	85.2	84.9	100.0	79.6	79.6	100.0	82.0	81.8	100.0
Huye	63.4	62.8	75.0	61.7	61.7	68.2	60.9	60.5	69.3
Nyamagabe	74.0	74.0	100.0	69.3	69.3	100.0	70.5	70.5	100.0
Ruhango	55.6	55.7	50.0	53.2	53.2	52.9	55.1	54.8	64.6
Muhanga	80.5	80.1	100.0	74.9	74.9	88.9	74.4	74.2	86.1
Kamonyi	65.8	65.1	91.7	63.2	63.2	83.3	61.4	60.6	97.9
Karongi	67.2	67.1	100.0	61.5	61.5	100.0	64.9	64.9	100.0
Rutsiro	69.7	69.7		64.9	64.9		67.8	67.8	-
Rubavu	35.7	35.3	75.0	35.5	35.5	40.0	32.5	32.5	82.0
Nyabihu	71.0	71.0		67.4	67.4		68.8	68.8	-
Ngororero	85.2	85.2		80.1	80.1		83.7	83.7	-
Rusizi	69.2	69.8	33.3	65.5	65.5	45.5	62.9	66.3	2.6
Nyamasheke	73.8	73.3	100.0	70.8	70.8	80.0	72.8	72.5	98.8
Rulindo	83.1	83.1	83.3	77.5	77.5	50.0	81.5	81.6	53.7
Gakenke	90.9	90.9		89.0	89.0		89.4	89.4	-
Musanze	64.4	64.4		61.6	61.6		63.9	63.9	-
Burera	75.8	75.8		70.2	70.2		73.8	73.8	-
Gicumbi	80.8	80.7	100.0	74.6	74.6	75.0	78.7	78.7	77.0
Rwamagana	62.3	61.4	79.3	52.7	52.7	48.0	59.3	59.7	39.7
Nyagatare	38.7	37.0	59.1	32.8	32.8	50.9	33.3	34.3	14.6
Gatsibo	59.5	59.1	72.2	52.2	52.2	53.9	56.2	57.4	24.4
Kayonza	37.4	36.8	53.3	28.4	28.4	30.0	34.8	35.2	12.2
Kirehe	55.8	55.4	80.0	50.4	50.4	69.6	57.2	56.3	76.5
Ngoma	59.3	59.3	58.3	51.8	51.8	59.4	58.3	58.4	54.4
Bugesera	33.3	31.8	55.3	34.0	34.0	44.1	30.2	29.2	51.9
National	**63.6**	**63.5**	**68.8**	**61.9**	**61.9**	**52.0**	**59.9**	**60.2**	**48.5**

Source: NISR, SAS 2020

Table 36:Season B 2020_Use of organic fertilizer by farmer type per district (%)

District	Percentage of farmers who applied organic fertilizer			Percentage of plots in which organic fertilizer was applied			Percentage of land size in which organic fertilizer was applied		
	Overall	SSF	LSF	Overall	SSF	LSF	Overall	SSF	LSF
Nyarugenge	50.7	50.7		53.0	53.0		51.9	51.9	
Gasabo	41.4	40.8	60.0	33.5	33.5	38.9	36.7	36.1	65.6
Kicukiro	23.2	22.3	75.0	15.9	15.9	60.0	26.7	26.3	77.0
Nyanza	43.4	43.1	71.4	43.2	43.2	83.3	43.1	42.6	69.0
Gisagara	39.9	40.2	28.6	35.6	35.6	23.8	36.8	37.7	25.5
Nyaruguru	74.1	73.4	100.0	68.3	68.3	92.9	70.3	70.0	99.4
Huye	47.0	46.4	60.0	45.6	45.6	54.5	46.0	45.6	56.0
Nyamagabe	71.8	71.8		69.7	69.7		70.9	70.9	
Ruhango	51.4	51.3	54.5	49.6	49.6	42.9	47.2	46.7	75.6
Muhanga	66.8	66.6	100.0	58.2	58.2	100.0	64.8	64.6	100.0
Kamonyi	51.0	50.6	100.0	48.7	48.7	77.8	48.6	48.3	99.4
Karongi	59.6	59.5	100.0	55.6	55.6	100.0	59.2	59.1	100.0
Rutsiro	67.0	67.0		58.5	58.5		64.9	64.9	
Rubavu	37.6	37.5	50.0	35.3	35.3	50.0	36.3	36.2	65.3
Nyabihu	58.6	58.6		56.6	56.6		58.2	58.2	
Ngororero	79.9	79.9		76.0	76.0		76.4	76.4	
Rusizi	50.0	49.4	66.7	50.7	50.7	54.5	46.3	48.4	23.5
Nyamasheke	75.9	75.7	87.5	73.4	73.4	80.0	71.9	71.6	89.7
Rulindo	74.8	74.9	66.7	70.6	70.6	31.6	73.4	73.5	28.0
Gakenke	79.0	79.0		79.1	79.1		76.6	76.6	
Musanze	58.3	58.3		55.2	55.2		58.3	58.3	
Burera	63.3	63.3		56.7	56.7		61.6	61.6	
Gicumbi	80.7	80.6	100.0	79.0	79.0	50.0	81.3	81.4	21.3
Rwamagana	38.6	37.7	55.6	36.4	36.4	34.6	37.2	37.5	21.9
Nyagatare	28.8	28.1	39.0	27.2	27.2	37.7	24.0	24.8	6.8
Gatsibo	45.6	45.3	58.8	39.1	39.1	28.6	42.9	41.9	69.3
Kayonza	27.3	26.9	40.0	28.0	28.0	11.1	24.8	25.4	1.7
Kirehe	27.6	27.1	66.7	24.4	24.4	81.1	29.3	26.7	91.7
Ngoma	27.9	27.6	45.5	24.9	24.9	45.8	30.0	29.5	51.5
Bugesera	30.1	28.9	52.9	28.9	28.9	44.8	30.5	29.8	53.0
National	**51.7**	**51.6**	**56.4**	**52.4**	**52.4**	**40.2**	**48.7**	**48.8**	**46.0**

Source: NISR, SAS 2020

Table 37:Season C 2020_Use of organic fertilizer per district (%)

District	Percentage of farmers who applied organic fertilizer			Percentage of plots in which organic fertilizer was applied			Percentage of land size in which organic fertilizer was applied		
	Overall	SSF	SITE	Overall	SSF	SITE	Overall	SSF	SITE
Nyarugenge	54.0	16.7	76.9	13.0	12.5	75.0	24.1	23.9	66.0
Gasabo	85.6	84.6	85.9	84.0	84.0	83.5	93.4	93.5	88.8
Kicukiro	58.8	41.7	62.5	41.3	40.7	62.5	37.9	35.7	76.2
Nyanza	75.5	85.7	73.0	93.7	93.8	72.3	88.5	88.5	86.8
Gisagara	78.6	44.4	87.5	32.7	32.4	87.4	27.6	26.8	90.5
Nyaruguru	90.0	90.7	89.7	94.0	94.1	89.8	93.5	93.5	93.3
Huye	81.9	90.6	80.0	86.6	86.6	79.3	85.2	85.3	78.6
Nyamagabe	90.6	73.3	98.5	70.5	70.4	98.6	75.4	75.2	99.4
Ruhango	84.2	78.1	87.0	81.8	81.8	86.1	76.5	76.8	58.5
Muhanga	83.7	61.9	89.6	37.9	37.6	90.6	64.3	63.8	94.3
Kamonyi	84.4	60.7	94.1	34.6	34.5	94.4	46.3	45.7	95.5
Karongi	76.2	64.3	78.6	63.5	63.3	80.0	58.0	57.4	83.6
Rutsiro	82.1	77.8	82.4	82.9	82.9	82.9	75.1	73.1	81.3
Rubavu	42.2	30.0	60.6	25.1	25.1	55.0	33.7	33.7	45.1
Nyabihu	72.2	69.3	75.7	72.4	72.4	74.7	67.5	67.5	64.5
Ngororero	69.7	77.8	66.7	90.7	90.9	68.0	82.6	82.4	90.0
Rusizi	66.7	66.7		76.0	76.0		66.7	66.7	
Nyamasheke	95.0	94.7	95.1	94.7	94.7	95.2	95.7	96.0	70.9
Rulindo	86.4	77.5	100.0	77.1	77.1	100.0	78.2	78.2	100.0
Gakenke	78.1	69.4	80.9	58.1	57.9	80.4	65.3	65.2	72.4
Musanze	89.8	78.9	96.0	81.1	81.1	93.5	85.4	85.4	90.4
Burera	82.9	75.0	89.5	61.8	61.7	89.8	66.7	66.6	89.6
Gicumbi	81.7	82.6	81.5	95.2	95.2	81.6	81.1	81.0	81.9
Rwamagana	47.2	20.0	54.1	17.6	16.9	53.5	13.4	11.5	-
Nyagatare	50.0	60.9	45.1	56.5	56.6	44.2	55.2	55.5	49.5
Gatsibo	70.1	73.3	69.2	54.3	54.1	71.7	75.0	74.7	88.3
Kayonza	83.8	70.6	88.2	66.5	66.4	86.0	66.3	66.3	66.4
Kirehe	68.5	91.7	66.1	86.1	87.6	63.9	85.5	94.8	69.3
Ngoma	56.3	73.3	52.8	73.0	73.4	55.3	79.3	78.9	81.2
Bugesera	61.4	42.9	65.2	46.5	46.3	64.8	41.5	40.3	61.0
National	**76.1**	**68.3**	**79.1**	**67.0**	**66.9**	**78.7**	**66.1**	**66.0**	**74.8**

Source: NISR, SAS 2020

Table 38:Season A2020_Use of inorganic fertilizer by farmer type per district (%)

District	Percentage of farmers who used inorganic fertilizers			Percentage of plots in which inorganic fertilizer was applied			Percentage of land under which inorganic fertilizer was applied		
	Overall	SSF	LSF	Overall	SSF	LSF	Overall	SSF	LSF
Nyarugenge	9.3	9.3		6.9	6.9		8.5	8.5	-
Gasabo	19.6	17.8	72.7	16.9	16.9	24.5	19.3	17.8	72.6
Kicukiro	36.1	35.3	75.0	21.0	21.0	66.7	33.0	31.8	87.1
Nyanza	17.8	16.7	87.5	15.8	15.8	61.5	17.5	15.7	96.2
Gisagara	30.3	27.4	100.0	25.0	25.0	81.5	32.1	23.1	99.9
Nyaruguru	59.3	58.3	100.0	50.3	50.3	76.9	55.3	54.9	98.6
Huye	23.5	19.1	100.0	15.2	15.2	84.1	20.8	17.1	98.9
Nyamagabe	39.7	39.5	100.0	31.2	31.2	100.0	36.8	36.7	100.0
Ruhango	12.2	11.1	87.5	10.1	10.1	41.2	12.0	9.8	90.2
Muhanga	12.4	10.7	100.0	9.9	9.9	100.0	10.3	8.8	100.0
Kamonyi	13.2	11.3	91.7	13.0	13.0	77.8	11.9	10.0	97.8
Karongi	33.7	33.6	100.0	26.5	26.5	100.0	32.3	32.2	100.0
Rutsiro	37.7	37.7		28.7	28.7		34.6	34.6	-
Rubavu	46.8	46.8	50.0	38.0	38.0	30.0	46.8	46.7	48.2
Nyabihu	60.7	60.7		47.6	47.6		59.9	59.9	-
Ngororero	44.2	44.2		37.4	37.4		43.0	43.0	-
Rusizi	55.1	54.4	88.9	43.6	43.6	90.9	53.5	51.4	90.8
Nyamasheke	51.2	50.3	100.0	49.0	49.0	80.0	49.5	48.9	98.8
Rulindo	28.7	28.2	66.7	22.0	22.0	45.0	27.5	27.4	76.0
Gakenke	52.7	52.7		48.8	48.8		48.6	48.6	-
Musanze	41.2	41.2		35.8	35.8		42.0	42.0	-
Burera	38.8	38.8		32.3	32.3		36.7	36.7	-
Gicumbi	28.5	28.4	50.0	23.8	23.8	75.0	26.9	26.9	90.2
Rwamagana	34.9	32.6	75.9	22.9	22.9	33.8	32.2	31.4	72.8
Nyagatare	31.4	27.4	79.6	19.0	19.0	49.1	29.6	27.5	70.6
Gatsibo	30.6	28.8	94.4	19.4	19.4	50.0	31.4	28.9	98.4
Kayonza	21.6	19.8	73.3	15.2	15.2	21.7	20.1	18.9	82.7
Kirehe	34.5	33.6	90.0	28.5	28.5	95.7	33.4	30.5	98.4
Ngoma	38.8	37.8	91.7	30.0	30.0	53.1	37.1	35.9	94.1
Bugesera	24.5	21.6	68.4	19.5	19.5	50.7	22.9	20.2	84.7
National	**33.8**	**32.7**	**83.9**	**28.0**	**28.0**	**48.7**	**32.1**	**30.7**	**90.4**

Source: NISR, SAS 2020

Table 39:Season B2020_Use of inorganic fertilizer by farmer type per district (%)

District	Percentage of farmers who used inorganic fertilizers			Percentage of plots in which inorganic fertilizer was applied			Percentage of land under which inorganic fertilizer was applied		
	Overall	SSF	LSF	Overall	SSF	LSF	Overall	SSF	LSF
Nyarugenge	11.4	11.4		12.2	12.2		11.1	11.1	
Gasabo	14.6	13.2	60.0	11.4	11.4	27.8	13.2	12.0	69.6
Kicukiro	20.1	19.1	75.0	9.8	9.8	30.0	15.7	15.3	63.3
Nyanza	15.4	14.3	100.0	11.7	11.7	75.0	14.0	12.5	97.9
Gisagara	22.2	20.0	92.9	17.3	17.3	71.4	22.7	16.7	96.9
Nyaruguru	47.5	46.5	87.5	39.1	39.1	78.6	43.1	42.7	91.6
Huye	17.7	13.8	100.0	12.2	12.2	90.9	16.3	13.0	99.2
Nyamagabe	38.3	38.3		27.6	27.6		36.4	36.4	
Ruhango	11.5	10.0	90.9	8.2	8.2	47.6	8.9	7.4	99.1
Muhanga	13.7	13.0	100.0	10.4	10.4	100.0	11.8	11.4	100.0
Kamonyi	9.9	9.1	100.0	5.9	5.9	66.7	8.7	8.1	94.3
Karongi	24.1	24.0	100.0	17.7	17.7	50.0	22.7	22.6	93.4
Rutsiro	34.6	34.6		26.2	26.2		34.1	34.1	
Rubavu	47.1	47.0	50.0	36.3	36.3	37.5	47.7	47.7	52.5
Nyabihu	60.0	60.0		51.1	51.1		62.0	62.0	
Ngororero	37.9	37.9		37.7	37.7		36.0	36.0	
Rusizi	37.7	35.9	88.9	28.4	28.4	72.7	36.8	32.0	88.5
Nyamasheke	42.7	41.8	87.5	38.5	38.5	70.0	40.2	39.5	90.9
Rulindo	24.9	24.1	83.3	19.9	19.9	57.9	24.1	24.0	57.3
Gakenke	35.6	35.6		33.0	33.0		33.2	33.2	
Musanze	42.4	42.4		34.8	34.8		43.4	43.4	
Burera	20.8	20.8		18.9	18.9		21.9	21.9	
Gicumbi	20.0	19.7	100.0	16.3	16.3	75.0	20.7	20.6	93.6
Rwamagana	22.5	20.8	55.6	15.0	15.0	24.6	21.0	20.2	69.1
Nyagatare	30.1	28.1	56.1	21.8	21.8	39.6	25.3	23.7	62.8
Gatsibo	25.2	24.0	70.6	16.1	16.1	41.1	23.5	21.3	84.1
Kayonza	20.4	18.3	80.0	14.6	14.6	23.1	19.0	17.3	85.7
Kirehe	17.1	16.3	77.8	12.3	12.3	78.4	18.3	15.2	93.6
Ngoma	13.4	12.3	72.7	7.7	7.7	58.3	15.4	13.8	93.3
Bugesera	21.2	19.2	55.9	16.4	16.4	28.8	18.2	16.1	78.2
National	**25.8**	**24.9**	**73.3**	**20.7**	**20.7**	**40.7**	**24.0**	**22.8**	**85.1**

Source: NISR, SAS 2020

Table 40:Season C 2020_Use of inorganic fertilizer per district (%)

District	Percentage of farmers who used inorganic fertilizers			Percentage of plots in which inorganic fertilizer was applied			Percentage of land under which inorganic fertilizer was applied		
	Overall	SSF	SITE	Overall	SSF	SITE	Overall	SSF	SITE
Nyarugenge	68.3	45.8	82.1	28.7	28.3	72.9	49.9	49.8	67.0
Gasabo	86.4	69.2	91.3	37.3	36.9	89.7	71.8	71.1	95.1
Kicukiro	83.8	83.3	83.9	89.4	89.5	83.9	86.5	86.4	88.0
Nyanza	57.3	25.0	65.2	19.2	18.8	64.7	31.8	30.5	85.1
Gisagara	71.0	33.3	80.8	34.0	33.8	80.2	21.5	20.7	87.5
Nyaruguru	60.7	46.5	67.0	51.4	51.4	66.3	51.3	51.1	80.9
Huye	57.6	50.0	59.3	38.8	38.6	58.7	47.7	47.4	66.5
Nyamagabe	58.3	30.0	71.2	21.4	21.2	71.4	31.1	30.7	81.1
Ruhango	38.6	25.0	44.9	30.2	30.1	45.8	27.6	27.0	81.1
Muhanga	57.1	23.8	66.2	16.2	15.9	67.1	28.9	28.2	72.0
Kamonyi	72.9	25.0	92.6	25.9	25.7	93.0	20.6	19.8	94.6
Karongi	45.2	21.4	50.0	26.4	26.1	48.0	22.6	21.9	56.8
Rutsiro	64.1	44.4	65.7	25.8	23.7	64.9	45.2	34.5	78.2
Rubavu	71.1	62.0	84.8	61.8	61.8	82.5	75.1	75.0	80.1
Nyabihu	80.4	70.5	92.9	72.9	72.8	93.3	69.7	69.6	97.7
Ngororero	18.2	11.1	20.8	1.1	1.0	24.0	35.1	34.4	72.0
Rusizi	100.0	100.0		100.0	100.0		100.0	100.0	
Nyamasheke	71.3	57.9	75.4	42.1	41.9	74.2	62.1	61.7	87.9
Rulindo	60.6	57.5	65.4	56.7	56.7	63.0	61.0	60.9	85.4
Gakenke	60.3	50.0	63.6	31.8	31.6	63.4	47.3	47.3	49.8
Musanze	82.2	68.4	90.0	80.3	80.3	89.8	84.9	84.8	97.6
Burera	71.0	67.7	73.7	70.1	70.1	74.6	77.5	77.5	82.7
Gicumbi	73.1	43.5	81.5	59.6	59.5	82.8	46.7	42.5	94.5
Rwamagana	82.9	68.0	86.7	61.2	60.7	86.9	67.1	66.5	83.5
Nyagatare	63.5	73.9	58.8	73.2	73.3	57.7	77.7	77.2	87.6
Gatsibo	43.3	60.0	38.5	35.8	35.8	36.7	68.0	67.9	74.0
Kayonza	94.1	82.4	98.0	60.4	60.1	96.5	85.3	84.4	98.5
Kirehe	79.0	58.3	81.3	68.3	67.5	80.7	74.1	61.8	95.6
Ngoma	58.6	60.0	58.3	62.8	62.9	57.9	66.6	62.3	93.0
Bugesera	81.9	57.1	87.0	53.1	52.7	87.3	53.8	51.3	94.0
National	**67.5**	**54.3**	**72.6**	**50.9**	**50.8**	**72.2**	**64.4**	**64.0**	**87.8**

Source: NISR, SAS 2020

Table 41. Level of fertilizer use per districts and farmer types (percentages)

District	Season A				Season B				Season C			
	Organic only	Inorganic only	Both	Use of fertilizers	Organic only	Inorganic only	Both	Use of fertilizers	Organic only	Inorganic only	Both	Use of fertilizers
Nyarugenge	52.0	1.5	7.8	61.3	37.9	1.4	10.0	49.3	1.6	15.9	52.4	69.8
Gasabo	34.2	6.1	13.5	53.8	27.4	3.8	10.8	42.0	5.1	5.9	80.5	91.5
Kicukiro	28.3	14.6	21.5	64.4	17.9	15.2	4.9	38.0	2.9	27.9	55.9	86.8
Nyanza	36.4	2.3	15.5	54.2	29.1	3.4	12.0	44.6	23.1	4.9	52.5	80.4
Gisagara	32.5	6.0	24.3	62.8	25.1	9.7	12.5	47.3	10.7	3.1	67.9	81.7
Nyaruguru	27.4	1.8	57.5	86.8	28.1	3.7	43.8	75.6	30.0	0.7	60.0	90.7
Huye	40.6	3.4	20.1	64.1	33.8	6.7	11.0	51.5	27.7	4.5	53.1	85.3
Nyamagabe	33.0	1.2	38.5	72.6	37.9	5.5	32.8	76.2	32.3	-	58.3	90.6
Ruhango	43.6	2.7	9.6	55.8	40.0	4.0	7.5	51.6	51.5	6.9	31.7	90.1
Muhanga	64.2	-	12.4	76.6	50.5	0.7	12.9	64.2	27.6	1.0	56.1	84.7
Kamonyi	49.8	0.8	12.4	63.0	39.2	1.7	8.3	49.2	15.6	4.2	68.8	88.5
Karongi	35.1	3.0	30.7	68.8	36.0	3.9	20.2	60.1	31.0	-	45.2	76.2
Rutsiro	35.6	4.9	32.8	73.3	33.5	3.3	31.3	68.1	24.8	6.8	57.3	88.9
Rubavu	15.7	28.4	18.5	62.5	13.3	23.3	23.8	60.4	8.4	38.6	32.5	79.5
Nyabihu	23.7	14.4	46.3	84.4	15.0	17.2	42.8	75.0	10.8	19.0	61.4	91.1
Ngororero	41.2	0.8	43.4	85.4	41.5	1.6	36.4	79.5	54.6	3.0	15.2	72.7
Rusizi	22.4	9.3	45.8	77.4	19.0	8.6	29.1	56.7	-	33.3	66.7	100.0
Nyamasheke	23.9	1.4	49.9	75.2	34.1	2.6	40.1	76.8	26.3	2.5	68.8	97.5
Rulindo	53.9	1.7	27.1	82.7	50.6	2.7	22.2	75.6	25.8	-	60.6	86.4
Gakenke	38.7	0.8	51.8	91.4	43.3	1.0	34.6	78.9	18.5	0.7	59.6	78.8
Musanze	30.0	7.2	34.0	71.2	23.0	8.9	33.5	65.4	14.0	7.0	75.2	96.2
Burera	40.5	4.9	34.0	79.4	46.3	4.4	16.4	67.1	21.0	10.0	61.0	91.9
Gicumbi	53.2	2.4	26.1	81.7	60.4	1.1	19.0	80.4	22.1	13.5	59.6	95.2
Rwamagana	31.0	5.9	28.9	65.9	22.0	7.9	14.6	44.5	1.6	37.4	45.5	84.6
Nyagatare	21.6	16.9	14.5	53.0	17.1	20.6	9.4	47.2	4.1	18.9	44.6	67.6
Gatsibo	31.6	4.9	25.8	62.2	26.9	8.1	17.1	52.1	28.4	3.0	40.3	71.6
Kayonza	23.0	9.7	11.9	44.6	16.6	11.9	8.5	36.9	4.4	16.2	77.9	98.5
Kirehe	28.1	7.8	26.7	62.5	18.1	9.0	8.2	35.2	4.8	15.3	63.7	83.9
Ngoma	27.2	8.2	30.6	66.0	19.7	6.2	7.2	33.1	9.2	11.5	47.1	67.8
Bugesera	20.7	14.1	10.4	45.2	19.2	11.8	9.4	40.4	1.2	21.7	60.2	83.1
National	**34.2**	**6.2**	**27.6**	**68.1**	**30.9**	**7.0**	**18.8**	**56.7**	**18.2**	**10.0**	**57.5**	**85.7**
SSF	**35.0**	**5.7**	**27.1**	**67.7**	**31.4**	**6.5**	**18.4**	**56.3**	**25.0**	**11.1**	**43.2**	**79.3**
LSF/SITE	**5.7**	**28.5**	**55.4**	**89.6**	**8.7**	**32.0**	**41.4**	**82.0**	**15.7**	**9.4**	**63.3**	**88.3**

Source: NISR, SAS 2020

Table 42:Percentage of farmers by source of inorganic fertilizers per district in Season A 2020

District	Government (MINAGRI/RAB/NAEB)	Agro dealers	NGOs/Companies	Market	Agriculture cooperative	Other source	Total
Nyarugenge	10.5	73.7	-	5.3	5.3	5.3	100.0
Gasabo	4.5	76.1	1.5	11.9	1.5	4.5	100.0
Kicukiro	1.4	81.1	-	17.6	-	-	100.0
Nyanza	3.3	16.3	73.9	1.1	3.3	2.2	100.0
Gisagara	6.6	16.8	68.6	5.1	2.2	0.7	100.0
Nyaruguru	6.1	33.0	53.8	4.6	2.0	0.5	100.0
Huye	3.8	33.3	60.0	1.0	1.0	1.0	100.0
Nyamagabe	2.3	45.0	42.1	6.4	3.5	0.6	100.0
Ruhango	17.2	54.7	10.9	10.9	6.3	-	100.0
Muhanga	5.9	66.7	5.9	9.8	9.8	2.0	100.0
Kamonyi	6.0	61.2	14.9	10.5	6.0	1.5	100.0
Karongi	3.4	31.8	58.8	4.7	1.4	-	100.0
Rutsiro	12.2	49.3	31.8	6.1	-	0.7	100.0
Rubavu	3.8	86.0	0.5	5.4	3.8	0.5	100.0
Nyabihu	3.6	84.7	10.0	1.2	0.4	-	100.0
Ngororero	0.9	29.5	64.7	4.9	-	-	100.0
Rusizi	7.9	24.7	59.9	6.0	-	1.5	100.0
Nyamasheke	2.6	7.5	84.1	5.3	0.4	-	100.0
Rulindo	5.0	48.8	-	5.8	38.8	1.7	100.0
Gakenke	0.3	89.4	0.3	8.1	1.9	-	100.0
Musanze	1.9	96.6	-	0.5	1.0	-	100.0
Burera	10.6	80.7	-	4.8	3.9	-	100.0
Gicumbi	7.1	82.5	0.7	9.1	0.7	-	100.0
Rwamagana	1.6	43.5	47.2	4.7	0.5	2.6	100.0
Nyagatare	6.9	72.5	10.1	2.7	7.4	0.5	100.0
Gatsibo	12.4	26.9	55.2	1.0	1.0	3.5	100.0
Kayonza	4.1	25.5	58.2	9.2	2.0	1.0	100.0
Kirehe	10.1	28.1	35.5	3.1	20.6	2.6	100.0
Ngoma	11.2	26.8	56.8	3.2	0.8	1.2	100.0
Bugesera	8.6	61.8	15.8	5.9	3.3	4.6	100.0
National	**5.8**	**51.0**	**33.4**	**5.1**	**3.7**	**1.0**	100.0

Source: NISR, SAS 2020

Table 43:Percentage of farmers by source of inorganic fertilizers per district in Season B 2020

District	Government (MINAGRI/RAB/NAEB)	Agro dealers	NGOs/Companies	Market	Agriculture cooperative	Other source	Total
Nyarugenge	8.3	75.0	-	16.7	-	-	100
Gasabo	2.0	82.0	-	16.0	-	-	100
Kicukiro	2.2	62.2	-	28.9	6.7	-	100
Nyanza	13.3	28.9	53.0	3.6	1.2	-	100
Gisagara	4.7	28.3	54.7	7.5	3.8	0.9	100
Nyaruguru	11.0	22.6	52.9	10.3	2.6	0.6	100
Huye	10.0	27.5	57.5	2.5	2.5	-	100
Nyamagabe	3.6	41.9	37.1	10.8	6.6	-	100
Ruhango	12.1	34.8	27.3	16.7	7.6	1.5	100
Muhanga	-	68.4	15.8	5.3	10.5	-	100
Kamonyi	7.5	75.5	13.2	3.8	-	-	100
Karongi	11.1	30.3	57.6	1.0	-	-	100
Rutsiro	7.0	48.4	39.1	4.7	-	0.8	100
Rubavu	2.2	92.4	0.5	4.9	-	-	100
Nyabihu	0.9	91.2	7.4	-	0.5	-	100
Ngororero	2.3	28.1	59.6	6.4	3.5	-	100
Rusizi	9.9	23.8	62.4	2.0	2.0	-	100
Nyamasheke	3.2	12.4	76.3	7.0	1.1	-	100
Rulindo	4.0	69.0	-	3.0	24.0	-	100
Gakenke	4.3	83.7	5.7	5.3	1.0	-	100
Musanze	0.5	99.0	-	-	0.5	-	100
Burera	-	97.1	-	1.9	1.0	-	100
Gicumbi	1.8	88.6	1.8	5.3	1.8	0.9	100
Rwamagana	0.8	32.5	53.2	12.7	0.8	-	100
Nyagatare	2.3	66.3	18.6	7.6	5.2	-	100
Gatsibo	15.0	23.4	49.1	7.8	4.8	-	100
Kayonza	6.5	28.3	42.4	15.2	5.4	2.2	100
Kirehe	9.9	32.4	36.9	5.4	14.4	0.9	100
Ngoma	13.8	43.8	37.5	3.8	1.3	-	100
Bugesera	3.7	74.3	11.8	5.9	4.4	-	100
National	**5.3**	**54.7**	**30.1**	**6.3**	**3.4**	**0.2**	**100**

Source: NISR, SAS 2020

Table 44:Percentage of farmers by source of inorganic fertilizers per district in Season C 2020

District	Government (MINAGRI/RAB/NAEB)	Agro dealers	NGOs/Companies	Market	Agriculture cooperative	Other source	Total
Nyarugenge	-	72.1	-	20.9	7.0	-	100
Gasabo	-	92.2	1.0	5.9	1.0	-	100
Kicukiro	1.8	86.0	10.5	1.8	-	-	100
Nyanza	-	50.6	19.3	20.5	8.4	1.2	100
Gisagara	1.1	58.5	22.3	13.8	3.2	1.1	100
Nyaruguru	9.4	20.0	65.9	3.5	1.2	-	100
Huye	3.9	35.3	27.5	33.3	-	-	100
Nyamagabe	-	62.5	25.0	5.4	5.4	1.8	100
Ruhango	12.8	59.0	5.1	10.3	10.3	2.6	100
Muhanga	-	17.5	1.8	35.1	45.6	-	100
Kamonyi	-	74.3	4.3	2.9	18.6	-	100
Karongi	2.6	57.9	36.8	2.6	-	-	100
Rutsiro	6.7	85.3	5.3	2.7	-	-	100
Rubavu	-	89.8	3.4	-	6.8	-	100
Nyabihu	-	99.2	-	0.8	-	-	100
Ngororero	-	66.7	-	16.7	16.7	-	100
Rusizi	-	33.3	33.3	-	-	33.3	100
Nyamasheke	-	26.3	64.9	7.0	1.8	-	100
Rulindo	-	80.0	2.5	2.5	15.0	-	100
Gakenke	-	86.4	1.1	12.5	-	-	100
Musanze	-	89.9	2.3	6.2	1.6	-	100
Burera	-	83.9	0.7	0.7	14.8	-	100
Gicumbi	1.3	90.8	-	1.3	5.3	1.3	100
Rwamagana	-	52.0	27.5	20.6	-	-	100
Nyagatare	-	78.7	2.1	17.0	2.1	-	100
Gatsibo	-	86.2	6.9	-	3.4	3.4	100
Kayonza	1.5	61.5	26.2	9.2	-	1.5	100
Kirehe	1.0	46.9	15.3	29.6	4.1	3.1	100
Ngoma	-	47.1	35.3	15.7	2.0	-	100
Bugesera	-	76.5	2.9	17.6	2.9	-	100
National	**1.3**	**68.0**	**14.1**	**10.8**	**5.3**	**0.5**	**100**

Source: NISR, SAS 2020

Table 45:Source of inorganic fertiliser by type of fertilizer in Season A 2020 (%)

Fertilizer name	Government (MINAGRI/RAB/NAEB)	Agro dealers	NGOs/Companies	Market	Agriculture cooperative	Other source	Total
NPK 17-17-17	3.2	71.3	13.5	6.9	3.3	1.7	100
NPK 20-10-10	22.2	38.9	16.7	22.2	-	-	100
NPK 25-5-5	75.0	-	12.5	12.5	-	-	100
NPK 22-6-12	61.9	23.8	-	4.8	9.5	-	100
Other NPK	2.9	54.3	17.1	20.0	-	5.7	100
Urea	5.4	47.3	38.6	4.3	3.1	1.3	100
liquid urea (Mbonea M	-	88.4	3.5	4.7	3.5	-	100
DAP	5.0	45.9	41.1	3.9	3.4	0.7	100
TSP	-	100.0	-	-	-	-	100
KCL/MOP	33.3	33.3	-	-	33.3	-	100
Omax	-	70.0	-	10.0	10.0	10.0	100
Winner	-	62.5	12.5	-	12.5	12.5	100
Yara Viva	15.4	30.8	15.4	7.7	30.8	-	100
Amidas	4.6	63.6	13.6	-	13.6	4.6	100
Cereal	4.6	50.0	18.2	-	13.6	13.6	100
Boaster	-	100.0	-	-	-	-	100
DI Grow	-	62.5	-	25.0	-	12.5	100
Other type of fertilizer	4.0	56.0	12.0	28.0	-	-	**100**
National	**5.1**	**50.8**	**34.8**	**4.7**	**3.4**	**1.2**	100

Source: NISR, SAS 2020

Table 46: Source of inorganic fertilizer by type of fertilizer in Season B 2020

Fertilizer name	Government (MINAGRI/RAB/NAEB)	Agro dealers	NGOs/Companies	Market	Agriculture cooperative	Other source	Total
NPK 17-17-17	3.3	69.2	17.8	6	3.5	0.2	100
NPK 20-10-10	81	8.6	3.4	1.7	5.2	0	100
NPK 25-5-5	25	16.7	33.3	16.7	8.3	0	100
NPK 22-6-12	74.1	6.9	6.9	3.4	6.9	1.7	100
Other NPK	6.7	76.7	3.3	10	3.3	0	100
Urea	2.7	55.5	31.3	6.2	4.1	0.2	100
liquid urea (Mbolea Majimaji)	0	95.4	1.5	3.1	0	0	100
DAP	3	51.1	38.3	4.8	2.5	0.2	100
KCL/MOP	9.1	81.8	0	9.1	0	0	100
Omax	0	92.9	7.1	0	0	0	100
Winner	0	100	0	0	0	0	100
Yara Viva	8.3	83.3	0	8.3	0	0	100
Amidas	0	52.6	36.8	5.3	5.3	0	100
Cereal	0	50	38.9	5.6	5.6	0	100
Boaster	0	100	0	0	0	0	100
DI Grow	5	70	10	15	0	0	100
Other type of fertilizer	12.5	60	7.5	10	10	0	100
National	**4.6**	**56.1**	**30.2**	**5.6**	**3.3**	**0.2**	**100**

Source: NISR, SAS 2020

Table 47: Source of inorganic fertiliser by type of fertilizer in Season C 2020 (%)

Fertilizer name	Government (MINAGRI/RAB/NAEB)	Agro dealers	NGOs/Companies	Market	Agriculture cooperative	Other source	Total
NPK 17-17-17	1.0	73.3	12.3	7.9	5.2	0.4	100
NPK 20-10-10	12.5	50.0	12.5	25.0	-	-	100
NPK 25-5-5	100.0	-	-	-	-	-	100
NPK 22-6-12	-	-	-	100.0	-	-	100
Other NPK	-	95.8	-	4.2	-	-	100
Urea	1.4	64.6	14.3	14.3	4.9	0.6	100
liquid urea (Mbonea Majimaji)	-	68.5	10.1	19.1	2.2	-	100
DAP	1.2	64.5	18.1	11.4	4.3	0.5	100
Omax	-	87.0	4.3	4.3	4.3	-	100
Winner	-	92.9	-	7.1	-	-	100
Yara Viva	5.0	70.0	15.0	5.0	5.0	-	100
Amidas	-	62.5	-	37.5	-	-	100
Cereal	-	100.0	-	-	-	-	100
Boaster	-	100.0	-	-	-	-	100
DI Grow	-	65.5	17.2	13.8	3.4	-	100
Dyna gro	-	33.3	33.3	-	33.3	-	100
Other type of fertilizer (specify)	-	73.0	19.0	7.9	-	-	100
National	**1.2**	**68.6**	**14.0**	**11.1**	**4.7**	**0.4**	**100**

Source: NISR, SAS 2020

Table 48: Type of inorganic fertilizer, per Season and district (%)

District	Season A								Season B								Season C							
	NPK 17-17-17	NPK 20-10-10	NPK 25-5-5	Urea	Liquid urea	DAP	KCL/MOP	Others	NPK 17-17-17	NPK 20-10-10	NPK 25-5-5	Urea	Liquid urea	DAP	KCL/MOP	Others	NPK 17-17-17	NPK 20-10-10	NPK 25-5-5	Urea	Liquid urea	DAP	KCL/MOP	Others
Nyarugenge	14.3	-	-	45.7	-	28.6	-	11.4	10.8	-	-	56.8	-	24.3	-	8.1	32.5	-	-	50.6	-	10.4	-	6.5
Gasabo	12.6	-	-	42.3	-	38.7	-	6.3	19.5	-	-	55.8	-	22.1	-	2.6	30.2	-	-	39.2	0.5	27.5	-	2.6
Kicukiro	13.4	-	-	47.2	-	39.4	-	-	14.5	-	-	33.9	-	50.0	-	1.6	28.2	-	-	41.7	-	29.1	-	1.0
Nyanza	8.3	-	-	43.8	-	46.8	-	1.2	12.8	6.0	-	39.8	-	37.6	-	3.8	31.5	0.7	-	42.5	2.1	21.2	-	2.0
Gisagara	6.5	-	-	38.4	-	50.9	-	4.3	15.6	0.6	-	39.4	-	36.9	-	7.5	38.0	-	-	40.9	-	21.1	-	-
Nyaruguru	5.5	-	0.3	39.5	-	54.7	-	0.0	17.7	-	1.4	23.3	-	57.2	-	0.4	56.5	-	-	15.2	-	28.3	-	-
Huye	17.6	0.5	-	44.7	-	33.7	-	3.5	25.2	4.9	1.6	36.6	-	24.4	-	7.3	29.4	0.7	-	49.0	1.4	19.6	-	- 0.1
Nyamagabe	17.1	-	-	38.1	-	43.2	-	1.6	17.7	-	0.8	31.2	-	46.2	-	4.1	26.6	-	-	38.3	-	29.8	-	5.3
Ruhango	12.6	1.1	2.1	48.4	-	34.7	-	1.0	30.9	3.2	-	42.6	-	21.3	1.1	0.9	31.3	-	-	52.2	-	13.4	-	3.1
Muhanga	12.5	1.3	-	35.0	-	45.0	-	6.3	12.8	-	-	29.5	-	55.1	-	2.6	22.2	2.5	-	59.3	-	13.6	-	2.4
Kamonyi	13.1	-	-	46.7	0.9	33.6	-	5.6	21.7	-	-	44.6	1.2	24.1	2.4	6.0	20.5	2.1	-	48.6	-	25.3	-	3.5
Karongi	6.9	-	-	43.3	-	48.4	-	1.5	20.5	3.8	-	22.0	-	48.5	-	5.2	53.8	-	-	25.0	-	19.2	-	2.0
Rutsiro	30.6	-	0.5	30.6	-	32.5	-	5.7	23.9	1.1	-	26.6	0.5	41.8	-	6.1	55.9	-	0.8	26.3	0.8	13.6	-	2.6
Rubavu	52.1	-	-	13.1	12.5	20.7	-	1.6	37.3	1.6	-	22.5	11.7	22.2	-	4.7	32.7	-	-	20.6	9.3	33.6	-	3.8
Nyabihu	46.4	-	-	21.5	8.6	21.8	-	1.8	30.3	-	0.3	32.5	5.0	27.8	-	4.1	51.5	-	-	19.3	11.9	13.9	-	3.4
Ngororero	9.0	-	-	37.4	-	53.3	-	0.3	9.0	-	-	39.3	-	51.7	-	-	12.5	-	-	37.5	-	50.0	-	-
Rusizi	12.3	1.1	0.2	39.4	-	46.0	-	1.1	21.2	3.6	-	23.4	-	49.6	-	2.2	25.0	-	-	25.0	-	50.0	-	-
Nyamasheke	5.2	-	0.3	36.2	0.3	57.0	-	1.1	12.8	3.4	-	15.8	-	67.5	-	0.5	34.8	-	-	41.7	7.8	15.7	-	-
Rulindo	18.4	-	-	42.9	0.5	35.4	0.9	1.9	16.5	-	-	47.0	-	31.7	3.7	1.1	53.3	-	-	36.7	-	8.3	-	1.7
Gakenke	3.8	0.7	-	43.1	0.2	52.0	-	0.2	7.8	2.7	-	25.9	-	63.5	-	0.1	65.1	-	-	16.5	-	17.4	-	1.0
Musanze	27.7	-	-	31.6	1.8	36.5	-	2.4	32.9	-	-	27.6	1.3	30.3	-	7.9	53.8	-	-	12.7	5.4	18.1	-	10.0
Burera	33.8	0.4	-	25.4	0.4	39.4	-	0.7	36.4	-	-	14.9	2.5	46.3	-	- 0.1	70.6	-	-	7.8	1.0	7.4	-	13.2
Gicumbi	31.2	-	-	35.6	-	33.2	-	-	34.5	-	-	37.3	-	27.5	-	0.7	64.2	-	-	15.1	-	15.1	-	5.6
Rwamagana	10.9	-	-	44.8	0.5	42.6	-	1.2	18.4	-	1.3	37.2	-	39.7	-	3.4	28.0	-	-	36.2	-	32.9	-	2.9
Nyagatare	6.3	0.6	-	45.6	-	43.7	-	3.8	7.1	-	-	46.8	0.3	42.9	-	2.9	26.4	-	-	41.5	-	23.6	-	8.5
Gatsibo	8.4	-	0.3	44.6	-	43.3	-	3.4	14.0	-	0.4	36.4	-	37.9	-	11.3	21.7	-	-	41.3	4.3	19.6	-	13.1
Kayonza	18.7	-	-	40.4	-	39.9	0.5	0.5	17.6	1.6	-	42.9	0.5	34.1	-	3.3	29.6	-	-	40.7	1.5	16.3	-	11.9
Kirehe	2.6	-	-	36.8	-	55.9	0.8	3.9	3.7	-	-	45.7	-	44.7	1.1	4.8	23.6	0.4	-	35.1	6.7	21.3	-	12.9
Ngoma	5.0	0.2	-	48.0	0.4	44.5	-	1.9	16.8	0.8	-	48.1	0.8	30.5	-	3.0	30.4	-	-	32.4	2.0	17.6	-	17.6
Bugesera	14.8	0.6	0.3	35.4	-	43.4	-	5.6	10.1	1.2	-	37.0	-	45.1	-	6.6	27.3	-	-	39.6	2.9	25.9	-	4.3
National	**15.3**	**0.2**	**0.1**	**38.2**	**1.0**	**43.0**	**0.1**	**2.1**	**18.8**	**1.0**	**0.2**	**33.9**	**1.2**	**40.8**	**0.2**	**3.9**	**38.4**	**0.2**	**-**	**33.0**	**2.5**	**20.5**	**-**	**5.4**

Source: NISR, SAS 2020

Table 49: Season A 2020_Use of pesticides by farmer type per district (%)

District	Percentage of farmers who used pesticides			Percentage of plots in which pesticides were used			Percentage of land size in which pesticides were used		
	Overall	SSF	LSF	Overall	SSF	LSF	Overall	SSF	LSF
Nyarugenge	16.2	16.2		12.2	12.2		14.6	14.6	-
Gasabo	13.7	11.5	81.8	8.2	8.2	34.7	13.1	11.5	72.7
Kicukiro	24.4	23.4	75.0	11.5	11.5	58.3	25.2	23.8	84.8
Nyanza	15.5	14.2	100.0	10.7	10.7	69.2	14.3	12.3	96.3
Gisagara	20.6	17.3	100.0	16.2	16.2	77.8	24.3	14.3	99.9
Nyaruguru	34.3	32.7	100.0	26.5	26.5	76.9	30.6	30.0	99.0
Huye	14.7	10.5	87.5	8.5	8.5	56.8	13.0	9.5	87.0
Nyamagabe	20.2	20.0	100.0	11.2	11.2	100.0	18.6	18.5	100.0
Ruhango	15.1	13.8	100.0	9.1	9.1	58.8	15.1	12.8	99.5
Muhanga	13.2	11.4	100.0	6.2	6.2	100.0	11.1	9.6	100.0
Kamonyi	15.6	13.7	91.7	14.5	14.5	77.8	13.8	12.0	97.8
Karongi	14.1	13.9	100.0	10.6	10.6	50.0	13.0	13.0	98.5
Rutsiro	20.8	20.8		13.4	13.4		20.0	20.0	-
Rubavu	48.4	48.1	75.0	37.0	37.0	40.0	49.3	49.3	51.8
Nyabihu	53.4	53.4		40.3	40.3		52.8	52.8	-
Ngororero	14.7	14.7		14.7	14.7		14.1	14.1	-
Rusizi	11.6	10.3	77.8	9.3	9.3	81.8	13.3	10.0	72.5
Nyamasheke	10.4	8.7	100.0	7.0	7.0	80.0	8.2	7.0	98.8
Rulindo	22.6	21.9	66.7	14.9	14.9	45.0	20.2	20.0	64.8
Gakenke	29.6	29.6		27.5	27.5		27.4	27.4	-
Musanze	45.8	45.8		38.5	38.5		47.0	47.0	-
Burera	39.4	39.4		35.3	35.3		37.4	37.4	-
Gicumbi	18.1	18.0	50.0	14.7	14.7	50.0	16.2	16.1	67.2
Rwamagana	23.9	21.2	72.4	14.4	14.4	30.4	21.3	20.8	50.1
Nyagatare	16.7	11.1	86.4	7.9	7.9	61.1	15.1	11.1	94.7
Gatsibo	15.9	14.1	77.8	8.3	8.3	38.5	17.7	14.8	94.8
Kayonza	12.6	10.5	73.3	8.1	8.1	21.7	11.7	10.3	81.8
Kirehe	16.2	14.9	100.0	13.5	13.5	95.7	17.2	13.5	99.6
Ngoma	14.6	13.1	91.7	10.1	10.1	75.0	15.4	13.7	94.2
Bugesera	14.7	11.1	68.4	9.7	9.7	53.7	12.5	9.8	74.1
National	**21.2**	**19.8**	**83.9**	**16.0**	**16.0**	**49.4**	**19.6**	**17.9**	**90.2**

Source: NISR, SAS 2020

Table 50: Season B 2020_ Use of pesticides by farmer type per district (%)

District	Percentage of farmers who used pesticides			Percentage of plots in which pesticides were used			Percentage of land size in which pesticides were used		
	Overall	SSF	LSF	Overall	SSF	LSF	Overall	SSF	LSF
Nyarugenge	16.1	16.1		13.0	13.0		14.1	14.1	
Gasabo	12.8	11.1	70.0	9.5	9.5	30.6	10.4	9.1	71.7
Kicukiro	5.4	4.1	75.0	2.1	2.1	40.0	3.8	3.3	71.2
Nyanza	11.8	10.6	100.0	10.6	10.6	83.3	10.8	9.3	98.6
Gisagara	11.0	8.5	92.9	7.5	7.5	66.7	13.5	6.8	96.9
Nyaruguru	14.5	13.0	75.0	8.1	8.1	50.0	12.0	11.3	82.5
Huye	10.7	6.8	95.0	4.3	4.3	86.4	9.8	6.5	94.9
Nyamagabe	20.1	20.1		11.5	11.5		20.7	20.7	
Ruhango	10.5	8.9	90.9	5.5	5.5	66.7	8.5	7.0	99.1
Muhanga	11.7	11.1	100.0	9.4	9.4	100.0	9.8	9.4	100.0
Kamonyi	9.9	9.1	100.0	7.1	7.1	66.7	9.2	8.6	94.3
Karongi	8.6	8.4	100.0	6.4	6.4	50.0	7.9	7.9	6.6
Rutsiro	20.8	20.8		14.3	14.3		20.9	20.9	
Rubavu	49.6	49.6	50.0	35.2	35.2	37.5	52.1	52.1	52.5
Nyabihu	41.9	41.9		35.7	35.7		44.3	44.3	
Ngororero	19.4	19.4		17.4	17.4		19.0	19.0	
Rusizi	12.3	9.3	100.0	6.8	6.8	81.8	15.7	8.2	97.2
Nyamasheke	7.7	6.1	87.5	3.6	3.6	70.0	7.6	6.5	90.9
Rulindo	17.5	16.5	83.3	13.8	13.8	57.9	14.5	14.4	54.0
Gakenke	14.7	14.7		13.5	13.5		13.3	13.3	
Musanze	44.6	44.6		35.2	35.2		46.0	46.0	
Burera	19.2	19.2		17.2	17.2		21.2	21.2	
Gicumbi	12.8	12.5	100.0	10.7	10.7	50.0	13.2	13.2	61.1
Rwamagana	15.7	12.9	70.4	8.8	8.8	30.0	11.8	10.9	65.0
Nyagatare	10.5	6.6	61.0	5.4	5.4	42.5	8.5	6.3	61.3
Gatsibo	12.4	11.3	52.9	6.9	6.9	28.6	12.1	9.5	81.5
Kayonza	11.6	9.0	86.7	6.4	6.4	22.2	11.4	9.5	84.5
Kirehe	5.2	4.1	88.9	2.1	2.1	81.1	7.2	3.5	95.2
Ngoma	6.6	5.3	72.7	3.7	3.7	37.5	9.1	7.3	90.8
Bugesera	11.5	9.1	52.9	7.9	7.9	28.8	10.5	8.3	70.7
National	**15.3**	**14.1**	**74.8**	**11.2**	**11.2**	**40.6**	**14.1**	**12.7**	**84.0**

Source: NISR, SAS 2020

Table 51: Season C 2020_Use of pesticides per district (%)

District	Percentage of farmers who used pesticides			Percentage of plots in which pesticides were used			Percentage of land size in which pesticides were used		
	Overall	SSF	SITE	Overall	SSF	SITE	Overall	SSF	SITE
Nyarugenge	74.6	75.0	74.4	59.2	59.1	68.8	78.7	78.8	62.0
Gasabo	76.3	73.1	77.2	40.5	40.2	75.3	79.8	79.8	81.0
Kicukiro	72.1	41.7	78.6	31.9	30.6	78.6	51.2	49.3	84.3
Nyanza	71.3	42.9	78.3	43.1	42.8	77.3	53.9	53.1	87.0
Gisagara	74.0	70.4	75.0	51.3	51.1	75.7	73.2	73.0	84.7
Nyaruguru	10.0	14.0	8.2	16.1	16.1	8.2	15.6	15.6	7.9
Huye	58.8	56.3	59.3	34.8	34.6	59.3	54.1	53.9	64.9
Nyamagabe	21.9	6.7	28.8	13.7	13.6	30.0	7.8	7.5	42.4
Ruhango	48.5	34.4	55.1	37.1	37.0	55.6	36.8	36.7	48.2
Muhanga	76.5	52.4	83.1	75.1	75.0	83.5	56.9	56.4	90.6
Kamonyi	80.2	60.7	88.2	59.2	59.1	88.7	61.3	60.9	91.8
Karongi	25.0	21.4	25.7	16.5	16.3	26.7	19.7	19.6	24.2
Rutsiro	53.0	33.3	54.6	20.3	18.5	54.1	40.8	30.3	73.4
Rubavu	78.3	66.0	97.0	64.4	64.4	95.0	76.2	76.2	96.9
Nyabihu	80.4	72.7	90.0	76.2	76.2	90.7	72.8	72.7	96.8
Ngororero	3.0	11.1	-	0.9	1.0	-	33.8	34.4	-
Rusizi	100.0	100.0		100.0	100.0		100.0	100.0	
Nyamasheke	62.5	42.1	68.9	32.7	32.4	67.7	45.7	45.2	80.8
Rulindo	60.6	57.5	65.4	55.3	55.3	63.0	61.0	60.9	85.4
Gakenke	63.7	55.6	66.4	59.9	59.9	66.1	55.3	55.0	78.1
Musanze	86.6	77.2	92.0	89.2	89.2	91.7	93.7	93.7	98.0
Burera	69.5	64.6	73.7	61.5	61.5	73.7	69.7	69.7	79.1
Gicumbi	64.4	26.1	75.3	22.6	22.3	77.0	29.3	24.0	91.1
Rwamagana	84.6	80.0	85.7	75.8	75.6	85.9	79.9	79.4	95.6
Nyagatare	62.2	69.6	58.8	65.5	65.5	57.7	76.0	75.3	88.8
Gatsibo	44.8	66.7	38.5	47.9	47.9	41.7	73.4	73.4	70.6
Kayonza	88.2	94.1	86.3	89.1	89.1	87.7	89.2	88.7	96.9
Kirehe	76.6	66.7	77.7	69.2	68.7	77.3	79.2	70.1	95.0
Ngoma	59.8	46.7	62.5	53.4	53.2	63.2	57.0	50.9	94.5
Bugesera	77.1	57.1	81.2	56.3	56.1	81.7	59.0	57.0	91.7
National	**64.1**	**56.8**	**67.0**	**54.4**	**54.4**	**67.1**	**67.4**	**67.2**	**84.5**

Source: NISR, SAS 2020

Table 52: Type of pesticides, per Season and district in 2020 (%)

District	Season A								Season B								Season C							
	Dithane	Ridomil	Dimethoate	Cypermethrin	Dursiban	Rocket	Beam	Others	Dithane	Ridomil	Dimethoate	Cypermethrin	Dursiban	Rocket	Beam	Others	Dithane	Ridomil	Dimethoate	Cypermethrin	Dursiban	Rocket	Beam	Others
Nyarugenge	31.0	-	15.5	9.9	-	33.8	-	9.9	29.7	2.7	21.6	8.1	-	29.7	-	8.1	23.6	1.9	17.0	11.3	-	30.2	-	16.0
Gasabo	20.0	2.9	6.7	8.6	-	40.0	1.9	20.0	31.9	-	4.2	5.6	1.4	43.1	2.8	11.1	23.7	-	12.5	9.1	1.7	17.2	-	35.8
Kicukiro	14.3	-	1.2	7.1	-	56.0	1.2	20.2	16.7	-	-	22.2	-	38.9	5.6	16.7	28.6	-	12.4	16.2	-	20.0	-	22.8
Nyanza	7.1	4.1	2.0	7.1	-	69.4	3.1	7.2	7.2	2.4	1.2	14.5	1.2	61.5	7.2	4.8	25.3	3.8	5.5	3.8	0.5	45.6	0.5	15.0
Gisagara	4.8	-	0.8	11.9	-	66.7	7.9	7.9	9.2	-	1.3	17.1	-	52.6	11.8	7.9	29.6	-	3.0	5.3	-	53.8	-	8.3
Nyaruguru	11.1	-	3.0	14.1	-	62.2	-	9.6	44.1	5.1	-	11.9	-	28.8	-	10.2	41.2	5.9	-	11.8	-	35.3	-	5.8
Huye	7.4	-	-	26.3	-	43.2	19.0	4.2	5.6	-	1.4	30.6	-	29.2	19.4	13.9	12.5	-	0.7	9.6	-	69.9	-	7.3
Nyamagabe	38.8	5.8	0.8	33.1	-	17.4	-	4.1	27.5	1.7	-	46.7	-	20.0	-	4.2	14.7	2.9	-	38.2	-	38.2	-	6.0
Ruhango	6.4	1.8	0.9	14.6	-	66.4	5.5	4.6	5.9	-	1.2	30.6	-	48.2	12.9	1.2	28.2	3.5	5.9	10.6	-	47.1	-	4.7
Muhanga	10.1	2.9	1.5	20.3	-	37.7	4.4	23.2	10.2	1.7	3.4	17.0	-	57.6	5.1	5.1	16.0	0.9	16.0	11.3	-	53.8	-	2.0
Kamonyi	19.4	6.7	3.7	3.7	-	53.7	2.2	10.5	26.2	10.3	4.7	6.5	-	42.1	1.9	8.4	28.8	6.8	7.5	2.7	-	46.6	-	7.6
Karongi	25.4	-	1.6	6.4	-	63.5	-	3.2	31.0	2.4	7.1	16.7	2.4	26.2	-	14.3	29.6	-	-	22.2	-	40.7	-	7.5
Rutsiro	51.9	7.6	0.9	13.2	2.8	20.8	-	2.8	51.4	7.5	0.9	26.2	-	11.2	-	2.8	54.9	0.9	10.6	15.0	-	12.4	-	6.2
Rubavu	33.7	20.8	14.5	24.0	-	2.0	-	5.1	33.0	23.7	12.5	23.0	0.4	6.6	-	0.8	37.8	12.8	13.4	25.0	0.6	8.1	-	2.3
Nyabihu	35.9	26.8	9.8	21.9	-	3.0	-	2.7	32.4	23.5	13.1	19.6	-	8.1	-	3.4	46.1	8.9	13.0	26.4	-	4.1	-	1.5
Ngororero	28.6	2.4	-	32.1	-	36.9	-	0.0	13.4	3.1	-	16.5	-	62.9	-	4.1	50.0	-	-	50.0	-	-	-	-
Rusizi	16.7	-	24.0	14.6	-	32.3	-	12.5	10.9	2.2	13.0	54.4	-	10.9	6.5	2.2	25.0	-	37.5	12.5	-	-	-	25.0
Nyamasheke	9.5	-	7.9	33.3	-	30.2	4.8	14.3	17.0	4.3	6.4	34.0	-	10.6	6.4	21.3	25.3	3.3	12.1	20.9	-	24.2	-	14.2
Rulindo	19.0	4.4	7.3	3.7	-	56.9	0.7	8.0	22.6	1.0	5.9	9.8	-	52.9	1.0	6.9	27.3	-	6.1	24.2	-	30.3	-	12.1
Gakenke	8.1	3.1	4.6	13.2	-	70.6	-	0.5	13.1	6.1	1.0	29.3	-	43.4	-	7.1	28.9	2.6	0.9	21.9	-	39.5	-	6.2
Musanze	33.9	9.9	10.1	9.3	-	34.2	-	2.6	36.6	9.5	12.6	13.4	-	22.4	-	5.6	41.8	9.5	20.0	16.6	-	6.2	-	5.9
Burera	27.7	9.7	6.3	18.7	-	35.3	-	2.3	39.2	10.1	5.1	22.2	-	21.5	-	1.9	44.7	5.1	7.1	38.3	-	3.1	-	1.7
Gicumbi	49.2	-	0.8	8.9	0.8	29.0	-	11.3	43.7	2.3	-	9.2	-	34.5	-	10.3	38.1	0.9	-	6.2	-	49.6	-	5.2
Rwamagana	18.9	1.9	9.5	9.5	0.4	42.4	1.1	16.3	21.0	2.2	9.1	8.6	0.5	34.4	1.6	22.6	26.9	1.3	19.4	7.9	-	24.2	-	20.3
Nyagatare	8.6	1.9	7.1	13.3	0.5	33.8	2.4	32.4	14.2	-	12.7	20.2	-	25.4	3.7	23.9	29.1	3.1	15.0	10.2	-	16.5	-	26.1
Gatsibo	21.5	3.2	4.4	8.9	-	49.4	1.9	10.8	22.5	-	5.0	10.8	-	41.7	2.5	17.5	18.8	-	12.5	18.8	-	29.7	1.6	18.6
Kayonza	15.9	7.1	6.4	10.3	-	34.1	3.2	23.0	20.2	0.9	1.8	14.7	-	36.7	5.5	20.2	23.1	0.6	19.4	4.4	-	24.4	-	28.1
Kirehe	7.0	1.8	4.1	9.9	-	62.0	4.1	11.1	7.8	1.1	5.6	27.8	-	27.8	8.9	21.1	23.0	4.7	18.7	3.9	0.4	28.0	-	21.3
Ngoma	21.7	0.6	4.5	14.0	-	47.1	3.2	8.9	22.7	1.5	12.1	18.2	-	24.2	7.6	13.6	27.9	1.6	26.2	5.7	-	24.6	-	14.0
Bugesera	6.4	2.6	4.3	9.0	0.4	38.5	3.4	35.5	7.8	1.4	5.0	14.2	-	46.8	5.7	19.2	36.9	0.6	16.9	7.5	-	23.8	-	14.3
National	23.0	8.1	7.0	15.1	0.1	35.2	1.7	9.8	25.8	8.5	7.5	19.2	0.2	27.8	2.5	8.6	31.4	3.7	12.2	14.2	0.2	25.9	0.1	12.3

Source: NISR, SAS 2020

Table 53: Percentage of farmers by agricultural practices in Season A 2020

District	Farmers who protected land against erosion (%)			Farmers who used any mechanical equipment for agriculture activities %)			Farmers who practiced irrigation (%)			Farmers who practiced agroforestry (%)		
	Overall	SSF	LSF	Overall	SSF	LSF	Overall	SSF	LSF	Overall	SSF	LSF
Nyarugenge	76.5	76.5	-	-	-	-	9.3	9.3	-	49.8	49.8	
Gasabo	84.2	84.0	90.9	1.5	0.6	27.3	9.4	8.2	45.5	35.3	34.6	58.3
Kicukiro	63.4	63.2	75.0	2.0	1.5	25.0	2.9	2.5	25.0	36.7	37.1	20.0
Nyanza	88.6	88.4	100.0	0.2	0.2	-	14.7	14.0	62.5	36.5	36.4	50.0
Gisagara	86.1	85.5	100.0	-	-	-	5.8	3.9	50.0	37.5	38.3	15.8
Nyaruguru	97.9	97.8	100.0	-	-	-	10.8	10.5	25.0	35.0	34.5	62.5
Huye	95.7	95.5	100.0	-	-	-	13.1	9.1	83.3	32.0	32.4	25.0
Nyamagabe	97.9	97.9	100.0	0.2	0.2	-	1.9	1.9	-	42.9	42.8	100.0
Ruhango	93.7	93.8	87.5	0.4	0.4	-	10.3	9.7	50.0	31.5	31.2	50.0
Muhanga	98.1	98.0	100.0	-	-	-	8.5	8.0	37.5	42.1	42.2	37.5
Kamonyi	95.5	95.6	91.7	0.2	0.2	-	10.0	9.3	41.7	20.1	20.2	16.7
Karongi	95.8	95.8	100.0	0.2	0.2	-	2.1	2.1	-	31.0	30.8	100.0
Rutsiro	97.2	97.2		0.5	0.5		1.3	1.3	-	40.4	40.4	
Rubavu	93.9	93.9	100.0	-	-	-	0.8	0.8	-	16.6	16.3	50.0
Nyabihu	97.8	97.8		-	-	-	-	-	-	47.1	47.1	
Ngororero	97.0	97.0		0.8	0.8	-	3.6	3.6	-	41.9	41.9	
Rusizi	85.3	85.0	100.0	-	-	-	7.7	6.5	66.7	55.0	55.3	40.0
Nyamasheke	97.7	97.7	100.0	0.2	0.2	-	4.1	3.0	62.5	52.7	52.5	62.5
Rulindo	98.6	98.6	100.0	0.5	0.2	16.7	14.3	14.2	16.7	35.4	35.4	33.3
Gakenke	97.9	97.9	-	0.3	0.3	-	3.8	3.8	-	28.3	28.3	
Musanze	90.6	90.6	-	0.2	0.2	-	1.4	1.4	-	44.8	44.8	
Burera	96.1	96.1	-	0.9	0.9	-	0.2	0.2	-	20.2	20.2	
Gicumbi	97.8	97.8	100.0	0.4	0.4	-	2.8	2.8	-	22.7	22.5	100.0
Rwamagana	90.0	90.2	86.2	0.4	0.4	-	7.8	5.9	41.4	43.9	42.9	62.1
Nyagatare	58.3	57.6	65.9	6.8	2.0	65.9	6.3	3.5	40.9	41.2	40.4	53.3
Gatsibo	94.2	94.7	77.8	1.7	1.1	22.2	5.8	5.8	5.6	56.5	56.4	57.9
Kayonza	57.7	56.9	80.0	1.4	0.7	20.0	9.2	8.2	40.0	42.7	43.7	12.5
Kirehe	80.5	80.7	70.0	0.8	0.3	30.0	5.0	3.9	80.0	47.4	47.6	30.0
Ngoma	84.9	84.8	91.7	0.6	0.3	16.7	6.7	5.4	75.0	56.0	56.6	23.1
Bugesera	73.0	73.3	68.4	0.8	-	13.2	15.2	13.4	42.1	38.4	37.4	55.0
National	**88.9**	**89.0**	**84.6**	**0.8**	**0.4**	**17.1**	**6.5**	**5.7**	**45.6**	**38.8**	**38.7**	**43.8**

Source: NISR, SAS 2020

Table 54: Percentage of farmers by agricultural practices in Season B 2020

District	Farmers who protected land against erosion (%)			Farmers who used any mechanical equipment for agriculture activities %)			Farmers who practiced irrigation (%)			Farmers who practiced agroforestry (%)		
	Overall	SSF	LSF	Overall	SSF	LSF	Overall	SSF	LSF	Overall	SSF	LSF
Nyarugenge	64.0	64.0		0.5	0.5		10.9	10.9		39.0	39.0	
Gasabo	84.3	84.1	90.0	0.6	-	20.0	8.2	6.9	50.0	45.3	45.2	50.0
Kicukiro	55.8	55.0	100.0	-	-	-	16.5	15.5	75.0	37.2	36.7	60.0
Nyanza	93.7	93.6	100.0	-	-	-	23.4	22.6	85.7	34.7	34.8	25.0
Gisagara	87.8	87.8	85.7	0.4	0.4	-	15.2	13.3	78.6	33.8	34.6	10.5
Nyaruguru	98.5	98.4	100.0	0.3	0.3	-	16.7	15.2	75.0	26.8	25.9	75.0
Huye	91.7	91.3	100.0	-	-	-	25.7	22.7	90.0	27.2	26.8	36.4
Nyamagabe	97.9	97.9		-	-		13.4	13.4		33.0	32.8	100.0
Ruhango	94.1	93.9	100.0	0.4	0.4	-	15.0	14.1	63.6	34.5	34.2	50.0
Muhanga	97.1	97.1	100.0	-	-	-	18.5	17.9	100.0	32.2	31.8	66.7
Kamonyi	92.3	92.2	100.0	-	-	-	25.1	24.4	100.0	23.4	23.7	-
Karongi	99.0	99.0	100.0	-	-	-	14.0	13.8	100.0	32.2	32.2	-
Rutsiro	98.3	98.3		0.3	0.3		1.9	1.9		38.6	38.6	
Rubavu	92.8	93.0	75.0	0.8	0.8	-	1.3	1.3	-	23.5	23.0	75.0
Nyabihu	98.1	98.1		0.3	0.3		1.7	1.7		42.6	42.6	
Ngororero	94.9	94.9		0.9	0.9		6.0	6.0		29.3	29.3	
Rusizi	90.6	90.4	100.0	-	-	-	9.4	8.9	33.3	50.6	49.6	100.0
Nyamasheke	97.0	96.9	100.0	0.2	0.2	-	5.6	4.5	62.5	58.8	59.1	37.5
Rulindo	99.3	99.2	100.0	0.3	-	16.7	24.7	24.6	33.3	28.4	28.3	33.3
Gakenke	97.8	97.8		0.2	0.2		7.5	7.5		32.3	32.3	
Musanze	96.3	96.3		0.2	0.2		5.7	5.7		35.2	35.2	
Burera	93.6	93.6		0.6	0.6		0.2	0.2		10.5	10.5	
Gicumbi	96.0	96.0	100.0	-	-	-	10.2	10.2	-	26.5	26.3	100.0
Rwamagana	95.0	95.1	92.6	0.2	-	3.7	7.9	5.7	51.9	41.6	40.9	55.6
Nyagatare	51.2	50.5	61.0	5.2	1.7	51.2	7.3	4.1	48.8	38.7	37.9	51.2
Gatsibo	88.7	88.7	88.2	1.5	1.1	17.7	9.8	8.3	64.7	45.7	45.5	52.6
Kayonza	64.7	63.4	100.0	1.6	1.2	13.3	16.1	14.1	73.3	45.0	45.2	37.5
Kirehe	79.0	78.7	100.0	0.3	0.2	11.1	12.8	11.9	77.8	45.3	45.4	40.0
Ngoma	76.6	76.2	100.0	1.0	0.9	9.1	11.6	10.5	72.7	46.2	46.4	33.3
Bugesera	69.7	69.0	82.4	0.9	0.7	5.9	11.3	8.8	55.9	32.4	31.4	52.8
National	**88.0**	**88.0**	**88.6**	**0.6**	**0.4**	**12.9**	**11.8**	**10.9**	**62.4**	**35.7**	**35.5**	**47.1**

Source: NISR, SAS 2020

Table 55: Percentage of farmers by agricultural practices in Season C 2020

District	Farmers who protected land against erosion (%)			Farmers who used any mechanical equipment for agriculture activities %)			Farmers who practiced irrigation (%)			Farmers who practiced agroforestry (%)	
	Overall	SSF	SITE	Overall	SSF	SITE	Overall	SSF	SITE	Overall	SSF
Nyarugenge	77.8	58.3	89.7	-	-	-	69.8	50.0	82.1	-	-
Gasabo	88.1	88.5	88.0	-	-	-	93.2	88.5	94.6	9.6	9.6
Kicukiro	89.7	100.0	87.5	1.5	-	1.8	97.1	100.0	96.4	3.6	3.6
Nyanza	95.1	96.4	94.8	-	-	-	97.2	96.4	97.4	8.5	8.5
Gisagara	100.0	100.0	100.0	0.8	-	1.0	84.0	51.9	92.3	8.3	8.3
Nyaruguru	99.3	100.0	99.0	0.7	2.3	-	76.4	79.1	75.3	4.7	4.7
Huye	91.5	100.0	89.7	-	-	-	90.4	81.3	92.4	7.0	7.0
Nyamagabe	96.9	100.0	95.5	1.0	-	1.5	60.4	33.3	72.7	13.0	13.0
Ruhango	99.0	100.0	98.6	-	-	-	76.2	78.1	75.4	10.4	10.4
Muhanga	96.9	90.5	98.7	-	-	-	88.8	57.1	97.4	7.0	7.0
Kamonyi	99.0	96.4	100.0	-	-	-	94.8	85.7	98.5	4.3	4.3
Karongi	95.2	100.0	94.3	-	-	-	61.9	42.9	65.7	10.0	10.0
Rutsiro	99.2	100.0	99.1	0.9	-	0.9	34.2	66.7	31.5	29.3	29.3
Rubavu	97.6	98.0	97.0	-	-	-	12.1	4.0	24.2	25.2	25.2
Nyabihu	96.2	97.7	94.3	-	-	-	3.2	3.4	2.9	45.6	45.6
Ngororero	100.0	100.0	100.0	3.0	-	4.2	3.0	11.1	-	3.0	3.0
Rusizi	100.0	100.0		-	-		100.0	100.0		38.1	38.1
Nyamasheke	97.5	94.7	98.4	-	-	-	90.0	79.0	93.4	44.6	44.6
Rulindo	92.4	87.5	100.0	1.5	-	3.9	81.8	75.0	92.3	20.6	20.6
Gakenke	92.5	91.7	92.7	-	-	-	72.6	58.3	77.3	20.3	20.3
Musanze	98.1	94.7	100.0	-	-	-	24.8	21.1	27.0	32.5	32.5
Burera	94.8	95.8	93.9	0.5	1.0	-	12.4	1.0	21.9	23.5	23.5
Gicumbi	98.1	91.3	100.0	-	-	-	65.4	78.3	61.7	9.0	9.0
Rwamagana	91.9	84.0	93.9	0.8	-	1.0	91.9	88.0	92.9	7.9	7.9
Nyagatare	79.7	87.0	76.5	2.7	-	3.9	77.0	87.0	72.6	17.7	17.7
Gatsibo	98.5	93.3	100.0	1.5	6.7	-	85.1	73.3	88.5	13.9	13.9
Kayonza	100.0	100.0	100.0	2.9	5.9	2.0	98.5	100.0	98.0	8.7	8.7
Kirehe	96.8	100.0	96.4	4.0	-	4.5	96.0	100.0	95.5	33.3	33.3
Ngoma	87.4	93.3	86.1	1.2	-	1.4	71.3	73.3	70.8	8.8	8.8
Bugesera	83.1	92.9	81.2	1.2	-	1.5	88.0	78.6	89.9	-	-
National	**94.6**	**94.5**	**94.6**	**0.7**	**0.5**	**0.8**	**66.9**	**50.8**	**73.2**	**23.4**	**23.4**

Source: NISR, SAS 2020

Table 56: Irrigation type, per Season and district in 2020 (%)

District	Modern irrigation														Traditional techniques			
	Surface irrigation			Flood irrigation			Drip irrigation			Sprinkler irrigation			Pivot irrigation					
	Season A	Season B	Season C	Season A	Season B	Season C	Season A	Season B	Season C	Season A	Season B	Season C	Season A	Season B	Season C	Season A	Season B	Season C
Nyarugenge	97.8	42.9	-	-	-		-	-	-	-	-	2.0	-	-	-	2.2	57.1	98.0
Gasabo	0.1	4.0	26.9	0.1	12.0		-	-	-	-	20.0	-	-	-	-	99.9	64.0	73.1
Kicukiro	34.1	44.4	32.8	0.1	11.1		0.1	22.2	-	-	-	-	-	-	-	65.7	22.2	67.2
Nyanza	6.7	11.5	13.0	14.9	30.8		-	-	-	-	-	-	-	-	-	78.4	57.7	87.1
Gisagara	-	24.0	33.3	6.0	60.0		0.0	-	-	-	-	0.9	-	-	0.9	94.0	16.0	64.9
Nyaruguru	100.0	20.0	14.8	-	-		-	-	3.4	-	-	-	-	-	-	-	80.0	81.8
Huye	0.1	4.6	13.3	0.7	81.8		-	-	-	-	-	-	-	-	-	99.2	13.6	86.7
Nyamagabe	-	33.3	4.0	-	-		-	-	-	-	-	-	-	-	-	100.0	66.7	96.0
Ruhango	8.0	-	6.8	12.8	67.9		-	-	1.4	-	-	4.1	-	-	-	79.2	32.1	87.8
Muhanga	-	14.3	1.1	0.0	21.4		-	-	-	-	-	-	-	-	-	100.0	64.3	98.9
Kamonyi	0.0	6.7	-	0.0	6.7		-	-	-	-	-	-	1.3	-	-	98.7	86.7	100.0
Karongi	-	-	40.7	-	-		-	-	-	-	9.1	-	-	-	-	100.0	90.9	59.3
Rutsiro	-	-	2.7	-	-		-	-	-	-	-	-	-	-	-	100.0	100.0	97.3
Rubavu	-		-	-			-		-	-		-	-		-	-		100.0
Nyabihu	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	100.0	100.0
Ngororero	-	50.0	-	-	-		-	-	-	-	-	-	-	-	-	100.0	50.0	100.0
Rusizi	8.2	75.0	33.3	0.0	-		-	-	-	-	-	-	-	-	-	91.7	25.0	66.7
Nyamasheke	20.0	-	-	80.0	45.5		-	-	2.9	-	-	4.3	-	-	-	-	54.6	92.9
Rulindo	6.4	-	-	0.0	4.8		-	-	-	-	19.1	-	-	-	-	93.6	76.2	100.0
Gakenke	14.1	-	10.2	-	-		-	-	-	-	-	-	12.1	-	-	73.7	100.0	89.8
Musanze	16.0	-	16.7	-	-		-	-	-	-	-	2.8	-	-	-	84.0	100.0	80.6
Burera	-		8.7	-			-		-	-		-	-		-	-		91.3
Gicumbi	-	-	-	-	-		-	-	-	-	-	-	-	-	-	100.0	100.0	100.0
Rwamagana	8.2	15.8	8.4	0.1	10.5		0.1	21.1	-	-	5.3	-	-	2.6	7.5	91.6	44.7	84.1
Nyagatare	3.5	47.2	30.4	45.0	11.3		0.1	1.9	-	2.4	11.3	-	0.4	18.9	12.5	48.7	9.4	57.1
Gatsibo	64.1	24.1	-	0.0	13.8		-	-	-	-	-	3.4	-	3.5	-	35.9	58.6	96.6
Kayonza	80.5	8.8	17.6	0.0	14.7		-	-	-	-	-	-	0.0	11.8	-	19.4	64.7	82.4
Kirehe	99.6	22.0	56.2	0.1	10.0		-	-	-	0.1	26.0	0.8	0.2	28.0	-	0.0	14.0	43.0
Ngoma	19.7	33.3	21.5	0.2	46.7		0.0	-	-	-	-	-	-	-	-	80.2	20.0	78.5
Bugesera	1.2	2.0	18.9	15.4	31.4		0.0	15.7	-	0.1	5.9	27.0	-	-	-	83.2	45.1	54.1
National	**23.0**	**16.6**	**16.1**	**4.9**	**21.6**		**0.0**	**3.4**	**0.3**	**0.0**	**6.0**	**1.6**	**0.7**	**5.3**	**0.8**	**71.5**	**47.1**	**81.3**

Source: NISR, SAS 2020

Table 57: Source of water used for irrigation, per season and district in 2020 (%)

District	Rainwater			Water treatment			Underground			Lake / streams			Water catchment		
	Season A	Season B	Season C	Season A	Season B	Season C	Season A	Season B	Season C	Season A	Season B	Season C	Season A	Season B	Season C
Nyarugenge	22.22	0	0	11.11	12.5	1.85	-	25	38.89	44.44	37.5	59.26	22.22	25	0
Gasabo	0	0	0	0	4	0	18.18	16	42.22	72.73	76	51.11	9.09	4	6.67
Kicukiro	0	0	0	0	0	0	0	18.18	4.84	90	63.64	95.16	10	18.18	0
Nyanza	0	0	0	5	0	0	50	18.52	32.14	35	70.37	67.14	10	11.11	0.71
Gisagara	0	0	0	5.26	0	0	52.63	53.57	76.72	36.84	39.29	15.52	5.26	7.14	7.76
Nyaruguru	0	0	0	0	0	0	0	20	42.86	100	80	57.14	0	0	0
Huye	3.33	3.33	0	0	3.33	0	13.33	23.33	41.33	70	56.67	58	13.33	13.33	0.67
Nyamagabe	0	0	0	0	33.33	0	0	0	64.71	100	66.67	35.29	0	0	0
Ruhango	5.26	6.25	0	10.53	6.25	0	47.37	25	46.05	31.58	59.38	51.32	5.26	3.13	2.63
Muhanga	0	0	0	0	0	0	50	62.5	73.91	30	25	26.09	20	12.5	0
Kamonyi	0	3.03	0	3.85	9.09	0	46.15	39.39	50.51	26.92	42.42	30.3	23.08	6.06	19.19
Karongi	0	0	0	0	0	0	33.33	90.91	40.74	33.33	9.09	59.26	33.33	0	0
Rutsiro	0	0	0	0	0	0	66.67	100	59.46	33.33	0	40.54	0	0	0
Rubavu			0			0			88.89			11.11			0
Nyabihu		0	0		100	0		0	66.67		0	33.33		0	0
Ngororero	0	0	0	0	18.18	0	9.09	45.45	100	81.82	27.27	0	9.09	9.09	0
Rusizi	4.55	0	0	13.64	0	0	27.27	0	33.33	54.55	100	66.67	0	0	0
Nyamasheke	0	0	0	0	9.09	0	20	27.27	25.35	80	63.64	74.65	0	0	0
Rulindo	0	0	0	0	0	22.22	8.33	47.62	64.44	91.67	47.62	13.33	0	4.76	0
Gakenke	0	0	0	0	0	0	37.5	44.44	13.13	62.5	55.56	86.87	0	0	0
Musanze	25	0	2.78	0	11.11	8.33	50	33.33	8.33	25	55.56	80.56	0	0	0
Burera			0			0			21.74			78.26			0
Gicumbi	33.33	0	0	0	0	0	66.67	0	22.73	0	100	77.27	0	0	0
Rwamagana	8.82	2.63	1.82	17.65	7.89	0	8.82	7.89	30	38.24	60.53	50.91	26.47	21.05	17.27
Nyagatare	18.18	16.42	1.75	2.27	4.48	0	4.55	14.93	19.3	47.73	37.31	73.68	27.27	26.87	5.26
Gatsibo	0	9.68	4.35	0	0	2.9	58.33	51.61	40.58	8.33	9.68	50.72	33.33	29.03	1.45
Kayonza	0	0	0	0	0	0	51.72	41.67	17.86	44.83	52.78	55.95	3.45	5.56	26.19
Kirehe	0	0	1.59	0	3.92	0	32	13.73	35.71	68	80.39	38.89	0	1.96	23.81
Ngoma	5.56	0	0	27.78	13.33	0	55.56	46.67	0	5.56	40	100	5.56	0	0
Bugesera	1.54	5.45	7.59	0	0	0	23.08	27.27	30.38	61.54	58.18	56.96	13.85	9.09	5.06
National	**4.37**	**3.61**	**0.71**	**4.59**	**4.26**	**0.76**	**28.6**	**29.51**	**37.9**	**49.78**	**52.13**	**54.92**	**12.66**	**10.49**	**5.71**

Source: NISR, SAS 2020

Table 58: Type of anti-erosion activities, per season and district in 2020 (%)

Disrtict	Ditches			Trees/Windbreak/ shelterbelt			Bench/Radical terraces			Progressive terraces			Cover plants			Water drainage			Mulching			Beds/ridges			Water channels			Others		
	Season A	Season B	Season C	Season A	Season B	Season C	Season A	Season B	Season C	Season A	Season B	Season C	Season A	Season B	Season C	Season A	Season B	Season C	Season A	Season B	Season C	Season A	Season B	Season C	Season A	Season B	Season C	Season A	Season B	Season C
Nyarugenge	16.19	5.0	-	14.3	5.5	-	-	-	-	8.1	15.9	-	44.3	44.5	5.9	-	1.7	41.2	6.7	12.1	23.5	9.5	11.0	11.8	0.5	4.4	17.7	0.5	-	-
Gasabo	5.58	3.4	-	10.6	11.0	-	1.1	0.7	-	3.7	7.4	1.9	56.1	50.5	19.2	12.3	15.0	5.8	0.7	1.7	7.7	3.7	0.9	3.9	2.6	4.0	61.5	3.5	5.5	-
Kicukiro	11.98	5.4	5.6	11.5	9.5	-	2.1	1.4	-	1.0	3.4	-	26.0	16.3	-	14.1	15.0	-	7.3	12.9	5.6	12.5	6.8	44.4	8.3	27.2	44.4	5.2	2.0	-
Nyanza	4.56	11.0	-	3.3	10.9	5.7	3.5	2.9	8.0	23.5	6.7	3.4	48.1	46.2	22.7	8.7	11.7	5.7	0.5	0.2	-	1.7	3.4	22.7	5.4	4.1	29.6	0.8	2.9	2.3
Gisagara	4.46	4.9	2.3	3.3	2.3	-	2.0	2.0	1.2	4.7	3.5	1.2	30.9	32.7	8.1	38.9	36.9	25.3	0.3	0.8	-	2.1	2.5	25.3	6.4	5.6	36.8	7.0	8.7	-
Nyaruguru	6.99	6.8	5.9	8.8	7.6	1.7	2.3	4.3	0.9	17.8	14.6	-	47.2	50.1	22.0	6.6	5.1	6.8	1.5	1.6	0.9	1.2	0.3	0.9	7.5	9.8	61.0	-	-	-
Huye	5.54	4.9	5.3	6.6	8.2	1.1	2.6	2.1	-	7.6	12.1	6.3	35.9	33.8	16.8	29.9	25.0	2.1	1.1	1.2	1.1	1.5	1.0	11.6	3.3	4.8	55.8	6.0	7.1	-
Nyamagabe	9.3	5.1	4.8	2.8	2.6	-	10.6	10.9	1.2	15.4	20.3	-	54.9	54.2	22.6	0.2	1.1	22.6	1.6	1.8	1.2	1.2	0.3	2.4	4.0	3.7	45.2	-	-	-
Ruhango	6.87	8.9	1.8	2.0	3.9	2.7	0.2	0.5	-	21.8	14.9	-	50.6	50.1	27.9	8.4	10.7	3.6	1.0	0.6	0.9	1.6	0.8	36.9	7.0	7.1	26.1	0.5	2.5	-
Muhanga	9.37	6.1	-	9.2	5.5	-	3.5	3.3	-	4.6	3.4	-	51.9	58.0	33.9	7.3	4.6	-	5.4	8.0	1.6	2.3	2.2	17.7	3.1	3.9	46.8	3.6	5.1	-
Kamonyi	8.25	4.9	1.3	3.7	5.5	-	0.7	0.1	-	13.2	5.6	9.2	50.2	60.9	26.3	11.9	6.8	-	1.9	4.1	-	1.8	3.3	9.2	5.5	4.1	54.0	2.8	4.7	-
Karongi	13.25	20.8	15.0	10.2	4.8	1.7	5.0	4.7	-	1.5	6.5	8.3	59.5	53.5	28.3	-	1.0	-	0.5	0.8	3.3	0.5	0.8	5.0	9.7	7.1	38.3	-	-	-
Rutsiro	6.78	7.4	7.7	9.0	11.9	-	5.4	5.9	-	6.4	11.5	2.6	64.6	55.7	59.0	0.9	-	-	4.1	4.2	5.1	0.5	-	10.3	2.4	3.4	15.4	-	-	-
Rubavu	1.67	2.4	4.3	5.5	3.4	11.2	4.8	5.1	7.9	2.9	5.1	1.2	22.7	23.1	19.8	-	-	-	-	1.2	1.9	62.4	59.6	50.2	-	-	3.6	-	-	-
Nyabihu	0.17	0.5	4.4	8.7	8.0	3.1	16.6	16.0	19.5	8.3	15.8	5.6	47.9	43.9	48.4	-	-	-	0.5	0.2	0.4	17.2	15.1	17.7	0.7	0.6	1.0	-	-	-
Ngororero	9.19	4.3	-	5.3	2.5	-	5.8	7.7	7.1	3.8	1.5	3.6	67.4	73.0	60.7	-	0.6	-	2.3	4.2	-	0.6	1.4	10.7	5.4	4.8	17.9	0.2	-	-
Rusizi	11.58	13.6	23.8	20.5	20.1	28.6	0.2	0.2	-	10.7	7.2	-	40.6	53.0	23.8	9.1	1.5	9.5	1.9	1.5	9.5	3.5	1.8	-	1.7	1.2	4.8	0.3	-	-
Nyamasheke	6.81	8.9	2.7	15.5	10.5	20.3	2.5	2.7	6.8	1.9	4.4	2.7	60.4	56.5	20.3	6.0	7.5	6.8	2.5	5.5	-	0.4	1.2	18.9	3.5	2.6	21.6	0.5	0.3	-
Rulindo	15.9	16.8	-	7.2	5.5	-	11.9	12.5	6.2	4.9	2.1	-	48.5	50.4	33.9	0.7	2.6	15.4	0.4	0.4	-	2.9	2.4	10.8	4.4	6.7	33.9	3.3	0.7	-
Gakenke	2.92	3.7	1.1	1.8	2.4	9.6	4.4	4.5	1.1	5.5	4.6	2.1	78.0	74.5	48.9	-	0.3	8.5	1.5	5.7	1.1	0.6	1.5	6.4	5.4	2.9	21.3	-	-	-
Musanze	0.53	0.2	2.0	4.6	0.7	3.2	7.9	7.0	5.5	1.9	4.2	1.7	33.1	30.9	31.1	1.8	3.3	2.2	1.1	-	1.2	46.8	51.8	51.3	2.5	1.9	1.8	-	-	0.2
Burera	0.5	0.2	3.0	6.1	6.3	4.4	3.6	3.6	4.1	18.0	12.4	9.4	52.2	56.0	50.9	-	0.5	0.6	0.3	0.2	0.4	15.7	17.0	21.0	3.6	3.9	6.3	0.1	-	-
Gicumbi	0.46	0.3	-	1.8	0.5	1.9	15.1	14.9	-	12.3	19.8	-	65.4	59.2	39.6	0.7	0.1	-	0.8	0.4	1.9	0.1	0.1	11.3	3.3	4.8	45.3	-	-	-
Rwamagana	10.17	9.3	-	7.0	6.7	-	5.0	4.6	-	5.5	10.6	-	53.0	46.4	11.1	6.9	6.1	11.1	2.6	4.9	-	2.2	3.1	-	0.3	0.4	77.8	7.4	7.9	-
Nyagatare	21.32	17.3	1.5	10.6	1.8	-	-	0.3	-	2.6	4.4	1.5	33.8	33.9	7.7	22.2	26.9	43.1	1.7	5.9	1.5	2.4	4.2	9.2	2.6	2.6	35.4	2.9	2.6	-
Gatsibo	3.08	1.7	1.2	6.3	7.0	-	2.3	2.2	-	4.9	11.0	-	65.4	45.7	28.6	12.2	14.7	16.7	1.5	9.5	2.4	1.6	3.9	2.4	2.4	3.8	48.8	0.3	0.5	-
Kayonza	10.8	8.3	-	3.3	1.4	-	12.7	10.3	-	1.4	0.2	-	39.9	34.4	8.1	15.5	23.9	21.6	3.6	5.1	21.6	1.7	5.5	5.4	11.1	7.8	43.2	-	3.2	-
Kirehe	14.82	9.8	4.8	8.9	3.1	2.4	1.0	0.1	-	9.6	0.3	-	35.2	52.2	35.7	20.3	23.6	14.3	7.1	7.0	7.1	1.5	0.3	16.7	1.2	0.8	19.1	0.5	2.8	-
Ngoma	5.46	4.6	-	2.7	2.9	15.4	3.9	4.6	-	8.5	2.6	-	48.9	46.1	3.9	22.6	26.8	3.9	5.4	10.4	-	0.9	1.1	-	1.5	0.8	76.9	0.1	0.1	-
Bugesera	19.57	16.8	-	9.1	8.2	-	0.1	1.2	-	4.4	5.1	-	37.4	34.8	11.1	17.4	19.6	-	3.5	4.8	5.6	6.0	3.7	22.2	2.1	3.1	61.1	0.4	2.8	-
National	**7.86**	**7.2**	**3.2**	**6.8**	**5.9**	**4.3**	**4.5**	**4.8**	**6.0**	**8.7**	**8.4**	**3.7**	**50.0**	**49.3**	**33.8**	**9.5**	**9.6**	**4.5**	**2.1**	**3.5**	**1.5**	**5.1**	**5.2**	**25.1**	**3.8**	**4.0**	**18.0**	**1.6**	**2.2**	**0.1**

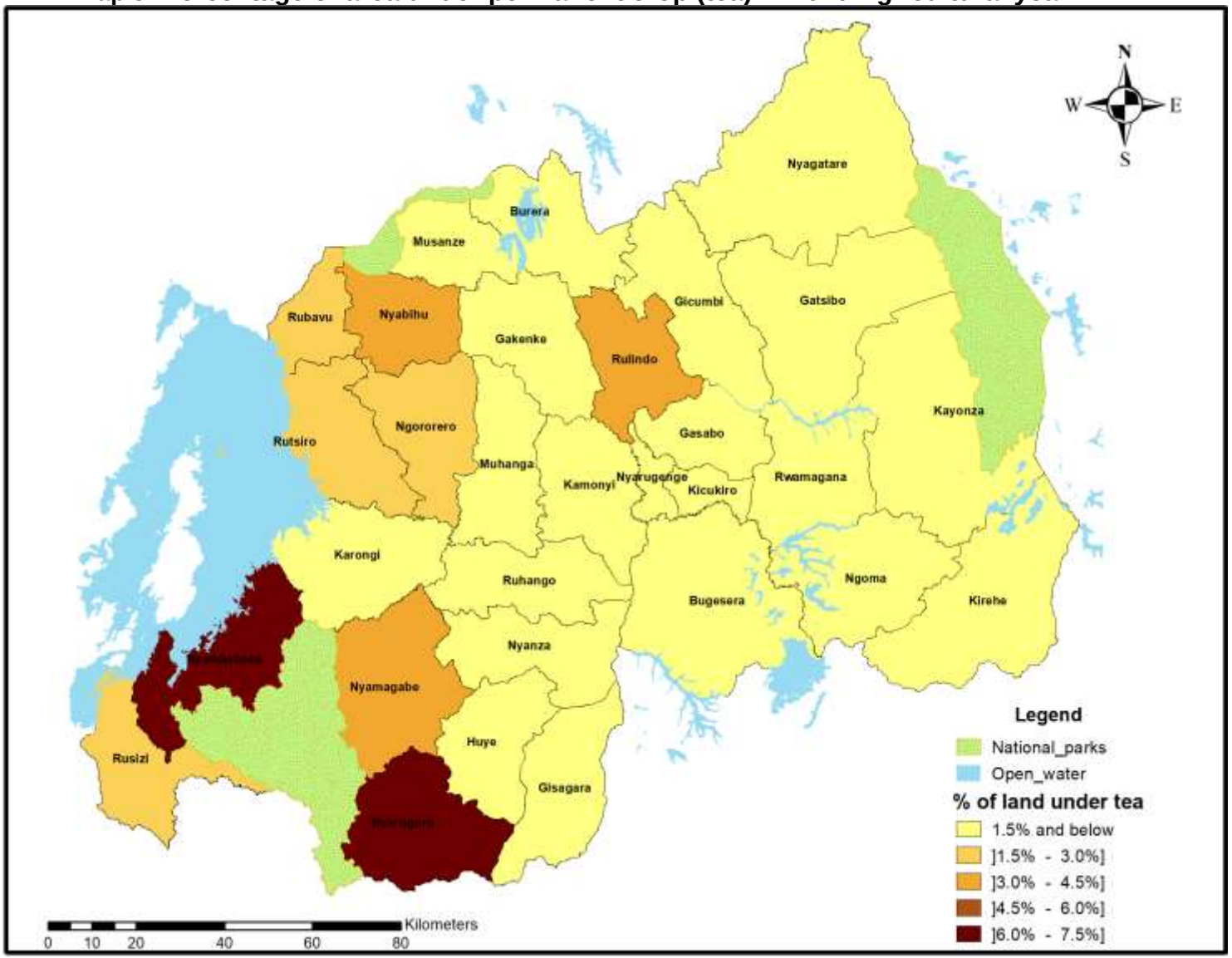
Table 59 : Degree of erosion, per season and district in 2020 (%)

District	Severe (Rill erosion, Gully erosion, Mass movement/Landslides)			Moderate (Diffuse overland flow erosion, overland flow erosion)			Low (wind erosion)			Very Low (splash erosion)		
	Season A	Season B	Season C	Season A	Season B	Season C	Season A	Season B	Season C	Season A	Season B	Season C
Nyarugenge	0.7	0.3	-	8.9	6.2	-	35.6	39.1	10.0	54.8	54.4	90.0
Gasabo	1.7	5.5	6.6	5.2	13.2	50.3	10.4	8.5	40.1	82.7	72.8	2.9
Kicukiro	1.1	0.8	-	5.0	4.0	4.9	31.4	22.8	60.9	62.6	72.4	34.2
Nyanza	3.7	5.6	6.3	33.3	15.5	15.5	43.0	17.4	10.7	20.0	61.5	67.5
Gisagara	1.3	0.3	-	2.1	2.6	7.3	5.5	0.4	3.9	91.1	96.6	88.8
Nyaruguru	0.4	0.9	-	8.5	6.1	2.8	20.5	40.5	70.3	70.5	52.5	27.0
Huye	0.6	0.0	0.7	5.3	5.4	8.9	22.5	27.7	15.9	71.6	66.9	74.5
Nyamagabe	8.5	8.7	0.4	25.4	13.5	-	34.1	23.3	6.1	32.0	54.5	93.5
Ruhango	2.2	2.0	0.9	18.4	26.2	19.3	32.6	30.8	29.5	46.7	41.0	50.4
Muhanga	1.4	9.5	-	16.8	23.4	2.5	37.1	46.8	66.1	44.7	20.3	31.5
Kamonyi	1.1	3.2	-	14.6	12.7	-	40.0	62.8	20.7	44.3	21.3	79.4
Karongi	1.3	0.3	0.0	12.0	17.4	-	40.5	52.6	0.3	46.2	29.7	99.7
Rutsiro	3.9	7.1	0.1	13.9	6.0	53.6	41.6	48.9	29.8	40.6	38.0	16.5
Rubavu	2.6	3.3	1.9	5.5	4.6	7.0	31.1	29.7	20.3	60.7	62.4	70.8
Nyabihu	1.9	9.5	8.3	11.4	15.0	17.2	33.9	28.8	39.3	52.8	46.6	35.3
Ngororero	5.7	11.6	0.1	14.1	15.3	0.0	47.5	43.7	15.3	32.7	29.4	84.6
Rusizi	8.1	2.2	-	13.1	26.2	-	22.0	45.1	-	56.8	26.6	100.0
Nyamasheke	0.8	1.6	-	9.4	1.8	15.1	20.5	4.6	0.0	69.4	92.0	84.9
Rulindo	2.0	8.4	-	10.6	16.6	-	24.9	19.9	55.2	62.6	55.1	44.8
Gakenke	1.4	12.8	-	21.0	36.3	5.2	71.2	37.2	46.6	6.4	13.7	48.1
Musanze	0.0	4.2	1.8	6.0	7.5	2.7	38.7	33.5	28.1	55.2	54.8	67.4
Burera	1.5	3.1	1.7	18.6	3.8	1.5	44.3	22.9	25.8	35.6	70.2	70.9
Gicumbi	1.2	3.6	-	10.8	4.6	22.6	17.3	27.5	12.4	70.7	64.3	65.0
Rwamagana	0.0	0.5	1.5	1.1	0.7	11.4	25.2	3.6	47.8	73.7	95.2	39.2
Nyagatare	0.8	3.0	29.0	7.1	11.3	7.3	11.9	21.4	10.3	80.1	64.3	53.4
Gatsibo	1.2	1.4	0.0	14.2	13.2	0.0	28.6	49.4	14.2	56.0	36.0	85.8
Kayonza	2.2	1.4	-	14.7	7.0	0.0	26.2	26.3	5.3	57.0	65.4	94.7
Kirehe	0.4	1.8	0.2	6.5	3.4	20.3	38.7	23.3	68.2	54.3	71.6	11.4
Ngoma	0.0	0.2	-	6.0	8.9	0.0	54.3	25.9	11.9	39.6	65.0	88.1
Bugesera	0.8	3.1	-	17.2	1.4	3.6	13.9	15.1	24.6	68.0	80.5	71.8
National	**2.1**	**4.3**	**2.5**	**12.9**	**12.1**	**8.6**	**32.9**	**30.5**	**29.9**	**51.9**	**53.1**	**59.0**

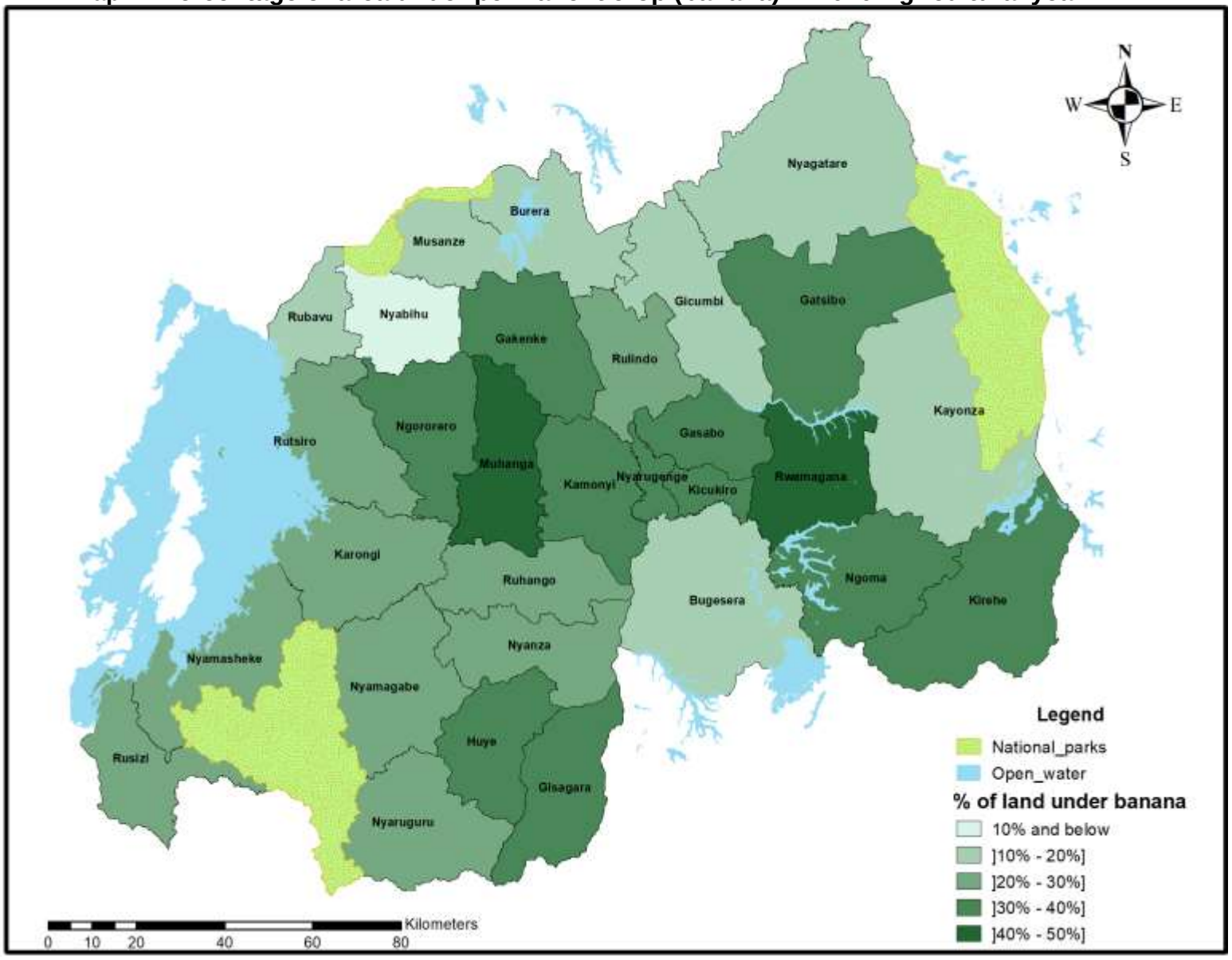
Source: NISR, SAS 2020

ANNEX

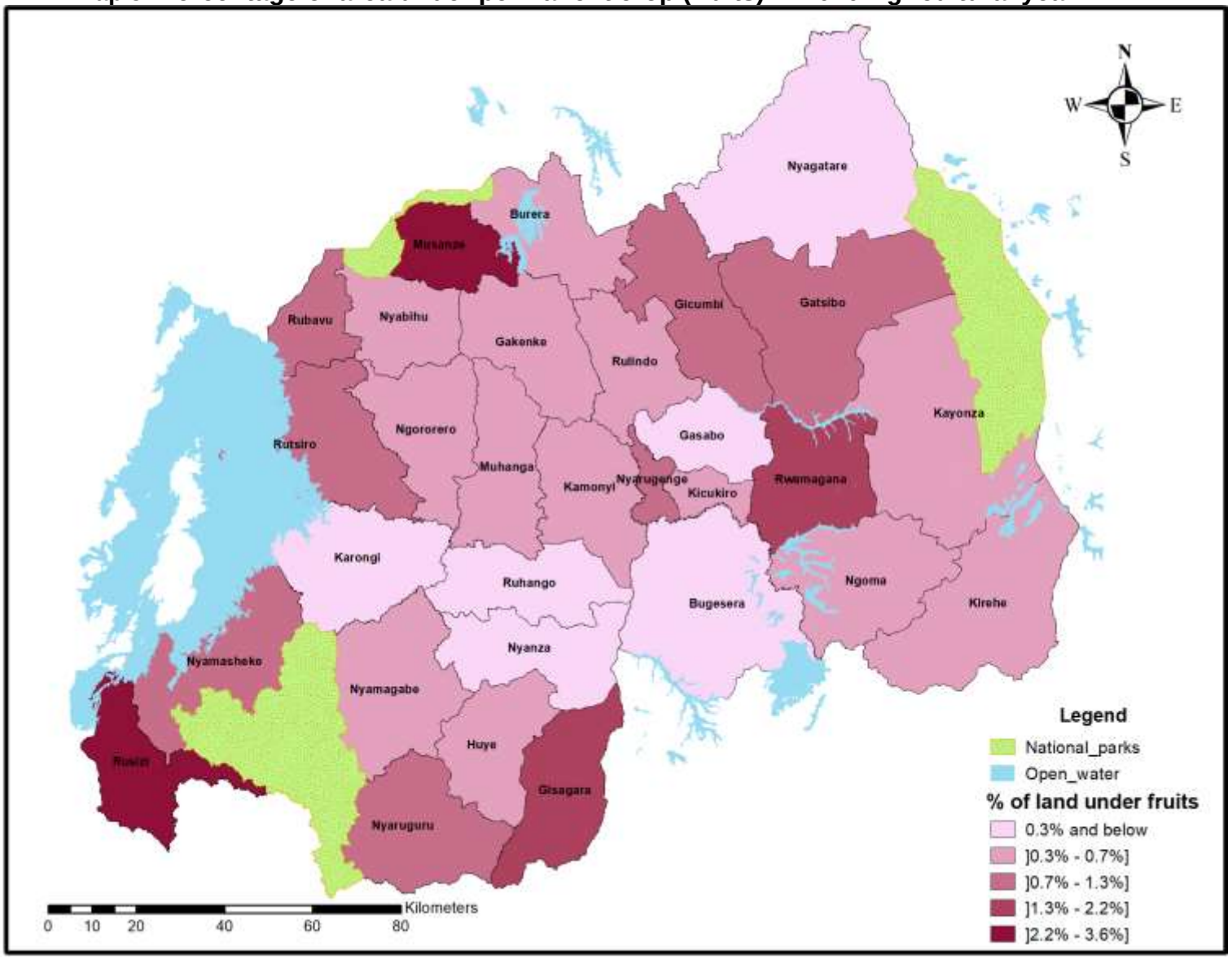
Map 3: Percentage of area under permanent crop (tea) in 2020 Agricultural year



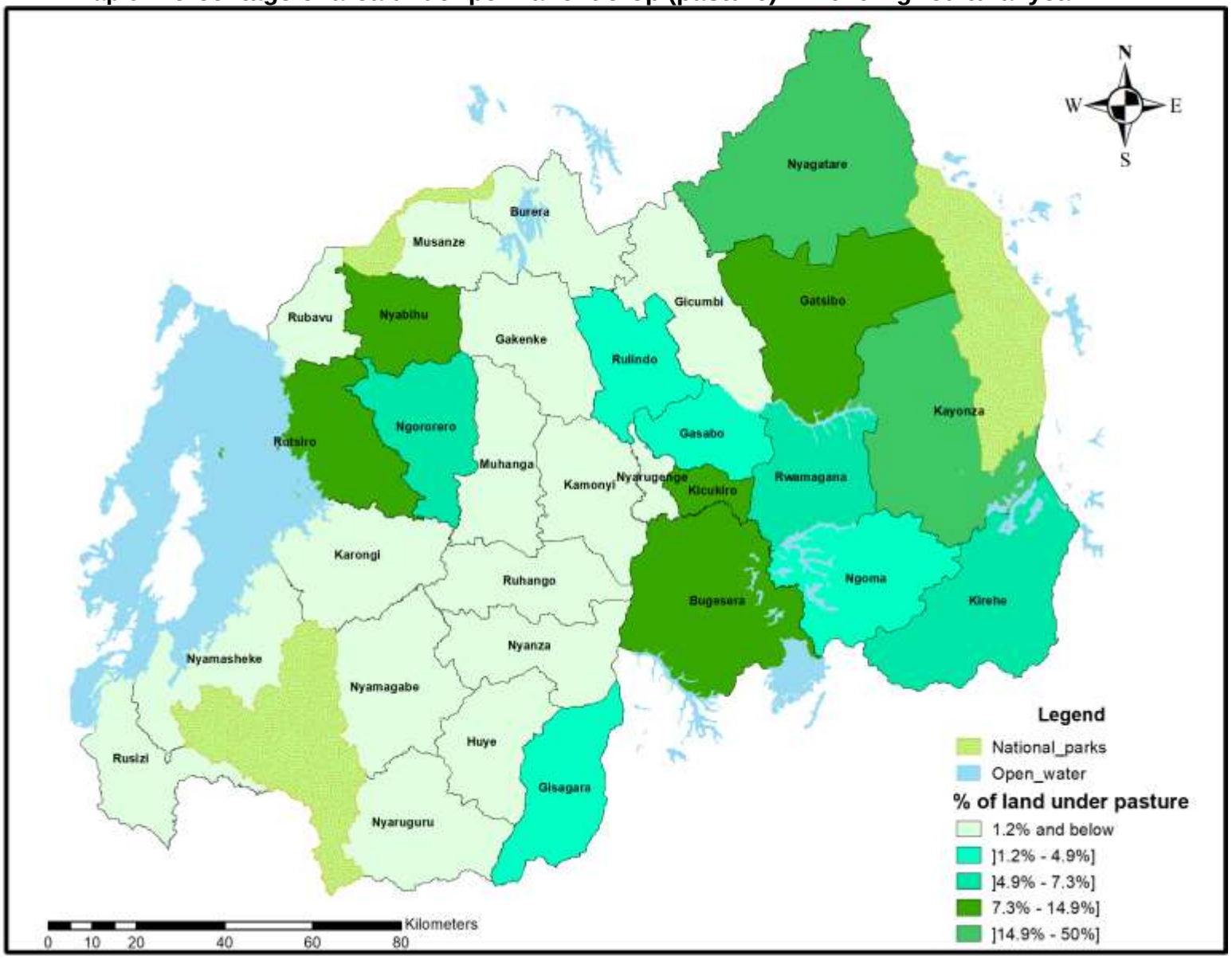
Map 4 : Percentage of area under permanent crop (banana) in 2020 Agricultural year



Map 5: Percentage of area under permanent crop (fruits) in 2020 Agricultural year



Map 6: Percentage of area under permanent crop (pasture) in 2020 Agricultural year



STAFF WHO CONTRIBUTED TO THE UPGRADED SEASONAL AGRICULTURAL SURVEY 2020

Technical coordination

- MWIZERWA Jean Claude, Director of Economic Statistics Unit
- ABAYISENGA Aimable, Agriculture and Environmental statistician Team Leader
- BIZIMUNGU Clément, Field operations Cartographer Officer

Sample frame design

- ABAYISENGA Aimable, Agriculture and Environmental statistician Team Leader
- BURAMBA Eric, Seasonal Crop Production Statistician
- BIGIRIMANA Florent, Census Program Manager
- David J. Megill, Consultant
- Francisco Javier Gallego Pinilla, Consultant

Field work coordination

- KAMANZI SHINGIRO Jean Philbert, Research assistant
- MUKAMAZIMPAKA Francine, Perennial crops and horticulture statistician
- UWIZEYIMANA Lambert, Forestry and environmental statistics statistician
- RWAYITARE Jean Bosco, Research assistant

Data analysis

- ABAYISENGA Aimable, Agriculture and Environmental statistician Team Leader
- BURAMBA Eric, Seasonal Crop production Statistician
- UWAMAHORO Didas, Regional price and economic data collector officer
- MUVUNYI Issa, Livestock and fisheries production statistician
- MUTEBUTSI Alexis, Research assistant
- MUREBWAYIRE Divine, Research assistant
- UWIZEYIMANA Lambert, Forestry and environmental statistics statistician

GIS

- BIZIMUNGU Clément, Field operations Cartographer Officer
- KARERA Albert, Geometrician in charge of map design & production
- NIYONSENGA J. Claude, GIS staff
- NTAWIHA Athanasie, GIS staff
- IRAMBONA Eddy Marcus, GIS staff
- NIYITEGEKA Beata, Cartographer support staff
- NDAZIGARUYE Alfred, Cartographer support staff
- NGABO MUHIRE Olympe, GIS Support Staff
- KICONCO Jovia, GIS Support Staff

Data processing

- SEBAHIRE Jean Népomuscène, Food Security & Agriculture Surveys Data Processing Officer
- RWAYITARE Jean Bosco, Research assistant
- HAGENIMANA Jean Damascène, IT Support staff
- ISIMBI Bélise, IT Support staff
- INGABIRE MUTONI Pamela, IT support Staff
- NIYONGIRA Patrick, IT support Staff

Report writing and editing

- MUTEBUTSI Alexis, Research assistant
- Rwayitare Jean Bosco, Research assistant