Republic of Rwanda

NISR
NATIONAL INSTITUTE OF STATISTICS OF RWANDA

SEASONAL AGRICULTURAL SURVEY

SEASON B

2025

The Seasonal Agricultural Survey report is produced by the National Institute of Statistics of Rwanda (NISR):

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INTRODUCTION

1.1 Background

High-quality agricultural statistics are fundamental in assessing the performance of national agricultural programs and hence, imperative for evidence-based decision making. As the application of statistical data in decision- making processes continues to grow, the demand for reliable agriculture data is also increasing. In this regard, the National Institute of Statistics of Rwanda (NISR), in collaboration with the Ministry of Agriculture and Animal Resources (MINAGRI) conducts the Seasonal Agricultural Survey (SAS). This survey is designed to collect agricultural information, mainly related to potential agricultural land use, crop area, yield and production, agricultural inputs, agricultural practices, and other critical agricultural statistics.

These survey data are supplemented by administrative records collected by the National Agricultural Export Development Board (NAEB) through its routine monitoring of coffee and tea production. The NISR conducts the Seasonal Agricultural Survey (SAS) following three principal agricultural seasons. Season A (September to February of the following year), Season B (March to June) while Season C (July-September) is a shorter season dedicated mainly to the cultivation of vegetables and sweet potato in swamps and Irish potato in the volcanic agro- ecological zone.

1.2 Objectives of the Seasonal Agricultural Survey (SAS)

The primary 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. The survey's results are instrumental in monitoring current agricultural and food supply conditions, thereby facilitating evidence-based decision making for the development of the agricultural sector.

The survey specifically captures data related to land use, including agricultural land, arable land, physical crop cultivated area, crop land, pasture land, and fallow land. It also generates information on crop production, measuring the quantity of harvested crop in kilograms or tons. Additionally, the survey assesses crop yield, indicating the quantity of crop harvested per unit of land area in kilograms per hectare. Moreover, it examines the use of inputs such as improved seeds, fertilizers, and pesticides. Finally, the survey delves into various agricultural practices, including irrigation, soil erosion protection, agroforestry, and agriculture mechanization.

Chapter 2

SURVEY DESIGN

2.1 Sample frame design

To establish a foundation for conducting probability-based surveys that comprehensively cover farm-level data and to enhance the precision of survey estimates, SAS uses a Multiple Frame Sampling (MFS) methodology. This approach involves constructing an area frame from which the survey sample is drawn. In addition, this frame is completed by a list frame of Large-Scale Farmers (LSF), defined as those operating at least 10 hectares of agricultural land. This ensures coverage of crops predominantly cultivated by large-scale farmers, which may not be adequately represented in the standalone area frame. The construction of an area frame involves several steps, including land cover classification, land stratification and sampling of segments.

2.1.1. Land cover classification

Land classification constitutes the initial step in designing the sampling frame for the Seasonal Agriculture Survey. This process involves categorizing the total available land in the country into different land use and land cover types. The purpose is to enhance sampling precision by targeting the adequate land. With a combination of different spatial layers available in the country, plus a photo interpretation of a time series (2010 to 2023) of high-resolution (50 to 30 cm) satellite images the total land of the country was divided into 14 land cover classes (as shown in Table 1).

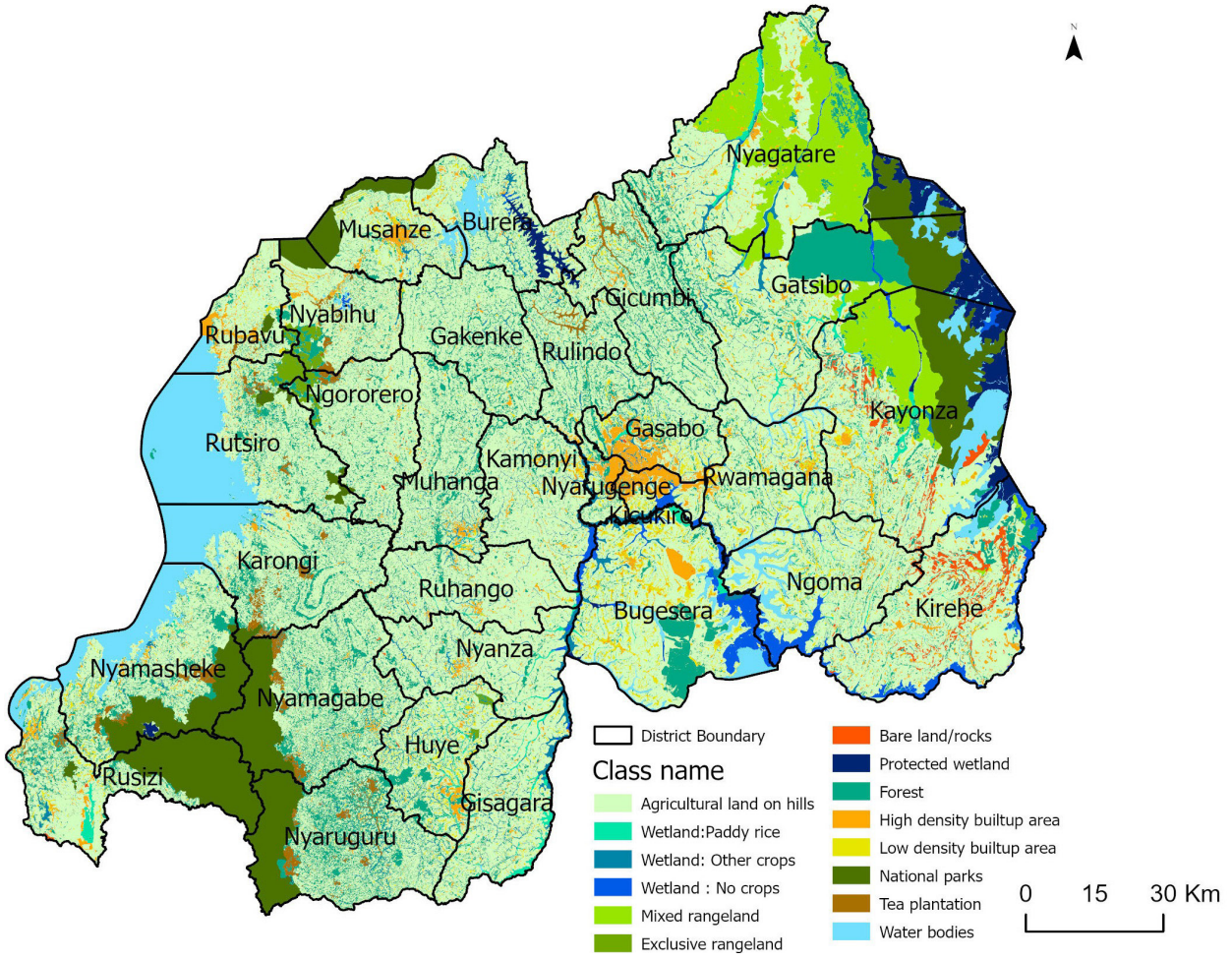
Table 1: List of Rwanda land cover classes

No	Class name	Area (Ha)	Percentage share
1	Agricultural land on hills	1,307,956	51.7
2	Non-rice Agricultural Wetland	56,905	2.2
3	Mixed rangeland	127,640	5.0
4	Low-density built-up area	95,740	3.8
5	Paddy rice wetland	22,825	0.9
6	Tea plantation	23,732	0.9
7	Non cropped wetlands	36,846	1.5
8	Forest	381,391	15.1
9	National parks	190,247	7.5
10	Water bodies	155,030	6.1
11	High-density built-up area	58,657	2.3
12	Protected wetland	45,883	1.8
13	Bare land/rocks	15,412	0.6
14	Exclusive rangeland	13,064	0.5

Source: NISR, SAS 2025

Six of the fourteen land cover classes are associated with agricultural activities. These include Agricultural land on hillsides, non-rice agricultural wetland, mixed rangeland, low-density built-up areas, wetlands designated for paddy rice, and tea plantation.

Map 1: Rwanda land classification map done in 2023



Source: NISR, SAS 2025

The subsequent step involves constructing the area frame which includes grouping the agriculturally relevant land cover classes into distinct strata to identify the sampling frame.

2.1.2 Land stratification

The stratification process integrates sampling units (clusters) with land use/land cover. Each cluster is assigned to a specific stratum based on its predominant land class type. Among the fourteen land cover classes, four are included into the agricultural survey frame, while the others are excluded.

The included land cover classes comprise hillside agricultural land, non-rice agricultural land, mixed rangeland, and Low-density built-up area (acknowledging its potential for agricultural production, such as kitchen gardens, fruit trees, and livestock). Certain agricultural land classes are excluded from the sampling frame. These exclusions comprise: tea plantations as they are subject to regular monitoring by the National Agricultural Export Development Board (NAEB), and wetlands designated for paddy rice cultivation are typically considered in Large-Scale Farmers, making them another component of the survey frame. Moreover, Since the 2024 SAS, a new land cover class called Exclusive Rangeland has been introduced specifically for areas used for pastoral activities. This class is also excluded from the sampling frame.

By overlapping the clusters layer with land cover classes layer, each cluster is assigned a dominant land cover class as a stratum definition, basing on a defined threshold as follow:

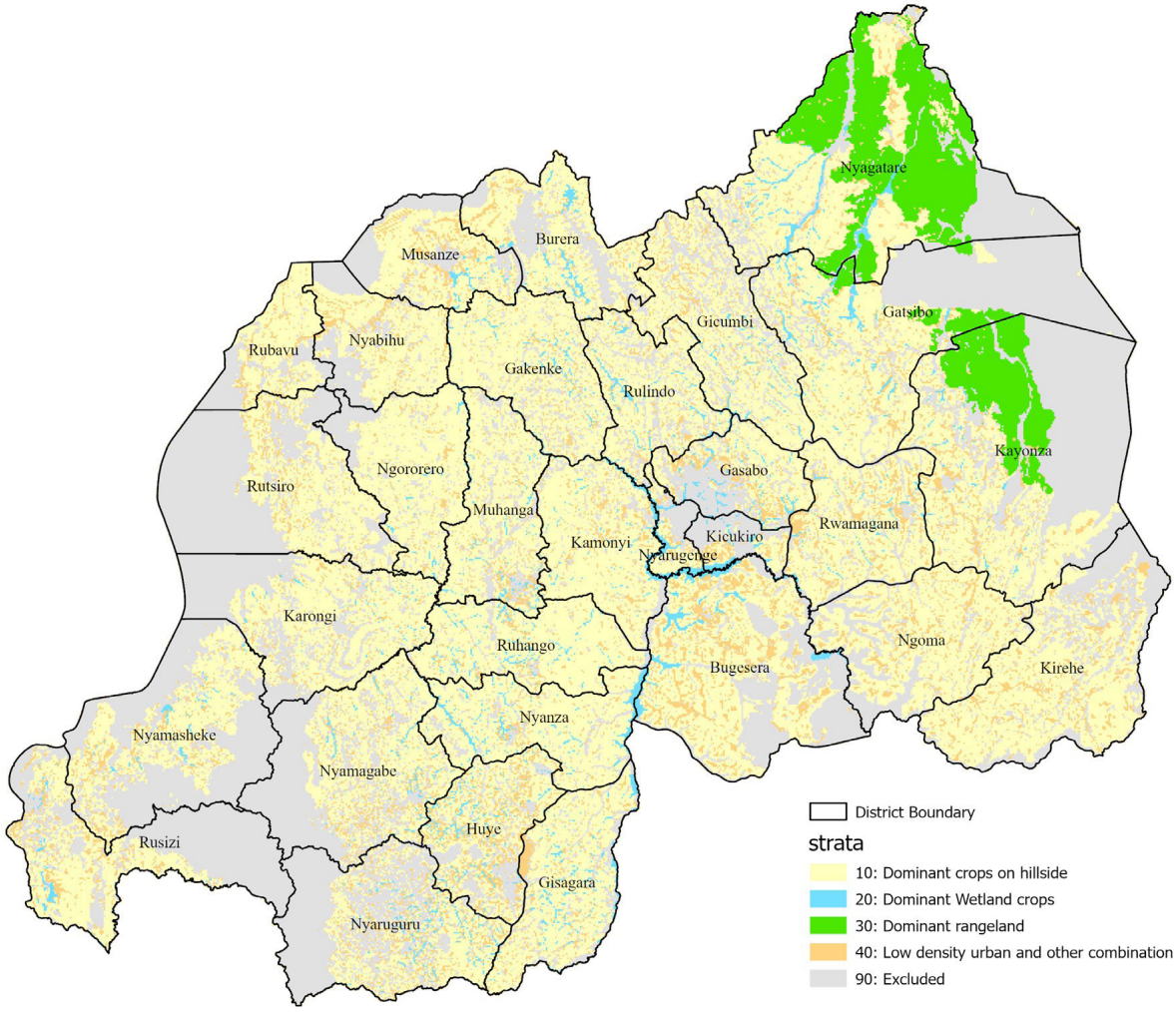
Table 2: List of strata

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

Source: NISR, SAS 2025

The SAS sample is drawn from four main strata: dominant hill crop land, dominant wetland crops, dominant rangeland, and mixed land strata.

Map 2: Distribution of stratified clusters by district



Source: NISR, SAS 2025

2.1.3.Sampling Units

The Seasonal Agricultural Survey is an area-based sample survey that uses land sampling units, small square land units of 300 by 300 meters (9ha). Geographic Information System (GIS) technology is used to create the units covering the whole country. The resulting sampling frame comprises a total of 269,989 square units (clusters), each identified by a unique cluster number as shown on the map below.

Map 3: SAS Sampling Units

Source: NISR, SAS 2025

Table 3: Population size per district by stratum (Number of segments)

District	Stratum					
	Dominant hill crop land	Dominant wetland crops	Dominant rangeland	Mixed stratum	Excluded stratum	Total
Nyarugenge	534	238	-	168	524	1,464
Gasabo	2,165	283	-	697	1,632	4,777
Kicukiro	461	179	-	233	1,000	1,873
Nyanza	5,688	520	-	500	744	7,452
Gisagara	5,197	397	-	824	1,077	7,495
Nyaruguru	3,568	343	-	1,300	6,027	11,238
Huye	3,160	346	-	1,466	1,496	6,468
Nyamagabe	5,344	263	-	1,154	5,352	12,113
Ruhango	5,663	336	-	489	487	6,975
Muhanga	4,983	237	-	760	1,200	7,180
Kamonyi	5,530	320	-	704	777	7,331
Karongi	5,757	117	-	726	2,159	8,759
Rutsiro	4,511	-	-	776	2,083	7,370
Rubavu	2,516	-	-	446	843	3,805
Nyabihu	3,481	-	-	671	1,896	6,048
Ngororero	5,580	134	-	461	1,276	7,451
Rusizi	3,731	155	-	886	5,500	10,272
Nyamasheke	4,584	134	-	953	4,839	10,510
Rulindo	4,144	304	-	625	1,219	6,292
Gakenke	5,934	249	-	671	966	7,820
Musanze	3,111	126	-	769	1,869	5,875
Burera	4,256	260	-	667	1,976	7,159
Gicumbi	5,883	208	-	950	2,176	9,217
Rwamagana	5,060	163	-	1,194	1,122	7,539
Nyagatare	6,591	516	9,112	1,112	4,050	21,381
Gatsibo	7,362	435	788	1,100	7,781	17,466
Kayonza	6,471	149	3,825	1,293	9,730	21,468
Kirehe	7,704			1,501	3,972	13,177
Ngoma	6,293		-	1,201	2,154	9,648
Bugesera	6,957	612	-	2,341	4,456	14,366
National	142,219	7,024	13,725	26,638	80,383	269,989

Source: NISR, SAS 2025

2.1.4.Sampling procedures

Out of five defined strata, only dominant hill crop land stratum, dominant wetland crops stratum, dominant rangeland stratum and mixed stratum are considered as land potential for agriculture. The remaining stratum is the non-agricultural land. Note that clusters covered by tea plantations and wetlands designated for paddy rice cultivation are not considered in the area sample frame due to reasons stated above. Thus, SAS is conducted on 4 above mentioned strata. At first stage,1200 segments are selected and allocated at district level based on the power allocation approach (Bankier, 1981). Sampled segments inside each district are distributed among strata with a proportional-to-area criterion.

Table 4: Allocation of 1200 sampled segments per district by stratum

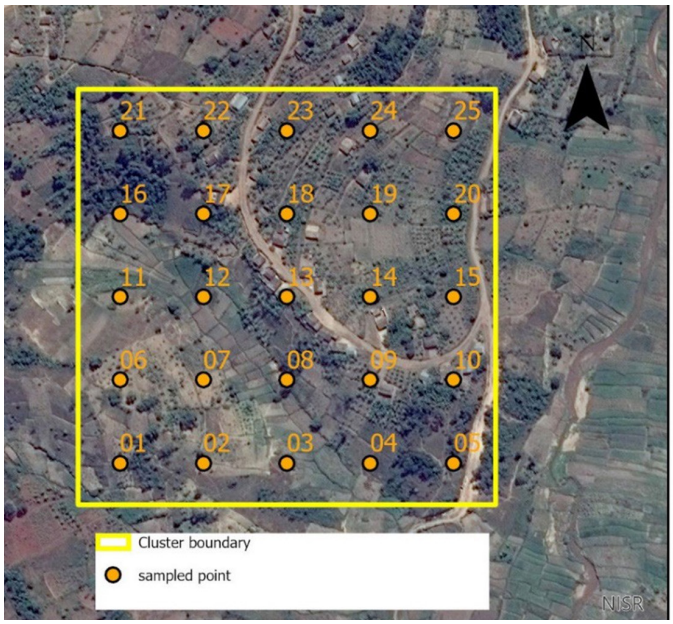
District	Agricultural land on hillside	Agricultural land in marshland	Rangeland	Mixed	Total
Nyarugenge	12	6		2	20
Gasabo	22	4		3	29
Kicukiro	13	5		2	20
Nyanza	37	4		2	43
Gisagara	33	5		3	41
Nyaruguru	25	3		7	35
Huye	27	3		5	35
Nyamagabe	36	2		6	44
Ruhango	36	3		3	42
Muhanga	33	3		4	40
Kamonyi	36	3		4	43
Karongi	38	2		3	43
Rutsiro	34			4	38
Rubavu	21			4	25
Nyabihu	29			3	32
Ngororero	38	2		3	43
Rusizi	27	2		5	34
Nyamasheke	31	2		5	38
Rulindo	28	3		4	35
Gakenke	37	2		4	43
Musanze	24	2		4	30
Burera	30	2		3	35
Gicumbi	37	2		5	44
Rwamagana	34	2		6	42
Nyagatare	31	5	25	7	68
Gatsibo	38	3	5	5	51
Kayonza	32	2	13	5	52
Kirehe	45			9	54
Ngoma	39			6	45
Bugesera	45	3		8	56
Total	948	75	43	134	1,200

Source: NISR, SAS 2025

At the second stage, 25 sample points are systematically selected, following a special distance of 60 meters between points. Sample points serve as reporting units within each segment. Enumerators visit each point, identify and delineate the plots in which the sample point falls, 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 4: Map showing square cluster(segment) with 25 sampled points



Source: NISR, SAS 2025

2.1.5. Weighting 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

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

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:

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

2.1.6.Sampling errors computation

The sample survey results can be subject to two types of errors: (i) sampling errors and (ii) non-sampling errors. Non-sampling errors encompass all sources of errors unrelated to sampling, occurring throughout all aspects of the survey process during data collection and processing. They are categorized into four types: coverage errors, measurement errors, non-response errors, and processing errors. While researchers take steps to minimize these errors during the survey design and implementation phases, it's practically impossible to eliminate them. Non-sampling errors, in particular, can be extremely challenging to identify and quantify accurately. Despite our best efforts, there's always some degree of uncertainty associated with survey results due to the presence of these errors.

Sampling errors are associated with the sampling selection process, arising from observing a sample instead of the entire population. They denote the disparity between the estimate derived from a sample survey and the true value that would result if a census of the whole population were conducted under the same conditions.

In order to examine the precision of the most important estimates from the SAS 2025 Season B data and the statistical efficiency of the agricultural area frame and sample design, it is important to calculate the sampling errors and corresponding coefficients of variation (CVs) for these estimates, such as the total area in each major crop. The sampling error of each estimate is measured by the standard error, which is the square root of the variance. The Complex Samples module of SPSS and Stata use a linearized Taylor series variance estimator that considers the stratification and clustering in the sample design.

The SPSS Complex Samples software had been used to calculate the sampling errors and CVs for estimates of the total area of major crops from the SAS data.

The formula for the estimate of a total can be expressed as follows:

$$\hat{Y} = \sum_{h=1}^{L} \sum_{i=1}^{n_h} \sum_{j=1}^{m_{hi}} W'_{hi}\, y_{hij} \ ,$$

Where:

L = number of strata

yhij = value of variable y for the j-th sample household in the i-th sample segment in stratum h

The variance estimator for a total used by the Complex Samples module of SPSS and Stata can be expressed as follows:

Variance Estimator for a Total :

$$\mathrm{V}(\hat{Y}) = \sum_{h=1}^{L} \left[\frac{n_h}{n_h - 1} \times \sum_{i=1}^{n_h} \left(\hat{Y}_{hi} - \frac{\hat{Y}_h}{n_h} \right)^2 \right]$$

Where

$$\hat{Y}_{hi} = \sum_{j=1}^{m_h} W'_h \; y_h$$

yhij = value of variable y for the j-th sample plot in the i-th sample segment of stratum h

The survey estimate of a ratio is defined as follows:

$$\hat{Y}_h = \sum_{i=1}^{n_h} \hat{Y}_{hi}$$

$$\hat{R} = \frac{\hat{Y}}{\hat{X}},$$

Where $\hat{Y}$ and $\hat{X}$ are estimates of totals for variables y and x, respectively, calculated as specified previously.

In the case of a stratified two-stage sample design, means and proportions are special types of ratios. In the case of the mean, the variable X, in the denominator of the ratio, is defined to equal 1 for each unit so that the denominator is the sum of the weights. For a proportion, the variable X in the denominator is also defined to equal 1 for all units; the variable Y in the numerator is binomial and is defined to equal either 0 or 1, depending on the absence or presence, respectively, of a specified characteristic for the unit.

The variance estimator for a ratio used by SPSS Complex Samples and Stata can be expressed as follows:
Variance Estimator for a Total

$$V(\hat{Y}) = \sum_{h=1}^{L} \left[(1 - f_h) \times \frac{n_h}{n_h - 1} \sum_{i=1}^{n_h} \left(\hat{Y}_{hi} - \frac{\hat{Y}_h}{n_h} \right)^2 \right],$$

Where:

$$\hat{Y}_{hi} = \sum_{j=1}^{m_h} W'_{hi} \; y_{hij}$$

Fh = first stage probability for stratum h; (1- fh) is the finite population correction (fpc) factor

$$\hat{Y}_h = \sum_{i=1}^{n_h} \hat{Y}_{hi}$$

yhij = value of variable y for the j-th sample plot in the i-th sample segment of stratum h

$$V(\hat{R}) = \frac{1}{\hat{X}^2} \left[V(\hat{Y}) + \hat{R}^2 \, V(\hat{X}) - 2 \, \hat{R} \, COV(\hat{X}, \hat{Y}) \right],$$

Variance Estimator for a Ratio

$$COV(\hat{X}, \hat{Y}) = \sum_{h=1}^{L} \left[(1 - f_h) \times \frac{n_h}{n_h - 1} \sum_{i=1}^{n_h} \left(\hat{X}_{hi} - \frac{\hat{X}_h}{n_h} \right) \left(\hat{Y}_{hi} - \frac{\hat{Y}_h}{n_h} \right) \right]$$

Where:

$V(\hat{Y})$ and $V(\hat{X})$ are calculated according to the formula for the variance of a total.

In addition to calculating the standard error, the program also computes the Design Effect (DEFF) for the main indicator, which is the area under cultivation. The Design Effect is defined as the variance of an estimate based on the actual complex sample design divided by the corresponding variance from a simple random sample of the same size. It serves as a measure of the relative statistical efficiency of the sample design, taking into account both the stratification and clustering present in the sample design.

The presence of clustering typically increases the design effect, owing to the intra-cluster correlation of plots within the segments. Simultaneously, the land-use stratification of the segments tends to decrease the design effects, as it proves to be more efficient than a simple random sample. This dual consideration of both factors provides a comprehensive assessment of the efficiency of the sample design in capturing the nuances of the area under cultivation. The estimates of the total area of major crops at the national level and the corresponding measures of precision (standard error (SE), the coefficient of variation (CV), the 95% confidence interval, the design effect (DEFF), and number of unweighted observation (n of sample plots) from the SAS 2025 Season B data are presented in Table 5

Table 5: Sampling Errors for major crops at the national level Season B 2025 data

Crop name	Estimate	SE	CV	95% Confidence Interval		DEFF	No. observations (plots)
				Lower	Upper		
Maize	93,005	3,890	0.042	85,373	100,637	0.111	3,340
Sorghum	107,195	5,137	0.048	97,115	117,274	1.135	1,840
Paddy rice	17,970	87	0.005	17,637	17,980	0.000	2,596
Sweet potato	89,679	3,025	0.034	83,745	95,614	2.411	1,950
Irish potato	45,940	3,186	0.069	39,687	52,192	1.185	1,474
Cassava	196,881	4,947	0.025	187,145	206,556	1.389	5,440
Bush bean	211,974	6,163	0.029	199,882	224,066	0.408	5,320
Climbing bean	123,078	4,630	0.038	113,996	132,167	2.606	3,030
Pea	8,089	827	0.102	6,467	9,711	0.762	353
Groundnut	17,803	1,507	0.085	14,846	20,760	1.088	369
Soybean	38,152	1,942	0.051	34,341	41,963	0.177	1,182
Cooking banana	85,221	3,750	0.044	77,863	92,578	1.269	3,306
Dessert banana	35,832	1,591	0.044	32,710	38,954	1.552	3,254
Banana for beer	117,067	4,308	0.037	108,614	125,520	1.290	3,710
Vegetables	20,699	1,414	0.069	17,711	23,260	0.860	702
Fruits	11,945	2,105	0.180	7,578	15,840	0.421	546

Source: NISR, SAS 2025

2.2. Data collection procedures

SAS data collection is carried out into two distinct phases: the first phase, known as screening, is done during the planting period. It consists of delineating all plots containing the sampled points in all sampled segments all Large-Scale Farmers (LSF) who have grown crops in the current season and recording information related to agricultural land use, grown crops and crop area, and expected harvesting period. The second phase involves collecting data in the agricultural plots identified during screening activity, which relates to crop production, agricultural inputs, and the agricultural practices.

2.2.1.Time frame and coverage

During the data collection for Season B 2025, the SAS was carried out across all 30 districts of the country, gathering data from 1,200 segments and 379 large-scale farmers. The season's data collection started on April 21st, 2025, and was concluded on June 30th, 2025. Specifically, the screening phase took place from April 21st to May 21st 2025, while the harvesting period started on May 22nd, 2025 and ended on June 30th, 2025. The survey achieved a 100% response rate, with full coverage of all sampled segments and active participation from all operators of the sampled plots as well as all sample large scale farmers.

2.2.2.Field staff

During this season, experienced 148 enumerators and 29 team leaders served in the field data collection after a refresher training. To ensure data quality, high-level supervision was conducted throughout the data collection activities.

2.2.3.Data collection tools

2.2.3.1. Survey questionnaires

SAS utilizes two main questionnaires: The Screening questionnaire and the Plot interview questionnaire. The Screening Questionnaire is designed to gather information on the plot, focusing primarily on aspects such as land use, plot area, and the crops grown. On the other hand, the Plot Interview questionnaire is specifically designed to collect detailed information about the sampled plots, including crop production, agricultural inputs used, and agricultural practices applied.

2.3.2. Data collection applications

The SAS data collection applications were based on three main software applications:

- Arc GIS field map, which utilizes GIS software and external GPS linked to tablets via Bluetooth to accurately measure crop areas.
- CSPro software, known for its efficiency in census and survey administration, facilitating data collection, entry, and management processes. Csentry data collection tool has been developed by an IT staff specialized for the SAS survey, enabling data collection from sampled plots and large- scale farmers.
- Survey123 is used to collect screening data for large-scale farmers.

2.3. Data quality assurance

Data quality assurance is achieved through a comprehensive approach, involving enumerator training, continuous data monitoring, supervision of data collection activities, and data cleaning throughout the season.

2.3.1. Training of enumerators

Prior to data collection, enumerators underwent training from 15th to 19th April 2025, at the NISR training center, which covered the overview of the new upgrade of the SAS, data collection procedures and ethics, screening procedures, plot interview questionnaire content, and the use of data collection applications such as Survey 123, Arc GIS field map, and CSEntry.

2.3.2. Fieldwork monitoring

2.3.2.1 Monitoring attendance and performance of enumerators

Effective monitoring of enumerator attendance and performance is vital for ensuring task efficiency and contribution. The monitoring system used during 2025 SAS season B relies on capturing GPS metadata, including location and GPS time, which differs from the device time and cannot be modified by the user. Whenever the enumerator sent data to the server, the metadata accompanies it, enabling analysis of attendance (starting and ending time), location during data collection, and performance metrics such as the number of completed tasks.

2.3.2.2. Attending the sample location and Use of high precision GPS

The SAS collects data from observation points grouped into square segments of 300 by 300 meters. Enumerators were required to collect data within a one-meter distance buffer around each observation point, enforced to ensure accuracy. Any observation outside this buffer is marked as an error and rejected by the central database. To measure plot areas, high-precision GPS units are employed, along with correction services, achieving 95 percent sub-meter measurement accuracy and addressing precision challenges.

2.3.2.3 Field Monitoring Dashboard

A field monitoring dashboard used is an online web application offering a visual representation of real-time data collected from various field operations. It provides a centralized and accessible platform for monitoring and managing activities, resources, and performance in the field.

2.3.2.4. Field supervision

In the 2025 Season B, intensive field supervision was conducted to ensure the data quality. The first supervision field visit comprising 42 NISR staff took place from April 27th to May 11th, 2025. Subsequently, during the harvesting phase, from June 08th to 22nd, 2025 a team of 35 NISR staff was involved in the second field supervision. Throughout both phases, supervisors were dispatched to all districts to provide continuous oversight and support to field personnel. Their responsibilities included providing technical guidance, monitoring the execution of data collection activities, and ensuring compliance with the data collection ethics and completeness of the workload, among others.

2.3.2.5. Data Editing

During the 2025 season B, a monitoring system involving the GIS tools and data editors was used to ensure quality assurance. The data collection is monitored using dashboard and Google Sheets. Editors conduct daily follow-ups to clean data, identifying and rectifying discrepancies using STATA do files based on logical patterns and feedback from training sessions, aiming to provide a cleaned raw dataset for further analysis.

2.4. Data processing and analysis process

The analysis involved several steps from organization of raw dataset, data management, cleaning, checking for outliers and dealing with missing data to ensure the quality and cleaned dataset before tabulation.

2.4.1. Data management process

SAS data are collected electronically using tablets and are then transmitted directly to the NISR servers. The data analyst team downloads and imports the data from CSPro into STATA software for further examination, including checking, cleaning, and tabulation.

Exploratory analysis of the dataset is conducted for all variables to assess the sample's completeness, identifying missing data or incomplete observations. Any identified cases are sent back to the field for verification and completion. Exploratory techniques such as descriptive statistics (summary statistics, frequency tables) and graphical methods (histograms, box plots, etc.) are employed to detect missing values, incomplete data, and potential abnormalities or outliers within the dataset.

2.4.2. Detecting outliers and dealing with missing values

2.4.2.1. Missing values and duplicates observation

During data collection, the CSPRo application's built-in validation rules detect missing, omitted, or skipped variables. Error messages appear on the tablet's screen during interviews when enumerators skip questions that require responses. After completing the interview but before sending data to the servers, an error message notifies users if any questions have been left unanswered or if duplicate questionnaire IDs are identified.

Once data is downloaded and imported into STATA from the servers, the data analyst merges the area dataset with the crop dataset and conducts preliminary checks, cleaning, and necessary transformations before analysis. A do file is developed to check the completeness of data for screening and plot/harvest datasets.

A team of data analysts checks the data on a daily basis, and any inconsistencies found are communicated to field workers for correction and clarification.

2.4.2.2. Detecting and dealing with outliers

Outliers are checked for all quantitative variables, including crop production, fertilizer quantity, seed quantity, agricultural input prices, irrigation costs, and other related expenses. Two approaches are employed to detect outliers for variables such as crop production and input quantities, while a single approach is applicable for the remaining variables.

The first approach involves comparing the value per hectare of land to the standard quantity optimum provided in the guidelines from the Ministry of Agriculture, known as "AGENDA AGRICOLE," for the same

land size. Any values found to be 1.5 times greater than the standard values are flagged as potential outliers and subsequently sent back to field workers for verification and confirmation.

The second approach utilizes statistical processes to detect outliers. In SAS, various statistical methods such as standard deviation and graphical methods like normal box plots are utilized in combination to identify possible outliers within the dataset.

2.4.3. Methods for Estimating Area and Yield

2.4.3.1. Estimation of area Approach

NISR adheres to and applies methodologies and guidelines outlined by (FAO, 2017) and (EAC, 2022) regarding area and yield estimation. Among several methods proposed, NISR has opted for the use of high precision GPS to measure crop area due to its high accuracy and efficiency compared to alternative methods. For yield measurement, NISR relies on farmer estimations.

2.4.3.2. Process of measuring the area

After the identification of the plot boundaries, the enumerators mark GPS points location in approximately every three meters and at each corner of the plot while moving around its perimeter. Then a polygon is obtained when the starting and final points connect. The area is finally computed automatically by GIS software linked to the enumerator's GPS and based on the resulting shape.

4.3.3. Process of measuring the yield

Yield data are calculated by considering both the plot and crop areas, alongside the crop production reported by the farmer within the sampled plot. This calculation involves dividing the total production, converted into kilograms, by the estimated crop areas measured in hectares.

2.4.4. Data analysis

The survey data are analysed using STATA software, which offers robust capabilities for data management, including importing, cleaning, merging, and manipulating datasets. These features facilitate data preparation for analysis. Additionally, STATA enables the development of tabulation commands and the generation of survey tables, graphs, and charts for inclusion in survey reports. Furthermore, SPSS and STATA softwares are utilized for estimating survey sampling errors, ensuring the accuracy and reliability of the survey results.

Chapter

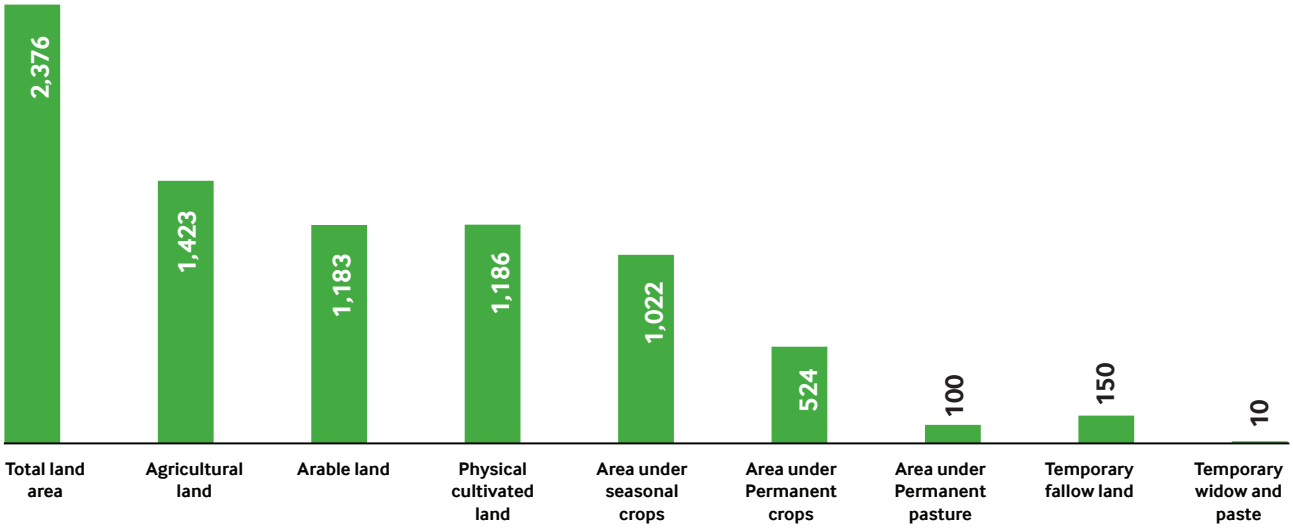
3

SURVEY FINDINGS

This section highlights key results of SAS 2025 Season B related to crop area (physical land use, cultivated area, and harvested area), yield, production, agricultural inputs, and agricultural practices in Rwanda.

3.1 Agricultural land use

Figure 1: 2025 Season B - Agricultural land use (in thousands of hectares)



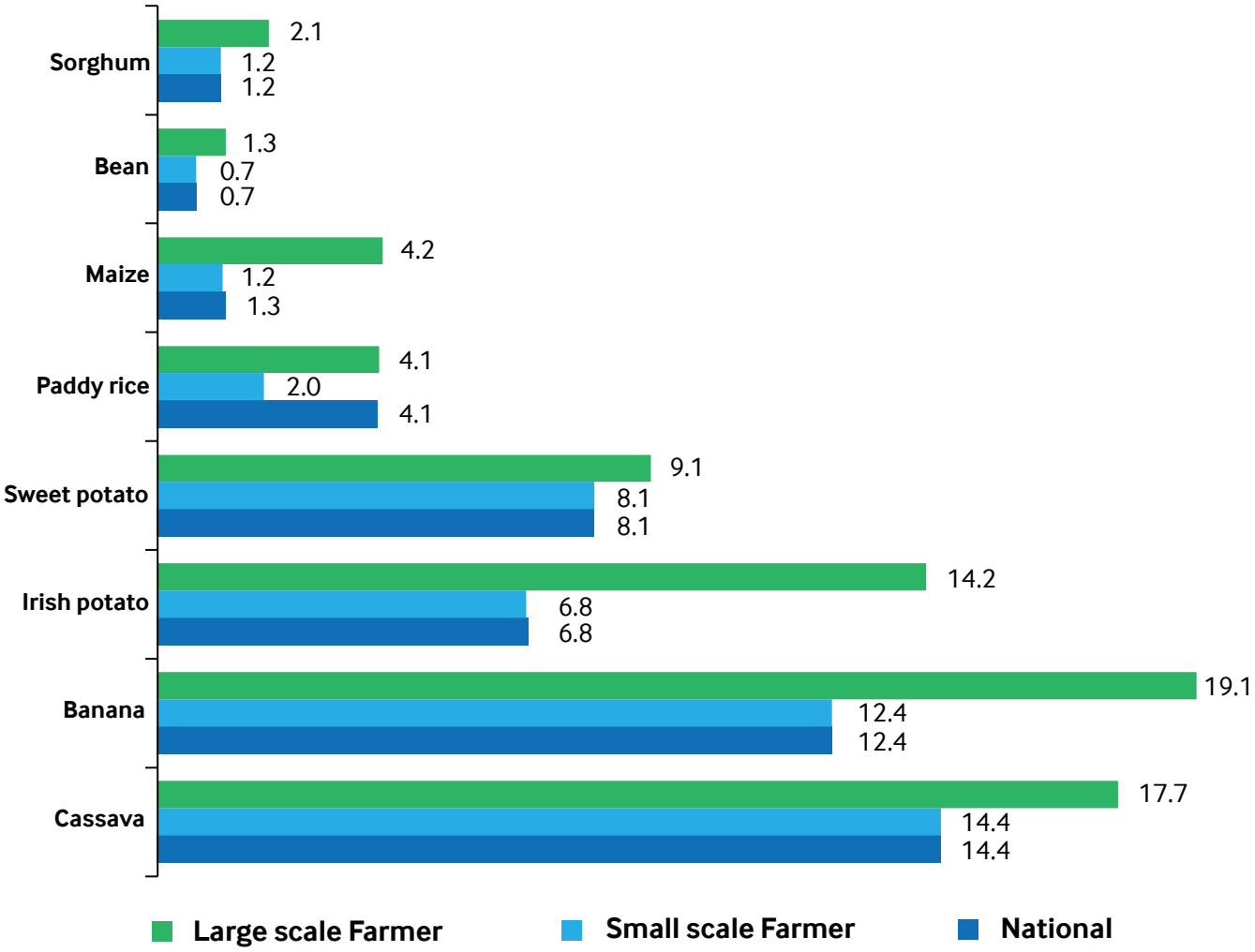
Source: NISR, SAS 2025

The total land area of the country is estimated to be 2.376 million hectares, with 1.423 million hectares (approximately 60% of the total land area) used for agricultural purposes. In 2025 Season B, 1.022 million hectares were allocated to Seasonal crops, 0.524 million hectares were allocated to permanent crops, while 0.1 million hectares were allocated to permanent pasture. (See district details in Table 7).

3.2 Crop area, yield and production estimates for major crops

3.2.1 Yield and Crop area for major crops

Figure 2: 2025 Season B - Yield of major crops (MT/ha)



Source: NISR, SAS 2025

Maize: The national average yield was 1.3 tons per hectare, with small scale farmers harvesting 1.2 tons per hectares and Large-Scale Farmers harvesting 4.2 tons per hectare; the cultivated area was estimated at 93,005 hectares, an increase of 0.1 % from season B of 2024

Beans: The national average yield of was 719 kilograms per hectare, with small scale farmers harvesting 716 kilograms per hectare and Large-Scale Farmers harvesting 1,265 kilograms per hectare; the cultivated area was estimated at 335,052 hectares, an increase of 1.8 % from season B of 2024.

Paddy rice: The national average yield was 4.1 tons per hectare, with small scale farmers harvesting 2 tons per hectare and Large-Scale Farmers harvesting 4.1 tons per hectare; the cultivated area was estimated at 17,970 hectares, a decrease of 0.1% from season B of 2024.

Irish potato: The average yield was 6.8 tons per hectare, with small scale farmers harvesting 6.8 tons per hectares and Large-Scale Farmers harvesting 14.2 tons per hectare. The cultivated area was estimated at 45,940 hectares, an increase of 9.8 % from season B of 2024.

Sweet potato: The national average yield was 8.1 tons per hectare; the cultivated area was estimated at 89,679 hectares, a decrease of 7.8 % from season B of 2024.

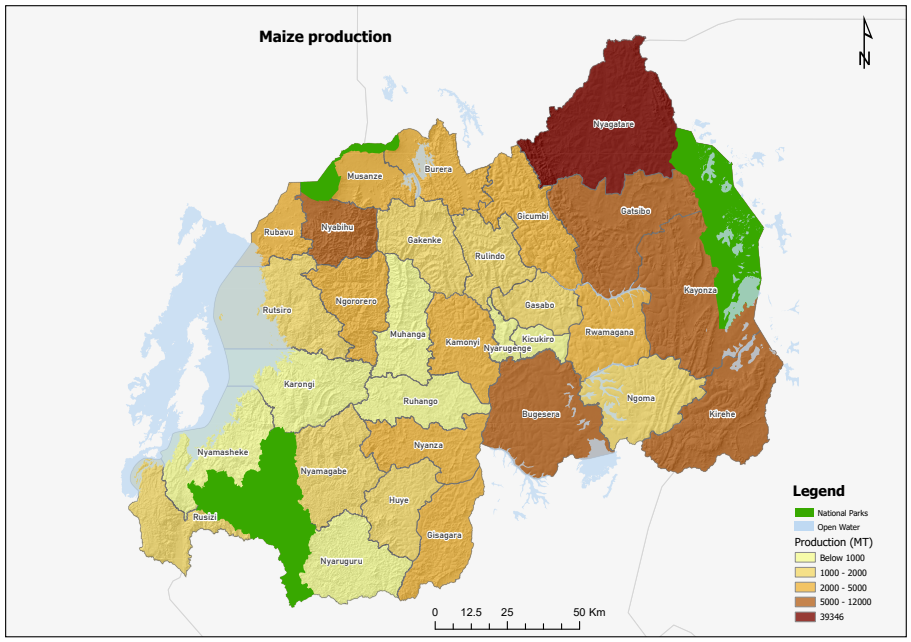
Cassava: The national average yield was 14.4 tons per hectare, with an average yield of 14.4 tons per hectare for small scale farmers and 17.7 tons per hectare for large-scale farmers. The harvested area was estimated at 59,053 hectares while the cultivated area was estimated at 196,881 hectares, a decrease of 14.1 % from season B of 2024.

Banana: The average yield was 12.4 tons per hectare, with an average yield of 12.4 tons per hectare for small scale farmers and 19.1 tons per hectare for large-scale farmers. The harvested area was estimated at 93,803 hectares while the cultivated area was estimated at 238,119 hectares, a decrease of 7.9 % from season B of 2024.

3.2.2 Production of major crops

Maize: Production was estimated at 117,711 metric tons, representing a 1.2% decrease compared to Season B of 2024. The highest maize production was recorded in the Eastern Province, particularly in the districts of Nyagatare, Gatsibo, Kayonza, and Bugesera, as illustrated in Map 5 (see details in Table 13).

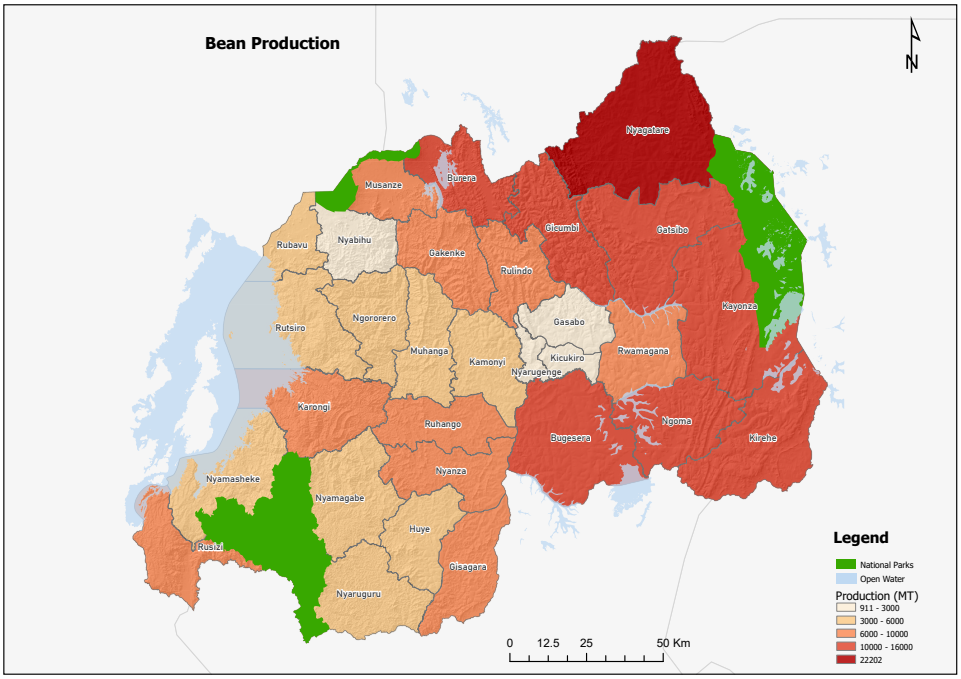
Map 5: Distribution of Maize Production by District, Season B 2025



Source: NISR, SAS 2025

Beans: Production was estimated at 240,721 metric tons, representing a 0.6% decrease compared to Season B of 2024. The highest levels of bean production were recorded in the districts of Nyagatare, Kirehe, Ngoma, Bugesera, Gicumbi, and Gatsibo, as illustrated in Map 6 (see details in Table 13).

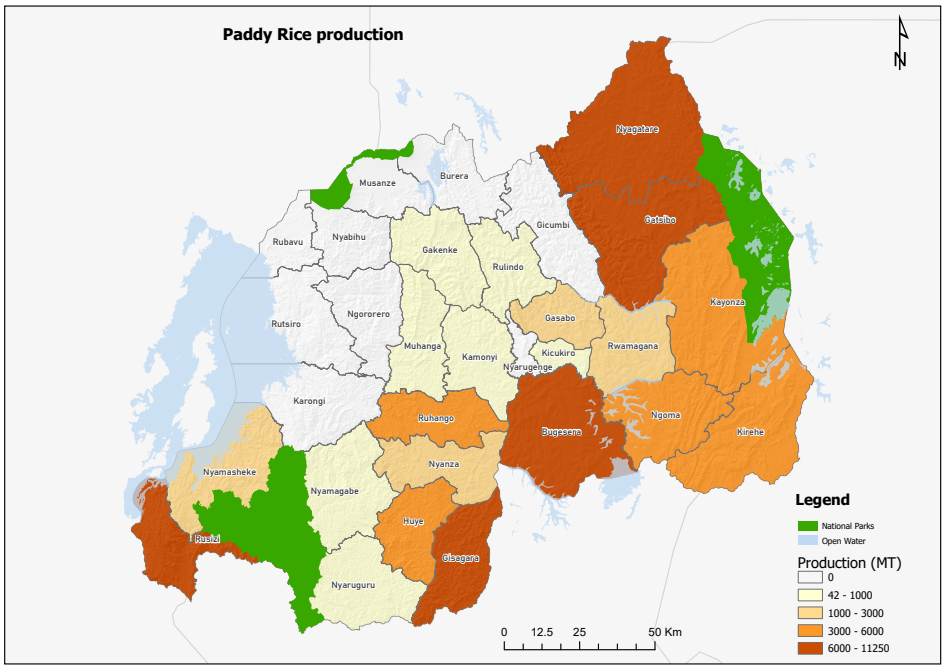
Map 6: Distribution of Beans Production by District, Season B 2025



Source: NISR, SAS 2025

Paddy rice: Production was estimated at 72,976 metric tons, marking a 0.2% increase compared to Season B of 2024. The highest production was recorded in the districts of Gisagara, Nyagatare, Bugesera, Rusizi, and Gatsibo as shown in Map 7 (see details in Table 13).

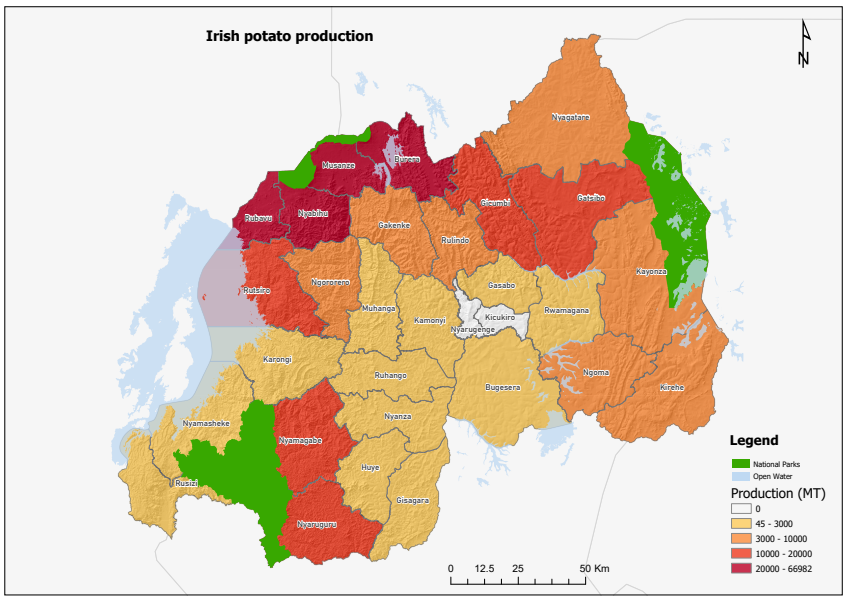
Map 7: Distribution of Paddy Rice Production by District, Season B 2025



Source: NISR, SAS 2025

Irish potato: The production was estimated at 314,093 metric tons, an increase of 10% from season B of 2024. The highest production was recorded in the districts of Nyabihu, Rubavu, Musanze, and Burera, as shown in Map 8 (see details in Table 13).

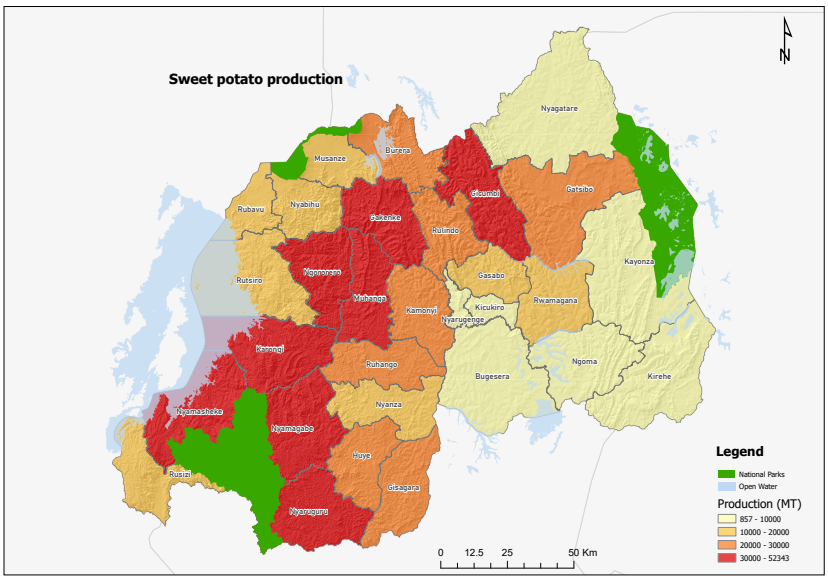
Map 8: Distribution of Irish Potato Production by District, Season B 2025



Source: NISR, SAS 2025

Sweet potato: The production was estimated at 652,515 metric tons, a decrease of 2.1% from season B of 2024. The highest production was recorded in the districts of Nyamagabe, Gakenke, Nyaruguru, and Ngororero, as shown in Map 9 (see details in Table 13).

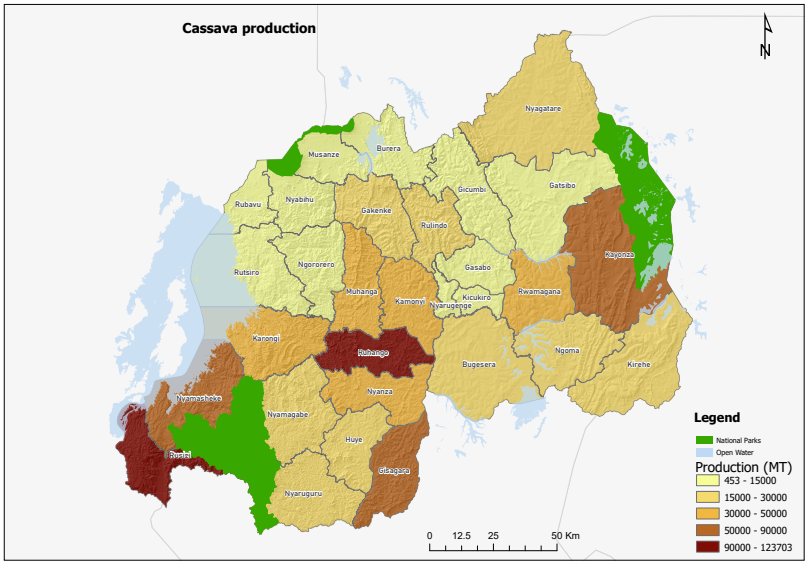
Map 9: Distribution of Sweet Potato Production by District, Season B 2025



Source: NISR, SAS 2025

Cassava: The production of cassava was estimated at 852,541metric tons, an increase of 8.8% when compared to season B of 2024. The highest production was recorded in the districts of Rusizi, Ruhango, Gisagara, Nyamasheke, and Kayonza, as shown in Map 10 (see details in Table 13).

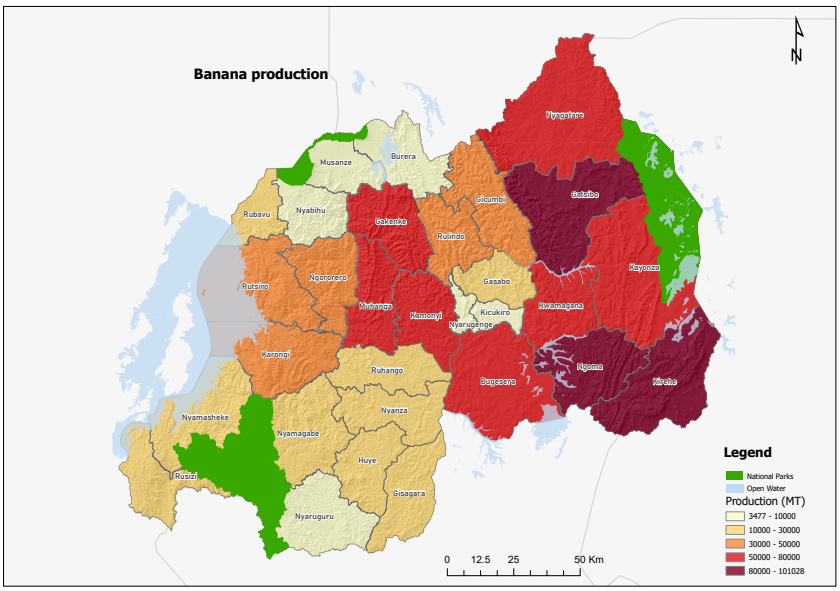
Map 10: Distribution of Cassava Production by District, Season B 2025



Source: NISR, SAS 2025

Banana: The production of banana was estimated at 1,166,247 metric tons, an increase of 2.1 % when compared to 2024 season B. The highest levels of banana production were recorded in the Eastern Province, particularly in the districts of Gatsibo, Ngoma,Kirehe, and Nyagatare, as shown in Map 11 (see details in Table 13).

Map 11: Distribution of Banana Production by District, Season B 2025



Source: NISR, SAS 2025

Table 6: 2025 Season B Cultivated area, harvested area, production, and yield by crop.

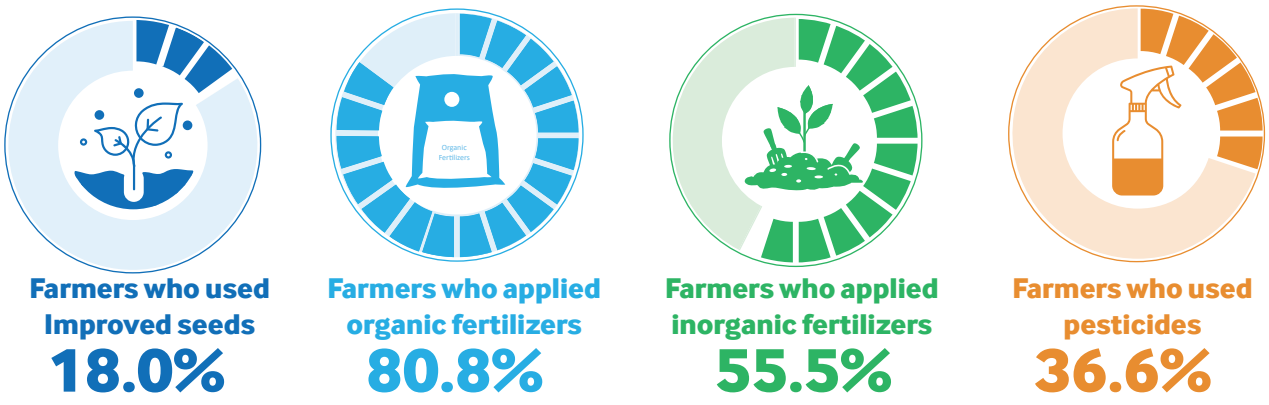
Crop/crop groups	Cultivated area(Ha)		Harvested area(Ha)		Production(MT)		Yield(MT/ha)	
	2025 B	2024 B	2025 B	2024 B	2025 B	2024 B	2025 B	2024 B
Cereals	231,224	243,760	231,198	243,132	330,446	346,827	(NA)	(NA)
Maize	93,005	92,944	92,979	92,749	117,711	119,101	1.3	1.3
Sorghum	107,195	120,005	107,195	120,005	125,656	140,314	1.2	1.2
Paddy rice	17,970	17,994	17,970	17,578	72,976	72,834	4.1	4.1
Wheat	9,298	10,294	9,298	10,294	11,667	13,045	1.3	1.3
Other cereals	3,757	2,523	3,757	2,506	2,437	1,532	0.6	0.6
Tubers and Roots	351,074	328,446	201,865	198,309	1,937,090	1,848,075	(NA)	(NA)
Cassava	196,881	172,596	59,053	54,679	852,541	783,294	14.4	14.3
Sweet potato	89,679	97,289	81,045	86,580	652,515	666,814	8.1	7.7
Irish potato	45,940	41,836	45,928	41,716	314,093	285,596	6.8	6.8
Taro &Yams	18,573	16,725	15,839	15,334	117,941	112,370	7.4	7.3
Banana	238,119	258,564	93,803	92,501	1,166,247	1,142,552	12.4	12.4
Cooking banana	85,221	90,123	30,604	30,323	527,109	515,798	17.2	17.0
Dessert banana	35,832	48,809	13,746	13,442	154,315	152,891	11.2	11.4
Banana for beer	117,067	119,632	49,453	48,737	484,822	473,863	9.8	9.7
Legumes and Pulses	399,096	398,503	399,030	398,187	269,441	272,979	(NA)	(NA)
Beans	335,052	329,112	334,988	328,858	240,721	242,239	0.7	0.7
Bush bean	211,974	207,112	211,932	206,871	132,612	134,866	0.6	0.7
Climbing bean	123,078	122,000	123,055	121,987	108,108	107,373	0.9	0.9
Pea	8,089	8,248	8,087	8,245	4,586	4,628	0.6	0.6
Groundnut	17,803	21,085	17,804	21,086	7,747	9,062	0.4	0.4
Soybean	38,152	40,059	38,151	39,999	16,388	17,051	0.4	0.4
Vegetables & Fruits	32,644	30,624	25,247	25,188	211,069	204,768	(NA)	(NA)
Vegetables	20,699	20,161	19,674	19,842	181,272	177,549	9.2	8.9
Fruits	11,945	10,463	5,572	5,346	29,798	27,219	5.3	5.1
Fodder crops	9,993	10,331	9,548	9,674	111,566	107,654	11.7	11.1
Other crops	66,373	58,639	30,539	27,508	120,603	117,267	3.9	4.3
Total	1,328,523	1,328,868	991,229	994,499	(NA)	(NA)	(NA)	(NA)

Source: NISR, SAS 2025

3.3 Use of inputs

The results related to the use of agricultural inputs (seeds, fertilizers, and pesticides) are presented in terms of percentage of farmers who applied such agricultural inputs throughout the season.

Figure 3: 2025 Season B_Use of inputs by farmers (in percentage)



Source: NISR, SAS 2025

3.3.1 Use of seeds

In season B of 2025, 18% of farmers used improved seeds. In regard to farmer type[1], 16.7% of small-scale farmers (SSF) and 72.1% of Large-Scale Farmers (LSF) used improved seeds (See Figure 3). The major sources of improved seed were NGO/companies, accounting 30.6%, and agro-dealers accounting for 30.2 % (See details in Tables 8, 18-21).

3.3.2 Use of fertilizers

In the 2025 Season B:

- 80.8% of farmers applied organic fertilizer, with 81.2% of small-scale farmers and 63.8% of Large-Scale farmers utilizing it.
- 55.5% of farmers applied inorganic fertilizer, with 54.8% of small-scale farmers and 83.7% of Large-Scale Farmers using it (See Figure 3).
- The main sources of inorganic fertilizers were agro-dealers and NGOs/companies, accounting for 44.5% and 44.4%, respectively.
- The most commonly used inorganic fertilizers in this season were DAP, UREA, and NPK, comprising 39%, 35.1%, and 20.5%, respectively (See details in Tables 8, 22-26).

3.3.3 Use of pesticides

In season B of 2025, 36.6% of farmers applied pesticides. According to farmer type, 35.6% of small-scale farmers and 77.7% of Large-Scale farmers applied pesticides respectively (See Figure 3). Rocket, Dithane and Cypermethrin were the most used pesticides with 30.4% of farmers, 24.3% and 16.1% respectively (See details in Tables 27 & 28).

3.4 Agricultural practices

The survey covered information related to agricultural practices used by farmers (irrigation, anti-erosion activities mechanization and agroforestry). Results are presented in terms of percentage of farmers involved in such practices throughout the 2025 Season B.

Figure 4: 2025 Season B - Use of agricultural practices

Source: NISR, SAS 2025

1 Farmer type refers to category of farmers as defined in the survey; a farmer is either a small scale or a large scale.

3.4.1 Irrigation practices

In season B of 2025, 11.5% of farmers practiced irrigation. This included 10.3% of small-scale farmers and 62% of Large-Scale Farmers (See Figure 4). Out of farmers who practiced irrigation 59.3% practiced the modern irrigation. In regard to source of water, Lakes/stream and underground water were the most used sources of water for irrigation with 47.5% and 31.4% respectively (See details in Tables 8,29-31).

3.4.2 Erosion control measures

In 2025 Season B, 89.9% of farmers practiced anti-erosion activities where 89.7% of small-scale farmers and 95.6% were Large-Scale Farmers protected their land against erosion (See Figure 4). Cover plants was the most used type of anti-erosion with 56.4% of farmers. The farmland experienced less erosion where the predominant erosion types were those with a low degree of erosion (splash and wind erosion, which accounted for 52.8% and 34.9% respectively. 51% of farmers practiced agroforestry, while 0.7% of farmers used mechanical equipment in their agricultural activities. (See details in Tables 8, 29, 32 and 33).

Annexes

1. Main Tables

Table 7: 2025 Season B_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	5.7	43.4	3.85	4.58	2.72	2.91	1.05	0.08	0.05
Gasabo	42.7	20.3	47.5	17.48	17.98	15.06	8.92	2.04	0.48	0.26
Kicukiro	16.6	6.2	37.2	5.34	4.99	4.13	2.44	1.16	0.05	0.02
Nyanza	67.0	49.0	73.1	47.04	43.60	41.77	14.90	5.04	0.12	0.38
Gisagara	67.5	48.7	72.2	47.37	41.11	40.01	13.37	7.37	-	0.24
Nyaruguru	101.0	40.0	39.6	31.82	33.33	24.95	13.39	6.25	0.62	0.39
Huye	58.1	35.8	61.7	34.11	32.22	30.57	10.70	3.49	0.05	0.99
Nyamagabe	109.1	48.9	44.8	40.47	41.71	33.09	17.69	7.20	0.24	-
Ruhango	62.6	46.1	73.7	40.67	40.32	34.31	13.26	5.83	0.44	-
Muhanga	64.1	39.7	61.9	33.83	32.77	26.20	16.19	6.92	0.71	0.00
Kamonyi	65.8	48.9	74.4	42.98	44.32	38.49	18.65	4.37	0.23	0.23
Karongi	78.8	47.0	59.6	36.38	41.72	30.85	23.80	5.24	0.39	0.06
Rutsiro	66.1	35.6	53.8	26.04	29.97	20.39	16.03	5.22	0.43	3.87
Rubavu	33.9	23.5	69.3	21.58	21.83	20.52	5.09	0.92	0.15	1.76
Nyabihu	54.0	33.9	62.8	30.97	29.20	26.47	5.23	4.36	0.14	4.98
Ngororero	66.7	44.5	66.7	37.53	36.69	29.36	16.10	7.72	0.33	3.08
Rusizi	91.6	38.9	42.4	33.70	36.88	31.50	13.01	1.99	0.26	-
Nyamasheke	94.8	41.9	44.2	31.57	39.61	29.25	17.64	2.14	0.18	0.12
Rulindo	56.6	35.9	63.4	27.75	31.44	23.14	16.43	4.44	0.18	-
Gakenke	70.0	44.2	63.2	38.83	37.67	32.13	15.96	6.57	0.12	-
Musanze	50.9	29.6	58.1	28.13	25.00	23.57	4.42	4.48	0.08	0.11
Burera	58.4	38.1	65.2	37.31	31.91	30.50	3.45	6.19	0.54	-
Gicumbi	82.5	53.3	64.7	46.37	47.42	40.39	19.16	5.42	0.57	0.51
Rwamagana	65.1	45.8	70.3	39.32	40.19	34.56	17.67	3.91	0.83	1.67
Nyagatare	191.5	146.7	76.6	89.37	86.74	78.93	72.03	9.94	0.50	50.00
Gatsibo	153.3	79.2	51.7	64.45	67.97	60.97	37.11	2.98	0.59	8.25
Kayonza	180.0	87.8	48.8	65.02	61.48	56.19	38.01	7.91	0.91	18.43
Kirehe	114.2	73.9	64.7	63.71	67.54	58.26	28.25	5.32	0.20	1.01
Ngoma	80.3	57.4	71.5	49.32	51.94	45.96	25.46	3.15	0.24	2.33
Bugesera	120.2	76.6	63.8	70.27	63.59	57.88	16.40	11.31	0.56	1.75
National	2,376	1,423	60	1,183	1,186	1,022	524	150	10	100

Source: NISR, SAS 2025

Table 8: 2025 Season B_Area under agricultural practices

District	Modern irrigated agricultural land (Ha)	Agricultural area under erosion control	Agricultural area under agroforestry trees	Agricultural area under fertilizer application	
				Inorganic fertilizer	Organic fertilizer
Nyarugenge	-	2,305	852	420	1,442
Gasabo	300	13,205	8,850	4,770	9,698
Kicukiro	188	1,798	3,111	1,010	1,651
Nyanza	686	42,210	25,993	4,405	18,625
Gisagara	3,307	30,291	20,236	9,953	20,035
Nyaruguru	24	30,828	12,259	12,456	17,784
Huye	1,267	29,338	12,027	5,441	23,441
Nyamagabe	163	37,470	20,876	13,732	25,068
Ruhango	1,023	41,113	20,011	3,900	21,637
Muhanga	128	35,264	19,929	4,174	20,038
Kamonyi	890	39,754	27,142	5,853	21,539
Karongi	2	33,970	20,037	10,112	22,103
Rutsiro	52	25,144	14,230	9,247	17,332
Rubavu	138	18,848	8,290	12,005	8,578
Nyabihu	-	29,853	16,780	16,631	19,145
Ngororero	-	40,768	19,805	12,377	22,959
Rusizi	1,671	27,552	18,518	14,077	15,067
Nyamasheke	444	28,252	18,691	13,688	19,903
Rulindo	655	29,114	15,727	9,079	19,795
Gakenke	20	41,248	20,233	15,067	27,403
Musanze	-	20,204	16,964	11,002	15,663
Burera	-	35,277	16,173	13,741	24,215
Gicumbi	64	45,917	23,291	14,163	32,639
Rwamagana	2,048	34,443	26,904	12,528	18,572
Nyagatare	2,918	83,912	102,013	47,814	35,828
Gatsibo	2,022	62,496	45,328	25,636	36,700
Kayonza	2,523	53,024	36,588	18,047	24,673
Kirehe	2,298	46,990	47,679	16,829	18,636
Ngoma	1,165	34,801	30,770	7,574	14,702
Bugesera	3,948	40,439	37,931	16,481	22,269
National	27,945	1,035,829	707,236	362,212	597,139

Source: NISR, SAS 2025

Table 9: 2025 Season B_Cultivated area by crop type and district (Ha)

District	Maize	Sorghum	Paddy rice	Wheat	Other cereals	Cassava	Sweet potato	Irish potato	Yams & Taro	Banana	Cooking banana	Dessert banana	Banana for beer	Beans	Bush bean	Climbing bean	Pea	Groundnut	Soybean	Vegetables	Fruits	Fodder Crops	Other crops	Total developed land
Nyarugenge	429	305	-	-	-	671	181		87	1,663	405	324	934	1,564	1,502	62	-	-	179	126	-	77	1,762	7,044
Gasabo	1,224	3,016	283	-	-	2,732	1,604	387	173	4,285	1,372	1,220	1,694	4,210	3,862	349	20	124	341	784	186	398	935	20,705
Kicukiro	491	682	78	-	-	245	224	2	226	848	237	184	427	1,542	1,533	9	27	43	75	142	98	49	426	5,198
Nyanza	2,673	5,052	659	-	89	8,700	2,025	246	679	5,520	1,372	1,191	2,957	13,054	10,782	2,272	208	979	2,237	448	104	230	1,348	44,250
Gisagara	2,397	3,462	3,218	-	405	13,178	2,895	136	513	7,190	1,470	1,785	3,934	13,718	11,770	1,949	24	697	3,146	499	192	-	990	52,660
Nyaruguru	248	3,046	42	298	26	5,798	5,452	1,967	540	3,302	678	759	1,865	7,756	948	6,808	290	13	1,131	582	141	501	3,857	34,990
Huye	1,029	4,096	1,047	-	327	5,690	2,793	168	136	4,965	1,641	1,132	2,192	9,295	5,928	3,366	275	134	2,189	718	739	49	1,256	34,905
Nyamagabe	1,015	4,155	30	2,248	-	6,591	7,289	1,705	1,113	5,509	708	700	4,101	7,409	800	6,608	922	-	870	472	88	226	5,384	45,025
Ruhango	946	2,087	878	-	55	19,774	3,170	71	855	6,055	452	1,000	4,603	11,596	8,531	3,066	106	1,917	3,701	397	17	518	1,778	53,921
Muhanga	914	73	121	128	-	14,086	4,540	197	2,623	15,643	2,516	2,002	11,125	6,550	2,507	4,044	150	52	2,180	411	268	641	1,070	49,646
Kamonyi	2,020	3,183	268	-	11	13,965	3,166	360	875	11,776	1,717	1,696	8,364	10,613	8,764	1,848	111	857	3,853	938	271	80	2,645	54,993
Karongi	691	2,128	-	60	-	6,761	5,047	193	1,056	9,979	1,427	1,354	7,197	7,863	1,821	6,041	336	157	1,691	868	159	302	2,387	39,676
Rutsiro	1,575	154	-	-	-	2,017	2,749	3,482	546	6,717	1,705	1,146	3,866	5,615	682	4,932	505	-	1,114	315	241	383	3,636	29,048
Rubavu	1,770	150	-	-	-	390	1,606	6,133	163	2,520	1,007	297	1,216	5,222	658	4,564	660	-	567	2,647	19	234	1,722	23,803
Nyabihu	4,218	-	-	1,375	-	476	2,839	7,808	38	1,134	334	319	480	2,959	69	2,890	566	-	48	799	451	152	2,559	25,421
Ngororero	3,721	-	-	1,425	-	5,182	5,861	1,269	2,081	9,708	771	1,637	7,300	5,726	578	5,148	381	-	1,559	382	254	388	1,742	39,680
Rusizi	1,041	64	1,453	-	-	17,762	2,152	60	429	4,719	1,796	491	2,433	11,174	8,108	3,067	35	286	1,029	715	1,715	232	2,726	45,594
Nyamasheke	521	-	384	-	-	10,495	3,972	10	946	5,454	1,352	715	3,388	7,273	1,326	5,948	76	876	1,546	656	447	112	5,479	38,250
Rulindo	1,197	4,239	18	73	-	5,089	3,233	1,236	147	6,695	1,936	1,393	3,366	8,906	3,366	5,540	351	-	154	1,225	204	92	4,523	37,381
Gakenke	1,467	314	17	235	-	6,592	6,296	933	1,468	15,107	3,234	2,367	9,506	11,527	1,050	10,477	313	-	686	583	522	125	1,908	48,093
Musanze	2,427	1,909	-	1,371	-	199	2,149	4,537	165	2,049	906	484	659	7,703	344	7,359	237	-	26	1,175	142	69	1,838	25,995
Burera	2,430	5,833	-	631	-	71	3,920	4,708	85	2,061	985	140	937	10,604	533	10,071	1,112	-	46	604	241	528	660	33,536
Gicumbi	2,248	9,830	-	1,020	78	3,170	4,754	2,361	166	6,761	2,848	1,619	2,294	14,979	3,505	11,474	807	127	232	681	204	566	1,783	49,767
Rwamagana	4,245	6,425	512	-	28	5,419	1,821	660	389	11,504	6,457	1,821	3,226	12,640	12,340	300	97	1,551	617	1,025	578	785	1,282	49,579
Nyagatare	25,702	4,724	2,198	81	16	3,375	1,460	661	120	11,231	5,778	1,296	4,157	29,778	28,229	1,549	8	1,644	2,214	744	249	564	828	85,600
Gatsibo	9,350	7,655	1,698	351	271	1,821	2,886	2,139	518	21,071	11,618	2,783	6,670	19,138	16,572	2,566	89	1,825	1,877	770	74	452	2,603	74,590
Kayonza	6,413	12,919	1,754	-	680	12,019	1,544	2,138	490	11,491	7,625	1,461	2,405	20,997	20,724	272	61	443	553	663	2,169	784	1,185	76,306
Kirehe	2,339	10,205	921	-	518	7,328	1,262	1,353	1,306	17,592	10,183	1,206	6,203	23,626	15,974	7,652	265	1,033	1,238	443	138	267	5,099	74,933
Ngoma	1,827	7,869	950	-	1,166	7,540	1,296	658	247	15,774	9,356	1,599	4,819	19,955	17,269	2,686	58	1,244	1,383	326	1,340	206	1,737	63,575
Bugesera	6,436	3,621	1,440	-	86	9,748	1,493	363	393	9,795	3,333	1,712	4,750	22,058	21,897	161	0	3,801	1,669	562	692	982	1,224	64,361
National	93,005	107,195	17,970	9,298	3,757	196,881	89,679	45,940	18,573	238,119	85,221	35,832	117,067	335,052	211,974	123,078	8,089	17,803	38,152	20,699	11,945	9,993	66,373	1,328,523
SSF	91,111	107,127	237	9,212	3,714	196,839	89,660	45,686	18,572	237,985	85,117	35,809	117,059	333,485	210,434	123,051	8,028	17,802	37,256	20,566	11,426	9,723	65,266	1,303,695
LSF	1,894	68	17,733	85	42	43	19	254	1	134	104	23	8	1,567	1,540	27	61	1	896	133	519	270	1,107	24,828

Source: NISR, SAS 2025

Table 10: 2025 Season B_Harvested area by crop type and district (Ha)

District	Maize	Sorghum	Paddy rice	Wheat	Other cereals	Cassava	Sweet potato	Irish potato	Yarms & Taro	Bananas	Cooking banana	Dessert banana	Banana for beer	Beans	Bush bean	Climbing bean	Pea	Groundnut	Soybean	vegetables	Fruits	Fodder crops	Other crops	All crops
Nyarugenge	429	305	-	-	-	234	171	-	87	695	164	120	411	1,564	1,502	62	-	-	179	126	-	77	768	4,636
Gasabo	1,224	3,016	283	-	-	586	1,504	387	134	1,431	428	447	557	4,211	3,862	349	20	124	341	745	37	398	376	14,819
Kicukiro	491	682	78	-	-	142	118	2	226	405	112	85	208	1,545	1,536	9	26	43	75	142	7	45	39	4,065
Nyanza	2,673	5,052	659	-	89	2,248	1,978	246	610	1,840	499	469	873	13,054	10,782	2,272	208	979	2,237	450	11	229	1,036	33,601
Gisagara	2,397	3,462	3,218	-	405	4,353	2,728	136	463	2,119	395	633	1,091	13,718	11,770	1,949	24	697	3,146	440	89	-	538	37,933
Nyaruguru	238	3,046	42	298	26	1,779	4,436	1,967	461	968	256	243	468	7,756	948	6,808	290	13	1,131	582	85	501	739	24,360
Huye	1,029	4,096	1,047	-	327	1,504	2,746	168	118	1,456	430	354	672	9,295	5,928	3,366	275	134	2,189	718	467	49	674	26,291
Nyamagabe	1,009	4,155	30	2,248	-	1,514	6,385	1,705	1,000	2,070	164	164	1,743	7,409	800	6,608	922	-	870	472	61	232	2,198	32,280
Ruhango	946	2,087	878	-	55	5,371	3,083	71	623	2,242	175	310	1,756	11,597	8,531	3,066	106	1,917	3,701	357	17	518	874	34,443
Muhanga	914	73	121	128	-	2,479	4,353	197	2,500	7,008	708	694	5,606	6,550	2,507	4,044	150	52	2,180	365	209	641	766	28,685
Kamonyi	2,020	3,183	268	-	11	2,727	3,166	360	838	5,163	662	789	3,712	10,613	8,764	1,848	111	857	3,853	938	60	80	1,706	35,955
Karongi	691	2,128	-	60	-	2,410	3,818	193	948	4,176	411	359	3,406	7,863	1,821	6,041	336	157	1,691	868	158	296	749	26,542
Rutsiro	1,575	154	-	-	-	920	2,548	3,482	425	2,601	443	625	1,533	5,615	682	4,932	505	-	1,114	215	96	383	1,592	21,224
Rubavu	1,766	150	-	-	-	264	1,560	6,133	138	1,039	309	150	580	5,222	658	4,564	660	-	567	2,606	19	234	1,434	21,792
Nyabihu	4,203	-	-	1,375	-	97	1,954	7,810	29	348	96	125	127	2,933	69	2,864	566	-	48	799	372	109	215	20,857
Ngororero	3,721	-	-	1,425	-	722	5,564	1,269	1,826	4,063	203	484	3,376	5,726	578	5,148	381	-	1,559	332	199	332	643	27,762
Rusizi	1,041	64	1,453	-	-	10,979	2,027	60	429	1,669	610	196	863	11,175	8,108	3,067	35	286	1,029	649	241	232	1,979	33,348
Nyamasheke	521	-	384	-	-	4,670	3,913	10	946	1,859	476	256	1,127	7,273	1,326	5,948	76	876	1,546	656	258	112	3,311	26,412
Rulindo	1,197	4,239	18	74	-	1,004	2,782	1,233	127	2,670	615	647	1,409	8,906	3,366	5,540	351	-	154	1,058	54	92	763	24,722
Gakenke	1,467	314	17	235	-	1,525	5,138	933	1,288	6,383	977	1,088	4,318	11,527	1,050	10,477	313	-	686	401	377	125	1,326	32,055
Musanze	2,427	1,909	-	1,371	-	38	2,037	4,537	150	777	334	223	220	7,702	344	7,359	236	-	26	1,175	117	69	493	23,063
Burera	2,430	5,833	-	631	-	39	3,360	4,708	35	760	355	46	359	10,604	533	10,071	1,112	-	46	556	117	528	214	30,973
Gicumbi	2,248	9,830	-	1,020	78	847	4,713	2,361	149	2,560	720	653	1,188	14,979	3,505	11,474	807	127	232	681	78	566	644	41,921
Rwamagana	4,242	6,425	512	-	28	1,884	1,517	660	180	4,813	2,808	807	1,198	12,635	12,335	300	97	1,551	617	975	436	784	932	38,286
Nyagatare	25,717	4,724	2,198	81	16	967	1,460	661	39	5,272	2,672	476	2,124	29,776	28,228	1,549	8	1,644	2,215	744	53	563	489	76,628
Gatsibo	9,350	7,655	1,698	351	271	765	2,886	2,139	302	7,067	3,705	991	2,371	19,138	16,572	2,566	89	1,825	1,875	772	74	446	1,223	57,927
Kayonza	6,413	12,919	1,754	-	680	3,172	1,438	2,128	354	4,260	2,926	399	935	20,994	20,722	272	61	444	553	578	563	782	625	57,721
Kirehe	2,337	10,205	921	-	519	2,003	1,135	1,353	960	6,278	3,539	420	2,319	23,630	15,974	7,656	265	1,033	1,238	440	98	73	2,893	55,378
Ngoma	1,828	7,869	950	-	1,166	1,842	1,186	658	165	6,792	3,832	646	2,314	19,919	17,233	2,686	58	1,244	1,382	308	1,158	206	916	47,645
Bugesera	6,435	3,621	1,440	-	86	1,968	1,343	363	290	5,017	1,582	846	2,589	22,058	21,898	161	0	3,801	1,669	527	61	844	383	49,907
National	92,979	107,195	17,970	9,298	3,757	59,053	81,045	45,928	15,839	93,803	30,604	13,746	49,453	334,988	211,932	123,055	8,087	17,804	38,151	19,674	5,572	9,548	30,539	991,229
SSF	91,087	107,127	237	9,212	3,714	59,036	81,026	45,675	15,838	93,765	30,577	13,740	49,448	333,431	210,403	123,028	8,028	17,802	37,256	19,553	5,325	9,287	29,816	967,216
LSF	1,892	69	17,733	85	42	17	19	253	1	38	27	6	5	1,556	1,529	27	59	2	895	122	248	261	723	24,013

Source: NISR, SAS 2025

Table 11: 2025 Season B_Average yield by crop type and district (Kg/Ha)

District	Maize	Sorghum	Paddy rice	Wheat	Other cereals	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
Nyarugenge	939	851	-	-	-	11,187	6,312	-	8,837	11,562	16,329	8,804	10,467	583	581	617	-	-	389	7,460	-	19,473	11,973
Gasabo	1,260	993	3,791	-	-	11,479	6,663	3,610	3,581	12,503	16,720	12,635	9,156	657	652	704	612	434	379	8,830	8,822	6,129	7,542
Kicukiro	750	1,121	5,289	-	-	11,805	7,265	-	5,437	12,607	17,423	12,292	10,126	626	625	712	880	269	470	8,842	4,572	5,171	2,864
Nyanza	1,259	964	3,928	-	904	15,178	8,030	3,967	6,148	9,446	10,654	9,292	8,837	593	578	666	976	428	371	6,882	1,478	9,798	2,458
Gisagara	977	1,020	3,496	-	982	14,857	7,743	3,815	9,501	10,857	15,247	9,443	10,090	634	600	838	618	399	387	7,175	20,100	-	1,640
Nyaruguru	1,135	808	2,739	608	912	13,222	9,228	7,516	8,314	9,465	13,170	8,889	7,733	764	515	799	803	367	407	8,527	3,532	10,770	2,553
Huye	1,081	1,030	4,391	-	594	16,929	8,341	3,952	13,123	9,826	11,643	10,714	8,196	609	536	736	586	483	376	8,086	5,136	7,266	1,568
Nyamagabe	1,162	928	1,438	1,408	-	13,134	8,197	7,781	7,416	6,689	9,704	11,170	5,984	639	449	662	567	-	464	7,773	5,965	4,849	1,427
Ruhango	877	1,067	4,495	-	701	17,703	6,523	2,964	7,734	9,334	13,525	12,055	8,435	579	583	568	452	418	394	7,181	4,758	8,057	2,686
Muhanga	1,034	1,189	2,683	1,105	-	16,571	8,209	4,071	7,097	10,281	15,001	10,450	9,664	649	601	679	591	384	473	7,481	7,011	14,188	4,698
Kamonyi	1,166	1,065	3,215	-	482	14,413	7,008	5,572	8,332	10,536	15,018	10,472	9,751	539	541	532	446	544	334	5,426	6,826	17,836	5,948
Karongi	1,075	1,086	-	589	-	14,655	8,232	3,544	8,988	11,821	15,848	11,973	11,319	947	628	1,043	571	637	415	9,363	5,467	12,942	1,604
Rutsiro	1,119	773	-	-	-	14,946	7,695	4,820	8,696	11,978	16,776	14,156	9,705	846	641	874	511	-	420	8,349	3,053	7,393	7,294
Rubavu	1,413	793	-	-	-	12,743	7,969	8,615	5,851	12,136	15,909	11,890	10,192	785	590	813	436	-	554	12,258	7,251	18,080	5,256
Nyabihu	1,335	-	-	1,285	-	10,060	7,558	8,577	8,082	9,978	15,018	8,372	7,735	1,022	738	1,029	682	-	617	15,906	5,904	12,327	1,134
Ngororero	1,161	-	-	1,129	-	10,312	7,258	5,285	8,709	10,918	14,795	11,660	10,578	964	534	1,013	473	-	402	9,794	3,155	13,136	8,435
Rusizi	983	823	4,859	-	-	11,267	8,652	7,220	9,392	12,588	16,476	11,727	10,037	779	731	905	521	623	376	7,900	6,579	12,099	2,705
Nyamasheke	1,047	-	4,409	-	-	12,995	8,435	4,538	6,937	11,054	13,181	11,067	10,152	783	583	827	539	459	393	9,203	4,904	2,192	2,048
Rulindo	1,011	1,062	4,510	1,100	-	16,328	8,984	4,436	4,978	12,078	16,794	12,182	9,973	855	622	996	430	-	413	9,095	10,029	9,200	6,168
Gakenke	968	1,287	4,216	1,089	-	15,624	10,186	5,629	8,485	11,541	17,018	14,991	9,432	867	660	887	475	-	443	9,238	6,508	5,214	11,659
Musanze	1,503	1,291	-	1,417	-	11,938	8,822	9,060	9,639	9,889	12,447	7,718	8,207	1,080	761	1,095	625	-	510	10,196	2,379	3,998	10,952
Burera	1,305	1,329	-	1,518	-	12,512	8,130	7,267	7,280	12,922	17,407	13,942	8,362	1,111	572	1,139	507	-	281	9,131	4,796	13,518	9,476
Gicumbi	1,064	1,418	-	1,278	395	14,814	8,287	6,198	6,337	12,065	16,666	9,892	10,470	865	636	935	614	272	581	8,457	3,070	10,593	5,409
Rwamagana	822	1,073	4,050	-	356	16,795	7,064	3,869	5,234	14,895	18,878	10,501	8,521	544	542	608	502	371	620	7,952	5,534	20,907	1,935
Nyagatare	1,530	1,316	4,288	330	355	17,570	5,659	4,597	7,184	14,810	19,221	8,717	10,629	746	740	854	769	476	520	10,571	1,781	14,695	1,734
Gatsibo	1,214	1,388	3,889	568	614	16,844	9,183	4,831	6,527	14,295	17,060	11,721	11,051	649	620	837	626	353	486	8,109	4,774	12,168	1,752
Kayonza	1,103	1,409	2,991	-	723	16,046	6,803	4,166	5,305	15,979	18,802	11,871	8,898	574	570	915	497	350	407	6,734	2,734	4,083	4,383
Kirehe	2,329	1,050	5,145	-	556	14,801	6,677	3,990	4,199	15,262	19,451	10,272	9,772	655	631	707	743	359	988	4,806	2,192	3,423	1,459
Ngoma	806	1,153	3,588	-	548	15,236	6,957	4,751	3,693	14,327	17,391	8,536	10,871	733	717	836	404	449	403	6,807	5,839	20,904	1,668
Bugesera	1,007	999	5,113	-	764	14,895	5,527	2,797	4,510	12,220	15,254	12,548	10,259	596	596	645	511	481	320	11,970	3,257	13,204	904
National	1,266	1,172	4,061	1,255	649	14,437	8,051	6,839	7,446	12,433	17,224	11,226	9,804	719	626	879	567	435	430	9,214	5,347	11,684	3,949
SSF	1,206	1,172	1,969	1,250	652	14,436	8,051	6,798	7,446	12,430	17,220	11,224	9,803	716	621	878	566	435	401	9,226	5,317	11,578	3,940
LSF	4,155	2,053	4,089	1,806	387	17,697	9,090	14,161	5,707	19,145	21,086	17,021	11,754	1,265	1,268	1,049	711	100	1,615	7,220	5,997	15,492	4,318

Source: NISR, SAS 2025

Table 12: 2025 Season B_Average yield of Large-Scale Farmers by crop type and district (Kg/Ha)

District	Maize	Sorghum	Paddy rice	Wheat	Other cereals	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	2,202	2,258	3,791	-	-	-	7,198	9,099	5,102	11,854	10,064	19,830	16,429	1,013	1,013	-	275	-	-	20,528	3,926	11,498	287
Kicukiro	-	-	5,289	-	-	-	-	-	-	16,635	19,994	7,457	-	626	626	-	880	-	-	-	4,572	-	17,304
Nyanza	-	-	3,981	-	-	-	6,706	-	-	10,630	4,160	10,695	13,778	502	502	-	-	-	-	5,320	-	-	6,392
Gisagara	1,795	-	3,508	-	-	-	-	-	-	-	-	-	-	880	880	-	-	-	-	-	-	-	-
Nyaruguru	1,733	-	2,739	-	-	-	-	14,903	-	18,128	21,956	16,219	-	1,319	-	1,319	-	-	401	-	-	27,005	-
Huye	3,938	-	4,410	-	-	-	-	-	-	18,125	18,308	14,520	-	1,375	1,375	-	-	-	-	-	-	41,728	2,502
Nyamagabe	-	1,443	1,438	1,693	-	-	-	15,797	-	-	-	-	-	498	-	498	973	-	-	-	-	10,677	-
Ruhango	-	-	4,495	-	-	20,780	-	-	-	14,128	13,815	14,175	-	1,375	1,375	-	-	340	-	-	-	23,372	7,424
Muhanga	2,631	-	2,683	2,481	-	-	-	13,168	-	-	-	-	-	950	-	950	-	-	-	-	-	-	-
Kamonyi	2,748	-	3,801	-	-	-	-	-	-	-	-	-	-	500	500	-	-	-	-	-	-	-	-
Karongi	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,322
Rubavu	3,560	-	-	-	-	-	-	14,340	-	14,650	15,304	10,352	9,973	-	-	-	-	-	-	-	-	7,199	789
Nyabihu	-	-	-	-	-	-	-	8,424	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rusizi	3,388	2,454	4,872	-	-	11,456	6,220	-	-	-	-	-	-	702	702	-	-	-	-	-	73,782	-	228
Nyamasheke	-	-	4,409	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8,032
Rulindo	-	3,197	4,510	1,219	-	-	-	13,238	-	-	-	-	-	1,150	-	1,150	-	-	-	1,840	-	-	2,076
Gakenke	-	-	4,216	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Musanze	-	-	-	1,727	-	-	-	17,045	-	-	-	-	-	-	-	-	319	-	-	-	3,938	31,993	-
Gicumbi	-	2,057	-	1,973	-	-	-	16,796	-	25,001	25,184	22,532	-	946	-	946	-	-	-	11,189	-	38,374	-
Rwamagana	2,706	2,109	4,057	-	-	-	6,491	4,936	-	21,238	21,161	22,119	20,461	655	655	-	187	-	976	8,902	2,377	22,561	7,153
Nyagatare	4,472	2,307	4,292	-	-	18,266	16,540	7,852	-	20,714	25,504	21,290	7,802	1,597	1,597	-	-	-	1,686	6,428	5,167	8,982	2,095
Gatsibo	2,706	1,697	3,899	-	-	-	6,500	7,750	-	23,163	23,521	24,769	18,486	726	726	-	-	-	994	4,821	-	13,607	6,955
Kayonza	5,253	1,953	3,056	-	447	26,437	4,006	9,029	-	24,275	24,443	14,352	-	1,002	1,002	-	-	31	-	2,062	9,867	11,700	11,590
Kirehe	5,994	-	5,157	-	387	-	-	-	-	-	-	-	-	819	819	-	488	-	1,986	8,394	-	-	-
Ngoma	2,265	1,406	3,588	-	-	-	7,760	-	8,439	18,324	14,706	24,968	21,958	772	772	-	-	282	326	5,249	2,309	8,176	4,042
Bugesera	2,640	1,483	5,128	-	-	-	6,346	3,785	5,839	14,787	13,356	16,966	13,266	1,188	1,163	2,836	511	288	224	4,631	8,542	8,872	835
National	4,155	2,053	4,089	1,806	387	17,697	9,090	14,161	5,707	19,145	21,086	17,021	11,754	1,265	1,268	1,049	711	100	1,615	7,220	5,997	15,492	4,318

Source: NISR, SAS 2025

Table 13: 2025 Season B_Crop production by crop type and district (MT)

District	Maize	Sorghum	Paddy rice	Wheat	Other Cereals	Cassava	Sweet potatoes	Irish potatoes	Yams & Taro	Banana	Cooking banana	Dessert banana	Banana for beer	Beans	Bush bean	Climbing bean	Pea	Ground nuts	Soya bean	Vegetables	Fruits	Fodder crops	Other crops
Nyarugenge	403	259	-	-	-	2,618	1,079	-	770	8,030	2,673	1,055	4,303	912	873	38	-	-	70	939	-	1,506	9,201
Gasabo	1,542	2,994	1,074	-	-	6,728	10,018	1,396	482	17,896	7,152	5,649	5,096	2,765	2,519	246	13	54	129	6,576	331	2,441	2,838
Kicukiro	368	765	410	-	-	1,672	857	-	1,227	5,106	1,959	1,045	2,101	967	960	6	23	12	35	1,257	30	234	110
Nyanza	3,365	4,872	2,589	-	80	34,122	15,887	977	3,749	17,382	5,313	4,357	7,711	7,744	6,231	1,513	203	419	829	3,094	17	2,247	2,547
Gisagara	2,343	3,531	11,250	-	398	64,678	21,122	520	4,396	23,007	6,018	5,976	11,013	8,695	7,062	1,633	15	278	1,217	3,153	1,780	-	882
Nyaruguru	270	2,460	116	181	24	23,528	40,935	14,786	3,837	9,158	3,377	2,163	3,618	5,925	488	5,437	233	5	460	4,964	300	5,396	1,887
Huye	1,112	4,220	4,596	-	194	25,467	22,906	663	1,546	14,304	5,001	3,796	5,508	5,656	3,179	2,478	161	65	822	5,805	2,398	355	1,057
Nyamagabe	1,173	3,856	43	3,166	-	19,884	52,343	13,265	7,418	13,848	1,590	1,828	10,429	4,736	360	4,377	522	-	403	3,670	364	1,123	3,137
Ruhango	830	2,228	3,948	-	39	95,084	20,108	210	4,822	20,922	2,367	3,740	14,815	6,715	4,972	1,742	48	802	1,458	2,565	81	4,177	2,347
Muhanga	945	86	326	141	-	41,076	35,734	802	17,739	72,048	10,620	7,253	54,175	4,251	1,506	2,746	88	20	1,032	2,728	1,468	9,090	3,600
Kamonyi	2,356	3,391	861	-	6	39,300	22,187	2,006	6,980	54,405	9,942	8,263	36,200	5,725	4,742	984	50	466	1,286	5,092	409	1,432	10,144
Karongi	743	2,311	-	35	-	35,320	31,432	682	8,516	49,367	6,511	4,303	38,553	7,444	1,144	6,300	192	100	702	8,127	865	3,834	1,202
Rutsiro	1,762	119	-	-	-	13,756	19,604	16,784	3,696	31,160	7,426	8,854	14,880	4,749	437	4,312	258	-	468	1,792	293	2,834	11,612
Rubavu	2,495	119	-	-	-	3,364	12,430	52,841	805	12,604	4,908	1,785	5,911	4,097	388	3,708	288	-	314	31,949	140	4,230	7,538
Nyabihu	5,613	-	-	1,767	-	980	14,772	66,983	230	3,477	1,448	1,043	985	2,996	51	2,946	386	-	29	12,707	2,194	1,347	244
Ngororero	4,321	-	-	1,608	-	7,440	40,381	6,707	15,906	44,357	3,006	5,639	35,712	5,522	309	5,213	180	-	627	3,249	628	4,359	5,425
Rusizi	1,023	53	7,060	-	-	123,704	17,535	435	4,032	21,004	10,042	2,302	8,660	8,704	5,929	2,775	18	178	387	5,131	1,587	2,803	5,352
Nyamasheke	546	-	1,693	-	-	60,683	33,004	45	6,562	20,552	6,279	2,834	11,439	5,693	773	4,920	41	402	608	6,042	1,267	246	6,781
Rulindo	1,210	4,501	82	81	-	16,401	24,996	5,467	632	32,251	10,323	7,881	14,047	7,614	2,095	5,519	151	-	64	9,625	545	846	4,709
Gakenke	1,420	404	72	256	-	23,823	52,340	5,250	10,928	73,665	16,622	16,312	40,731	9,990	693	9,297	148	-	304	3,703	2,457	651	15,455
Musanze	3,647	2,463	-	1,942	-	454	17,967	41,103	1,448	7,687	4,158	1,720	1,809	8,317	262	8,055	148	-	13	11,982	278	274	5,395
Burera	3,171	7,755	-	959	-	488	27,314	34,212	256	9,817	6,174	640	3,003	11,778	305	11,473	564	-	13	5,082	559	7,141	2,025
Gicumbi	2,393	13,936	-	1,304	31	12,549	39,056	14,631	947	30,892	12,000	6,456	12,436	12,960	2,229	10,731	495	35	135	5,756	239	5,993	3,484
Rwamagana	3,488	6,891	2,073	-	10	31,635	10,713	2,554	940	71,697	53,013	8,473	10,211	6,870	6,687	183	49	576	382	7,749	2,410	16,395	1,803
Nyagatare	39,347	6,217	9,426	27	6	16,982	8,259	3,040	283	78,076	51,350	4,154	22,573	22,203	20,881	1,322	6	782	1,151	7,867	95	8,279	848
Gatsibo	11,353	10,622	6,604	200	166	12,885	26,504	10,331	1,971	101,029	63,206	11,616	26,206	12,418	10,271	2,147	55	644	912	6,260	352	5,427	2,143
Kayonza	7,072	18,202	5,246	-	492	50,905	9,784	8,866	1,878	68,076	55,020	4,736	8,321	12,053	11,804	249	30	155	225	3,893	1,538	3,195	2,741
Kirehe	5,443	10,714	4,738	-	288	29,642	7,578	5,397	4,029	95,812	68,839	4,316	22,657	15,484	10,073	5,410	197	371	1,223	2,113	216	248	4,221
Ngoma	1,473	9,070	3,409	-	638	28,058	8,248	3,124	608	97,316	66,641	5,516	25,159	14,594	12,350	2,245	23	558	557	2,093	6,759	4,313	1,528
Bugesera	6,483	3,617	7,360	-	65	29,318	7,422	1,016	1,308	61,302	24,129	10,611	26,562	13,145	13,041	104	0	1,826	534	6,311	200	11,150	346
National	117,711	125,656	72,976	11,667	2,437	852,541	652,515	314,093	117,941	1,166,247	527,109	154,315	484,822	240,721	132,612	108,108	4,586	7,747	16,388	181,272	29,798	111,566	120,603

Source: NISR, SAS 2025

Table 14: 2025 Season B_the Use of production by farmers (in percentage)

Crops	Sold	Own consumption	Wages for hired labour	Farm rent	Offered as gift	Barter trade / Exchanged with other things	Seeds	Fodder purpose	Stored	Post harvesting losses	Other usage
Maize	33.5	50.5	1.5	2.7	7.0	0.2	0.9	2.0	1.0	0.5	0.2
Sorghum	59.4	25.0	0.4	3.1	6.5	0.1	3.9	0.0	0.5	0.6	0.6
Paddy rice	82.1	16.1	-	-	-	-	-	-	0.0	1.7	0.0
Wheat	48.3	28.0	0.7	0.5	7.1	0.2	12.9	0.1	0.4	0.9	0.9
Other cereals	49.5	35.2	0.9	2.2	4.3	-	5.5	-	0.7	1.4	0.2
Sweet potato	38.9	47.6	2.2	0.6	6.9	0.0	0.0	3.6	0.0	0.0	0.1
Irish potato	44.6	28.1	1.5	0.8	5.3	0.0	18.8	0.1	0.2	0.2	0.4
Yam & Taro	42.9	41.9	1.4	0.7	6.4	0.0	6.4	-	-	0.0	0.2
Cassava	55.6	34.9	1.6	2.0	4.7	0.0	0.0	0.3	0.5	0.0	0.3
Bush bean	24.3	45.2	2.0	3.2	5.8	0.2	16.7	-	1.8	0.6	0.3
Climbing bean	19.3	49.5	1.5	1.1	9.4	0.1	17.4	-	1.2	0.3	0.2
Pea	43.9	36.0	0.2	0.3	4.4	-	14.5	-	0.2	0.4	0.0
Groundnut	50.9	26.4	0.6	0.5	3.6	-	17.4	-	0.2	0.4	0.0
Soybean	34.0	36.7	0.9	1.0	4.8	0.3	19.7	0.7	0.7	1.0	0.2
Cooking banana	59.2	35.5	1.0	0.1	4.0	0.0	-	0.0	-	0.0	0.2
Dessert banana	69.9	26.3	0.1	0.3	3.0	0.0	0.0	0.0	-	0.0	0.4
Banana for beer	80.8	12.0	0.3	0.2	6.3	0.0	0.0	0.1	-	0.1	0.4
Vegetables	81.6	11.4	0.4	0.3	4.1	0.0	1.2	-	0.0	0.3	0.4
Fruits	86.1	9.6	0.0	0.2	3.6	-	0.0	0.0	-	0.1	0.4
Fodder crops	4.5	-	0.0	-	1.2	0.0	0.1	91.7	-	0.0	2.3
Other crops	95.2	2.6	0.0	0.0	0.5	0.1	0.2	0.1	0.0	0.2	1.0

Source : NISR, SAS 2025

Table 15: 2025 Season B_Cultivated area by cropping system and district (Percentage)

District	Cropping system	
	Pure Cropping	Mixed Cropping
Nyarugenge	44.0	56.0
Gasabo	32.9	67.1
Kicukiro	33.1	66.9
Nyanza	34.6	65.4
Gisagara	27.0	73.0
Nyaruguru	45.6	54.4
Huye	35.6	64.4
Nyamagabe	47.6	52.4
Ruhango	45.5	54.5
Muhanga	36.3	63.7
Kamonyi	33.5	66.5
Karongi	36.9	63.1
Rutsiro	56.4	43.6
Rubavu	50.4	49.6
Nyabihu	57.5	42.5
Ngororero	48.7	51.3
Rusizi	44.6	55.4
Nyamasheke	49.4	50.6
Rulindo	46.8	53.2
Gakenke	42.3	57.7
Musanze	62.5	37.5
Burera	67.9	32.1
Gicumbi	45.5	54.5
Rwamagana	37.5	62.5
Nyagatare	24.1	75.9
Gatsibo	29.7	70.3
Kayonza	33.8	66.2
Kirehe	39.6	60.4
Ngoma	34.3	65.7
Bugesera	39.2	60.8
National	40.1	59.9
SSF	38.8	61.2
LSF	94.6	5.4

Source: NISR, SAS 2025

Table 16: 2025 Season B_Sowing dates by district (Percentage)

District	Before January	Between 01-15/01	Between 16-31/01	Between 01-15/02	Between 16-28/02	Between 01-15/03	Between 16-31/03	After 31/03	Other season	Total
Nyarugenge	3.39	1.48	1.79	5.02	9.44	21.51	7.63	1.30	48.42	100
Gasabo	4.73	7.65	4.66	12.82	12.84	14.29	2.64	4.44	35.91	100
Kicukiro	5.17	4.41	1.38	2.57	7.28	14.69	19.50	0.88	44.13	100
Nyanza	4.64	6.90	5.27	16.69	18.55	7.82	2.98	4.06	33.09	100
Gisagara	4.86	3.62	2.72	15.89	19.33	13.35	3.07	1.56	35.60	100
Nyaruguru	15.88	4.77	2.52	13.97	13.06	9.07	5.89	7.13	27.71	100
Huye	3.53	3.61	5.24	16.52	18.03	13.37	3.88	3.88	31.94	100
Nyamagabe	16.96	4.02	3.78	11.53	9.35	11.77	7.44	10.85	24.29	100
Ruhango	7.30	7.55	6.64	23.73	12.78	9.51	2.48	5.12	24.89	100
Muhanga	16.28	3.45	2.49	12.81	13.34	9.03	3.60	3.01	36.00	100
Kamonyi	5.18	4.36	2.08	9.17	12.06	18.77	8.35	4.30	35.73	100
Karongi	8.36	5.77	1.59	17.58	14.28	6.90	2.99	4.89	37.63	100
Rutsiro	6.22	3.53	5.17	14.50	15.62	9.13	4.68	3.78	37.38	100
Rubavu	5.31	6.29	7.49	12.66	14.37	15.01	9.59	12.56	16.72	100
Nyabihu	9.67	3.52	2.40	13.03	17.35	14.01	10.07	20.19	9.75	100
Ngororero	12.56	2.52	3.45	7.87	23.72	14.19	3.01	4.85	27.84	100
Rusizi	5.18	1.08	1.50	5.95	13.69	18.20	3.31	1.44	49.65	100
Nyamasheke	10.22	0.77	1.87	9.42	16.29	7.35	4.88	3.77	45.42	100
Rulindo	7.14	8.64	6.02	9.27	8.92	21.70	8.78	2.23	27.30	100
Gakenke	11.50	4.31	4.72	7.46	8.91	15.85	8.77	6.19	32.29	100
Musanze	6.33	10.06	4.37	16.53	5.73	19.79	10.95	7.17	19.08	100
Burera	6.64	10.85	12.18	16.48	9.83	15.77	10.82	5.38	12.04	100
Gicumbi	5.55	6.87	3.10	6.68	15.15	23.19	8.31	5.52	25.62	100
Rwamagana	3.85	5.60	3.34	7.01	12.11	17.44	8.35	3.32	38.98	100
Nyagatare	0.61	2.06	2.76	11.79	24.21	25.70	4.99	1.20	26.68	100
Gatsibo	2.29	3.50	2.98	13.51	15.89	15.11	5.02	1.54	40.16	100
Kayonza	3.89	6.56	3.72	6.96	12.86	23.53	7.45	2.24	32.79	100
Kirehe	5.15	4.11	3.09	12.01	16.69	13.39	3.20	0.42	41.94	100
Ngoma	2.85	4.92	0.97	5.86	15.79	16.04	6.12	0.41	47.05	100
Bugesera	4.53	2.08	2.13	1.06	10.10	34.68	16.53	0.78	28.10	100
National	7.28	4.74	3.66	11.63	14.39	15.25	6.23	4.44	32.39	100

Source: NISR, SAS 2025

Table 17: 2025 Season B_Sowing date by crops (Percentage)

Crops	Before January	Between 01-15/01	Between 16-31/01	Between 01-15/02	Between 16-28/02	Between 01-15/03	Between 16-31/03	After 31/03	Other season	Total
Maize	1.63	4.25	5.22	23.89	28.05	27.84	8.08	1.04	0.00	100
Sorghum	7.83	45.97	23.25	18.19	3.95	0.72	0.09	0.00	0.00	100
Paddy rice	10.47	14.22	6.09	36.94	10.43	13.90	2.70	5.24	0.00	100
Wheat	0.00	0.00	0.00	2.84	8.46	24.98	35.39	28.34	0.00	100
Other cereals	1.19	0.85	4.67	20.76	33.37	29.66	9.50	0.00	0.00	100
Sweet potato	29.95	10.90	5.03	10.72	9.21	12.06	6.72	15.40	0.00	100
Irish potato	1.35	4.43	6.11	11.22	15.44	25.39	16.46	19.60	0.00	100
Taro & Yams	78.75	2.66	3.74	5.69	2.25	4.10	1.18	1.62	0.00	100
Cassava	2.86	2.71	1.63	4.97	3.35	4.65	1.62	3.32	74.88	100
Bush bean	0.10	0.41	2.28	17.64	31.57	34.03	12.83	1.13	0.00	100
Climbing bean	0.34	1.03	2.37	21.57	31.86	31.67	9.29	1.88	0.00	100
Pea	0.15	4.55	4.39	8.62	17.07	23.73	19.80	21.69	0.00	100
Groundnut	0.00	2.64	5.33	37.35	24.93	20.53	9.23	0.00	0.00	100
Soybean	0.59	3.27	5.21	25.45	32.12	24.01	8.47	0.89	0.00	100
Cooking banana	0.00	0.14	0.00	0.10	0.37	0.23	0.05	0.18	98.94	100
Dessert banana	0.07	0.12	0.05	0.00	0.11	0.00	0.07	0.00	99.57	100
Banana for beer	0.11	0.09	0.02	0.28	0.14	0.28	0.03	0.05	99.01	100
Vegetables	13.51	8.07	8.50	14.69	14.31	11.07	11.94	17.90	0.00	100
Fruits	0.28	2.88	1.41	1.79	2.68	2.61	0.56	2.28	85.52	100
Fodder crops	0.40	0.19	1.85	2.99	1.94	3.36	0.68	1.75	86.84	100
Other crops	12.73	1.31	0.31	0.42	0.76	1.42	1.30	2.77	78.98	100

Source: NISR, SAS 2025

Table 18: 2025 Season B_Use of seeds by farmer type per district (Percentage)

District	% of farmers who used improved seeds			% of sampled plots in which improved seeds was used			% of land size in which improved seeds were used		
	Overall	SSF	LSF	Overall	SSF	LSF	Overall	SSF	LSF
Nyarugenge	23.0	23.0		19.5	19.5		22.9	22.9	
Gasabo	21.8	19.0	84.6	19.9	15.5	46.6	19.2	17.5	79.5
Kicukiro	15.9	14.5	75.0	11.8	10.3	50.0	13.6	11.5	77.2
Nyanza	22.5	21.6	100.0	19.7	18.9	63.6	21.5	20.2	98.5
Gisagara	19.9	18.3	68.8	17.9	16.5	64.7	22.1	16.5	77.6
Nyaruguru	6.8	6.0	30.0	7.2	4.9	50.0	6.0	5.8	31.2
Huye	11.6	7.6	90.5	10.1	6.6	76.9	8.8	5.8	89.6
Nyamagabe	12.1	11.6	75.0	11.9	10.7	66.7	11.4	11.2	66.7
Ruhango	8.9	7.2	75.0	7.7	6.4	34.6	9.4	7.1	93.6
Muhanga	8.4	7.8	75.0	8.1	6.8	70.0	7.6	7.2	82.8
Kamonyi	17.2	16.3	75.0	14.0	13.2	58.3	13.4	12.8	93.0
Karongi	6.3	6.3	-	5.4	5.4	-	5.4	5.4	-
Rutsiro	7.7	7.7		6.1	6.1		5.8	5.8	-
Rubavu	21.9	21.9	25.0	20.3	20.5	12.5	20.9	21.0	16.0
Nyabihu	37.7	37.6	100.0	32.9	32.8	100.0	32.6	32.5	100.0
Ngororero	15.5	15.5		13.1	13.1		12.7	12.7	-
Rusizi	9.8	9.0	50.0	8.8	8.2	31.3	13.0	8.4	96.2
Nyamasheke	7.9	6.8	66.7	6.4	5.4	66.7	5.5	4.5	82.3
Rulindo	14.4	13.7	60.0	13.2	11.7	53.3	11.5	11.3	68.7
Gakenke	12.5	12.6	-	11.5	11.6	-	11.4	11.4	-
Musanze	15.0	14.7	100.0	14.9	13.2	62.5	16.1	15.9	88.8
Burera	15.1	15.1		13.8	13.8		14.0	14.0	-
Gicumbi	12.9	12.1	83.3	11.8	10.5	52.4	10.4	10.3	71.0
Rwamagana	16.8	13.7	66.7	16.5	11.8	31.3	16.1	14.8	67.2
Nyagatare	62.1	60.9	76.0	54.4	54.3	54.8	59.2	58.5	74.8
Gatsibo	29.9	28.0	73.3	26.4	24.1	45.3	28.1	25.8	90.9
Kayonza	27.0	23.7	82.8	27.9	19.9	74.0	22.7	19.4	91.6
Kirehe	3.9	3.0	77.8	4.0	2.6	76.5	5.6	2.4	97.3
Ngoma	13.0	11.6	57.9	11.3	9.8	27.0	11.5	9.9	74.5
Bugesera	28.4	26.0	75.0	24.9	23.9	30.5	29.9	25.2	91.6
National	18.0	16.7	72.1	16.6	14.6	46.4	18.7	16.9	85.5

Source : NISR, SAS 2025

Table 19: 2025 Season B Seed type by crops (Percentage)

Crop	Traditional seeds	Improved seeds	Total
Maize	43.4	56.6	100
Sorghum	99.5	0.5	100
Paddy rice	91.7	8.3	100
Wheat	83.4	16.7	100
Other cereals	99.1	0.9	100
Sweet potato	99.5	0.5	100
Irish potato	95.5	4.5	100
Taro & Yams	100.0	-	100
Cassava	99.5	0.5	100
Bush bean	99.0	1.0	100
Climbing bean	99.5	0.5	100
Pea	96.0	4.0	100
Groundnut	98.4	1.6	100
Soybean	98.6	1.4	100
Cooking banana	100.0	0.1	100
Dessert banana	98.7	1.3	100
Banana for beer	98.8	1.2	100
Vegetables	63.3	36.7	100
Fruits	79.1	20.9	100
Fodder crops	99.0	1.0	100
Other crops	82.5	17.5	100
National	93.2	6.8	100

Source: NISR, SAS 2025

Table 20: 2025 Season B_Percentage of farmers by source of improved seeds per district

District	Sources of improved seeds							
	Government (MINAGRI/ RAB/NAEB)	Recognized seed multipliers	Agro- dealers	NGOs/ Companies	Market	Agriculture cooperative	Other source	Total
Nyarugenge	6.3	-	37.5	37.5	18.8	-	-	100
Gasabo	-	20.0	68.6	5.7	-	5.7	-	100
Kicukiro	-	-	50.0	25.0	16.7	8.3	-	100
Nyanza	7.0	14.0	37.2	30.2	2.3	9.3	-	100
Gisagara	-	17.0	40.4	21.3	4.3	4.3	12.8	100
Nyaruguru	20.0	30.0	10.0	20.0	-	20.0	-	100
Huye	11.1	11.1	16.7	16.7	-	44.4	-	100
Nyamagabe	43.2	8.1	24.3	21.6	2.7	-	-	100
Ruhango	8.7	47.8	-	30.4	4.4	8.7	-	100
Muhanga	5.3	21.1	31.6	26.3	5.3	10.5	-	100
Kamonyi	13.5	-	32.4	32.4	13.5	8.1	-	100
Karongi	-	-	25.0	62.5	12.5	-	-	100
Rutsiro	-	-	52.6	42.1	-	-	5.3	100
Rubavu	1.6	9.5	31.8	6.4	38.1	11.1	1.6	100
Nyabihu	7.7	17.3	17.3	31.7	14.4	10.6	1.0	100
Ngororero	7.3	2.4	29.3	61.0	-	-	-	100
Rusizi	33.3	14.8	37.0	3.7	3.7	7.4	-	100
Nyamasheke	20.0	16.0	36.0	12.0	-	16.0	-	100
Rulindo	8.0	8.0	28.0	20.0	8.0	4.0	24.0	100
Gakenke	9.5	19.1	9.5	23.8	33.3	-	4.8	100
Musanze	16.7	4.2	41.7	16.7	8.3	12.5	-	100
Burera	14.3	16.7	23.8	31.0	11.9	-	2.4	100
Gicumbi	10.5	2.6	39.5	39.5	7.9	-	-	100
Rwamagana	4.9	17.1	17.1	41.5	12.2	7.3	-	100
Nyagatare	6.2	7.3	41.6	41.0	-	3.9	-	100
Gatsibo	21.8	6.4	25.6	35.9	2.6	7.7	-	100
Kayonza	18.5	23.1	21.5	33.9	3.1	-	-	100
Kirehe	5.9	11.8	11.8	47.1	-	23.5	-	100
Ngoma	9.5	33.3	11.9	14.3	23.8	4.8	2.4	100
Bugesera	3.9	2.6	29.9	48.1	5.2	9.1	1.3	100
National	10.4	12.0	30.2	30.6	7.9	7.4	1.5	100

Source: NISR, SAS 2025

Table 21: 2025 Season B_Percentage of crops by source of seeds

Crop	Government (MINAGRI/ RAB/	Recognized seed multipliers	Agro dealers	NGOs/	Market	Agriculture cooperative	Other source	Total
Maize	3.7	1.7	39.3	50.3	3.1	1.7	0.3	100
Sorghum	9.1	18.2	18.2	-	45.5	-	9.1	100
Paddy rice	2.6	47.0	2.6	2.6	0.9	44.4	-	100
Wheat	25.8	9.7	25.8	29.0	3.2	3.2	3.2	100
Other cereals	25.0	-	-	25.0	25.0	25.0	-	100
Sweet potato	85.7	14.3	-	-	-	-	-	100
Irish potato	23.9	45.5	6.8	11.4	10.2	1.1	1.1	100
Cassava	37.0	40.7	3.7	11.1	-	3.7	3.7	100
Bush bean	23.0	20.3	16.2	9.5	10.8	2.7	17.6	100
Climbing bean	37.0	18.5	11.1	11.1	14.8	3.7	3.7	100
Pea	66.7	-	-	8.3	16.7	8.3	-	100
Groundnut	-	-	-	-	100.0	-	-	100
Soybean	19.1	23.8	31.0	7.1	4.8	14.3	-	100
Cooking banana	14.3	42.9	14.3	-	-	-	28.6	100
Dessert banana	11.9	40.5	7.1	7.1	-	4.8	28.6	100
Banana for beer	5.3	34.2	7.9	13.2	7.9	7.9	23.7	100
Vegetables	0.7	4.3	51.6	8.2	32.2	0.7	2.3	100
Fruits	25.3	42.7	9.3	4.0	14.7	2.7	1.3	100
Fodder crops	26.9	15.4	42.3	7.7	-	7.7	-	100
Other crops	59.8	16.4	0.9	3.7	2.3	16.0	0.9	100

Source: NISR, SAS 2025

Table 22: 2025 Season B_Use of organic fertilizer by farmer type per district (Percentage)

District	% of farmers who applied organic fertilizer			% of plots in which organic fertilizer was applied			% of land size in which organic fertilizer was applied		
	Overall	SSF	LSF	Overall	SSF	LSF	Overall	SSF	LSF
Nyarugenge	79.1	79.1		45.5	45.5		51.7	51.7	
Gasabo	80.8	82.0	53.9	69.2	69.2	48.4	70.9	71.3	37.3
Kicukiro	59.4	58.4	100.0	65.7	65.7	57.1	64.7	63.8	79.6
Nyanza	69.4	69.2	83.3	67.4	67.4	60.0	69.2	68.6	98.0
Gisagara	77.9	79.6	25.0	65.2	65.2	60.0	67.7	69.2	26.4
Nyaruguru	96.0	95.9	100.0	73.8	73.8	100.0	72.2	72.0	100.0
Huye	83.2	82.8	90.5	90.2	90.2	100.0	89.9	89.4	100.0
Nyamagabe	96.1	96.1	100.0	75.9	75.9	66.7	74.6	74.5	82.4
Ruhango	87.0	88.1	41.7	70.8	70.8	76.5	70.8	70.1	97.6
Muhanga	97.6	97.6	100.0	68.3	68.3	90.0	72.0	71.9	96.3
Kamonyi	85.7	85.8	75.0	59.3	59.3	100.0	61.7	61.4	100.0
Karongi	91.1	91.1	100.0	71.8	71.8	25.0	72.2	72.2	9.0
Rutsiro	90.5	90.5		78.5	78.5		77.7	77.7	
Rubavu	60.5	60.6	50.0	64.8	64.8	100.0	64.5	64.4	100.0
Nyabihu	95.7	95.7	100.0	74.0	74.0	100.0	74.3	74.3	100.0
Ngororero	97.8	97.8		70.1	70.1		72.3	72.3	
Rusizi	71.3	72.3	20.0	69.7	69.7	83.3	63.9	63.9	97.6
Nyamasheke	94.4	94.7	77.8	64.8	64.8	100.0	64.9	64.5	100.0
Rulindo	96.8	97.1	80.0	81.3	81.3	64.3	82.3	82.4	56.1
Gakenke	99.0	99.2	50.0	79.6	79.6	100.0	79.8	79.7	100.0
Musanze	91.3	91.3	100.0	77.1	77.1	43.8	70.9	71.0	34.8
Burera	93.3	93.3		79.9	79.9		84.3	84.3	
Gicumbi	97.9	97.8	100.0	79.4	79.4	81.0	77.2	77.2	88.8
Rwamagana	75.8	74.7	93.3	69.1	69.1	58.2	66.6	66.1	82.6
Nyagatare	63.4	65.9	36.0	63.9	63.9	64.4	67.3	67.5	49.5
Gatsibo	79.8	80.2	70.0	66.8	66.8	60.3	70.0	69.0	91.6
Kayonza	68.1	68.8	55.2	60.3	60.3	87.5	65.5	65.4	72.8
Kirehe	57.0	56.9	66.7	43.8	43.8	80.0	49.0	47.6	75.6
Ngoma	53.8	53.3	68.4	60.2	60.2	58.9	55.9	54.6	92.9
Bugesera	66.1	66.4	59.4	54.4	54.4	65.2	56.6	52.9	99.3
National	80.8	81.2	63.8	71.1	71.1	66.4	69.6	69.4	84.3

Source : NISR, SAS 2025

Table 23: 2025 Season B Use of inorganic fertilizer by farmer type per district (Percentage)

District	% of farmers who used inorganic fertilizers			% of plots in which inorganic fertilizer was applied			% of land under which inorganic fertilizer was applied		
	Overall	SSF	LSF	Overall	SSF	LSF	Overall	SSF	LSF
Nyarugenge	30.9	30.9		40.8	40.8		40.7	40.7	
Gasabo	51.0	49.5	84.6	57.6	57.6	56.0	58.1	56.5	86.4
Kicukiro	41.8	41.0	75.0	58.6	58.6	66.7	59.6	56.1	99.1
Nyanza	29.3	28.7	83.3	39.6	39.6	100.0	43.0	39.0	100.0
Gisagara	38.8	36.8	100.0	35.6	35.6	100.0	58.6	47.8	100.0
Nyaruguru	79.1	78.5	100.0	56.7	56.7	57.9	62.2	61.9	95.4
Huye	30.9	27.5	100.0	61.0	61.0	100.0	59.6	53.9	100.0
Nyamagabe	69.1	68.8	100.0	54.6	54.6	91.7	56.9	56.7	98.3
Ruhango	24.2	22.5	91.7	41.6	41.6	87.5	46.2	40.1	98.2
Muhanga	43.3	42.7	100.0	31.6	31.6	100.0	34.2	33.2	100.0
Kamonyi	37.4	36.6	87.5	32.4	32.4	100.0	37.6	36.4	100.0
Karongi	51.0	51.1	0.0	52.2	52.2	0.0	59.3	59.3	0.0
Rutsiro	61.7	61.7		57.9	57.9		62.0	62.0	
Rubavu	71.3	71.5	50.0	73.7	73.7	100.0	77.4	77.3	100.0
Nyabihu	88.2	88.2	100.0	65.5	65.5	100.0	69.4	69.4	100.0
Ngororero	73.7	73.7		51.0	51.0		51.6	51.6	
Rusizi	61.7	61.4	80.0	61.2	61.2	81.8	66.5	63.9	99.9
Nyamasheke	77.1	76.9	88.9	52.3	52.3	100.0	56.0	55.2	100.0
Rulindo	67.2	67.1	80.0	52.7	52.7	85.7	55.7	55.6	88.1
Gakenke	83.4	83.5	50.0	50.0	50.0	100.0	51.6	51.6	100.0
Musanze	74.3	74.1	100.0	56.5	56.5	43.8	59.5	59.4	81.4
Burera	70.8	70.8		57.6	57.6		63.7	63.7	
Gicumbi	64.3	63.9	100.0	51.0	51.0	61.9	49.8	49.8	87.1
Rwamagana	48.5	47.4	66.7	62.1	62.1	53.5	67.1	66.3	88.5
Nyagatare	76.1	74.9	90.0	62.2	62.2	66.9	75.0	73.7	95.4
Gatsibo	58.3	57.3	80.0	53.4	53.4	53.7	65.3	63.6	94.0
Kayonza	48.8	46.6	86.2	59.2	59.2	96.7	65.8	62.6	98.4
Kirehe	43.3	42.7	88.9	42.9	42.9	100.0	58.0	54.6	100.0
Ngoma	30.1	29.4	52.6	40.3	40.2	59.1	50.9	47.4	98.8
Bugesera	45.5	43.7	81.3	48.8	48.8	52.4	59.1	52.3	99.5
National	55.5	54.8	83.7	52.8	52.8	67.3	60.0	58.3	97.8

Source: NISR, SAS 2025

Table 24: 2025 Season B_Percentage of farmers by source of inorganic fertilizers per district

District	Government (MINAGRI/ RAB/NAEB)	Agro dealers	NGOs/ Companies	Market	Agriculture cooperative	Other source	Total
Nyarugenge	-	74.4	20.9	4.7	-	-	100.0
Gasabo	-	90.5	2.6	-	7.0	-	100.0
Kicukiro	-	74.7	16.9	8.5	-	-	100.0
Nyanza	1.9	62.6	29.7	2.6	3.2	-	100.0
Gisagara	2.1	55.5	26.2	6.3	10.0	-	100.0
Nyaruguru	2.7	14.7	77.5	3.9	1.2	-	100.0
Huye	3.7	31.6	44.1	8.1	12.5	-	100.0
Nyamagabe	6.3	44.5	42.0	3.1	3.8	0.3	100.0
Ruhango	6.8	20.5	64.1	1.7	6.0	0.9	100.0
Muhanga	1.7	35.0	57.8	4.4	1.1	-	100.0
Kamonyi	6.1	37.4	33.8	12.1	10.6	-	100.0
Karongi	5.9	31.4	59.3	2.5	0.9	-	100.0
Rutsiro	4.7	44.9	49.6	0.4	0.4	-	100.0
Rubavu	0.7	68.9	20.5	8.5	1.4	-	100.0
Nyabihu	-	58.0	31.9	8.7	1.4	-	100.0
Ngororero	0.3	38.8	55.4	5.0	0.6	-	100.0
Rusizi	1.3	54.1	38.3	2.2	4.1	-	100.0
Nyamasheke	5.7	32.7	56.2	4.1	1.4	-	100.0
Rulindo	2.6	38.0	54.7	2.1	2.6	-	100.0
Gakenke	0.7	57.0	36.4	5.4	0.5	-	100.0
Musanze	-	70.3	27.3	2.2	0.3	-	100.0
Burera	0.6	54.7	37.4	7.0	0.3	-	100.0
Gicumbi	1.7	33.6	59.2	3.9	1.7	-	100.0
Rwamagana	1.2	32.7	57.6	4.1	3.3	1.2	100.0
Nyagatare	0.9	49.1	45.2	0.4	4.3	-	100.0
Gatsibo	16.7	31.2	43.2	5.4	3.2	0.3	100.0
Kayonza	3.9	49.8	40.4	4.7	1.2	-	100.0
Kirehe	1.6	32.0	46.0	13.4	6.5	0.6	100.0
Ngoma	3.2	12.6	63.7	6.3	13.2	1.1	100.0
Bugesera	1.0	38.3	52.2	3.6	4.6	0.3	100.0
National	3.0	44.5	44.4	4.8	3.2	0.1	100.0

Source: NISR, SAS 2025

Table 25: 2025 Season B_Source of inorganic fertilizer by type of fertilizer

Fertilizer name	Government (MINAGRI/RAB/ NAEB)	Agro dealers	NGOs/ Companies	Market	Agriculture cooperative	Other source	Total
NPK 17-17-17	2.5	56.9	32.6	4.1	3.7	0.3	100
NPK 20-10-10;	45.8	20.3	13.6	3.4	17.0	-	100
NPK 25-5-5;	46.4	21.4	10.7	7.1	14.3	-	100
NPK 22-6-12;	60.5	18.4	7.9	-	13.2	-	100
Other NPK;	6.0	65.7	14.9	6.0	7.5	-	100
Urea;	2.1	44.5	45.7	4.9	2.4	0.3	100
liquid urea (Mbonea M)	-	45.5	31.8	22.7	-	-	100
DAP	1.7	44.3	48.4	4.2	1.4	0.0	100
KCL/MOP,	25.0	50.0	25.0	-	-	-	100
Omax;	-	75.0	12.5	6.3	6.3	-	100
Winner;	-	100.0	-	-	-	-	100
Yara Viva;	-	50.0	-	25.0	25.0	-	100
Amidas;	7.7	61.5	23.1	-	7.7	-	100
Cereal;	-	68.2	9.1	4.6	18.2	-	100
DI Grow;	5.7	54.7	32.1	1.9	5.7	-	100
Lime/Ishwagara	3.3	49.5	44.0	2.2	1.1	-	100
Other type of fertilizer	2.8	58.5	28.3	3.8	5.7	0.9	100

Source: NISR, SAS 2025

Table 26: 2025 Season B Percentage of plots by type of inorganic fertilizer per district

District	NPK	Urea	DAP	KCL/MOP	Lime	Others	Total
Nyarugenge	12.83	52.36	34.80	-	-	-	100
Gasabo	27.91	44.33	26.63	-	-	1.14	100
Kicukiro	10.70	53.81	34.33	-	0.01	1.15	100
Nyanza	24.47	32.28	41.97	-	0.70	0.58	100
Gisagara	14.92	46.16	38.91	-	-	-	100
Nyaruguru	18.90	21.54	44.53	-	14.64	0.39	100
Huye	23.69	47.32	28.75	-	0.24	-	100
Nyamagabe	17.53	31.93	32.48	0.03	18.00	0.04	100
Ruhango	13.24	41.32	45.29	-	-	0.16	100
Muhanga	23.96	33.85	39.91	-	1.34	0.94	100
Kamonyi	22.85	58.11	17.41	-	1.53	0.10	100
Karongi	7.17	34.65	54.73	-	3.30	0.15	100
Rutsiro	22.64	27.28	35.16	-	14.66	0.25	100
Rubavu	41.92	31.83	26.25	-	-	-	100
Nyabihu	32.10	38.72	25.77	-	1.92	1.49	100
Ngororero	11.56	31.74	48.69	-	7.40	0.61	100
Rusizi	20.15	23.05	50.93	-	5.87	-	100
Nyamasheke	20.56	29.57	43.68	-	5.92	0.28	100
Rulindo	21.62	43.07	32.84	-	1.98	0.49	100
Gakenke	20.22	27.69	50.42	-	1.38	0.29	100
Musanze	26.83	38.50	29.67	-	3.90	1.11	100
Burera	30.60	20.35	47.34	-	1.32	0.40	100
Gicumbi	32.84	28.66	34.39	-	3.21	0.90	100
Rwamagana	21.97	40.76	36.22	-	0.02	1.02	100
Nyagatare	1.76	50.35	44.88	-	0.70	2.31	100
Gatsibo	22.65	45.77	30.09	-	0.80	0.69	100
Kayonza	19.92	50.20	29.59	-	-	0.29	100
Kirehe	18.21	46.25	34.09	-	0.99	0.46	100
Ngoma	19.93	50.64	27.44	-	1.73	0.26	100
Bugesera	4.72	40.88	54.29	-	0.11	-	100
National	20.52	35.08	39.02	-	4.84	0.54	100

Source: NISR, SAS 2025

Table 27: 2025 Season B_Use of pesticides by farmer type per district (Percentage)

District	% of farmers who used pesticides			% of plots in which pesticides were used			% of land size in which pesticides were used		
	Overall	SSF	LSF	Overall	SSF	LSF	Overall	SSF	LSF
Nyarugenge	20.1	20.1		39.3	39.3		17.7	17.7	
Gasabo	40.9	39.0	84.6	35.7	35.7	55.3	45.2	42.5	87.7
Kicukiro	25.3	24.1	75.0	48.4	48.4	66.7	46.7	38.5	99.1
Nyanza	24.4	23.7	83.3	33.5	33.5	100.0	38.0	33.2	100.0
Gisagara	26.8	24.4	100.0	34.9	34.9	94.1	52.6	33.3	99.5
Nyaruguru	35.0	32.9	100.0	35.6	35.6	52.6	43.2	42.2	92.6
Huye	22.5	19.6	81.0	44.1	44.1	100.0	48.0	41.7	100.0
Nyamagabe	41.1	40.6	100.0	38.8	38.8	91.7	47.4	47.1	98.3
Ruhango	24.6	23.7	58.3	20.0	20.0	75.0	30.3	23.6	99.2
Muhanga	35.3	34.7	100.0	28.4	28.4	90.0	32.2	31.1	96.3
Kamonyi	35.5	34.7	87.5	24.0	24.0	100.0	25.5	24.0	100.0
Karongi	17.3	17.3	0.0	37.1	37.1	0.0	47.9	47.9	0.0
Rutsiro	34.0	34.0		51.1	51.1		56.4	56.4	
Rubavu	73.8	73.8	75.0	82.2	82.2	75.0	82.8	82.8	86.5
Nyabihu	79.6	79.5	100.0	66.2	66.2	100.0	69.6	69.6	100.0
Ngororero	45.5	45.5		46.8	46.8		47.6	47.6	
Rusizi	21.1	19.9	80.0	43.4	43.4	72.7	54.9	43.2	99.1
Nyamasheke	29.8	28.5	100.0	29.4	29.4	100.0	30.2	26.6	100.0
Rulindo	57.8	57.1	100.0	43.8	43.8	92.9	40.3	40.1	94.1
Gakenke	55.1	55.1	50.0	40.4	40.4	100.0	44.8	44.8	100.0
Musanze	80.2	80.1	100.0	64.9	64.9	50.0	65.2	65.2	82.1
Burera	54.2	54.2		61.1	61.1		64.5	64.5	
Gicumbi	52.7	52.4	83.3	39.4	39.4	55.0	41.7	41.6	77.0
Rwamagana	27.5	24.6	73.3	41.1	41.1	41.2	52.5	49.7	84.2
Nyagatare	31.3	27.3	76.0	54.8	54.8	62.2	65.7	62.2	94.3
Gatsibo	39.8	38.8	63.3	39.5	39.5	40.6	55.3	52.7	84.8
Kayonza	28.7	26.1	72.4	47.7	47.7	90.7	59.9	54.0	92.9
Kirehe	25.1	24.5	77.8	31.9	31.9	91.7	41.5	39.0	68.0
Ngoma	20.1	18.4	73.7	31.2	31.2	43.2	34.4	26.6	94.0
Bugesera	15.9	13.1	71.9	31.6	31.5	55.1	57.2	36.5	97.1
National	36.6	35.6	77.7	43.6	43.6	60.0	51.3	48.5	93.5

Source: NISR, SAS 2025

Table 28: 2025 Season B Percentage of plots by type of pesticides per district

	Type of pesticides									
District	Dithane	Ridomil	Dimethoate	Cypermetrin	Dursiban	Pilkare	Rocket	Beam	Other pesticide	Total
Nyarugenge	27.8	-	5.6	-	-	-	38.9	-	27.8	100
Gasabo	13.2	1.7	9.9	9.9	-	-	41.3	0.8	23.1	100
Kicukiro	12.5	-	2.5	20.0	-	-	42.5	2.5	20.0	100
Nyanza	12.7	-	1.4	8.5	-	-	67.6	5.6	4.2	100
Gisagara	7.1	2.4	1.2	21.2	-	-	54.1	10.6	3.5	100
Nyaruguru	13.3	4.0	-	8.0	-	-	42.7	-	32.0	100
Huye	7.3	-	3.1	28.1	-	-	43.8	13.5	4.2	100
Nyamagabe	24.1	1.4	-	32.4	1.4	-	31.0	1.4	8.3	100
Ruhango	10.5	-	-	26.3	-	-	50.0	13.2	-	100
Muhanga	18.2	11.7	-	11.7	-	-	55.8	2.6	-	100
Kamonyi	19.8	1.0	9.4	14.6	-	-	46.9	5.2	3.1	100
Karongi	10.4	-	18.8	12.5	-	-	45.8	-	12.5	100
Rutsiro	59.8	5.6	1.9	17.8	-	-	13.1	-	1.9	100
Rubavu	27.8	18.6	10.8	19.8	0.5	-	13.3	-	9.2	100
Nyabihu	31.1	11.4	10.7	14.9	-	-	16.6	-	15.2	100
Ngororero	23.4	3.6	1.4	19.9	-	-	48.2	-	3.6	100
Rusizi	15.5	1.9	17.5	25.2	-	-	16.5	3.9	19.4	100
Nyamasheke	19.2	1.4	5.5	34.3	5.5	-	20.6	4.1	9.6	100
Rulindo	34.6	2.6	5.9	9.2	-	-	32.7	0.7	14.4	100
Gakenke	6.1	1.2	3.6	41.2	-	-	38.8	-	9.1	100
Musanze	31.1	5.4	12.0	15.6	-	-	28.5	-	7.3	100
Burera	33.2	1.5	9.9	14.6	-	0.4	32.5	-	8.0	100
Gicumbi	39.6	1.0	2.1	5.2	-	-	40.1	0.5	11.5	100
Rwamagana	20.6	2.6	12.4	8.8	-	0.5	24.7	3.6	26.8	100
Nyagatare	9.7	0.8	10.5	13.2	-	-	39.5	5.0	21.3	100
Gatsibo	19.5	0.7	6.6	7.4	-	-	44.1	1.5	20.2	100
Kayonza	23.2	1.1	8.1	8.7	-	-	33.5	6.5	18.9	100
Kirehe	27.8	0.7	16.7	9.7	-	-	24.3	2.8	18.1	100
Ngoma	23.9	1.1	6.5	13.0	-	-	29.4	7.6	18.5	100
Bugesera	7.5	-	10.0	15.8	-	-	36.7	8.3	21.7	100
National	24.3	5.6	8.4	16.1	0.2	0.0	30.4	2.1	12.9	100

Source: NISR, SAS 2025

Table 29: 2025 Season B Percentage of farmers who practiced agricultural practices.

District	% of farmers who protected land against erosion			% of farmers who used any mechanical equipment for agriculture activities			% of farmers who practiced irrigation			% of farmers who practiced agroforestry		
	Overall	SSF	LSF	Overall	SSF	LSF	Overall	SSF	LSF	Overall	SSF	LSF
Nyarugenge	75.7	75.7		-	-		3.6	3.6		15.2	15.2	
Gasabo	82.9	82.2	100	1.0	0.3	15.4	20.0	19.2	38.5	44.9	43.8	71.4
Kicukiro	52.9	52.4	75	1.2	0.6	25.0	10.0	9.6	25.0	53.1	52.7	75.0
Nyanza	92.8	92.8	100	0.2	0.2	-	15.4	14.7	83.3	52.7	52.6	62.5
Gisagara	84.4	84.9	68.8	0.2	0.2	-	24.1	22.4	75.0	48.2	49.7	-
Nyaruguru	95.4	95.3	100	0.3	-	10.0	9.2	7.6	60.0	35.4	35.3	38.5
Huye	87.8	87.2	100	-	-	-	18.7	14.9	95.2	30.5	31.0	20.0
Nyamagabe	88.6	88.5	100	-	-	-	9.3	8.9	50.0	48.6	48.5	75.0
Ruhango	92.4	92.2	100	0.4	0.4	-	19.8	18.1	83.3	46.4	46.7	35.7
Muhanga	97.6	97.6	100	-	-	-	20.7	20.2	75.0	54.3	54.2	66.7
Kamonyi	94.3	94.2	100	0.2	-	12.5	21.2	20.2	87.5	56.2	56.6	33.3
Karongi	94.0	94.0	100	-	-	-	9.1	8.9	100.0	48.3	48.2	100.0
Rutsiro	94.7	94.7		-	-		4.5	4.5		41.3	41.3	
Rubavu	93.7	93.7	100	-	-	-	0.8	0.8	-	34.8	34.6	50.0
Nyabihu	98.6	98.6	100	-	-	-	-	-	-	50.8	50.7	100.0
Ngororero	98.8	98.8		0.2	0.2		6.5	6.5		48.3	48.3	
Rusizi	86.6	86.5	90	0.2	0.2	-	11.5	10.3	70.0	50.2	50.4	40.0
Nyamasheke	94.0	93.8	100	1.5	0.6	44.4	14.8	13.8	66.7	51.3	51.6	33.3
Rulindo	96.0	95.9	100	0.9	0.6	20.0	13.2	13.1	20.0	48.8	48.9	40.0
Gakenke	99.8	99.8	100	-	-	-	4.7	4.3	100.0	49.4	49.5	33.3
Musanze	84.3	84.3	100.0	0.5	-	100.0	4.1	4.1	-	56.7	56.4	100.0
Burera	95.7	95.7		-	-		2.2	2.2		42.4	42.4	
Gicumbi	97.7	97.7	100	0.5	0.2	33.3	4.6	4.7	-	47.8	47.3	100.0
Rwamagana	95.1	94.7	100	1.0	0.6	6.7	15.3	12.6	56.7	62.0	61.5	71.0
Nyagatare	78.6	77.0	96	4.9	1.3	46.0	15.3	12.2	50.0	64.7	66.2	45.5
Gatsibo	90.4	90.3	93.3	0.9	-	20.0	7.6	5.7	50.0	60.6	60.3	66.7
Kayonza	85.2	84.7	93.1	2.1	0.2	34.5	12.1	7.6	89.7	53.7	53.9	51.5
Kirehe	89.1	89.0	100	0.8	0.5	22.2	14.6	13.9	77.8	66.1	66.5	33.3
Ngoma	82.3	81.8	100	0.3	-	10.5	9.3	8.0	52.6	57.3	57.7	42.9
Bugesera	76.4	75.5	93.8	1.1	0.3	15.6	13.6	11.0	65.6	56.5	56.5	57.9
National	89.9	89.7	95.6	0.7	0.2	19.0	11.5	10.3	62.0	51.0	51.0	49.5

Source: NISR, SAS 2025

Table 30: 2025 Season B Percentage of plots by types of irrigation used.

District	Modern irrigation					Traditional techniques
	Surface irrigation	Flood irrigation	Drip irrigation	Sprinkler irrigation	Pivot irrigation	
Nyarugenge	-	-	-	-	-	-
Gasabo	15.8	-	5.3	-	5.3	73.7
Kicukiro	50.0	10.0	-	-	-	40.0
Nyanza	-	57.1	-	-	-	42.9
Gisagara	4.0	68.0	-	-	-	28.0
Nyaruguru	9.1	9.1	-	-	-	81.8
Huye	12.2	51.2	-	-	-	36.6
Nyamagabe	25.0	25.0	-	-	-	50.0
Ruhango	43.8	37.5	-	-	-	18.8
Muhanga	37.5	-	-	-	-	62.5
Kamonyi	36.4	15.2	-	-	-	48.5
Karongi	11.1	-	-	-	-	88.9
Rutsiro	50.0	-	-	-	-	50.0
Rubavu	100.0	-	-	-	-	-
Nyabihu	-	-	-	-	-	-
Ngororero	-	-	-	-	-	100.0
Rusizi	10.5	36.8	-	-	-	52.6
Nyamasheke	6.7	40.0	-	-	-	53.3
Rulindo	56.3	6.3	-	6.3	-	31.3
Gakenke	-	40.0	-	-	-	60.0
Musanze	-	-	-	-	-	100.0
Burera	-	-	-	-	-	100.0
Gicumbi	14.3	-	-	-	-	85.7
Rwamagana	45.1	12.7	29.6	-	-	12.7
Nyagatare	1.6	21.9	3.1	-	15.6	57.8
Gatsibo	34.6	15.4	3.9	-	-	46.2
Kayonza	16.1	19.6	7.1	19.6	7.1	30.4
Kirehe	36.4	13.6	-	9.1	22.7	18.2
Ngoma	25.0	56.3	-	-	-	18.8
Bugesera	27.4	24.2	8.1	1.6	3.2	35.5
National	22.9	24.5	5.7	2.5	3.7	40.7

Source: NISR, SAS 2025

Table 31: 2025 Season B Percentage of plots by source of water used and district.

District	Source of water used				
	Rainwater	Water treatment	Underground	Lake / streams	Water catchment
Nyarugenge	-	-	-	-	-
Gasabo	-	10.0	45.0	40.0	5.0
Kicukiro	-	9.1	9.1	72.7	9.1
Nyanza	-	-	63.6	18.2	18.2
Gisagara	4.0	-	44.0	52.0	-
Nyaruguru	-	-	75.0	25.0	-
Huye	2.1	-	54.2	33.3	10.4
Nyamagabe	12.5	-	37.5	50.0	-
Ruhango	6.3	6.3	25.0	50.0	12.5
Muhanga	-	-	50.0	25.0	25.0
Kamonyi	-	3.0	60.6	36.4	-
Karongi	-	33.3	22.2	44.4	-
Rutsiro	-	50.0	-	50.0	-
Rubavu	-	-	100.0	-	-
Nyabihu	-	-	-	-	-
Ngororero	-	50.0	33.3	16.7	-
Rusizi	-	5.0	35.0	60.0	-
Nyamasheke	-	-	50.0	50.0	-
Rulindo	-	-	15.0	65.0	20.0
Gakenke	-	-	20.0	80.0	-
Musanze	-	-	100.0	-	-
Ngororero	-	25.0	25.0	50.0	-
Gicumbi	-	28.6	42.9	28.6	-
Rwamagana	5.1	3.9	26.9	39.7	24.4
Nyagatare	3.0	-	10.6	72.7	13.6
Gatsibo	-	-	23.1	46.2	30.8
Kayonza	6.7	4.5	22.5	30.3	36.0
Kirehe	-	4.6	31.8	63.6	-
Ngoma	5.6	5.6	55.6	22.2	11.1
Bugesera	1.6	3.2	6.4	81.0	7.9
National	2.7	4.1	31.4	47.5	14.3

Source: NISR, SAS 2025

Table 32: 2025 Season B Percentage of plots by type of anti-erosion activities and district

District	Type of anti-erosion activities									
	Ditches	Trees/ Windbreak/ shelterbelt	Bench terraces	Progressive terraces	Cover plants	Water drainage	Mulching	Beds/ridges	Water channels	Others
Nyarugenge	0.2	30.2	-	1.0	38.5	-	16.8	9.9	3.4	-
Gasabo	4.0	3.2	0.8	0.1	80.4	0.0	2.9	1.3	7.2	0.1
Kicukiro	4.4	2.3	2.4	6.5	71.8	0.3	11.8	0.4	0.3	-
Nyanza	6.6	3.8	5.4	23.4	43.9	0.0	1.1	5.2	10.5	-
Gisagara	11.1	8.4	0.7	19.6	44.6	2.1	1.3	1.7	9.7	0.9
Nyaruguru	3.3	2.6	6.5	16.6	46.9	-	0.5	2.7	21.1	-
Huye	11.1	6.6	2.9	23.9	31.8	2.8	0.2	3.0	17.9	-
Nyamagabe	7.6	10.5	9.3	10.4	54.7	-	0.4	2.6	4.4	-
Ruhango	11.6	5.3	0.3	19.5	47.6	0.2	0.8	1.3	13.5	-
Muhanga	5.0	2.0	1.4	3.8	75.8	0.1	4.3	0.4	7.2	-
Kamonyi	7.1	15.2	0.2	2.8	54.0	0.2	2.6	4.1	13.6	0.3
Karongi	1.9	14.2	5.2	6.2	64.7	-	2.3	0.8	4.7	-
Rutsiro	3.0	2.1	8.9	16.5	62.8	-	2.4	1.0	3.2	-
Rubavu	1.0	14.4	16.6	3.4	26.3	-	-	36.5	1.9	-
Nyabihu	2.4	11.8	11.1	8.7	53.5	-	0.5	9.0	3.0	-
Ngororero	4.5	4.3	3.7	6.1	73.7	-	3.0	1.2	3.6	-
Rusizi	5.5	9.8	-	3.3	62.8	0.0	8.5	4.4	5.6	0.1
Nyamasheke	3.0	10.3	6.9	2.7	64.2	1.5	5.6	2.0	3.7	0.1
Rulindo	3.3	4.1	5.7	12.6	62.7	0.1	1.1	2.4	8.0	0.0
Gakenke	4.2	8.7	3.2	3.7	71.4	-	2.7	1.4	4.7	-
Musanze	2.4	8.6	1.9	0.4	49.6	-	0.7	31.8	4.7	-
Burera	13.8	2.8	5.2	7.5	56.0	0.3	0.6	10.1	3.7	-
Gicumbi	1.1	5.0	9.9	20.2	59.5	1.9	0.4	0.7	1.2	-
Rwamagana	5.1	9.9	7.4	6.8	52.1	0.5	2.4	9.1	6.9	-
Nyagatare	7.7	11.4	0.1	8.5	51.5	0.1	8.2	5.1	7.5	-
Gatsibo	2.2	17.3	0.3	18.0	46.4	0.1	5.2	2.1	8.4	-
Kayonza	4.0	10.4	5.4	5.2	52.2	0.1	5.4	1.6	15.8	-
Kirehe	5.5	3.2	3.2	7.2	68.2	0.1	11.7	-	0.4	0.5
Ngoma	6.4	6.6	2.7	8.1	58.4	0.0	9.2	3.0	5.3	0.2
Bugesera	10.2	12.2	4.7	8.1	41.3	0.0	2.0	5.4	16.0	0.2
National	5.7	7.8	4.8	10.7	56.4	0.4	2.5	4.1	7.7	0.1

Source: NISR, SAS 2025

Table 33: 2025 Season B_Percentage of plots by degree of erosion per district

District	Degree of erosion			
	Severe (Rill erosion, Gully erosion, Mass movement/ Landslides)	Moderate (Diffuse overland flow erosion, overland flow erosion)	Low (Wind erosion)	Very Low (Splash erosion)
Nyarugenge	0.0	0.0	21.8	78.3
Gasabo	0.2	7.3	12.8	79.7
Kicukiro	1.1	8.2	38.6	52.1
Nyanza	1.7	10.5	16.7	71.1
Gisagara	1.0	4.8	37.6	56.6
Nyaruguru	0.0	8.9	43.4	47.7
Huye	8.1	16.8	4.2	70.8
Nyamagabe	9.2	14.7	46.3	29.9
Ruhango	2.8	4.9	16.0	76.3
Muhanga	0.9	6.4	57.3	35.4
Kamonyi	1.1	4.7	46.9	47.4
Karongi	0.8	10.9	50.5	37.8
Rutsiro	0.5	21.8	26.0	51.7
Rubavu	0.0	3.1	28.5	68.4
Nyabihu	3.5	16.4	31.3	48.8
Ngororero	3.0	10.6	45.2	41.2
Rusizi	0.9	30.5	37.3	31.3
Nyamasheke	1.2	8.8	25.9	64.1
Rulindo	1.3	24.3	54.7	19.7
Gakenke	1.5	15.4	55.6	27.5
Musanze	9.0	10.0	57.7	23.3
Burera	0.2	3.9	37.5	58.4
Gicumbi	0.3	10.6	22.0	67.2
Rwamagana	0.1	0.4	32.1	67.4
Nyagatare	0.1	7.0	52.0	41.0
Gatsibo	1.9	5.3	21.8	71.1
Kayonza	0.2	6.9	19.1	73.9
Kirehe	0.1	1.1	1.1	97.7
Ngoma	0.1	8.1	43.6	48.3
Bugesera	0.0	8.2	28.8	63.0
National	2.0	10.4	34.9	52.8

Source: NISR, SAS 2025

2. Concepts, definitions, and estimation methods

2.1. Total land area

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

2.2. Agricultural area

The agricultural area includes arable land, land under permanent[2] crops and permanent pasture.

2.3. 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.

2.4. 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.

2.5. Permanent pasture land

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

2.6. 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 irrigated refers to physical areas. Irrigated land that is cultivated more than once a year is counted only once.

2.7 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.

2 For some plots, permanent crops are mixed with temporary crops which mean that same area is counted in both arable land area and area under permanent crop.

2.8 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).

2.9. 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 have 0.4 while cassava has 0.5 ha. The developed area equals the sum of the crops area equivalent to 1.5 ha.

2.10. 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. In agriculture Season B, if the farmer only harvested 1,250 trees. In this case, the farmer harvested only a quarter (0.125hectares) of the cultivated area.

2.11. Crop yield

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

2.12. 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 produce times total harvested area in the district.

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