Senegal - Annual Agricultural Survey 2020-2021

Directorate of Analysis, Forecasting and Agricultural Statistics

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Identification

SURVEY ID NUMBER
SEN_2020-2021_AAS_v01_EN_M_v01_A_OCS

TITLE
Annual Agricultural Survey 2020-2021

COUNTRY

Name	Country code
Senegal	SEN

STUDY TYPE
Agricultural Survey [ag/oth]

SERIES INFORMATION
Since 2017, with the support of FAO's AGRISurvey Programme, DAPSA has adapted the methodology of the Annual Agricultural Survey through the adoption of an integrated and modular approach, namely the AGRIS method developed under the Global Strategy for the Improvement of Agricultural and Rural Statistics (GSARS). This approach makes it possible to produce data taking into account not only agricultural production activities, but also the economic, social and environmental dimensions of farms through the deployment of thematic modules administered in conjunction with the annual basic questionnaire according to a multiannual rotary plan. In addition, the coverage of the survey was extended to all agricultural activities: rain-fed agriculture, irrigated agriculture, horticulture, livestock, fishing and agroforestry.

ABSTRACT
The agricultural survey in its current form covers all regions of the country and all 45 departments of Senegal. The agricultural survey is an annual statistical operation whose general objective is to estimate the level of the main agricultural output of family-type agricultural holdings. It also makes it possible to provide information on the physical characteristics of cultivated plots (geo-location, area) and major investments made at their level (agricultural inputs, cultivation operations, soil management and restoration). The main indicators relate to yield levels, areas sown, production and means of production.

KIND OF DATA
Sample survey data [ssd]

UNIT OF ANALYSIS
Households

Scope

NOTES
The description of scope includes:
- Socio-demographic characteristics of agricultural households
- Characteristics of agricultural holdings
- Methods of agricultural production
- Cultivation activities of households
- Use of agricultural inputs and equipment
- Production and use of crop crops
- Livestock
- Agricultural labour force
- Fisheries and agroforestry
- Production-related shocks
- Access to agricultural information and infrastructure
- Environment and climate change

Coverage

GEOGRAPHIC COVERAGE
The annual agricultural survey covers all 45 departments of Senegal. However, for reasons related to anonymization, the variable "Department" has been replaced by the variable "Agroecological Zone" which constitutes groupings in relation to the departments. The variable "Region" remains in the anonymized version of the data.

UNIVERSE
The agricultural survey covers all households and plots in the 45 departments of Senegal.

Producers and sponsors

PRIMARY INVESTIGATORS

Name	Affiliation
Directorate of Analysis, Forecasting and Agricultural Statistics	Ministry of Agriculture and Rural Development

PRODUCERS

Name	Affiliation	Role
Food and Agriculture Organization of the United Nations	United Nations	Technical support
Research and Planning Unit	Ministry of Livestock and Animal Production	Support in the development of the questionnaire
National Agency for Statistics and Demography	Ministry of Economy, Finance and Planning	Participation in training
Horticulture Department	Ministry of Agriculture and Rural Development	Participation in training

FUNDING AGENCY/SPONSOR

Name	Abbreviation	Role
Government of Senegal	GoS	Funding of staff and collection material
United States Agency for International Development	USAID	Main donor of the AGRISurvey program in Senegal
AGRISurvey Program of the Food and Agriculture Organization of the United Nations	FAO AGRIS	Technical and Financial Assistance, Logistic Support
50x2030 Initiative (www.50x2030.org)	50x2030	Technical and Financial Assistance

Sampling

SAMPLING PROCEDURE
The sample for the 2019/2020 marketing year has been renewed. As a reminder, the EAA was built on a two-stage survey, with census districts (CDs) as primary units (PUs) and agricultural households as secondary units (SUs), as defined in the RGPHAE 2013. In line with the broadening of the scope of the survey advocated by the AGRIS approach, the sampling plan has integrated from this campaign a stratification at the first degree, induced by that of the second degree, to better reflect the different agricultural activities and improve the efficiency of the estimates. The choice of a first-degree stratification induced by that of the second degree, although less effective than an independent first-degree stratification, was guided by the constraint of non-existence of relevant variables of interest in the RGPHAE sampling frame to discriminate against CDs.

The stratification took into account the relative importance of the main agricultural activities (in terms of household numbers) identified in the RGPHAE, namely rainy agriculture, livestock and horticulture. Four strata have thus been constituted as follows:

- the rain stratum only" which includes all households practicing only rain crops;
- the "Livestock only" stratum for households that practice livestock only;
- the "Horticulture and other crops" stratum, which includes households that mainly practice horticulture and incidentally other crops (forestry, fruit arboriculture, etc.);
- the "Rainfed-Livestock" stratum made up of households that practice both rainfed agriculture and livestock.

The sample size of the agricultural households to be surveyed was calculated by department (field of study) by setting a relative error of 10% on the variable of interest (see Technical Note in the Annex). At the national level, this resulted in a theoretical sample size of 7,300 distributed in 1,460 physical CDs, at a rate of 5 households per CD. At the end of the enumeration operation carried out in the rds physical samples, adjustments were made to take account of the actual updated size of the CDs, which led to a final size of 7 755, or 1 527 CD.

The average yields of the main crops are calculated per department on the basis of 60 plots drawn and distributed in 12 different CDs. As the collection of plot data often takes longer than expected, the drawing of yield plots is done a priori based on data from the 2019/2020 season. The basic assumption is that households have roughly the same farming practices from one campaign to the next. Thus, to constitute the sample of the plots that are the subject of yield square installation, part of the sample of the households surveyed is drawn. For each main crop and for each department, a sample of 80 households is randomly drawn from households that had practiced cultivation in 2019/2020, including 20 replacement households in case the drawn household did not renew the culture of the past campaign. If for the crop in question, the number of households that had practiced it is less than 60, the investigator is asked to complete the information from an out-of-sample household drawn in the same CD.

WEIGHTING
Poids_men: Household weighting (Phase 1)
Weight2: Household weighting (Phase 2).

Data Collection

DATES OF DATA COLLECTION

Start	End
2020-08-15	2020-10-15
2021-01-04	2021-03-15

DATA COLLECTION MODE
Computer Assisted Personal Interview [capi]

DATA COLLECTION NOTES
At the regional level, of which there are 14 for all regions, the regional supervisors (the person in charge of statistics at the DRDR level if the position is filled) are responsible for:
- supervising the selection of interviewers and the refresher sessions;
- receive and distribute survey material (training materials, tablets / smartphones, supplemental questionnaires, fuel supply, etc.);
- facilitate the centralization of equipment (smartphones, chargers, etc.) at the regional level at the end of operations;
- supervise the consolidation of the data collected (verification, consistency, etc.);
- inform regional and national authorities on the implementation of operations.

At the departmental level, there are 45 departmental supervisors (Departmental Heads of Service), who are responsible for:
- to assist the regional supervisor in his tasks;
- supervise the preparation and implementation of the survey plan;
- proceed with the allocations of CDs and households;
- facilitate the control and correction of data;
- to save the data (files) in a computer;
- participate in the consolidation of data at the regional level;
- to ensure proper management of equipment.

The 45 departmental supervisors are responsible for:
- assisting the departmental supervisor in his/her tasks;
- implement the survey plan;
- to control the collection operations in the field;

- make corrective proposals on collection operations (observation points, collection devices, etc.).

The 168 investigators are responsible for:
- informing the local authorities of the operation;
- identify the household to be surveyed with the support of the authority;
- administer the various questionnaires;
- submit the questionnaires to the supervisor for approval;
- to approach the controller for checking, correcting and saving the data (saving in the controller's/supervisor's computer on each occasion to prevent data loss).

Questionnaires

QUESTIONNAIRES
The first questionnaire collected information on census and characteristics of agricultural household plots. The second questionnaire collected information on agricultural production, production methods and environment.

Access policy

CONTACTS

Name	Affiliation	Email	URL
Directorate of Analysis, Forecasting and Agricultural Statistics	Ministry of Agricultural and Rural Development	contact@agriculture.gouv.sn	Link
Ms. Fall Sylvie Dasylva	Directorate of Agricultural Analysis, Forecasting and Statistics	sylvie_da_sylva@yahoo.fr	Link

CONFIDENTIALITY
Microdata from the Annual Agricultural Survey are confidential. They are anonymized to preserve the confidentiality of the identity of the respondents.

ACCESS CONDITIONS
The requesting service or organization must undertake to respect the following conditions:

1. The user must comply with the provisions of Articles 6 and 7 Chapter 2 Section 2 of Senegalese Law No. 2004.21 on the organization of statistical activities which obliges any person handling individual data, collected by the services and organizations under the national statistical system, to ensure the anonymity of the natural or legal persons concerned by the survey, and to use such data only for the purpose of disseminating or publishing aggregated statistical results.
2. The user is fully responsible for his conclusions or studies drawn from this data and in this, the responsibility of the DAPSA can not be engaged in any way whatsoever.
3. The data must not be copied or transmitted to other persons or organizations, directly or indirectly, without the prior written consent of DAPSA.
4. Any publication written using data from the DAPSA must include the following statement "Source: Survey X*, Year N*, Direction de l'Analyse, de la Prévision et des Statistiques agricoles (DAPSA) of the Republic of Senegal, www.dapsa.gouv.sn"
5. Three copies of any report produced on the basis of the data will be forwarded to DAPSA for information and comment.
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7. The user may, if necessary, enlist the assistance of the DAPSA in carrying out the study.

*: X being the full name of the survey followed by its acronym in parentheses, example "Annual Agricultural Survey (EAA)".
N being the year of the survey, example "2002".

CITATION REQUIREMENTS
(a) English version:
Source: Annual agricultural survey (EAA), 2020-2021, Directorate of Analysis, Forecasting and Agricultural Statistics (DAPSA) of the Republic of Senegal, www.dapsa.gouv.sn

(b) French version:
Source: Enquête agricole annuelle (EAA), 2020-2021, Direction de l'Analyse, de la Prévision et des Statistiques Agricoles

(DAPSA) de la République du Sénégal, www.dapsa.gouv.sn

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Metadata production

DDI DOCUMENT ID
DDI_SEN_2020-2021_AAS_v01_EN_M_v01_A_OCS_FAO

PRODUCERS

Name	Abbreviation	Affiliation	Role
Office of Chief Statistician	OCS	Food and Agriculture Organization	Adoption of metadata for FAM
Directorate of Agricultural Analysis, Forecasting and Statistics	DAPSA	Ministry of Agriculture and Rural Development	Study documentation

DDI DOCUMENT VERSION
SEN_2020-2021_AAS_v01_EN_M_v01_A_OCS_v01

Data Dictionary

Data file	Cases	Variables
anon_EAA_2020_P1_Parcelles Fichier de données relatif aux parcelles agricoles. Il est issu de la phase 1 de l'enquête.	13551	124
anon_EAA_2020_P2_ACTIFEXT_pluv Fichier de données relatif à la participation des ouvriers agricoles dans les activités liées aux cultures sous pluie des ménages. Il est issu de la phase 2 de l'enquête.	258	19
anon_EAA_2020_P2_Infos_agri Fichier de données relatif aux informations agricoles des ménages. Il est issu de la phase 2 de l'enquête.	10704	9
anon_EAA_2020_P2_ACTIFEXT_arbori Fichier de données relatif à la participation des ouvriers agricoles dans les activités arboricoles des ménages. Il est issu de la phase 2 de l'enquête.	30	17
anon_EAA_2020_P2_ACTIFEXT_horti Fichier de données relatif à la participation des ouvriers agricoles dans les activités horticoles des ménages. Il est issu de la phase 2 de l'enquête.	100	17
anon_EAA_2020_P2_prod_peche Fichier de données relatif à la production de pêche. Il est issu de la phase 2 de l'enquête.	351	10
anon_EAA_2020_P1_Membre Fichier de données relatif aux membres de ménages agricoles. Il est issu de la phase 1 de l'enquête.	67191	14
anon_EAA_2020_P1_Menage Fichier de données relatif aux ménages agricoles. Il est issu de la phase 1 de l'enquête.	6971	31
anon_EAA_2020_P2_prod_horti Fichier de données relatif à la production horticole des ménages agricoles. Il est issu de la phase 2 de l'enquête.	1860	33
anon_EAA_2020_P2_M2 Fichier de données relatif aux ménages agricoles. Il est issu de la phase 2 de l'enquête.	6971	587
anon_EAA_2020_P2_pro_pluviale Fichier de données relatif à la production, à l'utilisation et aux pertes agricoles dans le cadre des activités pratiquées sous pluie. Il est issu de la phase 2 de l'enquête.	9792	37
anon_EAA_2020_P2_Oeufs Fichier de données relatif à la production d'oeufs par les ménages agricoles. Il est issu de la phase 2 de l'enquête.	867	17
anon_EAA_2020_P2_ACTIF_MM Fichier de données relatif aux activités agricoles pratiquées par les membres des ménages pratquant l'agriculture. Il est issu de la phase 2 de l'enquête.	29033	49
anon_EAA_2020_P2_prod_arboricole Fichier de données relatif à la production arboricole des ménages agricoles. Il est issu de la phase 2 de l'enquête.	1625	14
anon_EAA_2020_P2_Aliment_cheptel Fichier de données relatif à l'alimentation du cheptel des ménages agricoles. Il est issu de la phase 2 de l'enquête.	9960	35
anon_EAA_2020_P2_animaux_malades Fichier de données relatif aux animaux malades dans les ménages agricoles. Il est issu de la phase 2 de l'enquête.	4643	38
anon_EAA_2020_P2_animaux_vac Fichier de données relatif aux animaux vaccinés dans les ménages agricoles. Il est issu de la phase 2 de l'enquête.	16221	14
anon_EAA_2020_P2_Cheptel Fichier de données relatif au cheptel des ménages agricoles. Il est issu de la phase 2 de l'enquête.	16221	76

anon_EAA_2020_P2_Lait
Fichier de données relatif à la production et à la destination de la production de lait dans les
ménages agricoles. Il est issu de la phase 2 de l'enquête.   880   27