

Ecuador - Annual Agricultural Area and Production Survey 2014

National Institute of Statistics and Censuses (INEC), Agricultural and Environmental Statistics Production Management

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Identification

SURVEY ID NUMBER
ECU_2014_ESPAC_v01_EN_M_v01_A_OCS

TITLE
Annual Agricultural Area and Production Survey 2014

COUNTRY

Name	Country code
Ecuador	ECU

STUDY TYPE
Agricultural Survey [ag/oth]

ABSTRACT

The National Institute of Statistics and Census (INEC), through the Directorate of Economic Statistics and the Agricultural Statistics Unit executed the Annual Agricultural Area and Production Survey (ESPACE) 2014.

The survey was carried out nationwide, in all provinces, with the exception of Galapagos and non-delimited areas such as Las Golondrinas, Manga del Cura and El Piedrero. The method known as the Multiple Sample Frame, which is the combination of the Area Sampling Frame and the List Sampling Frame, is applied.

The main objective is to provide information on the agricultural sector, referring to planted and/ or sown, harvested areas, to the production and sales of permanent and temporary crops, as well as the presence and movement of Cattle, Pigs, Sheep, Other Species , existence of Field Birds, and Poultry Plants and Employment of Workforce.

This allows for access to information for formulating crop plans and diversification of agricultural production, formulating price rules and more incentives to improve agricultural production, establishing a system of equitable distribution of production in the different areas of the country, contributing to the sectoral economic analysis, as well as, the preparation and execution of import and export policies for agricultural products so that the country, through the national government, can promote policies that strengthen the agricultural sector.

KIND OF DATA
Sample survey data [ssd]

UNIT OF ANALYSIS
Agricultural holdings

Scope

NOTES

- Chapter 1: General characteristics of the land.
- Chapter 2: Land area.
- Chapter 3: Land use characteristics.
- Chapter 4: Permanent crops.
- Chapter 5: Temporary crops.
- Chapter 6: Permanent trees or plants scattered on the grounds.
- Chapter 7: Floriculture including permanent or perennial flowers and temporary or short cycle flowers.
- Chapter 8: Cattle (cattle) in the fields (Presence, Production of milk from own and / or others' cows, Movement of own cattle).
- Chapter 9: Pig Cattle.
- Chapter 10: Sheep Cattle.
- Chapter 11: Other livestock species.
- Chapter 12: Field birds and poultry birds.
- Chapter 13: Employment.
- Chapter 14: Additional Informant Data.

Coverage

GEOGRAPHIC COVERAGE

National Coverage

UNIVERSE

All properties that are within the selected Sampling Segment.

The survey covers the rural area of continental Ecuador. However, populated centers, the province of Galapagos and non-delimited areas are excluded.

Producers and sponsors

PRIMARY INVESTIGATORS

Name	Affiliation
National Institute of Statistics and Censuses (INEC)	National Secretary of Planning and Development (SENPLADES)
Agricultural and Environmental Statistics Production Management	National Institute of Statistics and Censuses (INEC)

PRODUCERS

FUNDING AGENCY/SPONSOR

Name	Abbreviation	Role
Ministry of Finance	MF	Financing of the entire statistical operation

Sampling

SAMPLING PROCEDURE

A multiple sampling frame was used including an area and list frames. Stratification sampling method was applied to determine the sample to be selected.

The construction of the area frame begins with the stratification of the national territory, which is divided into two primary strata: (i) densely populated urban areas and (ii) the rest of the territory, including agricultural, forestry, water and other areas rural with low population density. Only water bodies are separated from the stratum (ii). The remaining area is stratified using the following criteria:

- Administrative Political Distribution of Ecuador updated to June 2014 to the provincial level. Since the information requirement includes estimates at the provincial level, each province must be treated as an independent study domain. And since the sampling frame is national, each province is treated as an independent study domain within the sampling frame.
- Intensity of land use: For the selection of the sample, the variable "land area with agricultural use" was taken as the sample design variable, and we stratified the sampling frame based on the percentage of area with agricultural use that each EMU has, assigning them in 3 strata as follows:
Time% of EMU with agricultural use Area of EMU with agricultural use (ha).
 - Strata 1: 60% - 100% (345.6 - 576)
 - Strata 2: 20% - 60% (115.2 - 345.6)
 - Strata 3: 0% - 20% (0 - 115.2).

For the list frame, the following products were considered: Rice, Banana, Broccoli, Coffee, Cocoa, Sugar cane, Dry hard corn, Mango, Passion fruit, African palm, Beef cattle, Pig cattle, Flowers, Poultry. These products are those that are currently of macroeconomic importance and products determined as sensitive or strategic for institutions such as the Central Bank of Ecuador; Ministry of Agriculture, Livestock, Aquaculture and Fisheries; Secretariat of Planning and Development; and Vice President of the Republic.

Due to the complexity of generating a frame using a homogeneous source, for all these products mentioned, the register was prepared using several sources of information that met the following characteristics:

1. Updated
2. Coverage of the board of directors exceeding 85% of area production nationwide
3. Validated, in terms of area, production, and existence of animals.

For more details on the sampling, refer to the sampling methodology document attached as an external resource.

RESPONSE RATE

The non-response rate is less than 0.05% since there are segments in which it is very difficult to collect the information, due to several factors such as:

- No location of the segments.
- No location of the PP.
- Rejections, etc.

WEIGHTING

To calculate the expansion factors two procedures were carried out, first the expansion factor as the inverse probability of selection was computed. Then, it was adjusted for non-response. For more detailed information regarding this correction, see the original metadata in INEC catalogue.

Data Collection

DATES OF DATA COLLECTION

Start
2014-09-16

TIME PERIODS

Start date	End date	Cycle
2014-09-16	2014-11-27	Anual

DATA COLLECTION MODE

Face-to-face paper [f2f]

Data Processing

DATA EDITING

In the Annual Agricultural Area and Production Survey 2014, the Expert System is used. This is a computer system that allows the coding, validation and individual criticism of the data collected.

The person conducting the survey collects the information in the questionnaires, during the day, and at night it is delivered to the digitizer/ operator who enters the information into the computer in the Expert System. Once the information is entered, it is encrypted, validated and verified. In certain cases, the questionnaire is delivered to the field staff so that the information is verified again, and the data is re-entered.

Once the information of the segments and list is collected, a database is created.

It involves the following steps:

- 1.- Criticism - Information coding:
The critical coding process is included in the computer system prior to the delivery of the updated validation manual by the Agricultural Statistical Unit of the Economic Statistics Production Department (DECON).
- 2.- Review:

At this stage of data entry, the following processes are considered: Questionnaire Entry, Coverage Control, Validation (Consistency of Questions, Associates, Vegetative Cycles that are the life periods of a crop, Intersections of the Area Framework and List Framework), Analysis of yields and backups,

3.- Validation and debugging:

In the system validations are implemented in order to stop the capture when the information captured in the questionnaire is inconsistent and then be able to take the necessary measures to correct the information. It consists of analyzing and debugging the information contained in the file so that it is left without errors, omissions, inconsistencies or inconsistencies. The information is validated in an automated way in order to guarantee congruence between variables and generating a database file and the different publications generated by the National Institute of Statistics and Census, (INEC).

4.- Tabulation:

The final step is the tabulation of the obtained survey results.

Access policy

CONTACTS

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Agricultural Statistics Unit	Directorate of Agricultural and Environmental Statistics	planta_central@inec.gob.ec /	www.ecuadorencifras.gob.ec

CONFIDENTIALITY

Statistical Law: Art. 21.- The individual data obtained for the purpose of statistics and censuses are of a reserved nature; consequently, no individual information of any kind may be disclosed, nor may they be used for other purposes such as taxation or conscription, judicial investigations and, in general, for any purpose other than the statistically or census itself.

ACCESS CONDITIONS

The National Institute of Statistics and Censuses (INEC) considers statistical information produced with resources from the national budget as a public good and as such should be widely available to users. INEC will establish the specific criteria and mechanisms for access to user information, clearly identifying the public good criterion of the cost recovery, criteria for the services produced in support of the financing of its activities, for which will be issued the corresponding protocols for access to information.

Lines of Action:

Access to information protocols:

- The information generated with financing of resources of the national budget in whole or in part, that is processed, reviewed and that is available for dissemination, whether through synthesis indicators, tabulated or harmonized primary databases and suitable for dissemination, keeping the identification of informants in reserve will be freely available.
- The information generated with financing from public, private or international institutions will be freely available, if there are no explicit indications to the contrary.
- The statistical information will be disseminated in a disaggregated way at the thematic and geographical level, using relative and absolute values, including the available historical information.
- The methodologies and complementary information explaining the potentialities and limitations of the data obtained, such as process reports, quality assessments of statistical operations, among others, will be freely available to users.
- Printed publications of rapid diffusion through brochures, posters, leaflets, among others, will be free.
- Access to the consultation of publications in the Library of the institution will be free.
- All statistical services that involve the consumption of man-hours, such as data processing to meet specific requests, preparation of databases tailored to the user, preparation of reports, graphs and analysis, among others, will have a cost proportional to service size.
- All printed publications (books, newsletters, reports) or in electronic media (CD Rom, diskette) containing results of statistical research will have a cost.

- All photocopying or computer printing services will have a cost relative to the size of the service.
- Sample preparation services and cartographic base will cost proportional to the size of the service.

CITATION REQUIREMENTS

National Institute of Statistics and Censuses of Ecuador, Annual Agricultural Area and Production Survey 2014, of the data set for public use (September 22, 2015), provided by the National Institute of Statistics and Censuses of Ecuador.
[<http://www.ecuadorencifras.gob.ec>](http://www.ecuadorencifras.gob.ec)

ACCESS AUTHORITY

Name	Affiliation	Email	URL
National Institute of Statistics and Censuses (INEC)	National Secretariat of Planning and Development (SENPLADES)	planta_central@inec.gob.ec / inec@inec.gob.ec	Link

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Metadata production

DDI DOCUMENT ID

DDI_ECU_2014_ESPAC_v01_EN_M_v01_A_OCS_FAO

PRODUCERS

Name	Abbreviation	Affiliation	Role
Office of Chief Statistician	OCS	Food and Agriculture Organization	Metadata adapted for FAM
National Institute of Statistics and Census	INEC	National Secretariat of Planning and Development (SENPLADES)	Documentation of the statistical generation process
David Salazar	DS	National Institute of Statistics and Censuses (INEC)	Documentation of the statistical generation process
Diego Orbe	DO	National Institute of Statistics and Censuses (INEC)	Documentation of the statistical generation process
Jenny Cushicondor	JC	National Institute of Statistics and Censuses (INEC)	Metadata review
David Salazar	DS	National Institute of Statistics and Censuses (INEC)	Approval of publication of metadata in ANDA

DDI DOCUMENT VERSION

ECU_2014_ESPAC_v01_EN_M_v01_A_OCS_v01

Data Description

Data file	Cases	Variables
Arboles Dispersos_nac2014 La base de datos arboles dispersos_nac2014 contiene las clases de árboles dispersos que se encuentran dentro de los terrenos investigados, sean estos de producción agrícola o de uso forestal.	0	28
Se desagregan en las siguientes variables: Producción en el año de investigación Ventas en el año de investigación		
Aves campo y plantel_nac2014 La base de datos aves campo y plantel_nac2014 contiene la existencia de aves de campo, ventas, autoconsumo, y producción de huevos de gallina que se encuentran dentro de los terrenos investigados, sean estos de corral o de planteles avícolas.	0	87
Se desagregan en las siguientes variables: Existencia, venta y consumo en el año de investigación Producción, Autoconsumo, ventas y otros destinos en el año de investigación		
cpermanentes_nac2014 La base de datos cpermanentes_nac2014 contiene las clases de cultivos permanentes que se encuentran dentro de los terrenos investigados, siendo estos de producción agrícola.	0	103
Se desagregan en las siguientes variables: Superficie, producción, ventas y destino en el año de producción Riego, fertilizantes y plaguicidas utilizados en los cultivos en el año de producción		
ctransitorios_nac2014 La base de datos ctransitorios_nac2014 contiene las clases de cultivos transitorios que se encuentran dentro de los terrenos investigados, siendo estos de producción agrícola.	0	101
Se desagregan en las siguientes variables: Superficie, producción, ventas y destino en el año de producción Riego, fertilizantes y plaguicidas utilizados en los cultivos en el año de producción		
empleo_nac2014 La base de datos empleo_nac2014 contiene el número de trabajadores que se encontraron en los terrenos investigados, en el lapso de la semana dispuesta a la investigación.	0	29
Se desagrega en las siguientes variables: Persona productora y familiares sin remuneración, y empleados remunerados.		
fpermanentes_nac2014 La base de datos fpermanentes_nac2014 contiene las clases de flores permanentes que se encuentran dentro de los terrenos investigados, siendo estas de uso comercial.	0	62
Se desagregan en las siguientes variables: Especie, superficie, producción, y ventas en el año de producción.		
ftransitorias_nac2014 La base de datos ftransitorias_nac2014 contiene las clases de flores transitorias que se encuentran dentro de los terrenos investigados, siendo estas de uso comercial.	0	63
Se desagregan en las siguientes variables: Especie, superficie, producción, y ventas en el año de producción		
govino_nac2014 La base de datos govino_nac2014 contiene la existencia de ganado ovino que se encuentra en los terrenos investigados.	0	25
Se desagrega en las siguientes variables: Existencia y venta de ganado propio y ajeno Número de machos y hembras mayores y menores de 6 meses de edad		

gporcino_nac2014

La base de datos gporcino_nac2014 contiene la existencia de ganado porcino que se encuentra en los terrenos investigados.

0 28

Se desagrega en las siguientes variables:

Existencia y venta de ganado propio y ajeno

Número de machos y hembras mayores y menores de 2 meses de edad

gvacuno_nac2014

La base de datos gvacuno_nac2014 contiene la existencia de ganado vacuno que se encuentra en los terrenos investigados.

Se desagrega en las siguientes variables:

0 47

Existencia de ganado propio y ajeno

Número de machos y hembras

Producción de leche

movamientoganado_nac2014

La base de datos movamientoganado_nac2014 contiene la compra y venta de ganado vacuno que se ha realizado en el transcurso del año hasta el día de la investigación dentro de los terrenos.

0 27

Se desagrega en las siguientes variables:

Cabezas compradas, perdidas por muerte, perdidas por otras causas, cabezas sacrificadas, cabezas vendidas, y vacunos nacidos.

oespecies_nac2014

La base de datos oespecies_nac2014 contiene la existencia de otras especies de ganado que se encuentra en los terrenos investigados.

Se desagrega en las siguientes variables:

0 21

Asnal,

Caballar,

Mular,

Caprino

uso_suelo2014

La base de datos uso_suelo2014 contiene las superficies y las clases de uso que se le da a los terrenos en el segmento investigado, siendo estos de producción agrícola, o cualquier otra utilización.

0 52

Se desagregan en las siguientes variables:

Cultivos permanentes, transitorios, barbecho, descanso, pastos cultivados y naturales, páramos, montes y bosques naturales, bosques artificiales, y otros usos.