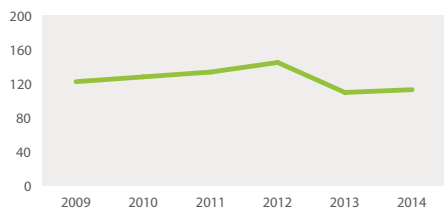


CABO VERDE

Léa Vicky Magne Domgho, Antonio Fortes, and Kathleen Flaherty

AGRICULTURAL RESEARCH SPENDING



Million escudos (2011 constant prices)

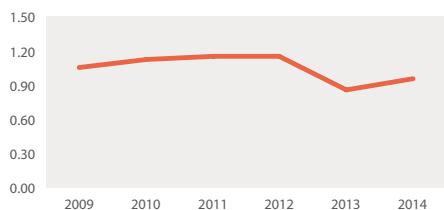
112.7

Million PPP dollars (2011 constant prices)

2.3

	CABO VERDE	THE GAMBIA	MAURITANIA	SENEGAL
Million escudos (2011 constant prices)	112.7			
Million PPP dollars (2011 constant prices)	2.3	5.1	15.6	51.3

SPENDING INTENSITY

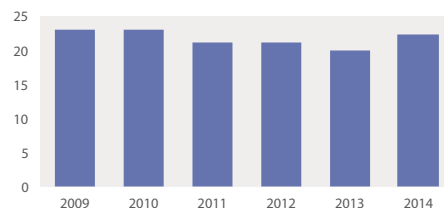


Agricultural research spending as a share of AgGDP

0.95%

Agricultural research spending as a share of AgGDP	0.95%	0.80%	0.49%	1.15%
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AGRICULTURAL RESEARCHERS



Full-time equivalents

22.3

Share of researchers with MSc and PhD degrees

72%

Full-time equivalents	22.3	60.4	86.0	124.4
Share of researchers with MSc and PhD degrees	72%	72%	69%	100%

Notes: Data above are for 2014. Research conducted by the private for-profit sector is excluded from this factsheet due to lack of available data. Information on access to further resources, data procedures and methodologies, and acronyms and definitions are provided on Page 4. See <http://www.asti.cgiar.org/cabo-verde/directory> for an overview of Cabo Verde's agricultural R&D agencies.



Declining spending

Agricultural research spending in Cabo Verde declined between 2012 and 2014 due to government budget cuts and the completion of a large research project cofinanced by the European Union. Although the country's agricultural research spending as a share of AgGDP (at 0.95 percent in 2014) is well above the African average, considerable investment is needed for capacity building and laboratory equipment.



Limited capacity

Until 2012, INIDA was the only agency in Cabo Verde conducting agricultural research. As of 2014, the institute still accounted for 94 percent of the country's total agricultural researchers (in FTEs). Nevertheless, INIDA only employs 21 FTE researchers of which only 2 are PhD-qualified. Hence, the institute lacks a critical mass of qualified agricultural researchers to effectively carry out its research mandate. Funding constraints impede the recruitment of new scientists. In addition, and of most concern, the institute's pool of researchers are mostly in their 50s and 60s.



New education agency

Through a transfer of the Agricultural Formation Center from INIDA, the College of Agricultural and Environmental Sciences was established at the University of Cabo Verde at the end of 2011. As of 2014, however, the college employed less than 2 agricultural researchers (in FTEs). Nevertheless, a strong collaborative relationship has been established between INIDA and the College, both in terms of research and training. PhD-qualified faculty at the College focus on rural sociology and development.

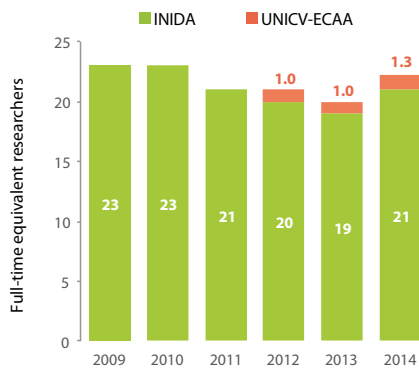


Research funding

Donor funding to INIDA increased significantly in 2012 with the launch of the banana crop recovery project on Santiago island, cofinanced by the European Union. The two-year, 600,000 euro project funded research on new banana and pineapple varieties. Generally, donor funding is allocated to operating and program costs, and to capital investments. Salary-related expenses are supported by the government and hence are not affected by fluctuations in donor funding.

Institutional composition of Cabo Verde's agricultural research

Two agencies conducted agricultural research in Cabo Verde in 2014. INIDA, the government agency, employed the majority of the country's agricultural researchers. The higher education agency, UNICV-ECAA, was established at the end of 2011 and employed only 1.3 FTE researchers in 2014.



2 AGENCIES, 2014

Government	1
Higher education	1

Cabo Verde's share of female researchers

Cabo Verde's two agricultural research agencies employ relatively high shares of female researchers compared with many other African countries. The overall share, 38 percent, did not change between 2011 and 2014.



By qualification level, 2014

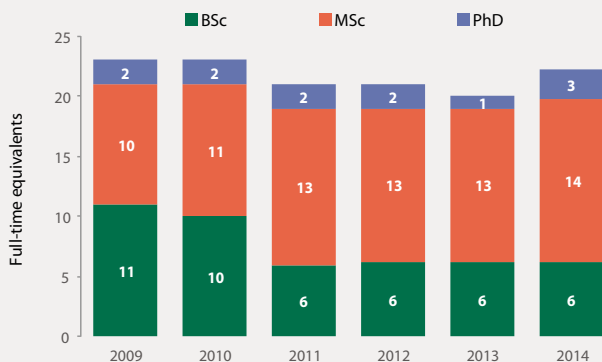
BSc	32%	MSc	39%	PhD	50%
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By age bracket, 2014

< 41	45%	41–50	32%	> 50	40%
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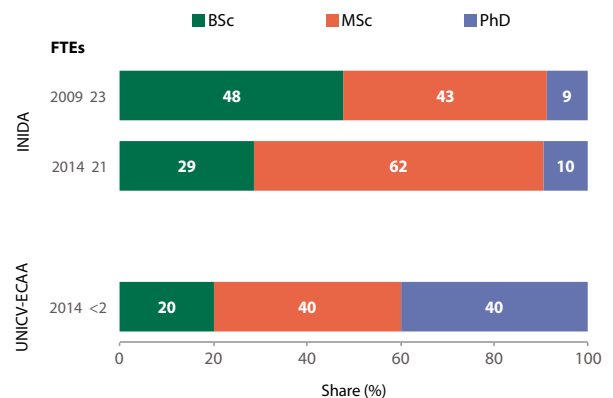
Cabo Verde's agricultural researchers by qualification level

On average, the qualification levels of Cabo Verde's agricultural researchers have slowly improved over time. As of 2014, 11 percent of the country's agricultural researchers were PhD-qualified, 61 percent were MSc-qualified, and 28 percent were BSc-qualified.



Cabo Verde's agricultural researchers by sector and qualification level

On average, UNICV-ECAA's agricultural researchers hold higher qualification levels than those employed at INIDA. As of 2014, the college employed five faculty members, each of whom spent about a quarter of their time on research, resulting in only 1.3 FTEs (note, however, that data reflect the average qualification levels of all five individuals).



Cabo Verde's agricultural researchers by discipline

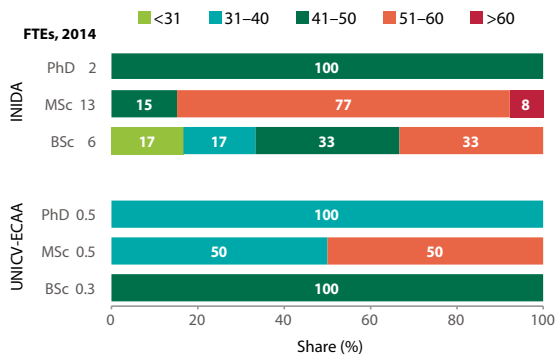
As of 2014, INIDA employed five crop scientists with MSc degrees. Of the two PhD-qualified researchers employed by INIDA, one specialized in soil science and the other in hydrology. The disciplines of PhD-qualified researchers at UNICV-ECAA included rural sociology and development.

Agricultural researchers, 2014	FTEs			Share (%)		
	BSc	MSc	PhD	BSc	MSc	PhD
Plant breeding/genetics (incl. biotechnology)	2.0	–	–	32	0	0
Plant pathology	–	5.0	–	–	37	–
Plant physiology	–	–	–	–	–	–
Botany	1.0	–	–	16	–	–
Seed science and technology	–	–	–	–	–	–
Other crop sciences	–	–	–	–	–	–
Animal breeding/genetics	–	–	–	–	–	–
Animal husbandry	–	–	–	–	–	–
Animal nutrition	–	–	–	–	–	–
Dairy science	–	–	–	–	–	–
Poultry	1.0	–	–	16	–	–
Veterinary medicine	–	–	–	–	–	–
Zoology/entomology	–	2.0	–	–	15	–

Agricultural researchers, 2014	FTEs			Share (%)		
	BSc	MSc	PhD	BSc	MSc	PhD
Other animal and livestock	–	–	–	–	–	–
Forestry and agroforestry	0.3	–	–	4	–	–
Fisheries and aquatic resources	–	–	–	–	–	–
Soil sciences	–	1.0	1.0	–	7	40
Natural resources management	–	–	–	–	–	–
Water and irrigation management	–	1.0	1.0	–	7	40
Ecology	–	–	–	–	–	–
Biodiversity conservation	1.0	1.0	–	16	7	–
Food sciences and nutrition	–	–	–	–	–	–
Socioeconomics (incl. agricultural economics)	1.0	1.0	–	16	7	–
Extension and education	–	1.0	–	–	7	–
Other sciences	–	1.5	0.5	–	11	20
Total	6.3	13.5	2.5	100	100	100

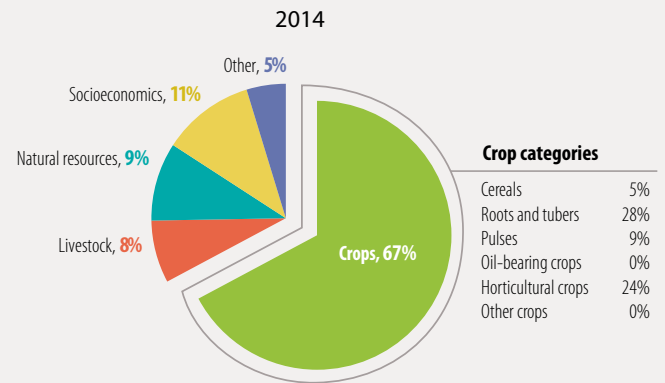
Cabo Verde's agricultural researchers by age bracket

As of 2014, most of INIDA's MSc-qualified researchers (and, hence, most of the institute's researchers) were over 50 years old. On average, researchers at UNICV-ECAA were younger.



Cabo Verde's agricultural researchers by area of focus

In 2014, two-thirds of Cabo Verde's agricultural research targeted crops; the remainder focused on socioeconomics, natural resources, livestock, and other areas. Sweet potato and cassava were the primary crops researched. Other major crops included beans, fruits, and vegetables. Despite the importance of fisheries, no fisheries research was conducted.



INIDA's spending by cost category

The majority of INIDA's spending during 2012–2014 was allocated to salary-related expenses. In 2012, donors provided significant funding for other expenses, such as the costs of running research programs and maintaining infrastructure.



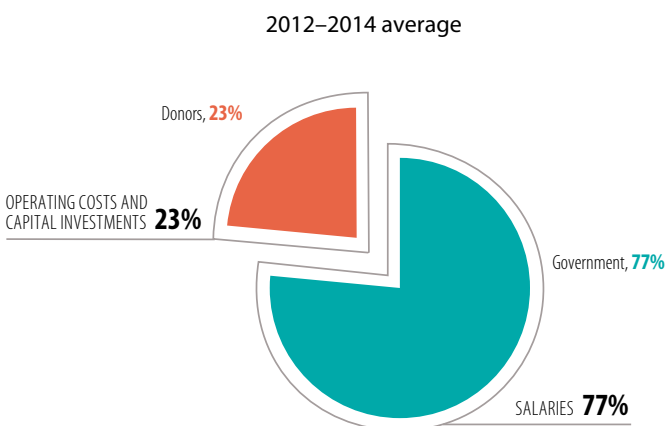
INIDA's funding sources

Government funding to INIDA remained relatively stable during 2012–2014. Donors accounted for one-third of INIDA's total funding in 2012, but the share was much lower in subsequent years due to the completion of the banana crop recovery project on Santiago island, cofinanced by the European Union.



INIDA's spending and funding compared

On average, government funding in support of staff salaries accounted for 77 percent of INIDA's total spending during 2012–2014. Donor funding contributed a further 23 percent of total costs. Note also that the sale of goods and services contributed 0.1 percent of the institute's total funding.



INIDA's and UNICV-ECAA's recent peer-reviewed publications

INIDA published five book chapters in 2012 and five international journal articles in 2014, resulting in an average of more than three publications per year. UNICV-ECAA published one regional journal article in 2012, one international journal article in 2013, and one book chapter in 2014, resulting in an average of one publication per year.

Type	Number of publications, 2012–2014 annual average		Per FTE researcher
	INIDA	UNICV-ECAA	
Journal articles			
International	1.7	0.3	0.091
Regional	–	0.3	0.016
National	–	–	0.000
Books	–	–	0.000
Book chapters	1.7	0.3	0.093
Total	3.3	1.0	0.200

Resources for Cabo Verde

This factsheet presents recent data on the performance of agricultural research in Cabo Verde, primarily focusing on key financial, human resource, institutional, and output indicators, while also highlighting relevant trends, challenges, and institutional changes. Additional resources are available at www.asti.cgiar.org and include:



ASTI's **interactive country page** for Cabo Verde features national agricultural research investment and capacity data, a data exploration and download tool, as well as access to a variety of country publications.



ASTI's **benchmarking tool** allows key agricultural research indicators to be ranked and compared across African countries.



ASTI's **data download tool** provides access to more in-depth ASTI datasets and graphs for Cabo Verde and many other countries.



ASTI's **agency directory** provides a view of agencies that conduct agricultural research in Cabo Verde, along with their locations and key agency-level indicators.



ASTI Data Procedures and Methodologies

- ▶ The **data underlying this factsheet** were predominantly derived through primary surveys, although some data were drawn from secondary sources or were estimated.
- ▶ **Agricultural research** includes research conducted by the government, higher education, and nonprofit sectors; research conducted by the private for-profit sector is excluded due to lack of available data.
- ▶ ASTI bases its calculations of human resource and financial data on **full-time equivalent (FTE) researchers**, which take into account the proportion of time staff actually spend on research compared with other activities.
- ▶ ASTI presents its financial data in 2011 local currencies and **2011 purchasing power parity (PPP) dollars**. PPPs reflect the relative purchasing power of currencies more effectively than do standard exchange rates because they compare prices of a broader range of local—as opposed to internationally traded—goods and services.
- ▶ ASTI estimates the **higher education sector's research expenditures** because it is not possible to isolate them from the sector's other expenditures.
- ▶ Note that **decimal rounding** can cause totals to be one point higher or lower than the sum of their parts.



For more information on ASTI's data procedures and methodology, visit www.asti.cgiar.org/methodology.

Acronyms

AgGDP	agricultural gross domestic product
FTE(s)	full-time equivalent(s)
INIDA	National Agricultural Research and Development Institute
PPP(s)	purchasing power parity (exchange rates)
R&D	research and development
UNICV-ECAA	University of Cabo Verde - College of Agricultural and Environmental Sciences

ABOUT ASTI, IFPRI, AND INIDA

Working through collaborative alliances with numerous national and regional R&D agencies and international institutions, **Agricultural Science and Technology Indicators (ASTI)** is a comprehensive and trusted source of information on agricultural R&D systems across the developing world. ASTI is led by the **International Food Policy Research Institute (IFPRI)**, which—as a CGIAR member—provides evidence-based policy solutions to sustainably end hunger and malnutrition and reduce poverty. The **National Agricultural Research and Development Institute (INIDA)**, Cabo Verde's principal agricultural research agency, falls under the Ministry of Rural Development and conducts research related to crops, livestock, forestry, and natural resource management.

ASTI/IFPRI and INIDA gratefully acknowledge participating agricultural R&D agencies for their contributions to the data collection and preparation of this factsheet. ASTI also acknowledges the Bill & Melinda Gates Foundation and CGIAR Research Program on Policies, Institutions, and Markets for their generous support of ASTI's work in Africa south of the Sahara. This factsheet has been prepared as an ASTI output and has not been peer reviewed; any opinions are those of the authors and do not necessarily reflect the policies or opinions of IFPRI or INIDA.