

CABO VERDE

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Key Trends

- ▶ Agricultural research spending increased by nearly 50 percent during 2014–2016, mainly as a result of increased government support.
- ▶ INIDA is by far the largest agency in Cabo Verde conducting agricultural research. As of 2016, it accounted for 89 percent of the country's total agricultural researchers.
- ▶ UNICV is a relatively new player in the field of agricultural research. Despite the fact that it employed fewer than 3 agricultural researchers (expressed in full-time equivalents) in 2016, it maintains strong cooperation ties with INIDA, both in terms of research and training.

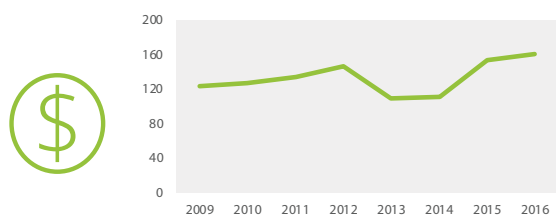
Current Challenges

- ▶ As of 2016, INIDA employed only 22 researchers, just 3 of whom were PhD-qualified. Hence, the institute lacks a critical mass of qualified agricultural researchers to effectively carry out its research mandate. Funding constraints continue to impede the recruitment of new scientists.
- ▶ Roughly 80 percent of INIDA's funding is provided by the national government. However, the bulk of it is used to foot the institute's salary bill. Funding for research programs and infrastructure are heavily reliant on outside funding from donors, and tends to fluctuate from one year to the next.
- ▶ Given these capacity and funding constraints, the outputs of Cabo Verde's agricultural research system are relatively limited in terms of new varieties and scientific publications released.

Policy Options

- ▶ As an archipelago state, Cabo Verde is highly vulnerable to climate change, thus requiring additional resources to build resilience. In order to accelerate agricultural productivity and improve water resource management, the government of Cabo Verde will need to increase its investment in agricultural research.
- ▶ The private sector funding potential for agricultural research also remains largely untapped in Cabo Verde. Cultivating private funding involves providing a more enabling policy environment in terms of tax incentives, protection of intellectual property rights, and regulatory reforms to encourage the spill-in of international technologies.

AGRICULTURAL RESEARCH SPENDING



Million escudos (2011 constant prices)

160.5

Million PPP dollars (2011 constant prices)

3.3

CABO VERDE

MALI

MAURITANIA

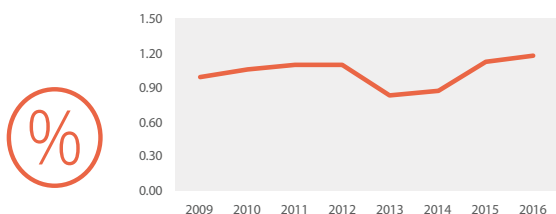
SENEGAL

57.8

18.5

51.5

SPENDING INTENSITY



Agricultural research spending as a share of AgGDP

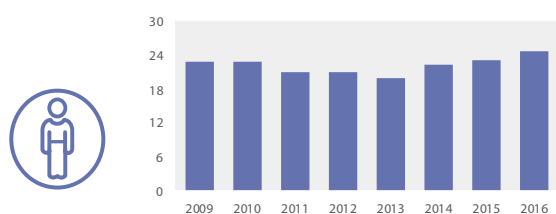
1.17%

0.44%

0.49%

0.89%

AGRICULTURAL RESEARCHERS



Full-time equivalents

24.7

Share of researchers with MSc and PhD degrees

73%

295.6

102.0

144.7

95%

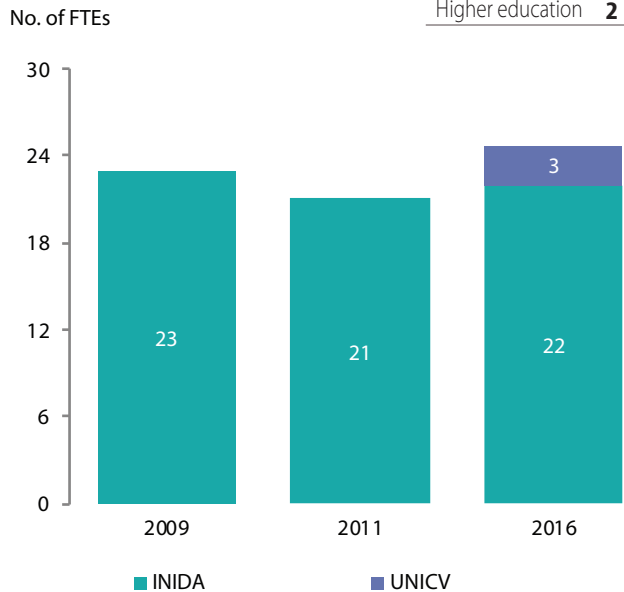
67%

100%

Institutional composition of agricultural research

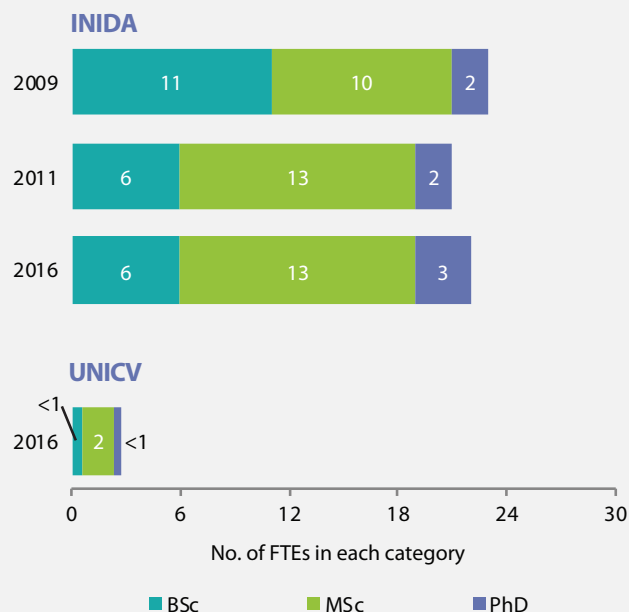
In 2016, three agencies carried out agricultural research in Cabo Verde (INIDA, UNICV-ECAA, and UNICV-FCT). INIDA is the only government agency, and employed the majority of the country's agricultural researchers (89 percent) in 2016.

3 AGENCIES, 2016	
Government	1
Higher education	2



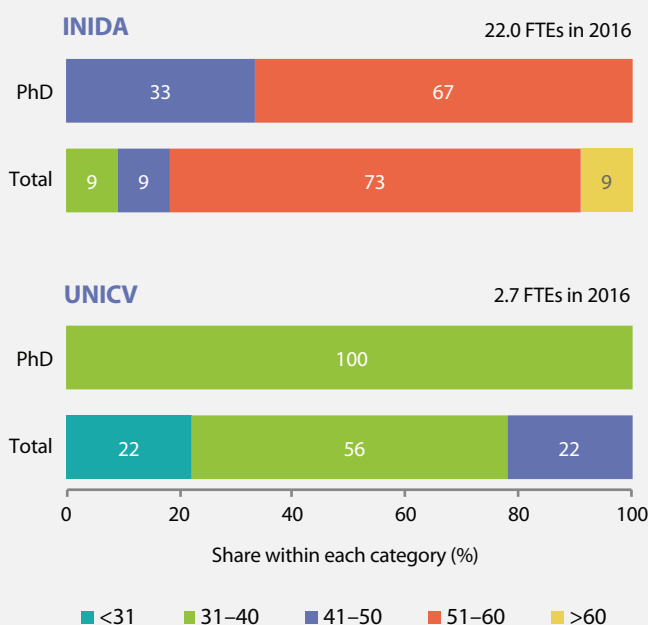
Agricultural researchers by sector and qualification level

On average, the qualification levels of Cabo Verde's agricultural researchers have slowly improved over time. As of 2016, 14 percent of INIDA's researchers held PhD degrees, 59 percent MSc degrees, and 27 percent BSc degrees. UNICV employed just 3 researchers (expressed in FTEs).



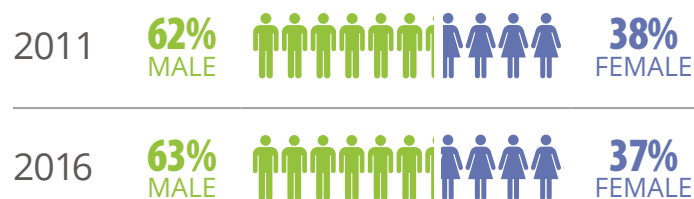
Distribution of agricultural researchers by sector and age bracket

As of 2016, more than 80 percent of researchers at INIDA were in their 50s or 60s, and approaching retirement. The average age of university-based agricultural researchers is much lower.



Agricultural researchers by gender

In 2016, 37 percent of agricultural researchers in Cabo Verde were female, slightly lower than the share recorded in 2011. Two out of the three PhD-qualified researchers at INIDA are women.



Share of women within each qualification level, 2016

Qualification Level	Share of Women (%)
BSc	35%
MSc	33%
PhD	61%

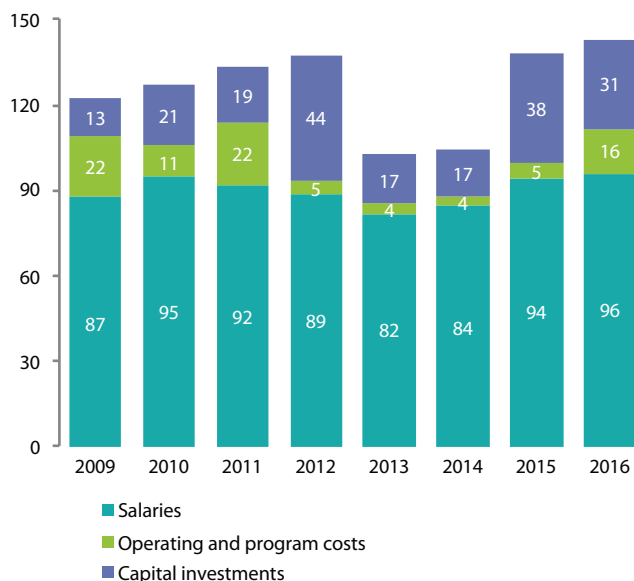
Share of women by age bracket, 2016

Age Bracket	Share of Women (%)
< 41	39%
41-50	100%
> 50	28%

INIDA's spending by cost category

The bulk of INIDA's spending goes towards salary costs. During 2009–2016, salaries represented an average of 71 percent of the institute's total costs, operating and program costs 9 percent, and capital investments 20 percent. While salary expenditures remained relatively stable over time, considerable year-to-year fluctuations were observed in the other cost categories.

Million escudos (inflation-adjusted; base year = 2011)



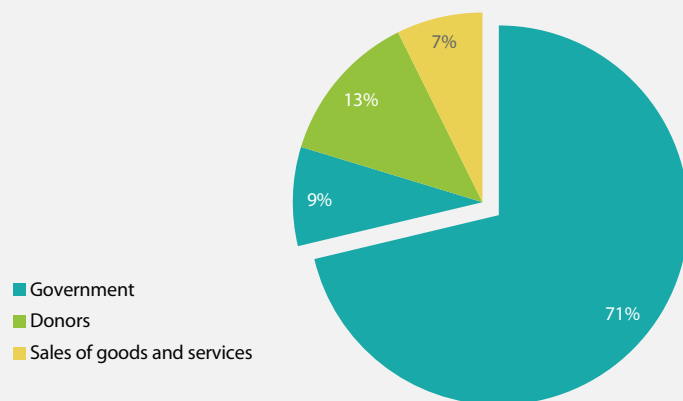
Comparison of INIDA's spending and funding

During 2009–2016, 80 percent of INIDA's funding came from the national government; donors represented 13 percent; while revenue from the sale of goods and services accounted for 7 percent. INIDA remains largely reliant on donor funding and internally generated resources to cover the costs of its research programs and infrastructure.

2009–2016 average

Operating costs and capital investments 29%

Salaries 71%

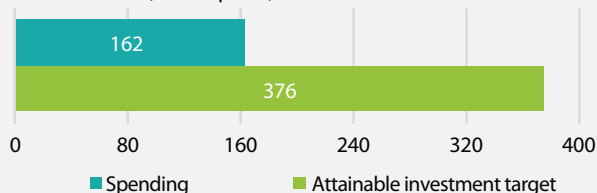


Investment levels needed to close the intensity gap

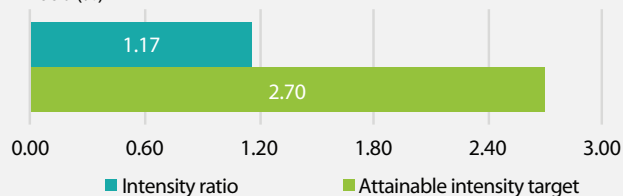
Compared to most African countries, Cabo Verde invests a relatively high share of its AgGDP (1.17 percent) in agricultural research, which is not uncommon for arid countries with small populations. Comparisons among countries with similar economic structures to Cabo Verde's indicate that the country appears to be underinvesting considerably, however. An agricultural research intensity ratio of 2.70 percent of AgGDP should in fact be attainable.

Actual and attainable spending, 2016

Million escudos (current prices)



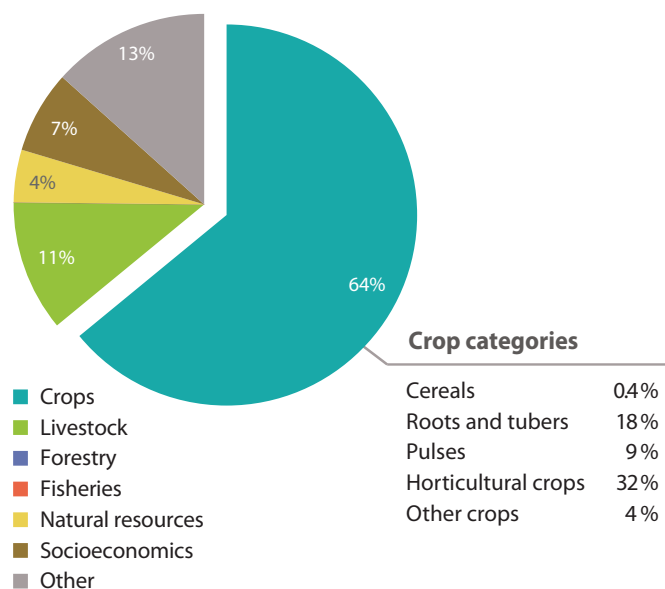
Ratio (%)



Agricultural researchers by area of focus

In 2016, 64 percent of the country's FTE researchers conducted crop research, while 11 percent undertook livestock research. The major crops under investigation were fruits and vegetables, along with sweet potato, cassava, and coffee.

Share of researchers, 2016



Crop categories

Cereals	0.4%
Roots and tubers	18%
Pulses	9%
Horticultural crops	32%
Other crops	4%

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.

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CABO VERDE

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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 and international organizations is excluded.
- ▶ 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 experimental development
UNICV-ECAA	University of Cabo Verde – College of Agricultural and Environmental Sciences
UNICV-FCT	University of Cabo Verde – Faculty of Science and Technology

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 facilitated 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.

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