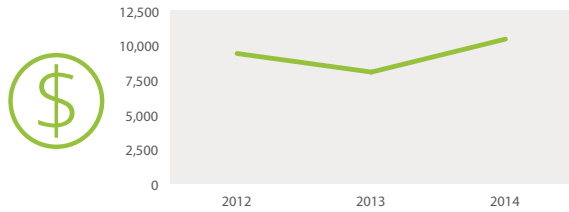




CAMEROON

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AGRICULTURAL RESEARCH SPENDING



Million CFA francs
(2011 constant prices)

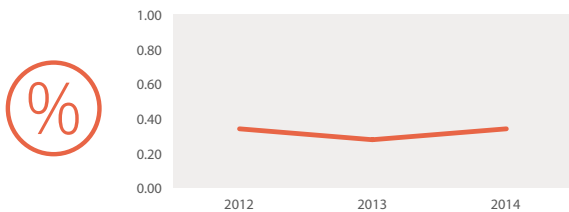
10,431.8

Million PPP dollars
(2011 constant prices)

45.9

	CAMEROON	CHAD	CÔTE D'IVOIRE	REP. CONGO
Million CFA francs (2011 constant prices)	10,431.8			
Million PPP dollars (2011 constant prices)	45.9	12.5	82.1	5.8

SPENDING INTENSITY

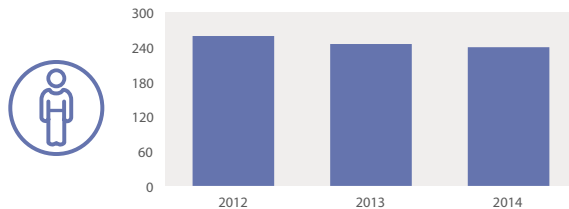


Agricultural research
spending as a share
of AgGDP

0.34%

	CAMEROON	CHAD	CÔTE D'IVOIRE	REP. CONGO
Agricultural research spending as a share of AgGDP	0.34%	0.09%	0.53%	0.44%

AGRICULTURAL RESEARCHERS



Full-time
equivalents

240.1

Share of researchers with
MSc and PhD degrees

85%

	CAMEROON	CHAD	CÔTE D'IVOIRE	REP. CONGO
Full-time equivalents	240.1	90.7	253.2	104.2
Share of researchers with MSc and PhD degrees	85%	98%	99%	88%

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 www.asti.cgiar.org/Cameroon/directory for an overview of Cameroon's agricultural R&D agencies.



Low research spending

Although agricultural research spending in Cameroon rose by 10 percent between 2012 and 2014 due to increased funding from the government and other organizations, the country's agricultural research spending as a share of AgGDP (at 0.34 percent in 2014) remains well below the minimum 1 percent target recommended by the African Union and United Nations. Greater investment is needed, particularly in training, baseline surveys, databases, laboratory equipment, and infrastructure.



Capacity challenges

The number of agricultural researchers employed at Cameroon's main government agricultural research agency, IRAD, declined in recent years caused by staff departures due to job dissatisfaction and uncompetitive salaries, and retirements, exacerbated by an official retirement age of only 55 years. Staffing gaps are particularly serious in the areas of animal production, fruit tree research, nutrition and food security, and in areas of crop research, such as vegetables and indigenous food crops other than maize and cassava.



Key donor support

CD2—a program cancelling and converting bilateral debt to France through the French Development Agency—provided IRAD's research projects with over 2 billion CFA francs in the three-year period from 2014. These funds have enabled important supplies and laboratory equipment to be purchased and upgraded. C2D funding was also allocated to a competitive fund in support of private-sector research projects.

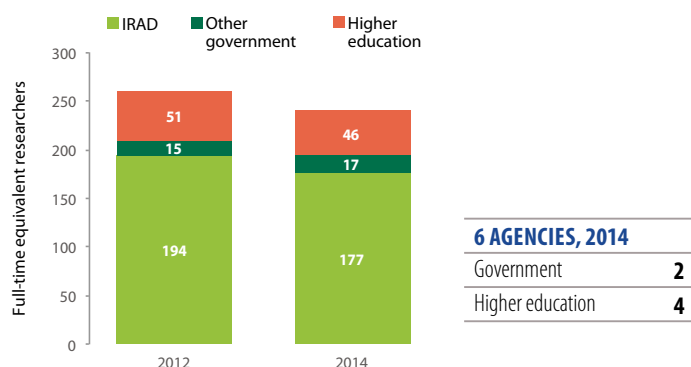


Low government funding

In 2014, IRAD received just one-third of its funding from the national government. Other sources included donors, the sale of goods and services, and revenues from producer organizations. While this diversification helps to reduce overall funding volatility, the low share of government funding has negative implications for fixed costs, such as salaries. Lack of government funding limits overall staffing levels, as well as increases in salary levels to maintain parity, and hence competitiveness, with the higher education and private sectors.

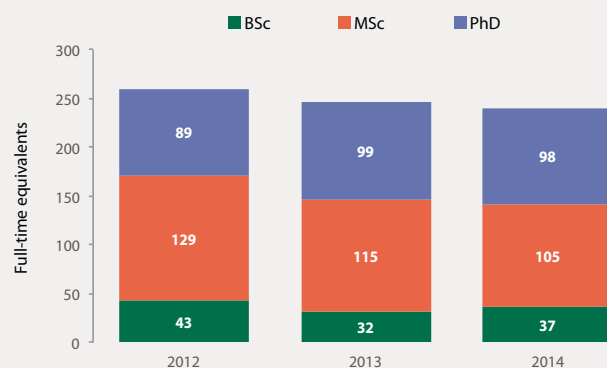
Institutional composition of Cameroon's agricultural research

Two government agencies and four higher education agencies conducted agricultural research in Cameroon in 2014. IRAD, the main government agency, employed three-quarters of the country's agricultural researchers. Despite recruitment efforts, the number of agricultural researchers at IRAD declined between 2012 and 2014.



Cameroon's agricultural researchers by qualification level

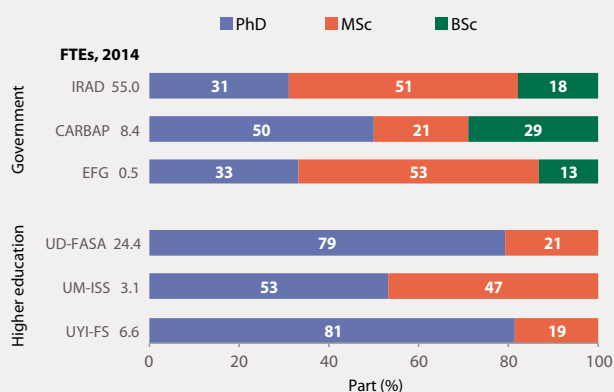
Despite recruitment in 2012, the number of MSc- and BSc-qualified agricultural researchers in Cameroon declined during 2012–2014. As a result, total numbers declined despite an increase in the number of PhD-qualified researchers, largely driven by growth at IRAD and CARBAP.



Note: In 2014, agricultural research agencies in Cameroon also employed 1 PhD-qualified, 38 MSc-qualified, and 15 BSc-qualified technicians (in FTEs).

Cameroon's agricultural researchers by sector and qualification level

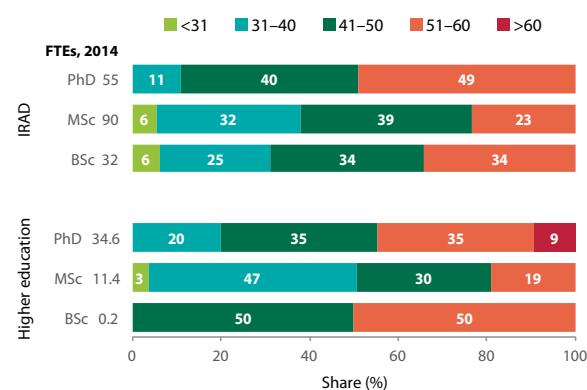
As of 2014, although IRAD employed three times as many agricultural researchers than the higher education sector (in FTEs), its share of PhD-qualified researchers was significantly lower.



Note: In 2014, agricultural research agencies in Cameroon also employed 1 PhD-qualified, 38 MSc-qualified, and 15 BSc-qualified technicians (in FTEs).

Cameroon's agricultural researchers by age bracket

As of 2014, half of IRAD's PhD-qualified researchers were over the age of 50, which poses a serious concern given the retirement age is 55. Retirement has also been a factor in the overall decline in IRAD's researcher numbers. Large-scale training and recruitment will be crucial to replace researchers due to retire in the next five years.



Cameroon's MSc- and PhD-qualified agricultural researchers by discipline

As of 2014, the dominant disciplines of Cameroon's PhD-qualified researchers included plant pathology, plant breeding/genetics, zoology/entomology, forestry, and soil sciences. Prevalent disciplines of MSc-qualified researchers included socioeconomics, crop sciences, natural resources management, and animal nutrition.

Agricultural researchers, 2014	FTEs		Share (%)	
	MSc	PhD	MSc	PhD
Plant breeding/genetics (incl. biotechnology)	5	11	4	11
Plant pathology	3	15	3	15
Plant physiology	1	4	1	4
Botany	2	2	2	2
Seed science and technology	1	1	1	1
Other crop sciences	11	3	10	3
Animal breeding/genetics	0.4	2	0.4	2
Animal husbandry	0.4	3	0.4	3
Animal nutrition	7	1	7	1
Dairy science	–	1	–	1
Poultry	–	1	–	1
Veterinary medicine	4	3	4	3
Zoology/entomology	1	7	1	7
Other animal and livestock	4	–	4	–

Agricultural researchers, 2014	FTEs		Share (%)	
	MSc	PhD	MSc	PhD
Forestry and agroforestry	5	7	5	7
Fisheries and aquatic resources	1	2	1	2
Soil sciences	6	7	5	7
Natural resources management	7	1	7	1
Water and irrigation management	1	0.4	1	0.4
Ecology	1	3	1	3
Biodiversity conservation	4	1	4	1
Food sciences and nutrition	3	4	3	4
Socioeconomics (incl. agricultural economics)	15	3	14	3
Extension and education	1	3	1	3
Other sciences	20	13	19	14
Total	105	98	100	100

Note: Data are estimates based on an agency sample representing 98 percent of the total number of FTE researchers.

Cameroon's share of female researchers

In 2014, 26 percent of agricultural researchers in Cameroon were female. On average, female researchers were younger and less highly qualified than their male colleagues.



By qualification level, 2014

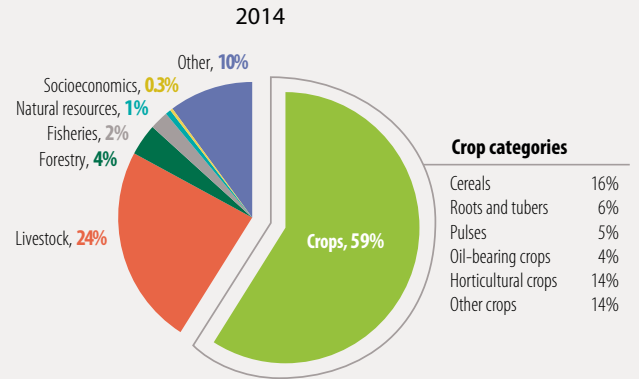
BSc	27%	MSc	36%	PhD	17%
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By age bracket, 2014

< 41	39%	41–50	21%	> 50	5%
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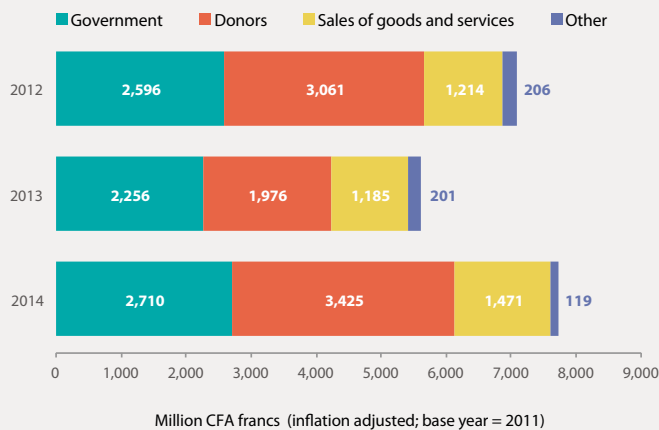
Cameroon's agricultural researchers by area of focus

In 2014, 59 percent of Cameroon's FTE researchers conducted crop research, followed by livestock research (24 percent), forestry research (4 percent), fisheries research (2 percent), and natural resources research (1 percent). Major crops under investigation included bananas, maize, cocoa, rubber, oil palm, and beans and other pulses.



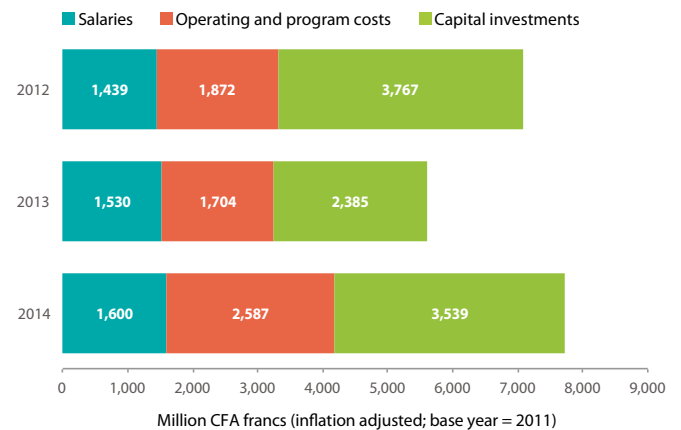
Sources of IRAD's funding

Government funding to IRAD remained comparatively stable during 2012–2014, whereas donor funding—primarily from C2D—fluctuated. IRAD also generated a significant amount of income internally through the sales of goods and services during this timeframe.



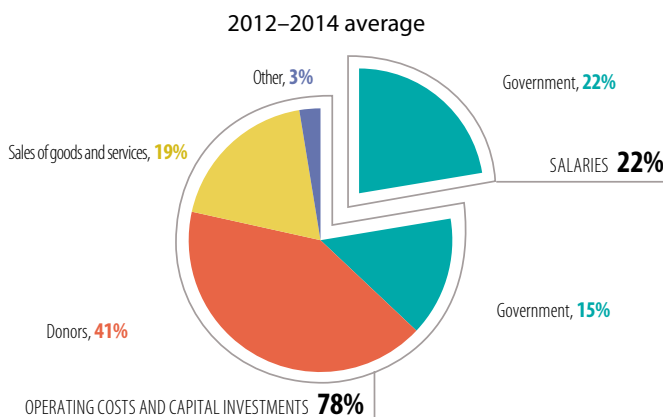
IRAD's spending by cost category

During 2012–2014, salaries accounted for just 22 percent of IRAD's total expenditures, which is very low by the standard of most African NARs. Operating and program costs averaged 30 percent, and capital investments 47 percent, although levels fluctuated considerably from year to year due to the volatility of donor funding levels.



IRAD's spending and funding compared

IRAD's salary bill is entirely funded by the Cameroon government. During 2012–2014, both operating and program costs and capital investments were funded by the government (15 percent), donors (35 percent), the sale of goods and services (19 percent), and revenues from producer organizations (7 percent).



IRAD and CARBAP's recent released crop varieties

IRAD released seven varieties of green beans, one of cowpeas, and one of sorghum during 2012–2014. CARBAP released six plantain varieties during this timeframe.

Crop	Number of varieties, 2012–2014	
	IRAD	CARBAP
Beans	7	—
Cowpeas	1	—
Sorghum	1	—
Plantains	—	6
Total	9	6

Resources for Cameroon

This factsheet presents recent data on the performance of agricultural research in Cameroon, 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 Cameroon 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 Cameroon and many other countries.



ASTI's **agency directory** provides a view of agencies that conduct agricultural research in Cameroon, 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
CARBAP	African Research Center for Bananas and Plantains
C2D	Debt and Development Agreement
EFG	Garoua Wildlife School
FTE(s)	Full-time equivalent(s)
IRAD	Agricultural Research Institute for Development
NARI	National Agricultural Research Institute
PPP(s)	Purchasing Power Parity (exchange rates)
R&D	Research and Development
UD-FASA	University of Dschang - Faculty of Agronomy and Agricultural Sciences
UM-ISS	University of Maroua - Higher Institute of the Sahel
UYI-FS	University of Yaoundé I - Faculty of Sciences - Department of Plant Biology and Physiology

ABOUT ASTI, IFPRI, AND IRAD

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 **Agricultural Research Institute for Development (IRAD)** is Cameroon's principal agricultural research agency. Under the joint technical supervision of the Ministry of Scientific Research and Innovation and the Ministry of Finance, IRAD carries out research on crops, livestock, forestry, fisheries, and natural resources.

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