TOGO

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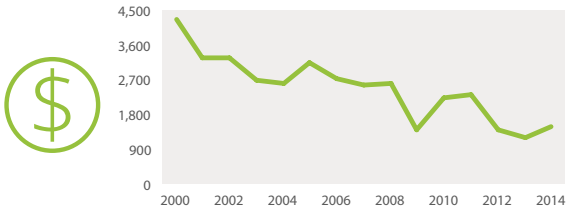
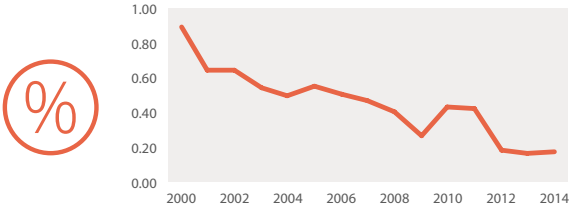
AGRICULTURAL RESEARCH SPENDING



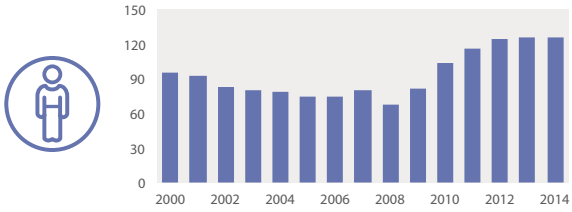
	TOGO	BENIN	CÔTE D'IVOIRE	GHANA
Million CFA francs (2011 constant prices)	1,483.9			
Million PPP dollars (2011 constant prices)	6.9	23.2	82.1	197.4

SPENDING INTENSITY



	TOGO	BENIN	CÔTE D'IVOIRE	GHANA
Agricultural research spending as a share of AgGDP	0.17%	0.38%	0.53%	0.99%

AGRICULTURAL RESEARCHERS



	TOGO	BENIN	CÔTE D'IVOIRE	GHANA
Full-time equivalents	125.1	170.4	253.2	575.0
Share of researchers with MSc and PhD degrees	96%	99%	99%	95%

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/Togo/directory** for an overview of Togo's agricultural R&D agencies.

Severe underinvestment

Agricultural research spending in Togo fell by 65 percent during 2000–2014 with the result that the country invested just 0.17 percent of its AgGDP in agricultural research by 2014—well below the minimum 1 percent target recommended by the United Nations and the African Union. The bulk of funding that ITRA receives from the government is allocated to salary costs. The institute's research programs are largely dependent on (short-term and ad hoc) donor funding, which puts the long-term continuity and effectiveness of ITRA's research programs at risk.

Recent capacity increases

After a 17-year recruitment ban, large-scale public-sector recruitment prompted the influx of a large number of agricultural researchers in 2009. However, the fact that ITRA researchers lack official status and hence are paid significantly less than their university-based counterparts means that ITRA will continue to struggle to recruit, retain, and motivate well-qualified researchers. In addition, secondment of highly qualified ITRA personnel to other departments under the Ministry of Agriculture further exacerbates the lack of expertise within the institute.

Upgrading qualifications

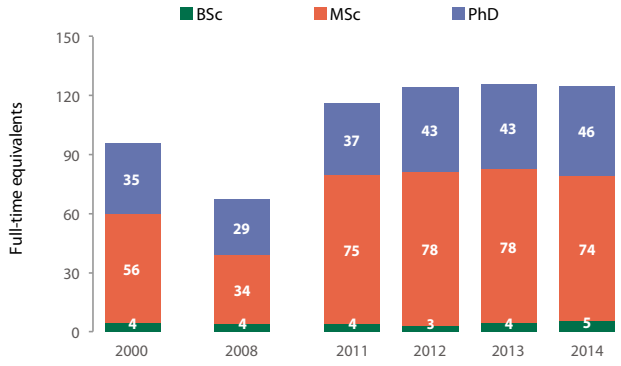
Unlike Togo's universities, ITRA lacks a critical mass of PhD-qualified researchers. The country's long-term embargo has precluded it from taking advantage of donor-funded postgraduate training programs, which have benefitted many of its neighbors over the years. Under WAAPP—a US$12 million World Bank grant in support of agricultural research during 2012–2017—an important capacity building component was launched. Based on a thorough analysis of skills gaps, 30 ITRA researchers were selected to receive MSc and PhD training, both in Togo and in other West African countries.

Infrastructure challenges

ITRA's livestock and poultry stations are being upgraded as part of WAAPP. However, the overall rundown state of the institute's remaining stations, in addition to office space shortages, frequent power outages, and unreliable Internet access, make it extremely challenging for researchers to work effectively. Large-scale capital investments are needed for ITRA and the other research agencies to address the many challenges that Togo's agricultural sector is facing.

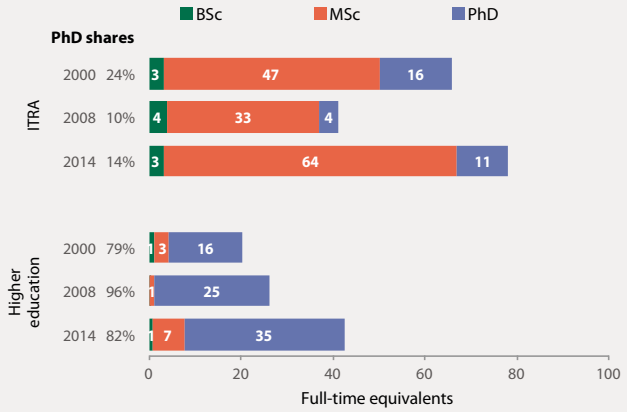
Togo's agricultural researchers by qualification level

After a period of large-scale capacity losses, the number of agricultural researchers in Togo increased rapidly in response to a general public-sector recruitment competition in 2009, which prompted the influx of a large number of (mostly MSc-qualified) researchers. The number of PhD-qualified researchers has also steadily increased in recent years.



Togo's agricultural researchers by qualification level, by sector

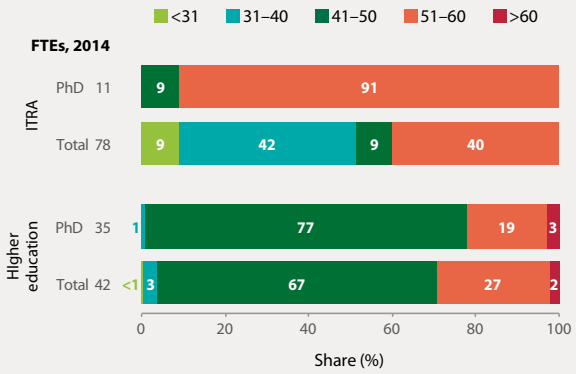
At ITRA, 82 percent of researchers hold MSc degrees, while 82 percent of university-based researchers are PhD-qualified. Large gaps in salary levels and the fact that ITRA's official status does not entitle its researchers to the same benefits as professional staff at universities are the reason behind this large gap in qualification levels.



Note: Figure excludes other government agencies.

Togo's agricultural researchers by age bracket

On average, ITRA's PhD-qualified researchers are older than those at universities. As ITRA's 2009 recruitment round was the first since 1992, most of its researchers are either in their thirties or fifties. Given that a large number of researchers are set to retire in the coming years, further recruitment and training are urgently needed.



Note: Figure excludes other government agencies.

Togo's share of female researchers

Women constitute the majority of Togo's farmers. Yet, as of 2014, just 6 percent of the country's agricultural researchers were women, down from 7 percent in 2011. Improving the gender balance will enable Togo to more effectively address the priorities and challenges of all farmers, and female farmers in particular.

By qualification level, 2014

BSc **7%**	MSc **7%**	PhD **5%**

By age bracket, 2014

< 41 **4%**	41–50 **10%**	> 50 **5%**

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

Togo's agricultural researchers cover a vast range of disciplines, but the country lacks a critical mass of soil scientists and plant breeders. Veterinary medicine and plant pathology constitute the most important disciplines among PhD-qualified researchers. Socioeconomics and seed science are key disciplines among MSc-qualified researchers.

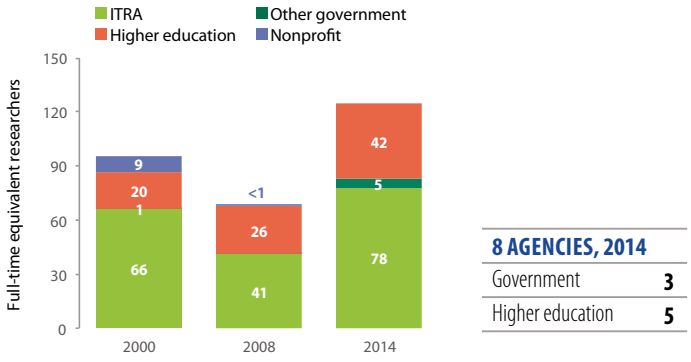
Agricultural researchers, 2014	FTEs		Share (%)	
	MSc	PhD	MSc	PhD
Plant breeding/genetics (incl. biotechnology)	3	2	4	5
Plant pathology	3	4	4	8
Plant physiology	0.3	2	0.4	3
Botany	0.1	2	0.1	4
Seed science and technology	10	1	14	1
Other crop sciences	10	1	14	1
Animal breeding/genetics	5	1	7	1
Animal husbandry	5	3	7	7
Animal nutrition	1	1	1	2
Poultry	4	1	5	1
Veterinary medicine	0.3	6	0.4	12
Zoology/entomology	2	2	3	3
Other animal and livestock	6	1	8	2

Agricultural researchers, 2014	FTEs		Share (%)	
	MSc	PhD	MSc	PhD
Forestry and agroforestry	3	–	3	–
Fisheries and aquatic resources	–	1	–	3
Soil sciences	4	1	5	2
Natural resources management	0.1	2	0.1	3
Water and irrigation management	0.1	2	0.1	5
Ecology	–	2	–	5
Biodiversity conservation	–	–	–	–
Food sciences and nutrition	3	1	4	1
Socioeconomics (incl. agricultural economics)	10	2	14	5
Extension and education	–	–	–	–
Other sciences	4	12	5	26
Total	**74**	**46**	**100**	**100**

Note: Data exclude DSID.

Institutional composition of Togo's agricultural research

Following a period of steady decline during 2000–2008, Togo's total number of agricultural researchers nearly doubled between 2008 and 2014. ITRA accounted for 62 percent of the country's agricultural researchers in 2014, down from 69 percent in 2000. Universities have started to play an increasingly important role in agricultural research.

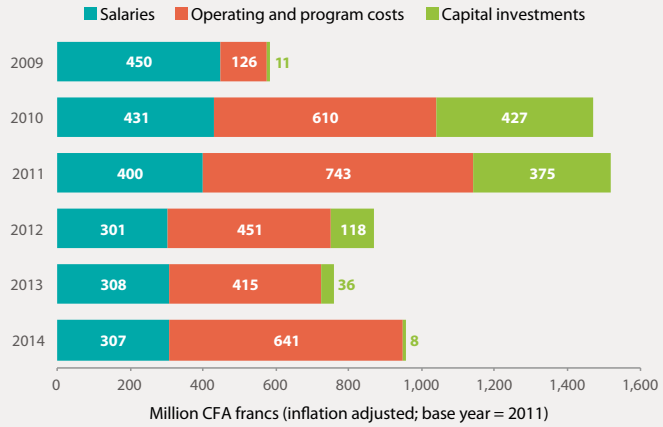


8 AGENCIES, 2014	
Government	3
Higher education	5

Note: Nonprofit agencies have ceased their agricultural research activities since 2009.

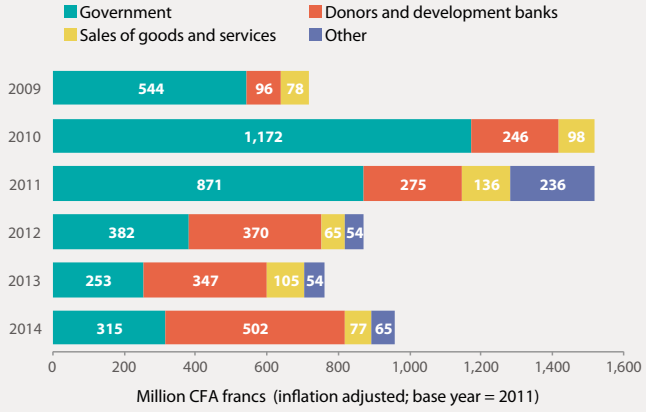
ITRA's spending by cost category

ITRA's spending exhibits considerable volatility over time due to severe fluctuations in annual government funding, private NCST funding, and short-term donor projects. Capital investment has been low in recent years. Increased investment is needed to upgrade the institute's dilapidated laboratories.



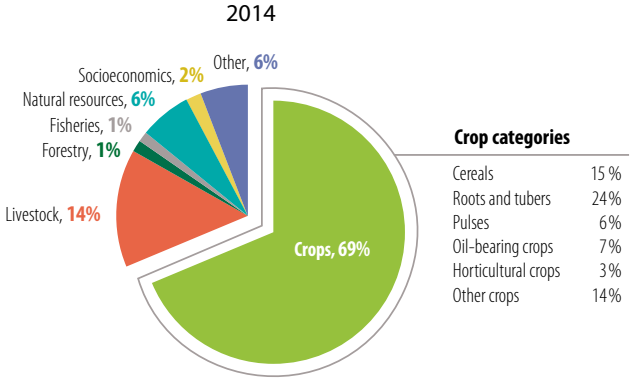
Sources of ITRA's funding

Until 2011, the Togolese government was ITRA's main funding source, but the government has funded little more than the institute's salary costs since. ITRA's research programs and infrastructure needs are now largely dependent on the funding from the World Bank (through WAAPP), CORAF/WECARD (through competitive funds), AfricaRice, IITA, and FAO.



Togo's agricultural researchers by area of focus

Crops account for more than two-thirds of Togo's agricultural research in 2014. Livestock research represented 14 percent and natural resources research 6 percent. Yam is Togo's most researched crop, followed by maize, cotton, rice, groundnut, beans, and cassava.



ITRA' s recently released crop varieties

During 2012–2014, ITRA released six new crop varieties: two groundnut varieties, two maize varieties, and two rice varieties. All of these offer higher yields over existing varieties.

Crop	Number of varieties, 2012–2014
Groundnut	2
Maize	2
Rice	2
Total	**6**

ITRA's recent peer-reviewed publications

During 2012–2014, all of ITRA's researchers combined produced less than 3 journal articles per year, on average. This extremely low output record compared with other African countries stems from the fact that the institute lacks incentive mechanisms for scientists to publish in journals or produce other scientific publications.

Type	Number of publications, 2012–2014 annual average	Per FTE researcher
Journal articles		
International	1.0	0.013
Regional	0.3	0.004
National	1.3	0.017
Books	–	–
Book chapters	–	–
Total	**2.7**	**0.033**

Resources for Togo

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

ASTI's **agency directory** provides a view of agencies that conduct agricultural research in Togo, 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
CORAF/ WECARD	West and Central African Council for Agricultural Research and Development
DSID	Agricultural Statistics, Information, and Documentation Directorate
FAO	Food and Agriculture Organization of the United Nations
FTE(s)	full-time equivalent(s)
IITA	International Institute of Tropical Agriculture
ITRA	Togolese Agricultural Research Institute
NCST	New Cotton Company of Togo
PPP(s)	purchasing power parity (exchange rates)
R&D	research and development
WAAPP	West Africa Agricultural Productivity Program

ABOUT ASTI, IFPRI, AND ITRA

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 **Togolese Agricultural Research Institute (ITRA)** is Togo's principal agricultural research agency. Placed under the Ministry of Agriculture, Livestock, and Water, it focuses its research on crops, livestock, fisheries, natural resources management, and food technology.

ASTI/IFPRI and ITRA 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 ITRA.