

REPUBLIC OF CONGO

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KEY INDICATORS, 2000–2011

Total Public Agricultural Research Spending		2000	2008	2011
CFA francs (million constant 2005 prices)		696.7	1,506.8	1,357.4
PPP dollars (million constant 2005 prices)		2.6	5.6	5.1
Overall Growth			116%	-10%
Total Number of Public Agricultural Researchers		2000	2008	2011
Full-time equivalents (FTEs)		125.0	104.5	104.0
Overall Growth			-16%	-1%
Agricultural Research Intensity		2000	2008	2011
Spending as a share of agricultural GDP		0.50%	1.16%	0.94%
FTE researchers per 100,000 farmers		24.96	20.17	19.76

Note: Acronyms, definitions, and an overview of agricultural R&D agencies are available on page 4.

► Agricultural R&D spending increased steadily after the post-2000 return of peace; however, spending levels stagnated during 2008–2011 and remain well below pre-war levels.

► Agricultural research capacity at the centers administered by DGRST has gradually decreased since 2000 because a large number of researchers have retired and a long-term public-sector hiring freeze is in place.

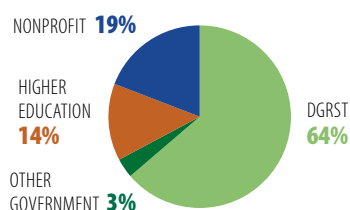
► Agricultural research in Congo is primarily funded by the national government; donor funding is modest by comparison with the levels many other African countries receive.

FINANCIAL RESOURCES, 2011

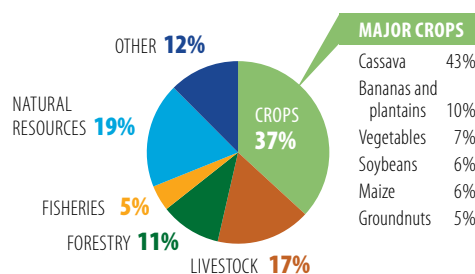
Spending Allocation	
Salaries	26%
Operating and program costs	42%
Capital investments	31%
Funding Sources	
Government, core	73%
Government, other	24%
Donors	3%

Note: Financial data only include agencies under DGRST. Funding data for CRESSH were unavailable.

INSTITUTIONAL PROFILE, 2011



RESEARCH FOCUS, 2011

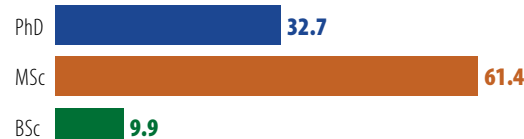


Notes: Major crops include those that are the focus of at least 5 percent of all crop researchers; 24 percent of total crop researchers focused on a wide variety of other crops.

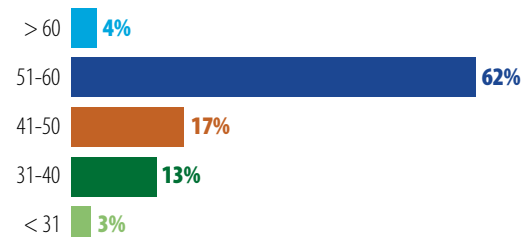
RESEARCHER PROFILE, 2011



Number by qualification (FTEs)



Share by age group (years)



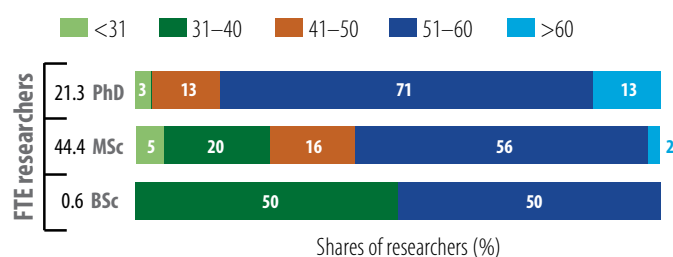
CHALLENGE

- ▶ Long-term civil service recruitment restrictions have left Congo with an aging pool of government-based agricultural researchers: two-thirds of the researchers employed at DGRST centers are currently in their fifties. Given that the official retirement age for civil servants in Congo is 60 years, the country's agricultural research system is set to face serious human resource challenges in the coming years.

POLICY OPTIONS

- ▶ In order to maintain a critical mass of agricultural scientists nationally, it is imperative that the government of Congo not only support the recruitment and training of young researchers, but also allocate sufficient resources for the conduct of viable research programs that provide the necessary incentives to motivate researchers and secure their long-term commitment. The first step in achieving this strategy would be to introduce parity both in salary levels and in the retirement age for scientists employed at government agencies compared with those employed at universities.

Distribution of DGRST's researchers by age bracket, 2011



DGRST Center	FTE agricultural researchers	Share of researchers over 51 years old
CRHM	1.0	100%
CRVZ	14.0	100%
CRPT	1.8	83%
CRAL	13.0	81%
CERVE	12.8	69%
CRESSH	1.3	69%
CERAG	6.0	67%
CRFO	2.0	50%
CRCRT	2.4	33%
CRFL	3.6	25%
GERDIB	8.4	7%
Total	66.3	66%

Notes: Degree-qualified technicians or other support staff who are not officially classified as researchers are excluded this figure and table. Data reflect the allocation of researchers' time to agricultural R&D only as opposed to other activities.

Two-thirds of DGRST's researchers (and 84 percent of those with PhD degrees) will retire within the next ten years. Only 12 of DGRST's agricultural researchers (in FTEs) are in their twenties or thirties.

▶ PREPARING THE NEXT GENERATION OF AGRICULTURAL RESEARCHERS

Congo has one of the oldest pools of agricultural researchers in Africa. Of the 21 FTEs with PhD degrees employed in DGRST centers, 18 will be retiring in the next ten years. Without immediate recruitment, the country's three largest centers (CRVZ, CRAL, and CERVE), will lose 100, 81, and 69 percent of their researchers, respectively, over the next decade. Only 12 of the FTE researchers employed at the DGRST centers are in their twenties or thirties, and 6 of them work at GERDIB.

Maintaining a critical mass of researchers and a balanced age structure is crucial to ensuring the long-term continuity of agricultural research. To meet its current agricultural development goals, Congo needs a clear national agricultural research plan comprising sustainable, well-staffed, and well-funded programs. Recruitment and training requirements will also need to be clearly defined based on a thorough analysis of the collective skill set of the existing researchers and how capacity losses over time are likely to affect future research programs. Sufficient levels of sustainable long-term government and donor funding need to be made available in the coming years to ensure that short-term gains in human resource capacity can be maintained, built upon, and ultimately translated in tangible research results over time.

CROSS-COUNTRY COMPARISONS OF KEY INDICATORS

	Total number of researchers, 2011 (FTEs)	Growth in number of researchers, 2008–2011	Share of PhD researchers, 2011 (FTEs)
Congo, Rep.	104.0	–1%	31%
Congo, Democratic Rep.	423.9	25% ^a	13%
Gabon	42.6	–22%	20%
Central African Rep.	134.0	13% ^b	14%

^a and ^b. For DR Congo and the Central African Republic, this growth is based on data for the 2009–2011 period.

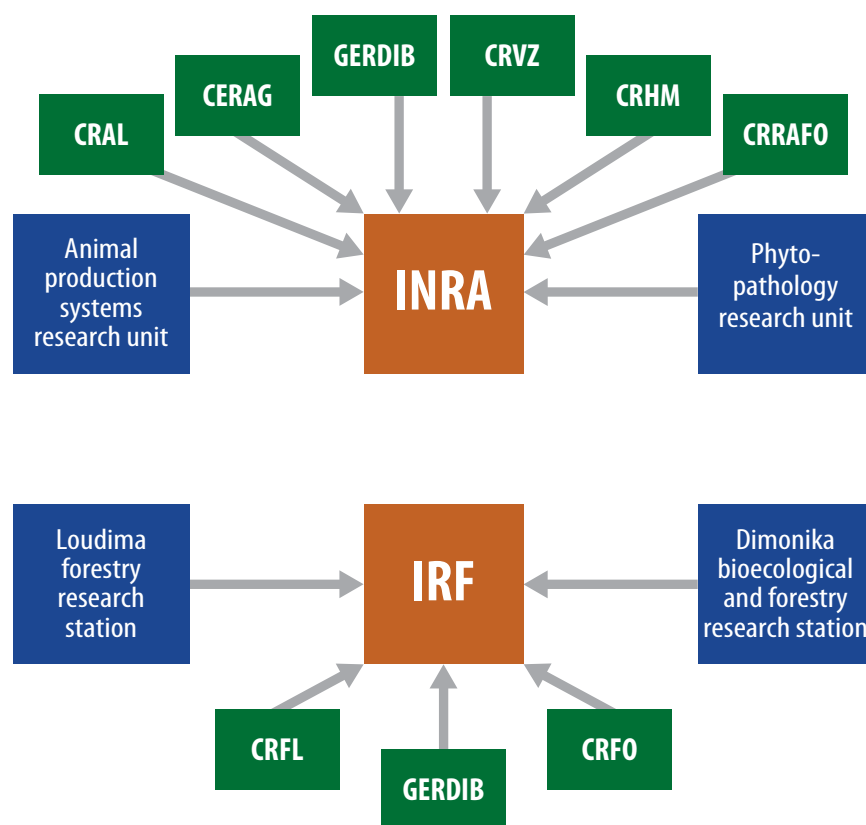
CHALLENGE

- ▶ Reviving Congo's agricultural sector is crucial to reducing rural poverty and diversifying the economy at a time when oil production—the country's primary income source—is declining. To ensure success, Congo needs clear national agricultural research policies and guidelines, and better coordination and stricter guidance of the research agenda than the current system has provided to date.

OBSERVATION

- ▶ The 2012 commitment to restructuring DGRST's research centers into a national agricultural research institute (INRA) and a forestry research institute (IRF) is a strong first step toward coordinating and harmonizing national agricultural R&D in Congo. Nevertheless, staff recruitment, funding for R&D programs, and the rehabilitation of research stations are needed if the country's agricultural R&D efforts are to pay off in terms of improved food security, reduced poverty, and long-term environmental sustainability.

The establishment of INRA and IRF



▶ CONSOLIDATING AGRICULTURAL RESEARCH

Unlike most African countries that consolidated numerous small agricultural R&D entities into a single national agricultural research institute during the 1970s, 1980s, and 1990s, Congo never underwent this kind of reform process. The 2012 government approval of the creation of INRA and IRF is set to change this, however. As of January 2014, the final establishment decrees for both institutes have yet to be signed, but preparations are well underway. In addition to having greater financial and managerial autonomy, the new institutes are expected to be more efficient and able to take advantage of economies of scale by coordinating research efforts, rationalizing the use of human and financial resources, reducing the duplication of effort, and streamlining linkages with farmer organizations. Importantly, the changes will facilitate staff recruitment.

The government has allocated funding for the construction of two new headquarters, one for INRA in Oyo, and one for IRF in Ouessou. A large number of Brazzaville-based researchers will be required to relocate to these distant locations when construction is completed.

Note: The plan is that CRESSH and CRIPT will become autonomous institutes; CERVE and CRCRT will be merged to form IRSEN; and research currently undertaken by GERDIB will be divided among IRSA, IRF, and IRSEN.

CROSS-COUNTRY COMPARISONS OF KEY INDICATORS *continued*

	Total spending, 2011 (million 2005 PPP dollars)	Overall spending growth, 2008–2011	Spending as a share of AgGDP, 2011
Congo, Rep.	5.1	–10%	0.94%
Congo, Democratic Rep.	16.2	76% ^c	0.17%
Gabon	0.6	–57%	0.08%
Central African Rep.	2.7	41% ^d	0.16%

^c and ^d. For DR Congo and the Central African Republic, this growth is based on data for the 2009–2011 period.

OVERVIEW OF CONGO'S AGRICULTURAL RESEARCH AGENCIES

DGRST, under the Ministry of Scientific Research, coordinates and oversees the research activities of 14 research agencies, 11 of which are dedicated to agriculture. In 2011, these 11 agencies accounted for a combined total of close to two-thirds of the agricultural researchers in Congo. The largest of DGRST's agencies include CRVZ (employing 14 FTE researchers in 2011), CRAL (13 FTEs), and CERVE (13 FTEs). CNES, which conducts limited research on soils and employed 4 FTEs in 2011, is the only non-DGRST government agency. Comprising two agencies under Marien Ngouabi University, Congo's higher education sector accounted for 14 percent of the nation's agricultural research capacity in 2011. Compared with most African countries, the nonprofit sector plays a relatively important, and increasing, role in Congolese agricultural R&D. AGRICONGO (employing 6 FTEs in 2011) carries out adaptive research on market gardens for food and fruit crops, as well as fodder plants, and CRDPI (employing 14 FTEs in 2011) conducts forestry research. As previously noted, Congo's agricultural R&D is currently undergoing major institutional reforms that will involve the restructuring of these agencies, as is indicated in the figure on page 3; nonetheless, the information provided in this section is accurate as of 2011, the most recent year for which complete ASTI data are available.



For a complete list of the agencies included in ASTI's dataset for the Republic of Congo, visit www.asti.cgiar.org/republic-of-congo.

ACRONYMS USED IN THIS FACTSHEET

CERAG	Plant Genetic Improvement Research Center
CERVE	Center for Studies on Vegetable Resources
CNES	National Soil Study Center
CRAL	Agricultural Research Center of Loudima
CRCRT	Soil Conservation and Restoration Research Center
CRESSH	Center for Research and Studies on Social and Human Sciences
CRFL	Coastal Forestry Research Center
CRFO	Ouessou Forestry Research Center
CRHM	Mossaka Hydrobiological Research Center
CRIPT	Research and Technology Project Initiation Center

ASTI DATA PROCEDURES AND METHODOLOGIES

- ▶ The **data underlying this fact sheet** were predominantly derived through primary surveys, although some data were drawn from secondary sources or were estimated.
- ▶ **Public agricultural research** includes research conducted by government agencies, higher education agencies, and nonprofit institutions.
- ▶ 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 2005 local currencies and **2005 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, due to **decimal rounding**, the percentages presented can sum to more than 100.



For more information on ASTI's data procedures and methodology, visit www.asti.cgiar.org/methodology; for more information on agricultural R&D in the Republic of Congo, visit www.asti.cgiar.org/republic-of-congo.

CRRARO	Oyo Regional Agricultural and Forestry Research Center
CRVZ	Veterinary and Zootechnical Research Center
DGRST	General Delegation of Scientific and Technical Research
FTE(s)	Full-time equivalent (researchers)
GERDIB	Biodiversity Research and Study Group
INRA	National Agricultural Research Institute
IRSA	Health Science Research Institute
IRF	Forestry Research Institute
IRSEN	Research Institute of Exact and Natural Sciences
R&D	Research and development

ABOUT ASTI, IFPRI, AND DGRST

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. Placed under the authority of the Ministry of Scientific Research, the **General Delegation of Scientific and Technical Research (DGRST)** supervises most of the R&D activities in the Republic of Congo. DGRST is an executive body responsible for the implementation and management of Congo's science policy.

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