

## GHANA FACT SHEET

December 2008

# WOMEN'S PARTICIPATION IN AGRICULTURAL RESEARCH AND HIGHER EDUCATION

### Key Gender Trends

- In 2008, the 15 largest agricultural research and higher education agencies in Ghana employed 325 professional staff of which 58 were female. The share of female professional staff, while low, represents an increase from 14 percent in 2001 to 17 percent in 2008.
- Only 11 percent of all PhD-qualified staff were female, compared with 20 and 22 percent of staff with MSc and BSc degrees, respectively.
- While 35 percent of the professional staff aged between 25 and 30 years were female, only 10 percent of those aged 50 years or older were female; no clear gender trends were identified in terms of years of service at the respective agencies.
- The share of women in management, including positions as deans of faculties and head of departments, was 13 percent.
- The shares of female professional staff who obtained PhD and MSc degrees during 2005–07 were higher than the comparable shares of male staff.
- In 2007, female students accounted for more than 15 percent of the student population in agricultural sciences, whereas about a quarter of the graduating students that year were female.

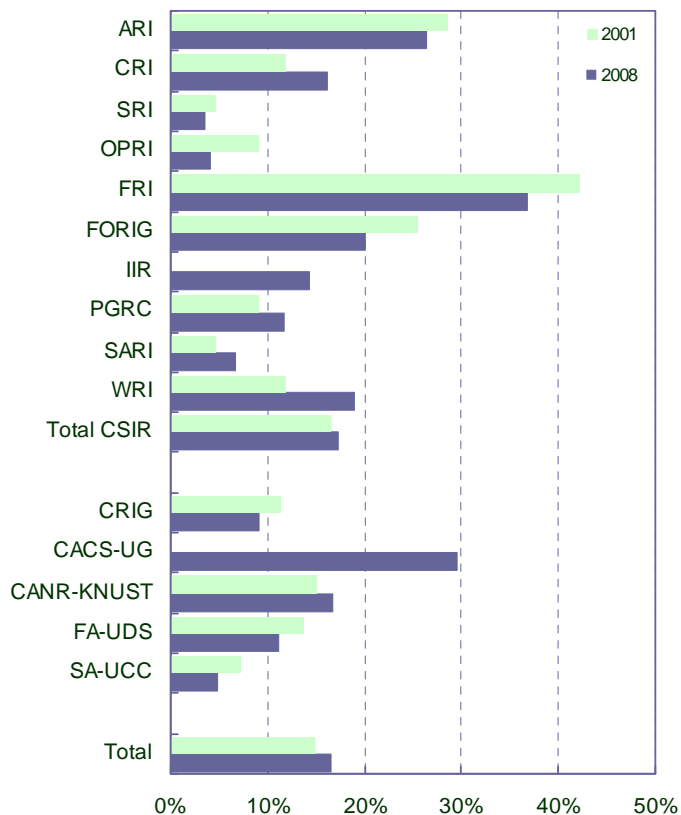
### Shares of Female Professional Agricultural Staff by Agency and by Degree

In 2008, the 15 main agricultural research and higher education agencies in Ghana together employed close to 700 professional staff, of which 115—or 16 percent— were female. In 2001, the 14 sample agencies for which data were available (excluding the Institute of Industrial Research or IIR) employed 89 percent of Ghana's total agricultural research staff in terms of full-time equivalents. Although the sectoral shares of female professional staff in agricultural research have changed little since 2001, the institutional-level shares have shifted. Shares of female professional staff at the Forestry Research Institute of Ghana (FORIG) and the Food Research Institute (FRI), for example, fell by 5 and 6 percent, respectively, during 2001–08 (Figure 1). At the Crops Research Institute (CRI) and the Water Research Institute (WRI) these shares increased by 4 and 7 percent, respectively, over the same period. Of the professional staff at agricultural research and higher education agencies, only 11 percent of those with PhD degrees, 20 percent of those with MSc degrees, and 22 percent of those with BSc degrees were female (Figure 2).

### Qualifications of Professional Agricultural Staff by Gender

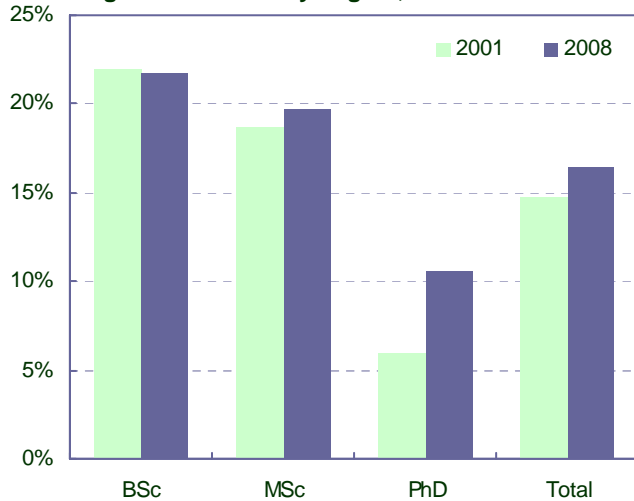
In 2008, on average, fewer women than men held PhD degrees: 25 percent compared with 42 percent of men (Figure 3a). The gap has narrowed since 2001, when 14 percent of female staff held PhD degrees compared with 39 percent of the male staff. Notably, the number of PhD-qualified female staff more than doubled, from 13 in 2000 to 29 in 2008 (Figure 3b).

**FIGURE 1. Female share of professional agricultural staff by agency, 2001 and 2008**

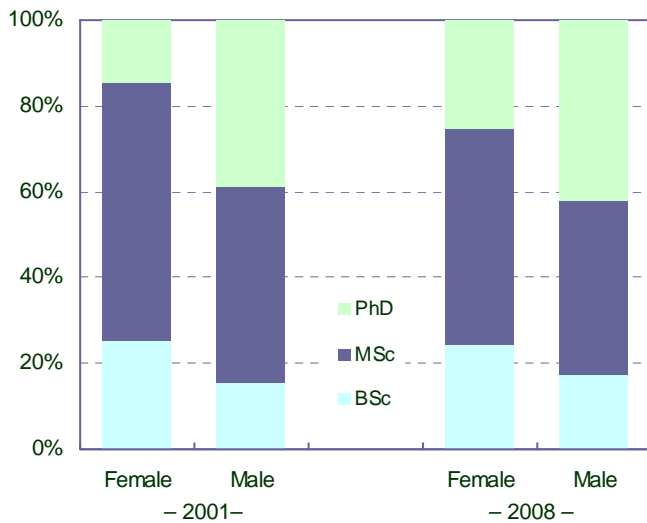


Notes: See page 3 for a list of agency names and categories. Data for some agencies in this fact sheet are for late-2007. Na indicates that data were not available.

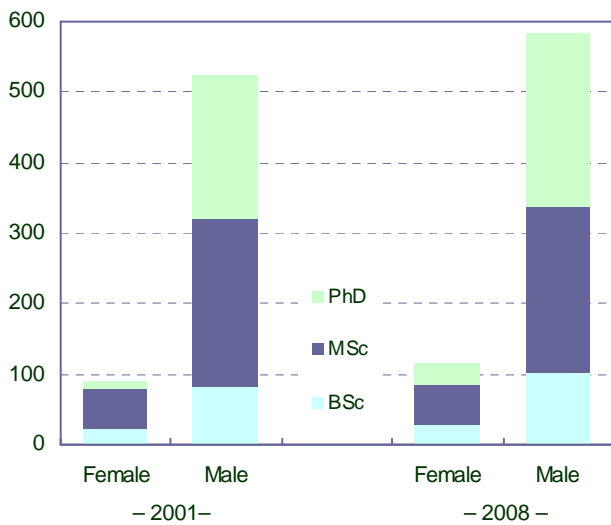
**FIGURE 2. Female share of professional agricultural staff by degree, 2001 and 2008**



**FIGURE 3a. Qualifications of professional agricultural staff by gender, 2001 and 2008 (shares)**



**FIGURE 3b. Qualifications of professional agricultural staff by gender, 2001 and 2008 (headcounts)**

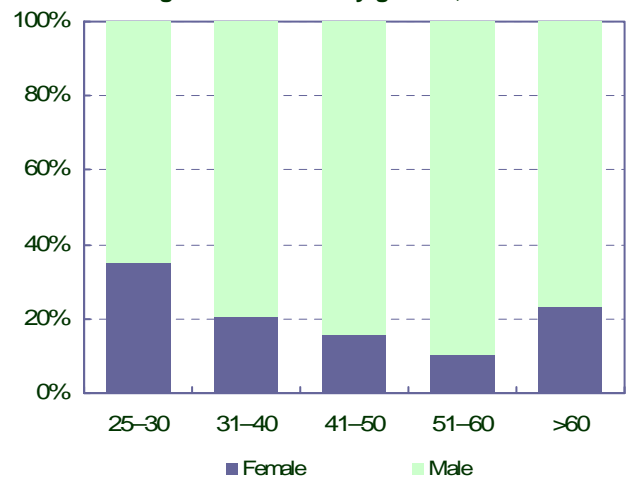


## Age and Seniority of Professional Agricultural Staff by Gender

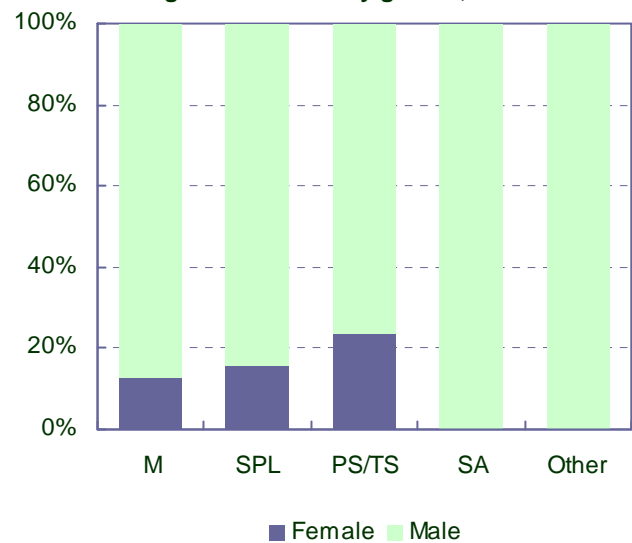
Of professional staff aged between 25 and 30 years, 35 percent were female, whereas, of those aged 51 to 60 years, only 10 percent were female. The comparatively high share of women aged 60 years and older results from the high number of women in this age group at the College of Agriculture and Consumer Sciences at the University of Ghana (CACS-UG) and the College of Agriculture and Natural Resources at Kwame Nkrumah University of Science and Technology (CANR-KNUST) (Figure 4).

Only 3 of the 34 faculty deans and heads of departments at the four higher education agencies were female, while 15 of the 104 management positions at government research agencies were held by women (Figure 5).

**FIGURE 4. Age of professional agricultural staff by gender, 2008**

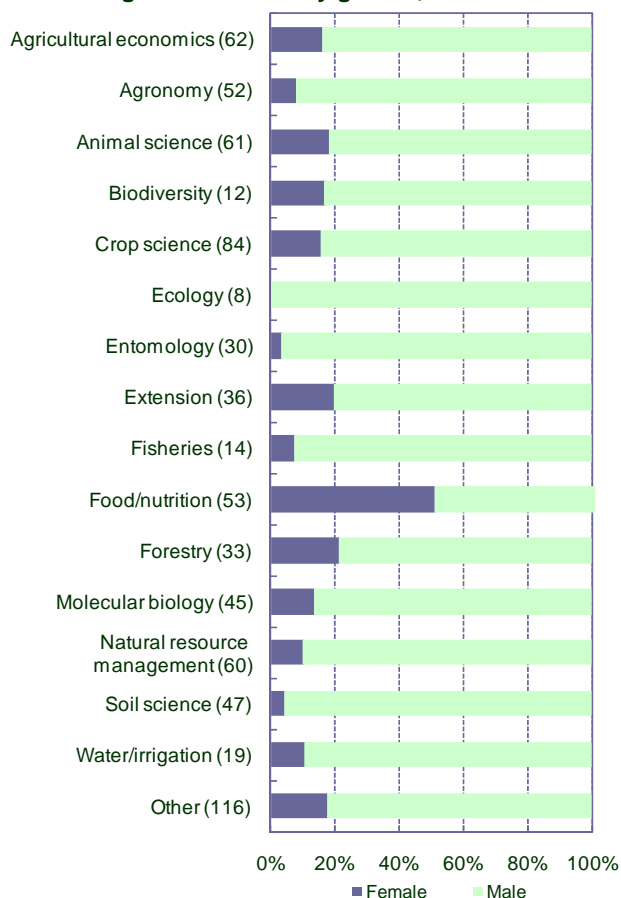


**FIGURE 5. Seniority of professional agricultural staff by gender, 2008**



Note: M indicates management and includes directors, deans, and department heads; SPL includes scientists, (assistant) professors, and (senior) lecturers not in management positions; PS/TS indicates professional and technical support staff; and SA indicates senior administrative staff.

**FIGURE 6. Discipline-mix of professional agricultural staff by gender, 2008**



Note: The number of staff within each category is shown in parentheses.

**TABLE 1. Departures and promotions of professional agricultural staff by gender, 2005–07, and as a share of female and male professional staff employed in 2008**

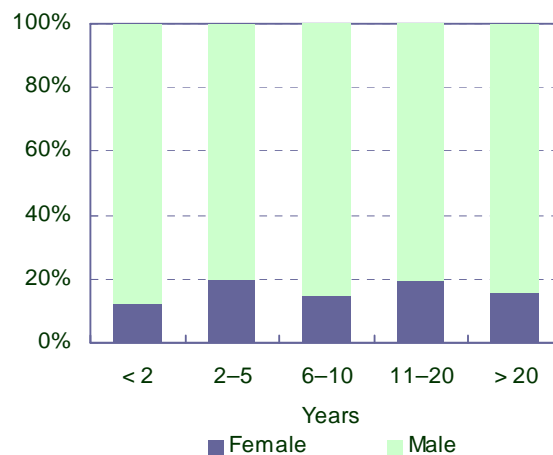
Status	Number of staff, 2005–07		Share of 2008 staff	
	Female	Male	Female	Male
Departures	7	37	6%	6%
Promotions	11	75	10%	13%

## Discipline Mix and Years of Service of Professional Agricultural Staff by Gender

More than half of the professional staff trained in food and nutrition science were female. In contrast, very few women were trained in entomology (3 percent), soil sciences (4 percent), and fisheries (7 percent), and none of the professional staff working in ecology were female (Figure 6).

No clear relationship was observed between the proportion of female professional staff employed and their years of service at either the government or higher education agencies (Figure 7).

**FIGURE 7. Years of service of professional agricultural staff by gender, 2008**



## Departures and Promotions of Professional Agricultural Staff by Gender

For the sample agencies as a whole, 7 women and 37 men departed during 2005–07, and 11 women and 75 men were promoted (Table 1). For the purpose of comparison, numbers of departing staff each represent 6 percent of the female and male staff employed in 2008 and numbers of promoted staff represent 10 and 13 percent of female and male staff employed in 2008, respectively. The resulting trends indicate a similar share of women and men departed agencies, and a somewhat larger share of men were promoted within agencies.

The data in this fact sheet are derived from the following government and higher education agencies:

### Ten institutes under the Council for Scientific and Industrial Research (CSIR)

ARI	Animal Research Institute
CRI	Crops Research Institute
FRI	Food Research Institute
PGRC	Plant Genetic Resources Centre
FORIG	Forestry Research Institute of Ghana
SARI	Savanna Agricultural Research Institute
OPRI	Oil Palm Research Institute
SRI	Soil Research Institute
WRI	Water Research Institute
IIR	Institute of Industrial Research

### One additional government agency

CRIG	Cocoa Research Institute of Ghana
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### Four higher education agencies

CACS-UG	College of Agriculture and Consumer Sciences, University of Ghana
CANR-KNUST	College of Agriculture and Natural Resources, Kwame Nkrumah University of Science and Technology
FA-UDS	Faculty of Agriculture, University of Development Studies
SA-UCC	School of Agriculture, University of Cape Coast

For further information on the organization of agricultural research in Ghana, see <http://www.asti.cgiar.org/pdf/Ghana CB13.pdf>.

**TABLE 2. Professional agricultural research staff completing training, by gender, 2005–07, and as a share of female and male professional staff employed in 2008**

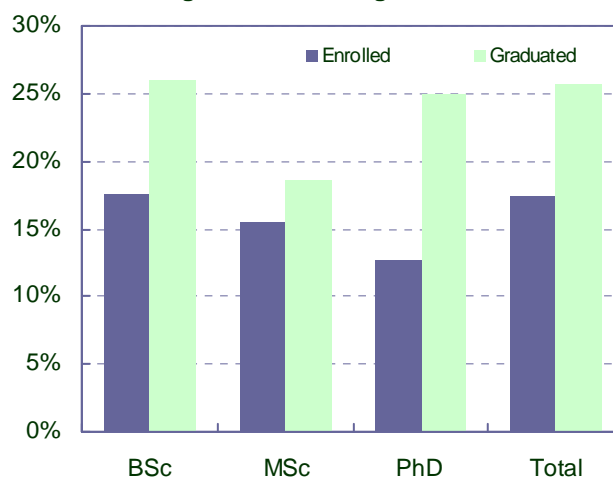
Level of Training	Number of staff, 2005–07		Share of 2008 staff totals	
	Female	Male	Female	Male
BSc	4	17	14%	17%
MSc	11	34	19%	14%
PhD	13	31	45%	13%

## Training, Enrollments, and Graduations by Gender

Close to half the female professional staff in our sample employed in agricultural research at the government and higher education agencies in 2008 had obtained PhD degrees between 2005 and 2007, and about one-fifth obtained MSc degrees during this timeframe (Table 2). These shares were considerably higher than the comparable shares for male professional staff.

In 2007, female students accounted for more than 15 percent of the total student population in agricultural sciences. About a quarter of the students that graduated that year were female (Figure 8).

**FIGURE 8. Share of female students enrolled in and graduating from the largest agricultural higher education agencies, 2008**



### About ASTI

The Agricultural Science and Technology Indicators (ASTI) initiative compiles, processes, analyzes, and reports data on institutional developments, investments, and human resources in agricultural R&D in developing countries. The ASTI initiative is managed by the International Food Policy Research Institute (IFPRI) and involves collaborative alliances with many national and regional R&D agencies, as well as international institutions. The initiative, which is funded by the Bill and Melinda Gates Foundation with additional support from IFPRI, is widely recognized as the most authoritative source of information on the support for and structure of agricultural R&D worldwide. To know more about the ASTI initiative visit [www.asti.cgiar.org](http://www.asti.cgiar.org).

### About AWARD

The African Women in African Agricultural Research and Development (AWARD) program, supported by the Bill & Melinda Gates Foundation and the United States Agency for International Development (USAID), is implemented by the Gender & Diversity (G&D) program of the Consultative Group on International Agricultural Research (CGIAR). Competitive two-year fellowships focused on building capacity in science, mentoring, and leadership are offered to high-performing female African scientists at one of three critical career junctures: completion of a BSc, MSc, or PhD degree. To know more visit [www.genderdiversity.cgiar.org](http://www.genderdiversity.cgiar.org).

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IFPRI was established in 1975. IFPRI is one of 15 agricultural research centers that receives its principal funding from governments, private foundations, and international and regional organizations, most of which are members of the Consultative Group on International Agricultural Research ([www.cgiar.org](http://www.cgiar.org)).

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