WOMEN’S PARTICIPATION IN AGRICULTURAL RESEARCH AND HIGHER EDUCATION

Key Gender Trends

- In late 2007, Uganda’s National Agricultural Research Organisation (NARO) and the three agricultural faculties of Makerere University together employed 465 professional staff, of which 121—26 percent were female. The share of female professional staff increased from 22 percent in 2000 to 26 percent in 2007.
- On average, 21 percent of all PhD-qualified staff were female, compared with 29 percent (each) of staff holding MSc and BSc degrees.
- About one-third of the professional staff aged 25–40 years were female. The share of female professional staff declined with increasing years of service at the respective agencies.
- The share of women in management, including positions as deans of faculties and head of departments, was 11 percent.
- In 2007, female students accounted for 29 percent of the total student population in agricultural sciences, while close to one-third of the students that graduated that year were female.

Shares of Female Professional Agricultural Staff by Agency and by Degree

In late 2007, Uganda’s National Agricultural Research Organisation (NARO) and the three agricultural faculties of Makerere University together employed 465 professional staff, of which 121—26 percent were female. NARO’s average share of 27 percent masks large variation across its 14 research entities, ranging from zero at Abizardi to 69 percent at Mukono. Overall in 2000, the four sample agencies employed 93 percent of Uganda’s total agricultural research staff in terms of full-time equivalents. The share of female professional staff increased slightly, from 22 percent in 2000 to 26 percent in late 2007 (Figure 1).

Of the professional staff at agricultural research and higher education agencies, 21 percent of those with PhD degrees and 29 percent (each) of those with MSc and BSc degrees were female (Figure 2). Notably, the aforementioned increase in the share of female professional staff was mostly at the BSc-degree level (Figure 2).

Qualifications of Professional Agricultural Staff by Gender

The share of women holding BSc degrees increased from 8 percent in 2000 to 22 percent in late 2007 (Figure 3a) as a result of a higher increase, in absolute numbers, of women holding BSc degrees compared with those holding MSc and PhD degrees (Figure 3b).

Notes: See page 3 for a list of agency names and categories. Data for some agencies in this fact sheet are for late 2007.
Age and Seniority of Professional Agricultural Staff by Gender

Of professional staff aged between 25 and 40 years, less than 35 percent were female, whereas 24 percent of the staff aged between 51 and 60 years were female. None of the seven professional staff over 60 years of age was female (Figure 4).

Only three of the 27 deans of faculties and heads of department at the three faculties of Makerere University were female (Figure 5). At NARO, 3 of the 26 management positions were held by women, representing 12 percent. Interestingly, there was a comparatively higher share of women in the category that includes scientists, (assistant) professors, and (senior) lecturers (Figure 5).

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.
During 2005–07, 8 women and 36 men departed, and 23 women and 119 men were promoted at the sample agencies (Table 1). Nine of the 23 promoted women and 85 of the 119 promoted men were employed at NARO, representing 31 versus 71 percent, respectively. For the purpose of comparison, numbers of departing staff represent 7 and 10 percent of the female and male staff employed in late 2007, respectively, and numbers of promoted staff represent 19 and 35 percent of female and male staff employed in 2007, respectively. The resulting trends indicate that slightly more men departed agencies, and a substantially larger share of men were promoted within agencies.

### 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 late 2007

<table>
<thead>
<tr>
<th>Status</th>
<th>Number of staff, 2005–07</th>
<th>Share of late 2007 staff totals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>Departures</td>
<td>8</td>
<td>36</td>
</tr>
<tr>
<td>Promotions</td>
<td>23</td>
<td>119</td>
</tr>
</tbody>
</table>

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

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

More than 40 percent of the professional staff trained in agricultural economics were female. In contrast, female professional staff represented only 11 percent of staff trained in soil science and no women trained in water and irrigation management were employed at the four agencies. With shares ranging from 20 to 35 percent, women were reasonably represented in all other disciplines (Figure 6).

Overall the share of female professional staff declined with increasing years of service at their respective agencies (Figure 7). This was particularly so for the three faculties of Makerere University. Half of the agricultural professional staff that employed by the university for less than two years were female, but only 18 percent of the staff employed for 11 years or more were female. At NARO the shares were more equal over the years.
TABLE 2. Professional agricultural staff completing training by gender, 2005–07, and as a share of female and male professional staff employed in late 2007

<table>
<thead>
<tr>
<th>Level of Training</th>
<th>Number of staff, 2005–07</th>
<th>Share of 2007 staff totals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>BSc</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>MSc</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>PhD</td>
<td>12</td>
<td>23</td>
</tr>
</tbody>
</table>

Training, Enrollments, and Graduations by Gender

Relatively more female professional staff employed in agriculture at the government and higher education agencies in late 2007 obtained their PhD or BSc degrees between 2005 and 2007 compared with men, although the absolute numbers of women obtaining PhD or MSc degrees was still lower (Table 2).

The share of female students enrolled at the main higher education agencies was 29 percent in 2007, and 31 percent of the students who graduated in 2007 were women. The shares were fairly equally distributed among the three qualification levels (Figure 8). At the Faculty of Forestry and Natural Conservation, the share of female students was 31 percent, which was considerably higher than the corresponding shares at the Faculty of Agriculture (21 percent) and the Faculty of Veterinary Medicine (23 percent).

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.

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.

FIGURE 8. Share of female students enrolled in agricultural sciences at and graduating from the University of Makerere, 2007

INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

This fact sheet was prepared by Nienke Beintema and Federica Di Marcantonio.

Copyright © 2008 International Food Policy Research Institute. Sections of this report may be reproduced without the express permission of, but with acknowledgment to, IFPRI. For permission to reprint, contact ifpri-copyright@cgiar.org. The ASTI initiative is grateful to the participating agencies for their time and assistance with data collection.