WOMEN’S PARTICIPATION IN AGRICULTURAL RESEARCH AND HIGHER EDUCATION

Key Gender Trends

- In 2008, the 19 largest agricultural research and higher education agencies in Ethiopia employed a total of 1,366 professional staff, of which 83 were female. The share of female professional staff, which is among the lowest in Sub-Saharan Africa, changed little between 2000 and 2008.
- Only 3 percent of all PhD-qualified staff were female, compared with 7 percent of staff holding MSc degrees and 6 percent of staff holding BSc degrees.
- Women are similarly represented in all age groups, although their share is higher among those younger than 25 years; 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 heads of departments, was only 5 percent.
- In 2007, female students accounted for about 15 percent of the total student population in agricultural sciences, although about a quarter of the students that graduated that year were female.

Shares of Female Professional Agricultural Staff by Agency and Degree

In 2008, 19 of Ethiopia’s largest agricultural research and higher education agencies together employed 1,366 professional staff, of which 83, or 6 percent, were female (Figure 1a). In 2000, these sample agencies employed 84 percent of Ethiopia’s agricultural research staff in terms of full-time equivalents, and the share of female professional staff has remained relatively unchanged since then. Ethiopia has one of the lowest shares of female participation in agricultural research and higher education in Sub-Saharan Africa. For the Ethiopian Institute of Agricultural Research (EIAR), the female share of agricultural professional staff decreased slightly from 8 to 7 percent, whereas at the College of Agriculture of Haramaya University (CA-HAU) the share increased from only 2 percent in 2000 to 7 percent in 2008. In contrast, the female share at the Faculty of Veterinary Medicine of Addis Ababa University (FVM-AAU) declined from 8 to 6 percent.

Shares differ across the 12 units of EIAR for which data were available. Two of the five professional staff at the Hwassa/Awassa National Maize Research Program (HNMRP) were female, while 17 and 18 percent of the professional staff at Debra Zeit Agricultural Research Center (DZARC) and EIAR headquarters (HQ), respectively, were female (Figure 1b). Four of the 12 units did not employ any female professional staff in 2008.

Of all the professional agricultural staff employed at the sample agencies, only 3 percent of those with PhD degrees were female compared with 6 and 7 percent of staff holding MSc and BSc degrees, respectively (Figure 2).

FIGURE 1a. Female share of professional agricultural staff by agency, 2000 and 2008
Qualifications of Professional Agricultural Staff by Gender

Overall, fewer women than men held PhD degrees at the sample agencies in 2008: 6 percent compared with 14 percent (Figure 3a). This gap has increased slightly since 2000, when the corresponding shares were 7 and 11 percent, respectively. During 2000–08, the total number of female professional staff increased from 60 to 83, but most of this increase resulted from increased numbers of women trained to the MSc level (from 13 to 36). The number of women with PhD training increased by only one during this period (Figure 3b).

Age and Seniority of Professional Agricultural Staff by Gender

Women are similarly represented in all age groups, although their share is higher among those younger than 25 years (Figure 4). Neither of the two professional staff older than 60 years was female. None of the 20 deans of faculties and heads at CA-HAU and FVM-AAU was female, and only 6 of the 87 management positions at government research agencies were held by women (Figure 5).

Notes: JARC, AARC, KRC, and PARC did not employ any female professional staff in 2008. Three relatively small EIAR agencies are excluded from the figure due to lack of available data (see box on page 3).
FIGURE 6. Years of service of professional agricultural research and higher education staff by gender, 2008

No clear relationship was observed between the proportion of female professional agricultural staff employed and their years of service, except that women employed at their institutions for less than two years represented a slightly higher overall share (Figure 6).

FIGURE 7. Discipline-mix of professional agricultural staff by gender, 2008

Four of the eight professional staff trained in food and nutrition science were female, and the one staff member trained in fisheries was female. In addition, a relatively higher share of professional staff trained in agricultural economics (14 percent), molecular biology (12 percent), and animal science (10 percent) were female. In contrast, neither the two staff trained in biodiversity nor the eight staff trained in ecology were female (Figure 7).

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

Twelve centers/units under the Ethiopian Institute of Agricultural Research (EIAR) under federal government

- HQL: EIAR headquarters
- KRC: Kultur Agricultural Research Center
- WARC: Werer Agricultural Research Center
- FRC: Forestry Agricultural Research Center
- MARC: Mekele Agricultural Research Center
- APPRC: Ambo Plant Protection Research Center
- AACR: Assosa Agricultural Research Center
- HNMRP: Hwassa/Awassa National Maize Research Program
- DZARC: Debre Zeit Agricultural Research Center
- JAR: Jimma Agricultural Research Center
- HARC: Holletta Agricultural Research Center
- PARC: Pawe Agricultural Research Center

Five Regional Agricultural Research Institutes (RARIs) under regional governments

- ARARI: Amhara Regional Agricultural Research Institute
- SPARI: Somali Regional Pastoral and Agro-Pastoral Research Institute
- TARI: Tigray Agricultural Research Institute
- OARI: Oromia Agricultural Research Institute
- APARI: Afar Pastoral and Agro-Pastoral Research Institute

Two higher education agencies

- CA-HAU: College of Agriculture, Haramaya University
- FVM-AAU: Faculty of Veterinary Medicine, Addis Ababa University

Note that three small EIAR units, the Bako National Maize Research Program (BNMRP), Essential Oils Research Center (EORC), and Fish and Aquatic life Research Center (FARC), and two RARIs, the Gambella Agricultural Research Institute (GARI) and Southern Nations Agricultural Research Institute (SNARI), were excluded from this study due to lack of available data.

For further information on the organization of agricultural research in Ethiopia, see http://www.asti.cgiar.org/pdf/Ethiopia_CB9.pdf.
Departures and Promotions of Professional Agricultural Staff by Gender

For the sample agencies as a whole, 19 women and 188 men departed during 2005–07, and 24 women and 487 men were promoted (Table 1). For the purpose of comparison, numbers of departing staff represent 28 and 16 percent of the female and male staff employed in 2008, respectively, and numbers of promoted staff represent 35 and 40 percent of female and male staff employed in 2008, respectively. The resulting trends indicate that a higher share of women departed agencies and a 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 2008

<table>
<thead>
<tr>
<th>Status</th>
<th>Number of staff, 2005–07</th>
<th>Share of 2008 staff</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>Departures</td>
<td>19</td>
<td>188</td>
</tr>
<tr>
<td>Promotions</td>
<td>24</td>
<td>487</td>
</tr>
</tbody>
</table>

Note: The table excludes CA-HAU and FVM-AAU due to lack of available data.

Training and Enrollments by Gender

Only three female professional staff employed in agricultural research and higher education agencies in 2008 obtained their PhDs between 2005 and 2007 compared with 53 men. Nevertheless, the share of women is still relatively higher due to the low overall number of women with PhD degrees compared with their male colleagues (Table 2).

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

<table>
<thead>
<tr>
<th>Level of Training</th>
<th>Number of staff, 2005–07</th>
<th>Share of 2008 staff</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>BSc</td>
<td>1</td>
<td>50</td>
</tr>
<tr>
<td>MSc</td>
<td>8</td>
<td>130</td>
</tr>
<tr>
<td>PhD</td>
<td>3</td>
<td>53</td>
</tr>
</tbody>
</table>

Note: The table excludes CA-HAU and FVM-AAU due to lack of available data.

The share of female students enrolled at CA-FAU and FVM-AAU combined was 18 percent (Figure 8). Only 1 of the 25 students enrolled in the PhD program at CA-HAU was female, resulting in the low female share of 4 percent.

FIGURE 8. Share of female students enrolled at the two higher education agencies, 2007

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.

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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).

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