

Sticks in a bundle are unbreakable.

~ Bondei proverb



AWARD Strategy, 2017-2022. (2017). African Women in Agricultural Research and Development (AWARD). Nairobi, Kenya.

AWARD

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Contents

Acronyms	vii
Executive Summary	
Gender in Agricultural Research1	
AWARD 2017-20222	
AWARD Fellowships	
Gender Responsive Agricultural Research and Development (GRARD)4	
Gender in Agribusiness Investments for Africa (GAIA)5	
AWARD Training5	
Africa Rising: A New Era of African Prosperity	
African Agriculture: An Opportunity for Inclusive Economic Growth7	
Scientific Innovation as a Driver for African Prosperity9	
The Gender Gap in Africa's Agriculture10	
The Policy Framework Supporting Gender Equality and Women's Empowerment12	
Gender Responsiveness in African Agricultural Research	
Defining Gender15	
Drivers of Gender Inequality in Agricultural Research17	
Gender at the Center of the Research Agenda (External Gender Responsiveness)17	
Reviewing the Evidence: AWARD's Global Literature Review on GRARD19	
Gender Diversity within Research Teams (Internal Gender Responsiveness)20	
GRARD within the CGIAR23	
GRARD in African ARD Institutions25	
Charting a New Path for AWARD31	
From Vision to Implementation: AWARD Fellowships 3.0, GRARD and GAIA39	
Why AWARD? Consolidating Gains and Innovating for the Future 55	
Sustainability of Outcomes as a Driver for AWARD 2017-202255	

Making it Happen	59
Overarching Implementation Principles	59
AWARD's Institutional Vision	59
Partnerships	59
Partnership Categories	60
Partnership Principles	61
Engaging the Private Sector	61
Communication and Outreach	62
Monitoring and Evaluation (M&E) and Learning	63
Guiding Principles for M&E and Learning	63
Mobilizing Resources	64
References	67
Appendices	
Appendix 1: The AWARD Program's Pioneering "Herstory"	73
Appendix 2. Glossary of Gender-Related Terms and Concepts	78
Appendix 3. Sustainable Development Goals and Selected Targets Related to Gender-Responsive Agriculture	83
Appendix 4. Categories of Potential AWARD Partnerships	86

Acronyms

AECF Africa Enterprise Challenge Fund

AGRA Alliance for a Green Revolution in Africa

AIS Agricultural Innovation System

AgTech Agricultural technology

ARD Agricultural research and development

ASARECA Association for Strengthening Agricultural Research in Eastern and Central

Africa

ASTI Agricultural Science and Technology Indicators
A-TEAM African Trainers Embracing AWARD's Mission

AWARD African Women in Agricultural Research and Development

AWSEM African Women in Science Empowerment Model

AU African Union

BMGF Bill & Melinda Gates Foundation

CAADP Comprehensive Africa Agriculture Development Programme

CCARDESA Centre for Coordination of Agricultural Research and Development for

Southern Africa

CGIAR Consultative Group on International Agricultural Research
CORAF/ Conseil Ouest et Centre africain pour la recherche et le

WECARD développement agricoles/West and Central African Council for Agricultural

Research and Development

EU European Union

FAAP Framework for African Agricultural Productivity

FAO Food and Agriculture Organization of the United Nations

FARA Forum for Agricultural Research in Africa

FtF Feed the Future (USAID initiative)

GAFSP Global Agriculture and Food Security Program

GRARD Gender-Responsive Agricultural Research and Development

HICD Human and Institutional Capacity Development

IARC International Agricultural Research Centre

M&E Monitoring and evaluation

MDGs Millennium Development Goals
MOU Memorandum of understanding



NEPAD New Partnership for Africa's Development

ReSAKSS Regional Strategic Analysis and Knowledge Support System

RUFORUM (African) Regional Universities Forum for Capacity Building in Agriculture SCARDA Strengthening Capacity for Agricultural Research and Development in Africa

SDGs Sustainable Development Goals

SRO Sub-Regional Organization

ToC Theory of Change
ToT Training of Trainers

USAID United States Agency for International Development

UNDP United Nations Development Programme

Executive Summary

"It is not the strongest of the species that survive, nor the most intelligent, but the ones most responsive to change."



Charles Darwin

ithin the African context, agricultural transformation and women's empowerment are inextricably linked.

The agricultural sector in Africa is the largest employer of women; 62 percent of economically active women are working in the sector, while in countries such as Rwanda, Malawi and Burkina Faso, over 90 percent of economically active women are involved in agricultural activities.¹

Yet depending on the country, the rural wage gap between men and women in Africa is estimated at between 15 and 60 percent. In the case of Ivorian cocoa and Ethiopian coffee, for example, women provide 68 percent and 75 percent of the labor, respectively, but earn only earn 21 percent and 34 percent of the income generated.²

Gender in Agricultural Research

Agricultural value chains start well before the farm gate; they start at the research stage, with scientists making decisions that have critical bearings on what hapens across the entire value chain. It is therefore particularly important that agricultural research be gender responsive—that it recognizes and responds to the needs and priorities of the diversity of men and women in agriculture, with the ultimate aim of closing the gender gap that contributes

to Africa's low agricultural productivity.

The World Bank cautions "failure to recognize the different roles of men and women in agriculture is costly, resulting in misguided projects and programs, forgone agricultural output and incomes, and food and nutrition insecurity." This goes well beyond political correctness; incorporating gender issues systematically in agricultural research, development, and extension systems will contribute significantly to meeting the food needs of Africa's growing population and ensure that productivity gains in food systems translate to improved welfare of the poor.

Ultimately, the empowerment of women farmers requires institutional transformation, with research institutions becoming more gender responsive and paying close attention and genuinely responding to the needs of women farmers. For agricultural research, increased gender responsiveness requires a transformation of both the research process itself, as well as more gender-equal staffing. Thus, empowerment of women farmers requires changes in the policies, practices, culture and staffing of agricultural research institutions. Indeed, gender responsiveness in agriculture is not about "fixing the women farmers", but rather addressing the institutional structures that impede their productivity.

Unfortunately, social analyses more broadly, and gender analysis in particular, have not historically been seen as integral to the core business of agriculture research and, as a result, social and relational issues are considered incidental to agricultural research agendas. This has resulted in an agricultural research sector that has not yet developed a robust understanding of how gender relations affect the ways in which research is conducted, and therefore has negatively affected the uptake of technologies by women and men in agricultural value chains.

AWARD defines Gender Responsive Agricultural Research and Development (GRARD) as research that addresses the distinct needs and priorities of a diversity of both men and women across the entire agricultural value chain. We believe that gender responsiveness has a transformative potential to enhance agricultural research for Africa's sustained and inclusive economic growth. This is because gender responsiveness offers a powerful tool through which agricultural researchers can intentionally design agricultural research agendas that drive sustainable and inclusive rural transformation for Africa. Indeed, focusing on innovation that addresses the constraints of African farmers at the margins, especially women, offers the potential to maximise the efficiency and effectiveness of African ARD by increasing the scale, scope, and sustainability of impacts.

In practice, agricultural research faces dual challenges when it comes to taking gender seriously:

 Failure to recognize and place the distinct needs and priorities of different gender groups, and especially women, at the centre of the research agenda and research processes, with the term "external gender responsiveness"

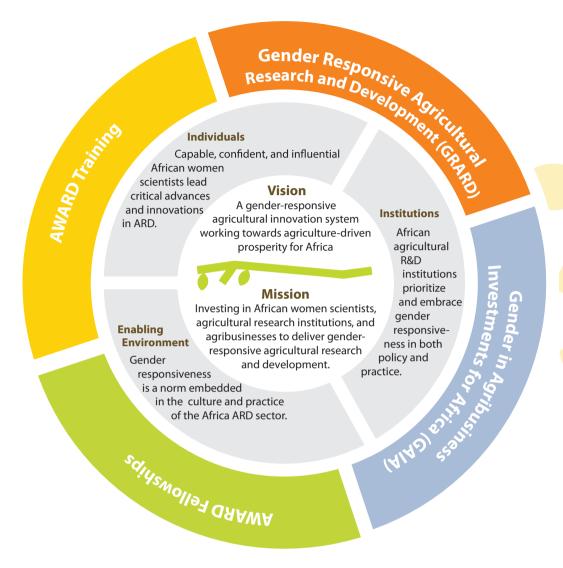
- reflecting a need for gender responsiveness in the research outputs of ARD institutions.
- 2) Lack of gender diversity, specifically women's underrepresentation in the ranks of scientists conducting and leading agricultural research, with the term "internal gender responsiveness" reflecting a need for increased gender responsiveness in the internal elements of the organization, including more genderbalanced staffing.

AWARD 2017-2022

In our new strategy, AWARD seeks to catalyze transformative change in African agricultural research institutions and scientists by enabling them to conduct more inclusive and gender-responsive agricultural research for development. By focusing on innovation that addresses the constraints and priorities of those African farmers at the margins, especially women, gender-responsive agricultural research offers the potential to maximise the efficiency and efficacy of African ARD and help deliver inclusive, agriculture-driven economic growth for the continent.

Our aim is to enhance gender responsiveness across the African agricultural research and development sector by strengthening the ability of research institutions and individual scientists to conduct more inclusive, better targeted, and better designed research that responds to the diverse needs and priorities of women and men all along the agricultural value chain.

Our vision and mission are summarized below and, as indicated in the graphic, achieving our mission will rest largely on three pillars, expressed here as outcomes resulting from focused objectives and activities.



Pillar 1: We seek to have capable, confident, and influential African women scientists lead critical advances and innovations in ARD. We will continue investing in high-achieving African women scientists and building the continent's pool of talented innovators.

Pillar 2: We will support those African ARD institutions that prioritize and embrace gender responsiveness in both policy and practice. We will work with selected partner institutions to grow their capacity for gender-responsive agricultural research by leveraging the talents of gender-diverse research teams, and by strengthening gender prioritization in research design, implementation, and dissemination.

Pillar 3: We will work to ensure that gender responsiveness becomes an embedded cultural norm and practice in the African ARD sector by building an enabling environment for gender responsiveness. We will focus on increasing the visibility of women scientists and leaders, generating and curating compelling evidence on the value of gender responsiveness in ARD. We will also work to transform the growing awareness of gender issues into policies, programs, and accountability mechanisms.

Under our strategy, AWARD's work will be anchored by four highly interrelated and complementary activities:

the AWARD Fellowship program, the GRARD program, the GAIA initiative, and AWARD training.

AWARD Fellowships

Since 2008, AWARD has, through individually tailored two-year fellowships, worked to strengthen the research and leadership skills of African women in agricultural science, empowering them to contribute more effectively to poverty alleviation and food security in sub-Saharan Africa.

For the AWARD Fellowship program, success means:

- Critical advances and innovations in agricultural development for Africa are led and enriched by the contributions of capable, confident, and influential African women; and
- The agricultural research and development sector demonstrates increasing responsiveness to the needs and contributions of women.

Through its fellowships, AWARD is cultivating a growing pool of African women to be:
a) effective within ARD institutions supporting agricultural value chains; b) effective across a range of research disciplines serving the sector; c) responsive to gender issues in the service of women, without excluding men; and d) technically competent to generate innovations, especially those needed by Africa's smallholder farmers.

The AWARD Fellowship program has a well-recognized track record of success. So far, 1,158 agricultural scientists (84 percent of them women) from over 300 institutions have benefited directly from AWARD Fellowships. Specifically, 465 female agricultural scientists from Ethiopia, Ghana, Kenya, Liberia, Malawi, Mozambique, Nigeria, Rwanda, Tanzania,

Uganda, and Zambia have earned an AWARD Fellowship. In addition, five women from Burkina Faso, Cameroon, Côte d'Ivoire, Mali, and Senegal participated in a pilot project aimed at francophone Africa. So far, 397 scientists have benefited as mentors to AWARD Fellows and 366 have in turn benefited as mentees, also referred to as emerging women scientists, of AWARD Fellows.6

Demand for AWARD Fellowships remains high. Over the life of the program to date, we have received 4,261 applications from agricultural scientists representing some 500 institutions across Africa, all vying for the 465 fellowships we have provided so far, and the last call for applications attracted the highest ever number of applicants.

Gender Responsive Agricultural Research and Development (GRARD)

As part of a strategic expansion, AWARD will help African research institutions grow in their ability to conduct GRARD We define GRARD as research that addresses the distinct needs and priorities of a diversity of both men and women along the entire agricultural value chain. We believe this approach holds transformative potential for strengthening agricultural research in support of Africa's sustained and inclusive economic growth. Using this approach, agricultural researchers can purposefully design research agendas that drive sustainable and inclusive rural transformation for Africa. Indeed, focusing on innovation that addresses the constraints of those African farmers at the margins, especially women, offers the potential to maximise the efficiency and effectiveness of ARD by increasing the scale, scope, and sustainability of impacts.

AWARD's work in GRARD will be carried out in two stages. Stage I (2017-2019) will focus on developing and testing cost-effective tools and approaches in close partnership with three selected institutions. The aim is to provide a proof of concept based on hard data and evaluations, which will shed light on how GRARD can be integrated across the agricultural research sector to ensure measurable gains in the relevance, efficiency and impact of research. Stage II (2019-2022) will focus on scaling GRARD up and out to an increased number of institutions.

Gender in Agribusiness Investments for Africa (GAIA)

AWARD is also concerned with ensuring that the research and innovations of African women scientists do not just remain on shelves, but rather are disseminated to farmers and other end users. We believe that agribusiness incubation can play a critical role in scaling up and promoting high-potential agricultural innovations, and GAIA is focused on increasing agribusiness investments in technologies and business models that have the potential to help close the gender gap in African agriculture.

Through a call for applications, an intensive boot camp, and an agricultural technology (AgTech) solutions marketplace that connects innovators with private-sector organizations and other institutions interested in taking up new AgTech solutions, GAIA ensures visibility, commercialization and scaling up of agricultural research innovations that respond to the particular needs and priorities of women across agricultural value chains. GAIA also brings a gender lens to the ongoing focus on mitigating major constraints in African agriculture, including closing yield gaps in crop and livestock value chains, reducing postharvest losses and improving agri-market efficiencies.

AWARD Training

Training of various kinds underpins and cuts across the AWARD Fellowships program, and the GRARD and GAIA initiatives. AWARD training courses cover a broad base of the knowledge and skills needed to enlighten, empower, and inspire participants. They include: learning about mentoring and establishing effective mentor/mentee relationships; building leadership skills for ARD and career development; women's leadership and management, and enhancing negotiation skills for women; training in science skills, with an emphasis on research proposal development and science writing; and short courses aimed at improving understanding by senior managers and leaders of gender issues and how to mainstream gender responsiveness into the ARD programs under their direction.

AWARD identifies promising trainers who have suitable backgrounds for the courses they are to teach, and then strengthens their performance by providing them with the specific skills and tools they need by investing in Training the Trainers workshops. Since 2008, we have built a strong cadre of trainers from nine African countries, all of whom have excellent presentation and facilitation skills, experience in ARD (both in Africa and globally), and in-depth knowledge of gender and diversity issues relative to ARD. This team of highly qualified and dedicated educators delivers world-class training designed to build strong, gender-responsive capacity in African ARD institutions.



Africa Rising: A New Era of African Prosperity

"I hear the roar of women's silence"

Thomas Sankara

ore than a decade of relative stability and economic growth has led many observers to conclude that an African era of prosperity may be starting. Few such analyses are more graphic than those presented by the Economist magazine, which, in a May 2000 cover story, described Africa as a hopeless continent. Its cover picture showed a map of Africa framing the picture of a young man hoisting a bazooka on his shoulders. Just over a decade later in December 2011, in a dramatic turnaround the same magazine ran another story, Africa Rising, in which it described the increasing prosperity in Africa and predicted another decade of growth.

There is good reason for this optimism. Africa is growing faster and more consistently than ever before. Between 2000 and 2014, five of the world's 10 fastest growing economies were in Africa. On average, GDP in sub- Saharan Africa grew by an annual rate of 4.9 percent between 2000-2014, compared to 1.7 percent per year for all OECD countries during the same period.⁷ Better governance, economic and political stability, a strengthening private sector, and high commodity prices are the main reasons for this growth.

Africa is rising, but the continent must both sustain continued growth and ensure that economic growth benefits ALL Africans. The question of inequality is particularly relevant for the continent as seven of the 10 most unequal counties of the world today are African.⁸

African Agriculture: An Opportunity for Inclusive Economic Growth

The agriculture sector presents exciting opportunities for sustaining Africa's economic growth, and for ensuring that growth benefits all Africans. The agriculture sector employs 65 percent of Africa's labor force and accounts for 32 percent of the continent's GDP.9 Strengthening African

agriculture will have significant economic impacts that reach a majority of our population.

Current growth trends are positive.
The World Bank reports that agricultural GDP growth in sub-Saharan Africa has accelerated from 2.3 percent per year in the 1980s to 3.8 percent per year from 2000 to 2005.

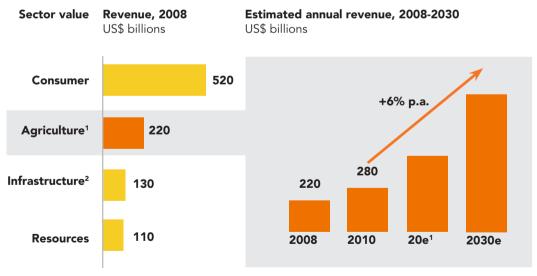
The African Development Bank (AfDB) identifies agriculture as the continent's second-largest industrial sector (measured by value) and a McKinsey global study estimates that the sector will grow by 6 percent per year until 2030.¹⁰

Still, increases in actual food production remain modest and according to the Food and Agriculture Organization of the United Nations (FAO), between 1961 and 2012 Africa's per-capita food production rose, on average, by only 0.3 percent per year—slower than any other continent (FAO 2015). However, this period includes the "lost years" of the 1970s and 1980s when structural adjustment programs and a reliance on market forces severely constrained growth. Beginning in

the 1990s, more appropriate evidence-driven and pro-poor policies that encouraged public (and private) investment in agriculture gained ground and per-capita food production began to rise rapidly.

African governments have long recognized the critical role of agriculture in driving prosperity and the African Union, during its 2003 Summit and as an integral part of its New Partnership for Africa's Development (NEPAD), initiated the Comprehensive Africa Agriculture Development Programme (CAADP). This policy framework is focused on engendering agricultural transformation, wealth creation, food and nutrition security, and economic growth and prosperity for all.¹¹ In 2014, the AU reiterated its CAADP commitment to

Agriculture is the second-largest economic sector in Africa and is projected to grow by 6 percent per year until 2030



- 1 2030 value of US\$ 800 billion, calculated straight line equivalent for 2020.
- 2. Represents investment, assumes need remains as same share of GOP through 2020.

Source: International Monetary Fund, World Bank World Development indicators, McKinsey Global Institute.

agricultural transformation through the Malabo Declaration on Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods. The Malabo Declaration makes seven specific commitments for the 10-year period (2015-2025), beginning with a reaffirmation of "the pursuit of agriculture-led growth as a main strategy to achieve targets on food and nutrition security and shared prosperity."

Even with these high-level commitments, it is important to recognize that African agriculture must deliver inclusive economic growth for Africa within a challenging context that includes massive youth unemployment, climate change, and widespread malnutrition.

According to the International Labour Organization (ILO), long-term unemployment among youth in sub-Saharan Africa reached 48.1 percent in 2014, 12 while the FAO estimates that one out of four Africans living in the region is undernourished.¹³ Africa is the only continent where the absolute number of undernourished people has increased over the last 30 years, ¹⁴ a circumstance due to the continent's continued rapid population growth. Importantly, the relative proportion of the population that remains undernourished is declining, albeit slowly. Climate change will result in warming of approximately 0.7°C over most of the continent during the 21st century. Rainfall is predicted to decrease over large portions of the Sahel (the semi-arid region south of the Sahara), and become increasingly unpredictable in East and Central Africa. A rising sea level is anticipated, as is a higher frequency of extreme weather events.¹⁵

While they can be overwhelming, these massive, "wicked" problems¹⁶ also present tremendous opportunities for African agriculture to take its rightful place as the cutting edge driver of innovative solutions for sustainable and inclusive African economic growth.

Scientific Innovation as a Driver for African Prosperity

Sustainable and inclusive agriculture-driven transformation for Africa requires a long-term view, one that recognizes the critical role of research and development in building an agriculture sector that provides employment, and food and nutrition security, while driving African prosperity in the challenging context of climate change.

It is important to recognize that agricultural value chains start well before the farm gate; they start at the research stage. Scientists make decisions that have critical bearings on what happens across the entire value chain. Whether it is breeding for preferable traits in commodities like tomatoes so they don't bruise on the way to market or maize varieties that can be harvested later in the season to avoid market gluts, agricultural researchers make many important upstream innovations that enable all players along the value chain to thrive and be profitable.

When it comes to ensuring a sustainable and long-term transformation, Africa cannot afford to outsource its agricultural innovation needs. African "agripreneurs"—especially farmers—must have access to appropriate

innovation that helps them respond to Africa's unique challenges, particularly in the context of climate change, rapid urbanization, and rampant malnutrition.

Global businesses invest heavily in their own R&D departments to ensure that they have a steady stream of new technologies that are relevant and competitive. Africa's research institutions, such as the National Agricultural Research and Extension Services (NARES) and our universities, comprise Africa's R&D department, and they urgently require greater financial and political support.

There is a strong return on investment (ROI) case for African agricultural research. An FAO study found that spending on agricultural research generated high payoffs in Africa, with each dollar spent generating a median internal rate of return of 37 percent. Research on pearl millet, maize, sorghum, potatoes, beans, wheat, and cowpeas has generated returns ranging from 16 percent to 135 percent.¹⁷

Still, agricultural research that increases productivity does not automatically lead to poverty reduction and inclusive growth. Indeed, the historical record, primarily from the Asian Green Revolution, shows that increased levels of poverty can accompany increased productivity. In their book New Seeds and Poor People, Lipton and Longhurst argue that "In most developing countries, even those with 'green revolution' areas and significant growth in food output per person at the national level, the proportion of poor people who have moved out of poverty in the dynamic areas has been almost balanced by the proportion that has become poor, especially in rural areas which—because their crops or soil-water regimes appeared less amenable to research

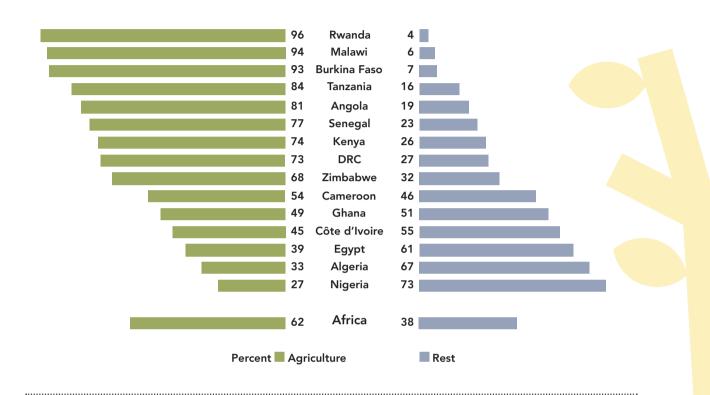
—have been little affected by MVs (modern varieties)." They conclude that "technical breakthroughs alone won't solve deep-rooted social problems and that only new policies and research priorities will increase the choices, assets and power of the rural poor" (Lipton & Longhurst 2011). 18 For agricultural research to drive sustainable and inclusive growth, assumptions must be laid bare, and the pathways on how research translates to improved livelihoods intentionally mapped out.

There is already recognition that, to position the agricultural sector as a key driver of sustainable and inclusive economic growth, Africa's Agricultural Innovation System (AIS) must challenge conventional approaches to agricultural research and the status quo by making connections from the lab to the farm and beyond. Africa's AIS must respond much more directly and immediately to the urgent needs of the diversity of players across the continent's agricultural value chains. "The adoption of innovation required to increase productivity cannot be simply decreed. Innovations must meet the needs of producers and, for health and environment, must concern the entire national communities."19

This calls for systemic transformation. Africa's agricultural scientists cannot afford to relegate themselves only to the questions of science; they must also engage with the politics and economics of the societies for whom they are innovating. To rise to the challenge of producing research outcomes that are relevant to end users, African agricultural research must challenge conventional approaches to agricultural research and connect the dots from lab to farm and beyond much more tightly. Just like the continent as a whole,

Sixty-two percent of economically active women in Africa work in agriculture

Share of economically active women in agriculture



Africa's AIS must, in the words of Julius Nyerere, "run where others walk."

The Gender Gap in Africa's Agriculture

One critical area in which Africa's AIS must go beyond traditional approaches in order to achieve transformative change is in how it treats issues of gender. The centrality of women's roles in African agriculture and the importance of agriculture to women's lives are widely recognized. "Of those women in the least developed countries who report being economically active, 79 percent of them report agriculture as their primary economic activity.

Overall, 48 percent of the economically active women in the world report that their primary activity is agriculture."²⁰

The agriculture sector in Africa remains the largest employer of women, with a total of 62 percent of economically active women working in agriculture; in countries such as Rwanda, Malawi, and Burkina Faso, over 90 percent of economically active women are involved in agriculture.²¹

Similarly, the nature and scale of gender inequality in African agriculture, and particularly women's marginalization, has been well documented. Depending on the country, the

rural wage gap between men and women in Africa is estimated at between 15-60 percent. In the case of Ivorian cocoa and Ethiopian coffee, for example, women provide 68 percent and 75 percent of the labor, respectively, but earn only 21 percent and 34 percent of the income generated.22

The 2014 study "Leveling the Field: Improving Opportunities for Women Farmers in Africa", which was published by the World Bank and ONE Africa, summarized research on the gender gap in agriculture in six of the continent's most populous countries.²³The study contends that women farmers' productivity is a fraction of that of men, and that closing the gender productivity gap could raise farm yields by 20-30 percent. The study calls on African governments to provide farmers—particularly women—with better access to agricultural information, knowledge, technology, and other inputs.

While African women are key decision makers across agricultural value chains—from deciding what to plant and when, to processing, packaging, retailing, and cooking for families across the continent—they continue to face tremendous hurdles as farmers, agricultural entrepreneurs, and as agricultural research and development professionals. It is now widely understood that there is both a social justice and an economic efficiency case to be made for advancing gender equity in African agriculture.24

The Policy Framework Supporting Gender Equality and Women's Empowerment

There is global agreement that gender equality and women's empowerment are needed to secure a sustainable future. Sustainable Development Goal 5 focuses on achieving gender equality and empowering all women and girls, which includes ensuring women's full and effective participation and equal opportunities for leadership at all levels of decision making in political, economic and public life. The World Bank Gender Action Plan (2006) calls investments in women's empowerment and gender equality "smart economics."

African governments have also made binding commitments to gender equality and women's empowerment. Following adoption of the African Union Gender Policy in 2009, African leaders launched the African Women's Decade 2010-2020 and the Fund for African Women to accelerate the implementation of all commitments on gender equality and women's empowerment on the continent. These continental frameworks complement important global frameworks, to which many African governments are signatories, including:

- Dakar Platform for Action (1994);
- Beijing Platform for Action (1995);
- Convention on the Elimination of All Forms of Discrimination against Women (1979); and
- **UN Security Council resolution 1325** (2000) on Women, Peace, and Security.

These policy frameworks are underpinned by a fundamental belief that gender equality is justified from the standpoint of both social justice and economic efficiency. Societal structures that systematically marginalize, exclude, or oppress women deprive them of their human rights, and affect not only their welfare but also that of their families and communities. At the same time, society and economic systems are underutilizing women's energy, creativity, and wisdom, all of which are needed to respond to increasingly complex development challenges.

There is agreement that gender equality and women's empowerment are critical to achieving the transformation that is so desperately needed for food and nutrition security in Africa. The need to address the gender gap in agriculture is receiving increased attention, and numerous actors are launching diverse interventions. The FAO aims

to allocate 30 percent of its operational budgets to programs targeted at women by 2017. The Global Agriculture and Food Security Program (GAFSP), which is a multilateral, public-private partnership operating in 15 African countries, features gender analysis in nearly 80 percent of its project designs. USAID and the World Bank have integrated gender M&E into nearly all of their major agricultural and rural development projects (O'Sullivan et al., 2014).

On the African continent, CAADP, NEPAD, and the Sustainable Development Goals (SDGs) are key instruments for translating the vision of African leaders, as are the principles espoused in the Framework for African Agricultural Productivity (FAAP), developed by the Forum for Agricultural Research in Africa (FARA) and its partners. These documents all clearly articulate the importance of gender as a crosscutting issue in agricultural research and in technology generation, dissemination, and adoption.



Gender Responsiveness in African Agricultural Research

"I hear the roar of women's silence."



frica's agricultural research community has also recognized the importance of gender equality in agricultural research. In 2014, FARA launched the Science Agenda for African Agriculture with a stated commitment to mainstreaming gender in African research.

Actors in the African agricultural research sector understand that "failure to recognize the different roles of men and women in agriculture is costly, resulting in misguided projects and programs, forgone agricultural output and incomes, and food and nutrition insecurity" 25. Beyond political correctness, incorporating gender issues more widely and systematically in agricultural research, development, and extension systems will contribute significantly to meeting the food needs of the future population or ensuring that productivity translates to the improved welfare of the poor. 26

Defining gender-responsive agricultural research as research that addresses the needs and priorities of a diversity of both men and women across the entire agricultural value chain, AWARD believes that gender responsiveness holds transformative potential to enhance agricultural research for Africa's sustained and inclusive economic growth. This is because gender responsiveness offers a powerful tool through which agricultural re-

searchers can intentionally design agricultural research agendas that drive sustainable and inclusive economic growth for Africa. Indeed, focusing on innovation that addresses the constraints of those African farmers at the margins, especially women, offers potential to maximize the efficiency and efficacy of African ARD.



Gender Responsive Agricultural Research:

Research that addresses the needs and priorities of a diversity of both men and women across the agricultural value chain

Defining Gender

Gender means the set of socially constructed roles, behaviours, responsibilities, and attributes a society considers appropriate for men and women. While "sex" refers to the biological—the male and the female, and our chromosomal, chemical, and anatomical differences—"gender" refers to the meanings that are attached to those differences within a culture. "Sex" is male and female; "gender" is masculinity and femininity—what it means to be a man or a woman.²⁷

Central to the distinction between sex and gender is the understanding that gender is almost always about the exercise of power. Gender roles and relationships are a key determinant of the distribution of resources and responsibilities between men and women, and thus both reflect and determine power relations between them (Dey de Pryck, 2012).

In the agricultural context, gender distinguishes and structures roles, rights, and responsibilities of household members. Access to and control of land, labor, and income are socio-culturally defined. Men, especially heads of household, make the broad management decisions of land allocation, labor organization, cropping/animal rearing patterns, and income expenditure. Men also provide labor for certain crops, and at certain stages of the production cycle, such as land preparation. Women's labor obligations in food-crop production, household management and child-rearing roles are similarly determined. Depending on age, gender, and whether school-going or not, children also have defined roles in smallholder agricultural households.²⁸

"Difference" is central to a useful understanding of gender in agriculture. Ruth Meinzen-Dick defines Gender Responsive Agricultural Research and Development as requiring researchers to be more aware of "the different needs and preferences of male and female farmers; the different roles that men and women play in the production and marketing process; differential access to and control of productive resources; differential constraints that female farmers may face in adopting new technologies, including time constraints owing to domestic responsibilities and nonmarket production; the representation of male and female scientists and extension agents in the agricultural research and extension systems, among others."29 Still, as Michael Kimmel clarifies, "Gender is not simply a system of classification, by which biological males and biological females are sorted, separated, and socialized into equivalent sex roles. Gender also expresses the universal inequality between women and men. When we speak about gender we also speak about hierarchy, power, and inequality, not simply difference." 30

Transformation is also central to the need for gender responsiveness in agricultural research. It is important to begin by underlining that gender transformation seeks to reconfigure social structures, changing the very rules or practices that privilege or marginalize demographic groups. According to UN Women,³¹ the primary objective behind gender mainstreaming is to design and implement development projects, programs and policies that:

- do not reinforce existing gender inequalities (Gender Neutral);
- attempt to redress existing gender inequalities (Gender Sensitive); and
- attempt to redefine women and men's gender roles and relations (Gender Transformative).

Gender transformation is not about pitting men and women against each other, nor assuming that only women (scientists) are interested and able to assist women (farmers). Gender transformation begins when men are engaged as allies with women in order to foster greater equity overall.

While not losing sight of the fact that the current face of gender inequality in African agriculture is that of women's marginalization, there is an important distinction between transforming gender relations, and addressing

women's issues. As long as women bear a dramatically disproportionate negative impact of gendered social structures (whether it be exclusion from the benefits of new technologies, or discrimination in hiring and promotion), compensatory measures focusing on the particular needs of women will be a legitimate part of a gender strategy. However, AWARD's vision of genderresponsive agriculture does not stop at merely empowering women; rather, AWARD's focus on women's empowerment should be understood as part of our transformation agenda in moving from seeking equality to equity, with equity understood as focusing on an equality of outcomes.

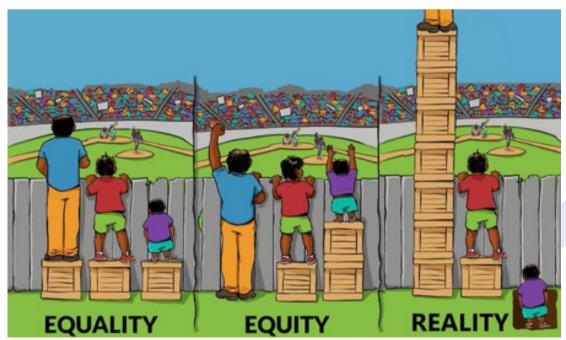
Drivers of Gender Inequality in Agricultural Research

In practice, agricultural research faces dual challenges when it comes to taking gender seriously:

 Failure to recognize and place the distinct needs and priorities of different gender groups, and especially women, at the

- centre of the research agenda and research processes, with the term "external gender responsiveness" reflecting a need for gender responsiveness in the research outputs of ARD institutions.
- 2) Lack of gender diversity, specifically women's underrepresentation in the ranks of scientists conducting and leading agricultural research, with the term "internal gender responsiveness" reflecting a need for increased gender responsiveness in the internal elements of the organization, including more gender-balanced staffing.

AWARD believes these dual challenges are interlinked: For example, institutions that have a hard time empowering women scientists and valuing their contributions are also likely to be challenged in paying attention to the needs and priorities of women farmers. Still, "while the presence of more women professionals at all system levels may influence some researchers to 'see' more women farmers and decision makers in the rural sector, it does not guarantee the use of gender analysis." 32



Source: Interaction Institute for Social Change | Artist: Andy Maguire

Gender at the Center of the Research Agenda (External Gender Responsiveness)

Scientific research decisions that seem gender neutral often have far-reaching implications that are different for women and men. For example, plant breeders' decisions to focus on varieties that have high yields measured in calorific value versus food preparation factors, such as the amount of water and fuel needed, nutritional profile, ease of processing, and cultural values, all have serious gender implications that can significantly constrain the pace and extent of adoption.

Similarly, research aimed at strengthening agricultural institutions and improving policies to accelerate rural transformation will often fail unless the unique cultural and institutional constraints that inhibit women's participation and women's access to finance, land, information, and other critical resources are fully considered. "Gender analysis is aimed at greater efficiency in production through the use of analytical tools designed to better define who does what in the production system, and to align research and development priorities, resources, and user participation accordingly."33 A research agenda that holds gender responsiveness at the center will produce technical, institutional, and policy interventions that are more appropriate and thus more widely and sustainably adopted.

Experts agree that making agriculture more gender equitable and therefore more efficient will require a serious commitment to critical issues throughout the research, development, and extension cycle, including:³⁴

 At the priority-setting stage, the needs and preferences of women in the field must be accounted for in decision

- making. Issues of greater salience to women—such as homestead gardens, postharvest processes, and nutrition outcomes—should be weighted equally against male-dominated issues (such as the production of cash crops) when establishing research projects and investments.
- At the research and development stage, a gender balance in researchers will help maintain gender equity goals in agriculture and can spark duly aligned innovations from the insights of female farmers. This, in turn, will require institutional changes to allow and encourage women scientists and farmers to contribute at their full efficiency.
- Extension services need to recognize female farmers (not just "heads of household") using methods that actually reach them by, for example, sending out female extension agents in highly gendersegregated societies or using farmer field schools for experiential learning.
- At the adoption stage, women are
 often constrained by limited finances,
 time, information, and physical access
 to services. Microfinance institutions,
 purposely scheduled association
 meetings, legal literacy campaigns,
 local markets, and technologies that
 meet women's needs are among
 the approaches that can be used to
 overcome these constraints and make
 sure that women benefit, as well as men.
- Finally, impact assessments need to account for women's preferences (for example, by developing gender-sensitive indicators) in order to more accurately assess progress. These assessments must then inform the setting of future priorities.

In proposing a starting point for gender integration into research, Dr. Jemimah Njuki³⁵ also highlights the importance of building capacity in gender awareness and gender research methods, as well as tracking and holding staff accountable for gender outcomes. She offers four categories of gender research skills and capacities that are critical for driving a gender-responsive research agenda:

- Gender Awareness: Knowing how gender relates to the core work of the organization is essential for all staff, ranging from administrative and support staff to human resource personnel and senior management.
- Gender Integration: Understanding how to identify and integrate gender concerns into research processes, including more in-depth training on how gender affects research outcomes.
- 3) Gender Research Methods: Building core competencies, including appreciation for the diversity of gender research methods and the importance of using appropriate methods to strengthen rigor across a range of problems and contexts.
- 4) From Integration to Transformation:
 Understanding the underlying causes for gender inequality and working with those affected to drive fundamental shifts in attitudes. This requires facilitation skills and competency in using a variety of participatory tools and processes.

These skills and competencies must be underpinned by an institutional commitment to deliver research outcomes that respond to the needs of diverse gender groups. Clear indicators for measuring progress to enhance accountability must also accompany this continuous commitment to gender-responsive research.

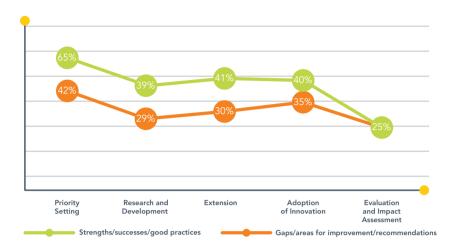
Reviewing the Evidence: AWARD's Global Literature Review on GRARD

AWARD conducted a global literature review on GRARD in 2015-2016. The review intended to map GRARD concepts, models, and practice within published literature. The research involved 20 team members for over 10 months. Publications were reviewed from three agricultural databases: Cab Direct, Scopus, and Web of Science. Search terms included "gender, agricultural research, extension, women in agriculture, and gende<mark>r</mark> responsive agricultural research development." The search yielded 11,118 publications, which were further reviewed for relevance based on titles and abstracts, narrowing the selection to 113 publications. A structured coding tool was developed and used to review 96 of the 113 publications.

The study revealed that:

- Publications were more likely to discuss GRARD at the priority-setting stage than at the adoption or evaluation stages.
- Only 9.4 percent of the publications indicated attempts by the institutions to embrace gender equality in their programs and operations by having an individual responsible for gender work in the institution.

Does the document discuss or highlight the following elements of GRARD?



- An estimated 7.3 percent of the documents defined mechanisms toward promotion of significant leadership by women through the presence of supportive structures for women in leadership, e.g. events and mentoring opportunities, or even role modeling.
- Only 14.6 percent of the publications made mention of the integration of gender issues in the inception and implementation of agricultural research programs by institutions.
- While 25-30 percent of the documents reviewed in this study indicate institutional attempts to promote gender responsiveness within programming and a focus on developing better outreach to women within target communities, far fewer—only 5 to 15 percent—address priorities, attempts, or incentives for mainstreaming gender within ARD or extension institutions. None attempt to identify links or causality between gender mainstreaming at an institutional level and improvements in targeted outcomes of gender-conscious agricultural innovations or extension efficacy.
- Those few articles that discuss priority setting do so in the form of untested recommendations. Those recommendations focus on three main areas: the development of higher education that is more accessible to women entering the agriculture sector; the restructuring of gender prominence within the power structure of institutions; and the establishment of gender balance within research and extension staff.

Gender Diversity within Research Teams (Internal Gender Responsiveness)

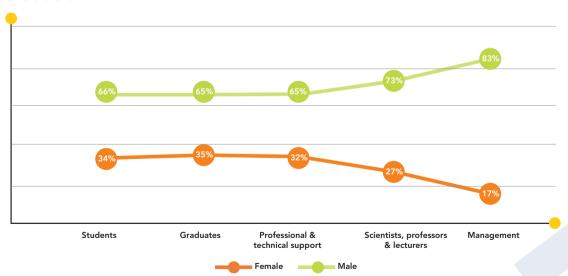
Gender diversity across research teams is a critical component of gender-responsive agricultural research. The European Commission states that "equality is part of the quality in Science" and considers the underused potential of women as one of the reasons for the relative decline of European research on the international scene. ³⁶ The FAO has a corporate objective of 50 percent female staff in all internationally recruited professional positions and higher levels. ³⁷

A 2010 study by ASTI (Agricultural Science and Technology Indicators) and AWARD indicated that only 25 percent of agricultural researchers in Africa are female (though it should be noted that there was wide variation in these indicators across countries and regions). Unfortunately, women remain grossly underrepresented in agricultural research leadership—the spaces where priorities for agricultural research and development are set, resources are allocated, and policy decisions are made. Only one in seven leaders in Africa's ARD is a woman, while women are concentrated in the lower degree cohorts ³⁸

Cultural, social and institutional bottlenecks still make it difficult for most women to succeed even when they make the hard choice to pursue careers in agricultural research. Women who choose careers in ARD encounter significant personal and social obstacles, which often combine to limit their professional opportunities.

Given the evidence of the relationship between positive development outcomes and women's roles, Gill et al. (2009) called for catapulting more women into leadership positions and recognizing their impact. Meinzen-Dick et al. (2011) called for increasing the number of women employed in national, regional, and international research institutes and providing them with the incentives and structures they need to succeed. Others, su<mark>ch</mark> as Quisumbing et al. (2014), IFAD (2014), and the World Bank et al. (2008), have called for seeking the diverse points of view of women to encourage innovation, policy change, and sustainable food production for balanced nutrition.

Female share



Source: Beintema, N.M., Di Marcantonio, F., 2010, Female Participation in African Agricultural Research and Higher Education: New Insights Synthesis of the ASTI – Award Benchmarking Survey on Gender-Dizaggregated Capacity Indicators, IFPRI Discussion Paper 00957.

The imperative for investing in gender-balanced research teams goes beyond political correctness, and must be driven by the desire to increase Africa's agricultural research output. The private sector has led the charge in research that shows increased gender diversity leads to enhanced outputs. According to research by McKinsey, companies in the top quartile for gender or racial and ethnic diversity are more likely to have financial returns above their national industry medians. Companies in the bottom quartile in these dimensions are statistically less likely to achieve above-average returns.

The McKinsey study, done in 2015, examined proprietary data sets for 366 public companies and looked at such metrics as financial results and the composition of top management and boards. It found that companies in the top quartile for gender diversity are 15 percent more likely to have financial returns above their respective national industry medians. Furthermore, companies in the bottom quartile both for gender and for ethnicity and race are statistically less likely to achieve above-average financial returns than the average companies in the data set (that is, bottom-quartile companies are lagging rather than merely not leading). Whether these correlations can be taken to imply causality remains an open question, but they are too pronounced to ignore. In the United Kingdom, for example, greater gender diversity on the senior-executive team corresponded to the highest performance uplift in our data set: for every 10 percent increase in gender diversity, EBIT (earnings before interest and tax, a common indicator of a company's profitability) rose by 3.5 percent. The unequal performance of companies in the same industry and in the same country implies that diversity is a competitive differentiator that shifts market share toward more diverse companies.

Unfortunately, despite a growing amount of anecdotal evidence that links gender diversity on research teams to research effectiveness. similar research has yet to be done in Africa to rigorously document the loss in productivity in the agricultural research sector that may be linked to a lack of gender diversity in leadership and staffing. Such research is urgently needed to increase incentives for gender transformations within African research institutions and the sector more generally. This research would be based on the hypothesis that a major reason for the "diversity dividend" is that different experiences and viewpoints within a team result in an ability to connect with the multiplicity of consumer groups who are the targets for the products and services being delivered.

While AWARD does not posit that more women in agricultural research will automatically lead to research that is better for women farmers, the evidence is clear that the current lack of diversity in agricultural research is correlated with women farmers not being heard. This is why we propose, under Primary Outcome 4, to begin to frame a research agenda that would trace the exact pathways and conditions in which gender diversity on research teams leads to more gender-responsive research outcomes.

AWARD believes the dual challenges of internal and external GRARD described above are interlinked and that both ultimately impact the lived realities of Africa's farmers, especially women farmers. This is because institutions that have a hard time valuing the contributions of their women scientists are also likely to be challenged in paying attention to the needs and priorities of women farmers.

Still, while these challenges are deeply interlinked, it is important to resist the temptation to assume that solving one challenge automatically solves the other.

"While the presence of more women professionals at all system levels may influence some researchers to 'see' more women farmers and decision makers in the rural sector, it does not guarantee the use of gender analysis." Increasing the use of gender tools in the research process is quite distinct from increasing the gender diversity of research teams and decision making.

GRARD within the CGIAR

The interlinked nature of the two challenges to gender responsiveness in agricultural research is reflected in some of the earliest research on the topic. Susan Poats, for example, identifies nine reasons why the CGIAR has found it difficult to implement gender-responsive research:⁴⁰

- Confusion between gender analysis and gender staffing. While gender analysis is not gender-specific and should be done by both men and women, gender staffing is aimed at revising the CG's overwhelmingly male structures to involve equitable numbers of men and women at all levels.
- 2) Good gender analysis requires experienced social scientists. Those few social scientists within the research system tend to be agricultural economists whose reliance on traditional household models might contribute to gender blindness. Incorporating a gender analysis framework introduces a set of questions that should be asked at every decision point in the research process.
- Lack of contact between scientists and women farmers. Farmers are often selected for convenience, not representativeness, which would lead to rational inclusion of women farmers.

- 4) Geographic location of International Agricultural Research Center (IARC) headquarters influences scientists' gender sensitivity. When a center is headquartered in an area where women either historically have had a smaller role in the production of commodities within the center's mandate, or where women are believed to play a small role in agriculture, the beliefs and understanding of the center staff concerning gender roles in production are greatly influenced by the immediate surroundings.
- 5) Lack of senior scientist involvement in gender issues. Junior staff often conduct research relating to gender issues, resulting in a type of perceived second-class standard for gender research that limits its visibility and impact within the research center and across the CGIAR.
- 6) Gender is viewed as a responsibility of the Institutions, not the IARCs. The technical results from strategic, and particularly from applied, research cannot be generated in isolation from the realities of farmer production systems. Furthermore, with CGIAR centers being the source of research methodologies for many Institutions researchers, the absence of a gender perspective and sensitivity, and of gender-related methods of study in training programs offered by the CGIAR system, perpetuates the invisibility of women as a client group for Institutions/ IARC technology.
- 7) Gender issues being handled as special projects. Gender-related projects tend not to be core funded, which makes them vulnerable to funding cut-offs while also isolating gender as a "special topic" rather than integrating gender-related content and methods throughout the program.

- 8) Lack of mechanisms to implement goals for gender staffing. While managers complain that they do not get enough women applicants for staff positions, the men who dominate centers' staffs have contact primarily with other men in the professional world and in their disciplinary societies. Moreover, the public documents of most of the centers still do not report any gender-dizaggregated staffing or training information.
- 9) The gender information gap. While there is an explosion of literature on gender issues in all aspects of development, the majority of center staff does not see it. Selective inclusion of relevant materials and information specialists could be an important resource, while improvements could and should be made in the visual presentation of the importance of women in the CG system's work.

On the whole, these challenges can be categorized as reflecting gaps in either external or internal gender responsiveness.

After Poats' initial assessment, the CGIAR's first Gender Program was created in 1990 and took a combined approach addressing both internal gender responsiveness (gender-balanced staffing) and external gender responsiveness (gender considerations in research processes). In 1997 the Program was divided with the creation of the Participatory Research and Gender Analysis (PRGA) program followed by the launch of the Gender and Diversity (G&D) program in 1999. PRGA, which ran from 1997 to 2011, was created to deal with issues of gender analysis in research. It demonstrated how engaging women farmers in crucial decisions related to technology design and development of new varieties increases the number of women who adopt these new varieties.

G&D, which ran from 1999 to 2012, was created to deal with staffing issues. It promoted the proactive development, recruitment, and retention of women scientists and managers, both within the system and among national partners. During its existence, G&D successfully helped most centers to substantially increase the number and proportion of women scientists, and in improving the policies and practices of centers to create more femalefriendly and empowering work environments. The documented success of G&D in increasing internal gender responsiveness, at least within the CGIAR, is encouraging since it shows that progress in internal GRARD is possible, and that the methods to do this have already been developed, tested, and refined, again at least within the CGIAR.41

It is important to note that AWARD actually emerged out of G&D with a focus on equipping African women scientists with the skills and networks necessary to diversify the leadership of the continent's agricultural research.

Despite their success, PRGA and G&D were shut down, but *not* because gender has been fully integrated into the work of the CGIAR. Indeed, the fact that these two programs did not survive the CGIAR reforms points to just how difficult it is to sustainably transform agricultural research institutions.

Since the shutting down of PRGA and G&D, the most recent review of gender within the CGIAR (November 2013) found that only 53 percent of the CRPs were able to report what proportion of their important "flagship" research products had an explicit target of women farmers; and only 33 percent were able to report that flagship products had been assessed ex ante for their gender implications. The reviewers, reporting to the CGIAR Fund Council, indicated that while this deficit

undoubtedly reflects a shortage of readily available information, the fact remains that, when called upon, many CRPs could not, in 2012, provide an assessment of what their most important research outputs imply for poor, rural women.⁴²

The gender in research (external GRARD) work of the CGIAR is now coordinated through the CGIAR Gender and Agriculture Research Network, but reviewers note that cross-program cooperation involving gender specialists cannot be treated as an "extra". Moreover, the gender research specialists' agenda for consolidating and elevating the scale and significance of this research needs recognition and support from Consortium and CRP leadership. The November 2013 assessment further identified a number of areas in the gender mainstreaming work of the CRPs that merit additional resources and further attention. Recommendations were made for increasing the scale, profile, resourcing, and coordination of gender research across the entire CGIAR system. Overall, the reviewers insisted that the Consortium take rapid action to address the need for critical mass in gender expertise in the CRPs and to encourage focus by providing incentives for collaborative gender research across programs.⁴³

Since the closure of G&D, the CGIAR's progress on gender balance in staffing has been considerably more muted. In parallel to strengthening gender in research, the Consortium-Level Gender Strategy (2011) also indicated that a human resource specialist at the Consortium, in collaboration with centers' human-resource initiatives, would be responsible for implementing the diversity and inclusion strategy in the workplace.

However, in its Consortium-Level Gender Strategy, the CGIAR admitted to not having the needed implementation expertise and that a focus on gender and diversity would commence in 2013. It is not clear what progress has been made by the CGIAR on issues of gender and diversity in staffing. The very loud silence of the CG on this issue is a critical part of the problem, since in many ways the CG system sets the pace for African Institutions.

GRARD in African ARD Institutions

The GRARD record on the African continent is characterized by optimistic ambition that remains unmet. There is steadily increasing awareness and commitment in African institutions to both of the above aspects of gender equity (Manyire & Apekey, 2013) and all of the main SROs—ASARECA (2011), CORAF/WECARD (2015), and CCARDESA—have gender strategies that have been endorsed by all of the directors of their constituent national programs.

In the last three to five years, FARA and all three SROs have become actively involved in training researchers (men and women) in gender analysis. A growing number of field projects throughout sub-Saharan Africa include some form of gender analysis. Still, given the relative newness of these efforts, it is understandable that most of the work on gender still seems to be focused on the front end of analyzing constraints rather than necessarily crafting successful genderresponsive programs. The SROs are also working through their networks of Institutionsbased gender focal points to introduce human-resource policies and practices that are supportive of women scientists and their professional development.

Still, data from the AWARD Fellowship program indicates that African institutions struggle with recognizing, accommodating, and creating continual growth opportunities

for women scientists. AWARD Fellows were unlikely to report that support from their own institutions helped them become more empowered. Indeed, AWARD Fellowship data clearly points to the need to engage agricultural research and development institutions to provide gender-equitable environments in terms of professional and leadership opportunities for both men and women

In 2015-16, AWARD conducted a desk review examining the gender strategies and policy documents of 34 ARD institutions in Africa.⁴⁴
The review intended to:

- examine the extent of gender integration within ARD institutional policy, policy implementation, resource allocations, and organizational culture and operations;
- assess capacities, needs, and barriers to and opportunities for gender responsive ARD; and
- identify entry points for AWARD by mapping the state of practice.

Participating institutions were identified using ASTI data indicating the agencies that have gender policies, and their inclusion required a willingness to share gender-related documents for this review. Therefore, by design, 100 percent of the reviewed documents indicated some form of institutional commitment toward GRARD, such as articulating mandates to integrate gender equality, addressing of gender needs, concerns, and challenges in the institution, promotion of gender equality, and representation of women in senior management positions, among others.

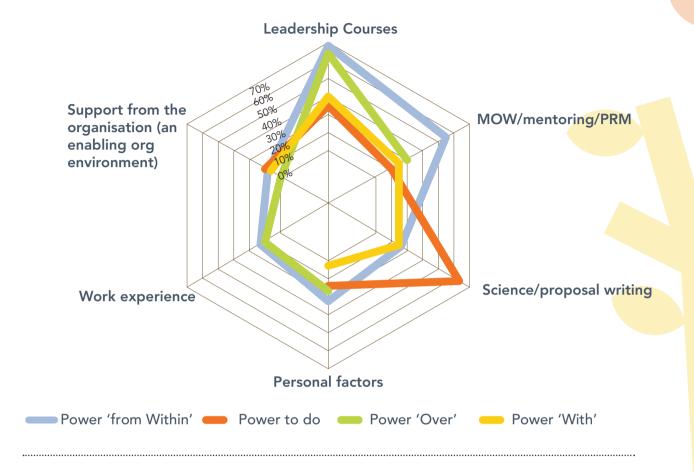
Similarly, 100 percent of the documents indicated that the institutions play an active role relative to GRARD, including: promotion of awareness, knowledge, and capacity for implementing gender mainstreaming; changes in attitudes and relationships; and changes in institutional processes and legal frameworks. As noted, a structured coding tool was developed, tested, and used to review the institutional gender documents (mostly policies and strategies).

The findings of the study revealed that, even among African institutions with an articulated commitment to GRARD, there is more optimism than actual achievement:

- The documents were more likely to highlight strengths, successes, and good practices in GRARD than gaps or areas for improvement (see chart below).
- Documents were more likely to highlight the presence of institutional support than bring out any barriers or challenges faced. The creation of gender awareness by top-level leadership both within and outside the organization was affirmed as the most notable form of institutional support, estimated at 88.2 percent among all institutional documents.

Respondents had clear ideas on examples of good GRARD practices, including:

- developing gender policies, strategies, and action plans to guide the gender work;
- introducing gender-sensitive extension approaches, and working on genderrelated issues with entire rural



communities, rather than addressing only the women, e.g. FAO;

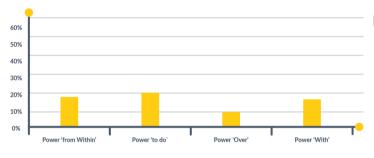
- establishing interdisciplinary working groups of experts to support programmatic gender integration, e.g. the Global Forum for Rural Advisory Services (GFRAS);
- establishment of links with other gender researchers, advisors, focal persons in other partner organizations, CGIAR centers and donor agencies;
- promoting meaningful representation in decision-making and policy bodies, in management positions, and in research and development as an important component of reducing gender inequalities, so that the voices

- of both men and women are heard in the development process;
- establishing gender units in all institutions for reporting purposes, and linking gender task force members with their respective institutions;
- ensuring that gender issues are incorporated into work plans and that funding is provided for gender research; every project proposal that is written should be gender mainstreamed, and budgets should be allocated to the gender issues raised; and
- developing and promoting the use of gender-sensitive research methods and metrics.

Examples of gaps in integrating gender in ARD pointed out in the desk review include:

- targeting of the beneficiaries and clarity on approaches for working with or involving them in ARD.
- Extension functions need more gender integration in terms of staffing and operations.

Support from the organization (an enabling organization environment)



- Planning units have yet to fully embrace gender mainstreaming in their planning, budgeting and implementation processes.
- M&E systems are yet to fully integrate gender.
- There is still much conceptual dissonance—a lot of gender-related terms are used to mean the same or different notions. A mapping of concepts is needed.

Proposed entry points for AWARD:

 Supporting mechanisms and systems for tracking the impact of genderresponsive ARD and making this information available to stakeholders.

Percent of documents indicating strengths and gaps in GRARD



- Supporting institutions and other players in advocating for genderresponsive policies, legal frameworks, and increased funding for the gender agenda.
- Generating and disseminating knowledge and information on gender approaches, mechanisms, and good practices, and supporting gender-based research.
- Coordinating gender-responsive efforts in the region and conducting joint planning sessions and resource mobilization efforts (working with regional bodies, e.g. FARA)
- Leading the mapping and harmonization of gender concepts in ARD.



Charting a New Path for AWARD

A person who thinks is leading and has no one following is only taking a walk.



Malawian proverb

WARD envisions a genderresponsive agricultural innovation system that is working toward agriculture-driven prosperity for Africa. Defining gender-responsive agricultural research as that which addresses the needs and priorities of a diversity of both men and women across the entire agricultural value chain, AWARD is located at the complex yet critically important nexus of agricultural research, capacity building and gender transformation. We invest in African women scientists and agricultural research institutions, building their capacity to deliver gender responsive agricultural research and development (GRARD). Our 2017-2022 strategy is a fully integrated Human and

Institutional Capacity Development (HICD) approach to foster GRARD, with interventions at the levels of individual scientists (micro), African research institutions (meso), and the enabling environment within the broader African agricultural research sector (macro).

Our strategy rests on three key pillars (goals/objectives):

Pillar 1: We seek to have capable, confident, and influential African women scientists lead critical advances and innovations in ARD. AWARD will continue investing in high-achieving African women scientists to ensure that the continent continues to build its valuable pool of talented innovators.

Pillar 3: We will work to ensure that gender responsiveness is a norm embedded in the culture and practice of the African ARD sector by building an enabling environment for gender responsiveness. We will focus on increasing the visibility of women scientists and leaders, generating and curating the evidence base on gender responsiveness in ARD, and working to transform the growing awareness of gender issues into policies, programs, and accountability mechanisms. Given the evidence gap highlighted by AWARD's global literature review, we will curate and generate evidence on the benefits

of gender responsiveness in agricultural research. This evidence will be used as conversation catalysts with ARD institutions (Pillar 2) and for policy advocacy (Pillar 3).

A recent McKinsey report identifies four key success factors for large-scale organizational change: 1) developing talent and skills to support changes; 2) fostering understanding and conviction regarding the purpose and value of change; 3) establishing formal structures and mechanisms to reinforce change; and 4) role modeling desired changes in mind-sets and behaviors. 45 AWARD's three pillars mirror these success factors for largescale change. While each of the pillars has its own set of objectives, they are also highly interdependent and together form a singular comprehensive strategic approach that will guide AWARD's effort to enhance the gender responsiveness of African agricultural research for the next five years.

Inputs (interventions) Outputs

Outcomes

Catalyze & cultivate networks, partnerships, & opportunities to showcase research impact of African women scientists & GRARD PILLAR 3: ENVIRONMENT

hub role, & alumni networks to advocate for Leverage AWARD's expertise, knowledge chains & policy-making, and to prioritize integrating gender across ARD, value investments in these areas

strengthen gender-responsive ARD Design & deliver interventions to

Design & deliver interventions to strengthen Conduct or diagnostic assessment in internal gender responsiveness

Institutions fully support women scientists

excelling in ARD and in leadership

Continually emerging data on progress

toward, and impact of, GRARD and

gender-responsive institutions

quality, high-impact gender-responsive ARD

Male & female research conducting high

(expectations & incentives)

demand pull

institutions re internal & external gender responsiveness

PILLAR 2: INSTITUTIONS

gender-responsive practices, who's doing Conduct baseline study re: model what, policy environment, etc. responsiveness

Q scientists trained GRARD Formulate institutional scorecard on gender

Comprehensive assessment of current state

of GRARD & institutions in Africa, tools for

strengthening/transforming gender

responsiveness in sector

alumni = **AWARD**

& agents in champions, institutions change leaders,

Training in policy, entrepreneurship,

Expansion to francophone Africa

gender integration, change

PILLAR 1: INDIVIDUALS

Continue (strengthened) fellowship

program, including:

More Pscientists empowered to remain n & effectively contribute to ARD

influence & lead science, entrepreneurship, More multi-skilled, empowered scientists & policy initiatives in ARD sector

chapters support continual professional developement & scale out training & Flourishing national AWARD alumni empowerment of Pscientists

Intervention tools, success stories, impact data, etc. strenthening process = evidence for use in advocacy efforts from institutional for GRARD

Regional & national leaders craft supportive

policy, invest in, and incentivize gender

responsive institutions & ARD

policy, & other leadership roles Africa-wide

or change;

evidence

of high-

GRARD

impact

provide

advocates

alumni =

AWARD

♀Scientists well represented in research,

the norm for ARD & institutions, and is seen Gender responsiveness is fully embraced as

as indispensable for ARD to address climate

changes & African ag productivity goals

and national priorities range of benefits to with SDGs, regional Gender-responsive development, etc -ARD generates a outcomes aligned ability, economic farmers, sustain-

demand for more well environment creates trained Qscientists Supportive institutional

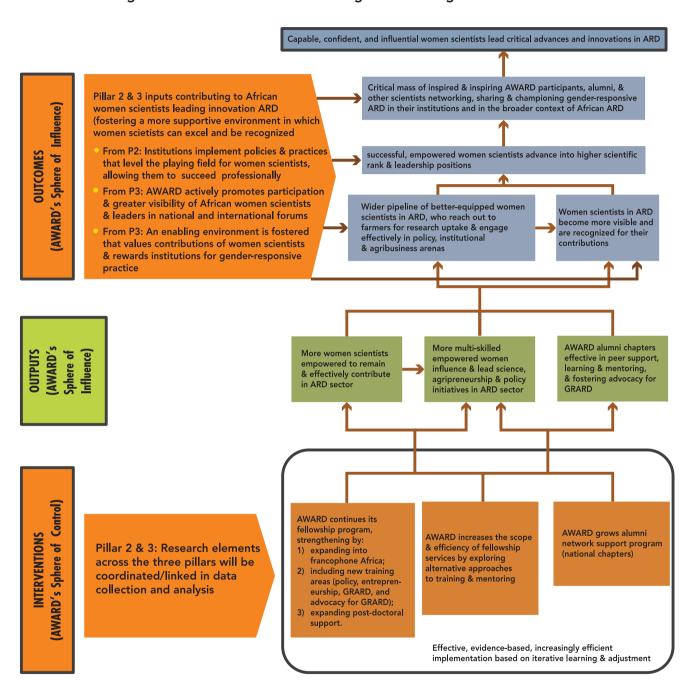
Summary of AWARD pillars, interconnections, and impact pathways

Support national AWARD alumni chapters

Explore mechanisms to scale out access

Post-doctoral support management, etc.

Pillar 1: Investing in African Women Scientists as Agents of Change

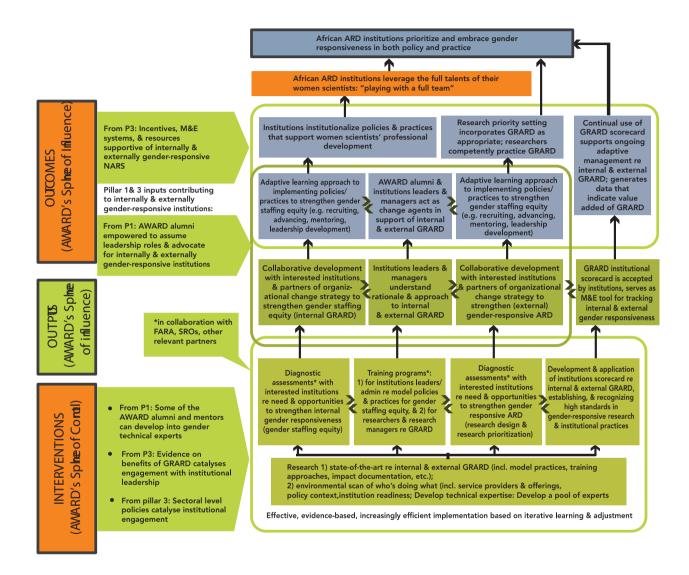


Outcome: Capable, confident, and influential African women scientists lead critical advances and innovations in agricultural research and development for Africa.

ARD in Africa cannot realize its full potential for impact on food security and poverty alleviation if women remain grossly underrepresented in the spaces where ARD priorities are set, resources are allocated, and policy decisions are made. As long as there is a gender gap between the numbers of men and women in African ARD, particularly in the higher ranks, we will continue to focus strongly on supporting African women scientists and fixing the leaky pipeline of women's leadership in Africa's ARD.

In response to the demonstrated ongoing need for its interventions, and the fact that AWARD has emerged as a sought-after thought leader on women's empowerment in African ARD, during 2017-2022, we will continue to invest in the careers of African women scientists. AWARD's highly acclaimed fellowship program for African women scientists will remain at the center of AWARD's Pillar 1 work, bolstered by efforts to further strengthen the effectiveness, efficiency, and reach of its training program.

Pillar 2: Building Institutional Capacity for Gender Responsive Agricultural Research in Africa



Outcome: African agricultural research institutions embrace gender responsiveness in both policy and practice.

Ultimately, we recognize that African institutions themselves hold the power to change or maintain the status quo. Hence, AWARD's role under Pillar 2 will be to collaborate as a valued partner with African institutions, offering resources and expertise to help them leverage the potential of gender responsiveness to achieve their research goals and targets.

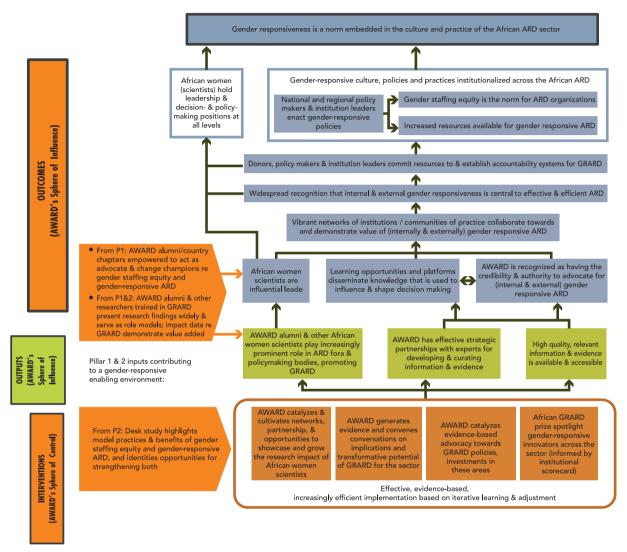
AWARD support for internal GRARD at African institutions

Capacity building of African women scientists to accelerate their professional advancement is a necessary but not sufficient condition for them to contribute to sustained agricultural development. The institutional environment in which women scientists operate remains a major limiting factor to their success. Thus, in 2017-2022, AWARD will begin to work with selected institutions, seeking to exert a positive influence on their priorities and help them move their operational practices toward approaches that are more favorable to women's leadership. We will also expand training, mentoring, and relationship building with male allies who can become champions of GRARD.

AWARD support for external GRARD at African institutions

Beyond the "add women and stir" approach, research shows that in many attempts to mainstream gender into agricultural research institutions, gender issues are often treated in isolation of the actual agricultural research process. We believe that gender equity must be fully integrated into supporting the overarching mandate of a research institution, including the development of research questions and methodologies. Efforts to mainstream gender equity within ARD institutions must not remain simply procedural; rather, they should help to redefine the objectives and purpose of agricultural research itself.

Pillar 3: Gender Responsiveness as a Norm Across the Agricultural Research Sector



Outcome: Gender responsiveness embedded as a norm in the culture and practice of African agricultural research.

Pillar 3 of our new strategy seeks to expand the dimensions of what key influencers in African ARD imagine is possible for African agriculture. We will focus on creating an enabling environment for GRARD by using rigorous and relevant evidence to convince agricultural research decision makers of the potential of GRARD to increase the efficiency and efficacy of their existing efforts. Once convinced, these leaders will then serve as advocates of GRARD within their institutions and be willing to commit the resources under their management to GRARD. Pillar 3 will also focus on celebrating leading African women scientists and spotlighting successful internal GRARD.

AWARD deeply appreciates the variety of gender-transformative initiatives under way in Africa, and we have no intention of trying to supplant these initiatives. To the contrary, we intend not only to work in partnership with other organizations in this field, but to assist in publicizing their approaches and impacts, fostering mutual learning, and continually looking for ways to fill strategic gaps such that interventions can lead to systemic change.

"The size of your dreams must always exceed your current capacity to achieve them. If your dreams do not scare you, they are not big enough."

President Ellen Johnson Sirleaf

From Vision to Implementation: AWARD Fellowships 3.0, GRARD, and GAIA

AWARD Fellowships will continue to be offered to deserving African women scientists as a vital component of our 2017-2022 strategy. High-caliber AWARD training courses will also continue, and two new initiatives, GRARD and GAIA, have been established as cornerstones of AWARD's implementation.

AWARD Fellowships 3.0

Since 2008, AWARD has, through tailored two-year fellowships, worked to strengthen the research and leadership skills of African women in agricultural science, empowering them to contribute more effectively to poverty alleviation and food security in sub-Saharan Africa.

Through its fellowships, AWARD is cultivating a growing pool of African women to be a) effective within ARD institutions supporting agricultural value chains; b) effective across a range of research disciplines serving the sector; c) responsive to gender issues in the service of women, without excluding men; and d) technically competent to generate innovations, especially those needed by Africa's smallholder farmers. For the AWARD Fellowships 3.0 program, success means that:

 critical advances and innovations in agricultural development for Africa are led and enriched by the contributions of capable, confident, and influential African women; and the ARD sector demonstrates increasing responsiveness to the needs and contributions of women.

The AWARD Fellowships program has a wellrecognized track record of success. To date, 1,158 agricultural scientists (84 percent female) from over 300 institutions have benefited directly from AWARD's investments. Specifically, 465 women agricultural scientists from Ethiopia, Ghana, Kenya, Liberia, Malawi, Mozambique, Nigeria, Rwanda, Tanzania, Uganda, Zambia, have earned an AWARD Fellowship. In addition, five women from Burkina Faso, Cameroon, Côte d'Ivoire, Mali, and Senegal participated in a pilot project aimed at francophone Africa. An additional 397 scientists have benefited by serving as mentors to AWARD Fellows, and 366 young scientists have benefited as mentees of AWARD Fellows.46

Demand for the AWARD Fellowship remains high. Over the life of the program to date, AWARD has received 4,261 applications from agricultural scientists representing about 500 African institutions, all vying for the 465 Fellowships we have been able to provide so far.

The AWARD Fellowship model

The AWARD approach to career development for African women scientists is synergistic and designed to inspire purposefulness and resilience, while prioritizing the value of strong relationships necessary for career success. Fellowships are offered to both junior and more experienced female scientists who hold bachelor's, master's or doctoral degrees. All fellows retain their institution affiliations; 4 percent of past fellows are engaged in full-time studies and 96 percent either in full time employment or a combination of employment and studies.

AWARD's holistic approach results in sharpened skills in science, research, and writing, as well as mentoring, team management, and leadership—all conducted with a focus on gender issues in agricultural research. Three core investments form the cornerstone of the two-year fellowship:⁴⁷

Fostering mentoring partnerships: Mentoring is a proven and powerful driver for career growth, particularly for retaining women in science. AWARD pairs each fellow with a mentor—a senior professional, carefully chosen to match the Fellow's area of expertise and career goals. Forty-four percent of AWARD's mentors are African men in senior positions, and many have mentored two or more fellows. Each AWARD Fellow is mentored for one year, and then serves as a mentor to an emerging female scientist during the second year of her fellowship. AWARD invests in fellows, mentors, and emerging female scientists by making available a series of capacity-development interventions. Core to AWARD's mentoring program is a focus on supporting African women scientists to identify professional and personal goals, and then strengthening self-awareness and motivation to achieve these goals. In addition, AWARD's mentoring efforts are aligned with strengthening the institutions of mentors and emerging women scientists, cultivating a culture that nurtures women's confidence and success and bringing benefits to everyone involved.

Sharpening science skills: One of the keys to improving livelihoods in sub-Saharan Africa is to build and sustain a strong, effective talent pool in ARD. AWARD equips African women to realize their research potential, to bring their research to a wider audience, and to produce innovations that bridge the gender gap in African agriculture. Expanding the fellows'

world of science and facilitating their access to the latest methodologies and technologies, while building their professional networks, AWARD supports the process of bringing the ground-breaking work of African women in agricultural science to the national, regional, and global stages, where it is much needed. Core to AWARD's work on sharpening science skills are the courses we offer on science writing for publication, proposals, or policy engagement, and advanced science training through research placements in leading global research centers, including through partnership with the Agropolis Fondation of France.

Unlocking leadership potential: Tackling the issues of gender in agricultural research requires addressing the dynamics that keep women on the outside of leadership and decision making. Leadership training helps AWARD Fellows learn to: a) successfully manage R&D teams; b) navigate organizational dynamics; c) build alliances and take risks; d) promote gender-sensitive policies and practices; and e) influence their institutions on behalf of rural women and smallholders. At the center of our investment in building leadership skills is AWARD's renowned Women's Leadership Course, its follow-up Advanced Women's Leadership and Management Course, and access to other AWARD courses (such as Enhancing Negotiation Skills for Women). Further, AWARD Fellows are expected to put their leadership skills into practice by serving as role models to girls and boys from their home communities, helping to build the next generation of Africa's agricultural researchers.

Measuring Impact: AWARD's African Women in Science Empowerment Model (AWSEM)

The empowerment of African women in agricultural research is at the heart of AWARD's desired impact. AWARD's underlying Theory of Change (ToC) is based on the human capabilities and "expansion of agency" work introduced by Amartya Sen, 48 and further developed by others, including Naila Kabeer. 49 AWARD's ToC postulates that for its fellows to be truly empowered, they have to show gains in agency across five dimensions of power:50

- Power from within (change):
 Growing self-awareness, confidence, assertiveness, motivation, and a desire for change;
- 2) Power to do (choice): Growing individual capacities, especially through sharpening needed skills; opportunities to access resources and contacts; and visibility through actions and outputs;
- 3) Power over (control): Changes in underlying resource and power constraints, and/or fellows' ability to overcome these, including through recognition by others of their reputation and increasing visibility;
- Power with (community): Collaboration, solidarity, and

joint action with others, including in challenging conventions and constraints; and

5) Power to empower (champion):

Inspiring and igniting others, sharing forward, multiplying opportunities for future generations of women and girls, demonstrating that power is only truly gained when it is shared toward common goals.

AWARD's ToC has been tested and found to hold up for most fellows.⁵¹ They are displaying increased self-awareness, confidence, and assertiveness; the motivation to lead and perform; competence and productivity; gender responsiveness; networking, new contacts and collaboration; visibility and recognition; and career progress. A recent analysis of the AWARD data reveals that, of the African women scientists benefiting from AWARD Fellowships:

- 96 percent have increased their research outputs after their
 Fellowships ended, and three-quarters contributed to their fields of science in the form of peer-reviewed articles, conference proceedings, technical reports, policy documents, books, and book chapters.
- 93 percent reported increased awareness of the need for genderresponsive work as a result of the AWARD Fellowship experience.
- 84 percent were promoted either during or after gaining an AWARD Fellowship. Nearly two-thirds were promoted after their fellowships—some twice—and 44 percent were promoted both during and after participating in the program. Some had been overlooked for promotions for decades. Of the fellows with increased leadership roles after the AWARD experience, 69 percent noted specific ways in which the program had helped them, especially in terms of increased leadership and scientific skills
- 73 percent of the fellows enhanced their scientific research skills, and attributed it, without being prompted, to a great extent or entirely to AWARD's influence.

- 65 percent led or participated in new collaborations or collective action aimed at achieving in and promoting science for societal benefit.
- 58 percent provided evidence that they had, either for the first time or increasingly, engaged other women and girls in order to motivate, encourage, mentor or train them.

AWARD Fellows' gender responsiveness

AWARD's ToC postulates that if fellows and their research efforts progress in terms of gender responsiveness, they are likely to have a greater impact on institutions and in the sector, by virtue of the type and relevance of the work being done. M&E results to date show that two-thirds of fellows said that their work became more gender-responsive; and nearly half said their work became more relevant to female farmers' needs. An encouragingly large number of fellows reported that they now incorporate gender responsiveness more frequently into their work.

Francophone AWARD: Pan-African vision

Agriculture-driven prosperity for the continent will remain unrealized absent a pan-African vision. The greatest unrealized potential of AWARD remains failure to extend the benefits of the fellowship program to female scientists from francophone Africa.

In 2010, AWARD commissioned a study to explore the feasibility of expansion into francophone Africa. The final report, Feasibility Study for a francophone AWARD (May 2011),⁵² was based on interviews with 110 organizations and individuals in 11 countries, and it presented a strong case for expanding our scope.

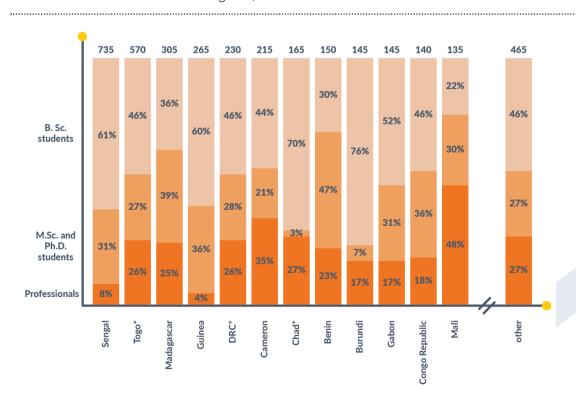
The study, supported by USAID and conducted by Dalberg Global Development Advisors, estimated that there are roughly 3,700 female students and professionals in agricultural science in francophone Africa. Women are estimated to comprise only 16 percent of the francophone research labor force, which has implications for the sector as a whole.

The study further revealed that very few francophone African women are in advanced degree programs, weakening the pipeline to agricultural research positions. Even when they do earn advanced degrees, they do so later in life and hence only have about 15 years of service to the scientific community before retirement.

Some of the reasons for low numbers of francophone women in agricultural research include:

 Cultural norms: Parents encourage their daughters to get married rather than obtain advanced degrees,

- expecting them to prioritize their role as family caretakers. Many women marry and have children during or shortly after their BSc and put their careers on hold to take care of their families on a full-time basis.
- Lack of mentoring: The limited presence of female researchers in senior positions means senior male colleagues are the main role models for junior female researchers. Mixed gender mentor-mentee relationships are not likely to happen naturally.
- Lack of pan-African connections with female scientists from other parts of the continent: Due to language and cultural barriers, francophone women are poorly informed about the lives of women elsewhere and remain isolated from other African female professionals.



Source: Feasibility Study for a francophone AWARD (May 2011)

"Being highly educated is frowned upon in my culture. My husband and family could not deal with my decision to pursue my career objectives and I ended up divorcing him to follow my ambition."

Woman scientist

DR Congo

Limited career counselling: Lack of a career preparatory focus in university curriculums means that students lack a holistic sense of career options.

- Challenging institutional environments: Institutional policies discourage even the most committed women from seeking to balance career and family obligations.
- Glass ceilings: Organizational cultures and prejudices discourage women from seeking top management positions.

"I was surprised by some anglophone women scientists who are very energised. That is what we need in francophone countries—we are too passive."

Woman Scientis
Cameroon

The feasibility study also found pressing need for a fellowship that specifically targets francophone women. Forty-one other fellowship programs are helping to build the skills of ARD scientists in sub-Saharan Africa, 24 of which focus on improving access to degree-based education, and none that focus on women specifically. Of the 17 nondegree programs, only three emphasize soft-skills development: African Doctoral Dissertation Research Fellowship; Regional Universities Forum for Capacity Building in Agriculture (RUFORUM) Professional and Skills Development; and Lead Africa. These programs combined take in about 11 francophone women per year, only a tiny fraction of the available pool.

Moving forward, we will review and revamp our fellowships program. AWARD Fellowships 3.0 will benefit from:

- an in-depth evaluation of data from the first nine years of the program;
- responding to the need for a more pan-African engagement that substantially increases the participation of female scientists from francophone Africa;
- maximizing the most impactful elements of the fellowships as revealed by the data;
- driving down costs to the most essential components of the fellowships;
 and
- attracting and leveraging resources from multiple donors and stakeholders to ensure provision of fellowships whose whole is greater than the sum of its parts.

Gender Responsive Agricultural Research and Development

AWARD's work in GRARD will be carried out in two stages. Stage I (2017-2019) will focus on piloting and testing in close partnership with three institutions, while Stage II (2019-2022) will focus on scaling GRARD up and out to an increased number of institutions. Stage I:

- Develop and test cost-effective tools and approaches to transform institutions so that they become more effective at both internal and external GRARD. We will also advocate for, and develop standards and other tools to assist with, broader gender-related transformations in the wider regional ARD community.
- Provide proof of concept based on hard data and evaluations as to which of the proposed approaches work best and are most cost effective. This proof of concept will shed light on how GRARD can be integrated across the ARD sector to ensure measurable gains in the relevance, efficiency, and impact of research.

Four primary outcomes will guide our work in GRARD:

1) Building a constituency of agricultural research leaders and practitioners who understand and prioritize the importance of GRARD and who are willing to serve as champions of AWARD's efforts.

As the cornerstone of our work, we will conduct a mapping study examining the current state of affairs (knowledge and practice) related to internal and external gender responsiveness in African ARD, as well as a "who's who" of practitioners. This will be carried out in two steps:

Step 1: Mapping study

With regard to African institutions' internal gender responsiveness, the mapping study will document what lessons can be learned from gender integration in African ARD—in particular, what approaches, success factors, or constraints foster or impede organizational change toward the empowerment of women in order to maximize their contribution to GRARD. Among the factors we will examine are the policies and practices regarding recruitment, advancement, and professional development (including but not limited to mentoring, workplace harassment, etc.). This component of the study will include an overall stock-taking of which African Institutions have undertaken gender-integration initiatives, what methodologies (including training, gender capacity-assessment guides, and processes) are being used to mainstream gender equity, and the impact and/or limitations of these efforts.

Regarding (external) gender-responsive ARD, the mapping study will: a) compile information about gender-responsive ARD training programs and their methodologies, as well as research projects underpinned by gender analysis or addressing women's priorities; b) identify specific methods for conducting gender analysis and gender-responsive research; and c) where possible, document the impact of gender-responsive ARD projects and their cost-benefit ratios relative to "gender blind" research. The study will also compile documentation regarding policies and accountability mechanisms (including M&E systems) at regional, sub-regional and national levels that govern or support initiatives to strengthen gender-responsive African ARD (internal and external).

Step 2: Consultation

We will then generate, validate, and discuss the implications and findings of the study in order to:

- identify examples of feasible and pragmatic practices and strategies for addressing gender mainstreaming across ARD institutions, both in internal and external strategies.
- generate initial enthusiasm and momentum within AWARD partner organizations, from which we will select three for detailed participatory gender benchmarking exercises.

A validation and launch event will be held to:

- validate successful strategies for mainstreaming gender in the African ARD context:
- generate agreement on which strategies are most appropriate and have the greatest potential for piloting;
- refine the key learning questions that we should prioritize under AWARD 2017-2022;
- generate initial enthusiasm and momentum with partners;
- identify three organizations for detailed participatory gender benchmarking exercises and the development of GRARD tools: and
- validate an initial "framework" to inform the in-depth audit process.

It is important to recognize that the process of implementing the study will support the:

development of interest and excitement about GRARD;

- generation of ideas on probable strategies to test;
- identification of, and agreement on, learning questions that will shape the remainder of the project;
- engagement with "norm-setting" institutions from the beginning of the project; and
- further refinement of criteria for selection of specific institutions for focused collaboration.

2) Developing an institutional guide to **GRARD**

Participatory gender benchmarking exercises comprise one of the primary strategies AWARD will use to generate ownership and buy-in from key African ARD institutions. While our constituency building work will engage a larger number of institutions, gender benchmarking exercises will be more intensive processes involving a small number of institutions upon which a learning agenda will be focused.

The participatory process is an essential part of the audit approach and will cover both internal and external dimensions of GRARD. The key objective of a participatory gender audit is to make a solid analytical and operational contribution to the process of strengthening institutional capacity to: a) integrate gender as an analytical tool for enh integrate gender as an analytical tool for enhanced targeting and impact of research for development for individual institutions (external); and b) to introduce organizational procedures and policies within the institution. The outcome of the process will be detailed practical gender action plans for each institution. The implementation of the strategy and action plan needs to be owned by the institution.

Key issues or questions that the audits will address at the Institutions/institutional level could include:

- Internal: Review of the organizational policies, structures and practices and how they enable or constrain gender integration into the design and implementation of research. This would look at issues of staff (human-resources management, as well as career and capacity development), the work environment (family-friendly policies and practices), and the organizational culture.
- **External:** Review of how gender issues are approached in the agricultural research being done:
 - How is gender addressed in an organization's projects and programs, and how can these efforts be strengthened?
 - What is the institutions capacity for gender-responsive research, and how can this capacity be strengthened?
- Interlinkages: How do the key program functions affect the integration of gender in the organization's research programs, and which functions need to be addressed to improve development results?

The audit design would adopt four principles:
a) contribute to the organization's existing gender strategy, or to the development of one if none is in place; b) engender ownership of the audit among key staff; c) include staff in shaping each gender audit and validating the draft findings and recommendations; and d) implement the audit through a phased

approach (which will involve the formation of a gender audit advisory team).

Each audit will be carried out in three phases:

- 1. Collaborative design: Drawing on the findings from the mapping study, review the importance of gender issues to the Institutions's existing portfolio of work, review its existing strategies and programs, conduct interviews with key respondents and hold collaborative design workshops with the advisory team, and co-design a "light touch" scorecard to assess internal and external capacity (again, using the findings from the mapping study).
- 2. Implementation: This consists of online staff capacity assessments and the use of a scorecard to assess internal and external capacity. Three institutions will be selected and scorecard implementation will include the participation of members of the gender audit advisory team of each institution, as well as AWARD staff.
- 3. Participatory analysis and finalization: Workshops involving each gender audit advisory team will be held to present, clarify, and validate draft findings, finalize audit reports, and draft institutional GRARD action plans.

An external organization might be contracted to undertake these audits. However, the gender audit advisory teams will drive the audit process. These teams will include institutional leadership, a focal technical person within each Institutions, the AWARD

coordinator, and the externally contracted team. The constitution of this team will be finalized at the tail end of the inception period of the project.

Designing institutional gender action

plans: The gender audit will lead into the development of an institutional gender action plan whose purpose is to provide strategic and practical direction to the institutions for gender integration into agricultural research. These plans will guide selected institutions in integrating gender in a meaningful, effective, and feasible manner within their own unique contexts. Each plan will be based on careful priority setting of activities and level of efforts, balancing ambition with realism and with a view to achieving "deeper" impact in priority areas, as opposed to more "shallow" results across the board. The gender action plans will provide the basis for a common understanding within each institution on what gender integration means in the specific institutional context and what is expected from the different team members. The plans will clarify what changes are expected to occur and the mechanisms through which these changes are expected to happen, with a focus on links between various activities.

The gender action plans will also identify entry points and prioritization of different types of strategies (internal and external) for Institutions to implement at different levels:

- Enabling environment: The broader system level, including policies, legislation, partnerships, and political space;
- Organizational level: Internal policies, arrangements, procedures, frameworks, and business processes; and

• Individual level: Experience, knowledge, and technical skills.

Implementing institutional gender action plans: Interventions to achieve these outcomes must be tailored to the particular circumstances and priorities of individual Institutions that choose to partner with AWARD. Due to the participatory nature of the process, the identified interventions may prioritize different internal or external (or both) GRARD strategies. The nature of these activities is yet to be determined, as it will depend on what is identified through the audit process and gender action plan. For example, training will be provided for Institutions leaders (such as AWARD's recently launched "LEPARD" training),⁵³ research directors, HR managers, gender focal points, and other staff as needed. to raise awareness about the value of, and methods for advancing gender responsiveness. Workshops will also help participants learn how to lead the change process described in their specific institutional gender action plans.

AWARD alumni (fellows, mentors, and emerging women scientists) will be encouraged and supported to undertake roles as advocates and change agents for gender integration. Seed grants may be offered to organizational leaders and scientists to pilot certain elements of GRARD that are within their sphere of control. Implementing the gender action plans will also include tailormade coaching for specific Institutions leaders as they navigate the challenging path of driving institutional transformation.

During this phase, AWARD will work with three national institutions to implement prioritized strategies, with an emphasis on testing and trialing what works, generating learning, and disseminating new knowledge.

Identifying and convening Africa's GRARD experts in service of institutional transformation

As indicated earlier, the dearth of technical experts available to offer support to institutions has hampered previous GRARD efforts. We recognize that, if successful, demand for GRARD experts will be stimulated and it is important that highly competent GRARD experts meet this demand.

We will prepare to meet this demand, both by AWARD itself and by African ARD institutions, by identifying, convening, and investing in upgrading the skills of African GRARD experts who will bring a diversity of expertise, experience, and talents to the effort. These experts will range in experience from organizational development to quantitative and qualitative gender research methods, among others.

Ideally, this work would expand to actually investing in the development of new GRARD experts, but such a venture would be expensive and exceed the support available under our first 24-month grant. Still, we are exploring, along with RUFORUM and Michigan State University, the possibility of partnering to design a master's and doctoral program that would add a steady stream of gender experts in agriculture into the sector.

In the meantime, within the scope of our initial two-year grant, AWARD will work to create a networked community of practice that gathers once a year to learn from each other and share expertise and contacts.

4) Turning evidence into learning and action

Harvesting the learning gathered from implementation of organizational gender action plans will be critical in informing subsequent interventions (Years 3-5 of the AWARD strategy). The challenges encountered and the successes achieved in the implementation of institutional gender action plans will be useful for identifying which strategies (or combination thereof) are more successful than others. A learning agenda will be built around harvesting the lessons from implementing these plans under the AWARD program, as well as the lessons learned from other activities.

Description of process: Action research and learning is process oriented, and is focused on being empowering. Action learning derives its power from the repeated cycle of thinking about problems and challenges, taking action, and then returning to the learning group to reflect on the experience and plan together. The challenge is not to reach conclusions and quickly devise solutions once and for all, but to continue to push for additional insights to address problems more deeply or to further explore their changing contexts.

To establish an action learning agenda, the following steps are important to ensure that critical reflection is generated on a regular and ongoing basis:

- 1) Set up a structure for participatory planning, implementation, and monitoring. This involves identifying the group of people connected to the project to be consulted in the planning, implementation, and monitoring of activities. As such, we will set up a core group of champions for each Institutions (hopefully consisting of AWARD alumni) who will lead the "learning process and be responsible for harvesting the learning."
- 2) Establish a common analytical framework for sharing information, experiences, and undertaking reflection.
- 3) Create a facilitation structure: A person (or persons) will be identified whose primary responsibility will be to facilitate the action research process through the above steps and help generate critical reflection. The facilitation structure should also include people who document the process. AWARD will leverage its A-TEAM, a group of 25 highly experienced and expert facilitators to lead these processes.

We will work with each Institutions to carefully document interventions, enabling conditions, constraints, and impacts, leading to a strategy for scaling up training and change management initiatives to a wider set of institutions. Scorecards will be co-created with each institution, tested out in the audit process, and used as a tool to track progress toward the implementation of internal and external strategies.

Gender in Agribusiness Investments for Africa (GAIA)⁵⁴

AWARD is also concerned with ensuring that the research and innovations of African women do not just remain on shelves but rather are disseminated to farmers and other end users. We believe that agribusiness incubation can play a critical role in scaling up and promoting agricultural innovations that have the potential to help bridge the gender gap in African agriculture. GAIA is focused on increasing agribusiness investments in technological and business model innovations that have the potential to help close the gender gap in African agriculture.

Through a call for applications, intensive boot camp, and an AgTech solutions marketplace that connects innovators with private sector entities and other potential users, GAIA ensures visibility, commercialization, and scaling up of AgTech innovations that respond to the particular needs and priorities of women across agricultural value chains. GAIA also brings a gender lens to the ongoing focus on mitigating major constraints in African agriculture including closing yield gaps in crop and livestock value chains, reducing postharvest losses and improving agri-market efficiencies.

To qualify for the boot camps, GAIA considers innovations that:

- serve the agriculture or allied sectors;
- demonstrate clear benefits to women smallholder farmers and other women value chain actors;
- feature an innovative technology or business model:
- follow a clear for-profit business model with high potential for scaling up;

- have some proof of concept on the ground, conducted pilots and preferably are generating revenues; and
- are seeking funding to commercialize or "go to scale."

The GAIA value proposition

- 1) Agribusinesses need scientists and a ready pipeline of bankable and scalable AgTech innovations to maintain a competitive edge. GAIA will offer a database of pre-qualified AgTech business ideas ready for commercialization, providing the industry with opportunities to diversify its product pipeline.
- 2) Scaling up AgTech innovations that help bridge the gender gap in Africa's agriculture. Agribusinesses recognize that the gender gap in African agriculture is an untapped opportunity. GAIA will meet industry needs by providing a rare pipeline of pre-qualified gender-responsive AgTech; those innovations that purposefully seek to level the playing field for a diversity of men and women across agricultural value chains.
- 3) Gender lens to agribusiness investments. By identifying and engaging with key agribusiness sector actors, GAIA will add value to the agribusiness community by building basic awareness on how to deploy a gender lens in agribusiness investments.

- 4) Enhance scientists' knowledge and appreciation of the science-to-market process. GAIA will ensure that its innovators have a basic understanding of the R&D-to-market process, and are equipped to effectively pitch their innovations, and structure mutually beneficial partnerships with private-sector and other downstream actors who can take gender-responsive AgTech innovations to scale.
- 5) Enhancing return on investment by taking innovations beyond proof of concept. Innovation is expensive and GAIA will, through its AgTech marketplace, ensure that innovators maximize their return on investment in research by connecting their innovations to investors and industry players who are ready to take their innovations to scale.
- 6) Provide AgTech showcase opportunities for African ARD institutions. Through GAIA, teams from African research institutions will be supported to showcase their ARD innovations to potential investors, thereby raising the profile of their institutions. By exposing scientists to the kinds of innovations that agribusinesses need, GAIA will contribute to driving system change and the adoption of an "innovation culture" among African agricultural research institutions.
- 7) Need for gender diversity among those who receive agripreneurship funding. GAIA will pay particular attention to women innovators and will facilitate connections that will increase the funding available to women agripreneurs.

2016 East Africa GAIA AgTech Innovation Challenge Pilot

In 2016, AWARD conducted a GAIA pilot in partnership with the African Development Bank, UN Women, Intellecap, and Centum, focused on a call for gender-responsive innovations from Ethiopia, Uganda, Tanzania, and Kenya. The call attracted over 100 applications; pre-selection narrowed that down to 31 quarter-finalists; an entrepreneurship boot camp and peer evaluation narrowed the competition down to 10 finalists, and an investor showcase for the top innovators was then held. Final pitches were made to a panel of high-level judges from industry in order to identify the top three finalists. GAIA is working in partnership with players in the sector to ensure continued support for boot camp participants.

Emboldened by the success of the 2016 pilot in East Africa, AWARD seeks to pilot regional boot camps and showcase events supporting gender-responsive AgTech innovations from across Africa. Drawing participants from these broad regions, two boot camps and investor showcases will:

- adapt the entrepreneurship boot camp curriculum based on lessons learned from the East Africa pilot;
- identify and connect with potential funders, investors, and industry contacts;
- make an open call for bankable and scalable AgTech innovations from innovators in each region;
- prequalify the top innovations;

- conduct boot camps with enhanced curricula that will include such topics as understanding the investor landscape, pitching, business modelling, and gender analysis;
- convene agribusiness investors and other potential users of the technologies;
- organise AgTech innovation showcases aimed at matching innovators to funders, investors and other potential users of their innovations:
- connect entrepreneurs to their counterparts from across the continent through digital platforms aimed at building a community of innovators focusing on gender-responsive AgTech; and
- enhance ongoing resource mobilization to enhance the likelihood of growing GAIA beyond regional pilots and into a sustainable program.

Expected outcomes

- a) scalable and bankable genderresponsive AgTech innovations identified, spotlighted, and funded;
- b) increased recognition of the need for, and commitment to, gender responsiveness by agribusiness sector players, including investors; and
- a growing community of interconnected AgTech innovators who understand and prioritize gender responsiveness in their businesses.

OUTCOME	OUTPUTS
Scalable and bankable gender-responsive AgTech innovations identified, spot- lighted, and funded	Identification of gender-responsive AgTech from across Central, Southern, West, and North Africa
	 Innovators of gender-responsive AgTech trained on elements relevant to growing their agribusinesses
	Investor showcase events connect gender- responsive innovations to potential investors
	A catalog of bankable and scalable ARD innovators and their businesses from focus regions
Increased recognition of the need for, and commitment to, gender responsiveness by agribusiness sector players, including investors and other incubators	AWARD team catalyzes learning about gender within the agribusiness community
	Catalog of agribusiness investors that are both sensitive and responsive to issues of gender and diversity in agribusiness incubation
	Trainers focused on agribusinesses have a greater understanding of gender and its potential for transformative agribusiness impact
Growing community of interconnected AgTech innovators who understand and prioritize gender responsiveness in their businesses	AgTech innovators have an increased understanding of gender and its impact on their business
	Digital platform that connects innovators of gender responsive AgTech from various regions



Why AWARD? Consolidating Gains and Innovating for the Future

Sustainability of Outcomes as a Driver for AWARD

Despite tremendous impact, continued relevance, and increased demand for AWARD's work, an independent study commissioned by AWARD indicated a need for significant changes to position the program to deliver continued impact beyond 2017.

In June 2013, AWARD's outgoing founder and director, Vicki Wilde, commissioned Dalberg Global Development Advisors to conduct a comprehensive strategic study examining the sustainability of the program's outcomes and way forward, in the run up to the conclusion of our current grant funding in 2017.

Dalberg's Feasibility Study of Sustainability Outcomes (2013) identified the need for AWARD to move into three new strategic areas in order to make investments and outcomes sustainable:

- Collaborate with institutional centers of excellence for gender and ARD, with select African ARD partners as hosts:
- Strengthen alumni engagement centred on scientific collaboration, potentially with an AWARDspearheaded research prize; and
- Develop the A-TEAM pilot business model.

Furthermore, in order to ensure that the benefits of AWARD's work would endure beyond the program's lifespan, the Dalberg study distinguished three domains of sustainability: 1) natural, 2) engineered, and 3) ecosystem.

- The natural sustainability of our impacts relates to continuing delivery of the current AWARD model, which will lead to a certain degree of longterm change.
- 2) Engineering sustainability refers to migrating elements of our current services into the operations of another entity, and/or building self-sustaining business models (e.g., through fullcost recovery), in order to continue to generate impact.
- 3) Ecosystem sustainability refers to influencing the enabling environment through changes in mind-sets, behaviors or activities of others to reinforce gender responsiveness in ARD.

Relative to *natural sustainability*, the focus is on direct beneficiaries. AWARD's approach in Phase I and II has been to start with individual-level change through a strong Fellowship Program for the top 10 percent of African women in ARD. Institutions in the African ARD ecosystem have historically stated that the primary barrier to gender responsiveness in their workforces—and thereby to more inclusive research outputs—is the limited supply of skilled women scientists.

Turning to the *engineered sustainability* pathway, institutions represent a crucial group of stakeholders. Acting as employers of Fellows and channels for dissemination of their research, institutional partners (primarily Institutions) represent the context within which AWARD alumni work to generate innovations for farmers. The degree to which these institutions support women's professional success determines whether they enable or block the downstream impact of AWARD Fellows and other women scientists. To date. AWARD has not focused on African ARD institutions per se, and significant opportunity exists to strengthen this route to engineered sustainability.

A further gap in engineered sustainability is with the alumni group, a significant asset that we are underusing. Strong potential exists for (national) AWARD alumni chapters to function as communities of practice, offering opportunities for AWARD fellows to demonstrate leadership, support peer learning and collaborative research, and encourage other women colleagues and girls to excel in science and ARD.

The Dalberg study also found that the willingness to pay for hypothetical AWARD alumni services appears to be high. This suggests strong goodwill toward AWARD and at least partial cost sustainability through self-financing of future program activities (i.e., paid wholly or in part by women scientists or their host research centers).

Broader systems change is where the most work remains for securing AWARD's future

outcomes: Encouragingly, Dalberg's survey suggested that, despite the relatively small numbers of AWARD Fellows, impact is already being generated among their ARD host institutions, particularly in spurring gender awareness and responsiveness among peers and leaders. We can and should deliberately leverage these natural champions in future, for example by actively supporting mentors to prioritize gender-responsive agendas in ARD projects, since they typically occupy senior positions at their institutions.

In AWARD Phase I and II, we successfully focused on excellence in the execution of the fellowship program—a "supply push" model of human resource development, which is a necessary but not sufficient condition for sustainability. While our fellowship program will continue to be vital component of our strategy, we must also now aim to accelerate the demand for and recognition of highly qualified women scientists, especially in leadership positions within ARD organizations, and work to incorporate gender-responsive ARD across the board—i.e. increasing the uptake of talented women and mainstreaming gender-responsive practices at an institutional level. Institutional change entails shifting organizational cultures and practices, as well as norms and beliefs about how research is to be conducted (including gendered notions of roles). For these shifts to occur, broader societal norms must be transformed to create an enabling environment and momentum for change. Gender equity and gender-responsive ARD must become the standards to which institutions will be held accountable by policy decision-makers, as well as development partners.

The Dalberg study was conducted early enough to allow the management team to reshape AWARD's structure prior to the conclusion of the Phase II round of funding. AWARD's incoming director, Dr. Wanjiru Kamau-Rutenberg, decided to use the Dalberg report as a point of departure for designing the program's forward-looking strategy.

AWARD now stands at a critical crossroads. Because its fellowship program is a high quality and intensive two-year capacity building investment in leadership, mentoring, and science skills, it entails relatively high operating costs. Significant proportions of AWARD's budget have been devoted to developing a program with no real equivalent in Africa. The current fellowship program—although limited in reach—is making a strong immediate impact on Fellows, with significant evidence of further ripple effects occurring with mentors, the Fellows' own mentees and, to some extent, ARD partner institutions.

These investments were made with the intention that the program would not merely deliver outputs, but also serve as a catalyst for influencing change in African agriculture. Yet despite strong anecdotal evidence of the impact of AWARD's fellowship program on the participants, it is not yet possible to demonstrate a contribution to transformative change in the agriculture sector writ large. The Dalberg report argues that to achieve measurable success, AWARD's work must expand its scope and engage at broader systems levels.

Furthermore, while the burgeoning number of initiatives is to be applauded, up to now no organization exists with pan-African responsibility and accountability for advancing the cause of gender responsiveness in ARD. In this strategy, we propose that AWARD begin to fill that gap, supporting synergies and cross learning among all the actors in this domain in Africa. The opportunity is ripe for AWARD to step into a unique leadership role to accelerate the change process on gender transformation in Africa.



Making it Happen

Overarching Implementation Principles

AWARD's strategy is ambitious. Implementation of activities under this strategy will require creating and sustaining an increasing number of partnerships with key players. In making choices on activities and partnerships, deciding where, when, how and with whom it should act, AWARD will be guided by the following overarching principles:

- Focus on activities that give women a stronger voice in research and development discourse, planning and implementation;
- Focus on sustainable transformation

 (as opposed to superficial change that may be reversible), while recognizing the complex nature of the environment within which AWARD works;
- Focus on activities that are highly relevant to stakeholders, catalytic, based on best practices, and are costeffective; and
- Promote pan-African engagement, subject to the availability of resources and capacity.

AWARD's Institutional Vision

AWARD grew out of a portfolio of successful activities initiated and managed by the former Gender & Diversity program of the CGIAR⁵⁵ and is currently a program of the World Agroforestry Centre.

The scope of this strategy makes it imperative to explore the question of whether AWARD should seek independent registration. It is likely that, during the course of this strategy, we will seek registration as an independent organization with a Board of Trustees entrusted with fiduciary responsibility over the organization.

Inquiry into the risks and benefits of independent registration will be led by our Steering Committee, which represents a cross-section of AWARD stakeholders.

Partnerships

Up to now, AWARD has been viewed as a distinctive and strong brand, and has been largely responsible for its own activities and outcomes. This approach limits the impact on to AWARD's internal capacity. With the 2017-2022 strategy, we are entering a new mode whereby success will depend on strategic collaboration with other actors in African ARD. True transformation will only come if partners across the ARD ecosystem share in and contribute to AWARD's mission and vision of gender-responsive ARD.

We will maintain a secretariat of professional, highly motivated staff, and will endeavor to strengthen the secretariat by building the capacity of existing staff, as well as bringing on board additional capacity as needed.

However, the secretariat will remain small relative to AWARD's mandate. Therefore, to realize the ambitious agenda laid out in this strategy, AWARD will need to execute smart partnerships.

Of particular importance will be partnerships with pan-African organizations, the private sector, and the scientific and development communities. More than 200 partners have hosted AWARD Fellows over the past eight years, and these provide a strong community from which a group of core partners can be nurtured for even closer collaboration. Smart partnerships will reinforce synergies, and capitalize on comparative advantages, complementarities and effective coordination. AWARD partners will support conceptualization and implementation of programs and activities.

Specifically, partnerships will help enable AWARD to:

- Achieve critical mass in its training programs to reach a larger group of women for greater impact. All three strategic pillars will rely on partnerships for scaling up and out. Working with training institutions to implement short courses, for example, helps to reach more women faster. Similarly, Pillars 2 and 3 will require concerted action to help influence the broader narrative, influence R&D agendas, and improve intra-organizational culture within Institutions.
- Improve the relevance of AWARD's activities by aligning its activities and strategies more closely with those of partners.
- Leverage the resources and abilities of partners to deliver on the broader agricultural development agenda by attaining a meaningful division of labor

- among different players and reducing duplication.
- Promote local participation by allowing regional, sub-regional and national partners to lead the implementation of joint programs.
- Ensure long-term sustainability by creating capacity in a wider array of partners.

Partnership Categories

AWARD will primarily pursue three types of partnerships, depending on the mutual objectives, longevity and complexity of the issues that necessitate each partnership:

- Strategic partnerships are based on strong mutual interest in longterm strategic goals of women advancement and gender responsiveness as key ingredients for agricultural transformation in Africa. These partnerships recognize the on-going benefits, synergies and complementarities of working together to achieve long-term objectives. Partnerships with development partners and influential regional and sub-regional organizations may fall into this category.
- 2) Project-based partnerships are defined by specific projects in which partner roles and responsibilities are clearly specified. These partnerships, typically formalized by contracts, will expire upon completion of the projects that created them. However, projectbased partnerships provide avenues for identifying and building strategic partnerships.
- 3) AWARD country chapters will be a

prominent feature of this strategy and will include AWARD alumni fellows, mentors, and other individuals interested in driving the agenda for gender and agricultural research and development. AWARD country chapters will catalyse networks for advocacy, knowledge sharing, and intra-country collaboration. These partnerships will begin to mobilize thousands of Fellows and mentors in support of AWARD's agenda.

Partnership Principles

The following principles will guide our approach to building partnerships:

- Strategic advantage and subsidiarity: This consideration will ensure AWARD only does what it must do, and that we work with more appropriate and better-suited partners to do what they do best. It will also ensure that partnerships are engaged at the level that makes the most sense—national, regional or continental.
- Working 'for' and working 'with': In executing partnerships, we will select and engage in those where there is a clearly shared belief in the ultimate mission.
- Doing things and getting things
 done: AWARD cannot do everything
 itself, but can get things done by
 acting as catalyst and working through
 partners.
- Win-win arrangements: The best partnerships allow both parties to gain from it.

Because of the multiple possible partners and the high transaction costs associated with developing good partnerships, we will have to choose carefully. By clustering partners and choosing a strategic anchor partner or partners within each category, we will systematically ensure that we maintain strategic links at all levels.

Engaging the Private Sector

Partnership with the private sector is not only a growth area for AWARD but also a way to ensure the sustainability of our operations and increase potential impact. Private sector companies, particularly multinational companies in agricultural and food value chains, are expressing increased interest in Africa as an investment opportunity based on the strong economic development and future customer base. AWARD will be positioned to emerge as a natural partner as the private sector seeks to expand in Africa.

AWARD will be positioned to deliver superior HR talent to the private sector by developing scientists who understand the African context. We will continue helping multinational companies to gain valuable exposure to African contexts through placement of AWARD Fellows for Advanced Science Training. Since AWARD Fellows are leaders in their fields in Africa, hosting them also means that global companies are automatically connected to the top African players in their relevant sectors. This exposure also provides a valuable recruitment opportunity for companies expanding to Africa and looking to build a base of local talent.

Issues of sustainability are increasingly on the radar for many private sector players. From corporate social responsibility, to diversifying their source markets and empowering women, many private sector organizations are increasingly keen to reflect their values publicly. Partnership with AWARD may be an opportunity for a company to signal its commitment to gender responsiveness, empowering women in science, technology, engineering, and mathematics and the many other areas where there might be mutual interest.

Communication and Outreach

AWARD's critical partners are spread throughout Africa and beyond. It is essential that we communicate effectively with our partners and that we are able to facilitate effective communication among and between partners. Beyond this, communication will be critically important for achieving success in establishing positive narratives, countering negative sentiment and shaping overall discourse on gender as anticipated under Pillar 3. In this regard, communication will also be a tool for advocacy and program implementation.

A communication strategy will therefore be developed that will aim to keep partners fully aware of what is happening, what is planned, emerging lessons, implications for programs and partnerships, new opportunities, and other relevant matters, and which facilitates two-way communication. This will be achieved through a combination of virtual and face-to-face approaches. In designing and implementing the communication strategy, due attention will be given to ensuring that, at a minimum, both Anglophone and francophone speakers' needs are accommodated.

A key tool to achieve effective communication will be the AWARD website. This will be redesigned and will include regular news stories about AWARD's plans, progress and achievements. A regular AWARD blog, with postings by the Director, Steering Committee

members, and staff members will highlight key issues and link these to the broader landscape in which AWARD operates, including a regularly updated calendar of events that flags upcoming happenings and archives past ones. If necessary, restricted access areas can be created to enable collaborative working among partners and sharing of works in progress. These will be particularly important in cases where we are facilitating communities of practice to discuss a critical issue or engage in general discussions either for specific periods or over the long term.

In addition to the website, a regular quarterly newsletter will be produced and distributed, primarily via email but also as hardcopy where there is demand. The newsletter will mirror news stories and other information that has appeared on the website; this is important to ensure that those without access to, or not inclined to use, the Internet have access to the information.

Annual partners' meetings will be held to facilitate planning and prioritization, problem solving, celebration of achievements, and sharing information with others. Some of these meetings will be themed, focusing on pressing issues, opportunities or challenges, and annual meetings could be linked to optional capacity building events focusing on specific priority topics. Opportunities will also be sought to partner with events organised by others—for example, the FARA annual meetings and the African Green Revolution Forum, among others.

Internal communication deserves special mention. AWARD's contingent of well-trained professionals will need to ensure seamless knowledge across the organization through emails and regular update meetings. The responsibility of ensuring timely, sufficient, regular and accurate communication within AWARD will rest with its management.

Monitoring and Evaluation (M&E) and Learning

AWARD continues to break ground in the collection, analysis and sharing of knowledge about methods for and the impact of strengthening African women's capacity for ARD (AWARD M&E report, 2015). As AWARD moves into new approaches to training (new mechanisms for training as well as new topics, such as gender mainstreaming), and the largely uncharted territory of organizational culture change, it will also have to pioneer diagnostic tools and meaningful ways to measure outcomes. These will be important not only for AWARD, but for Institutions and other partners as well. We will implement an adaptive M&E system that provides information for management decision-making and offers knowledge and learning for Institutions and other partners.

We will continue to use mixed methods, but with a specific focus on a Theory of Change approach to M&E, impact assessment and communications. The Theory of Change presents the logic that links AWARD's programmatic activities to the desired changes in the women, institutions and narratives that we are seeking to change. The Theory of Change describes the optimal tactics and strategies, including working through partnerships and networks, thought necessary to achieve the desired changes in the target actors. Thus, our Theory of Change is not a rigid frame against which to monitor and evaluate, but a guiding framework that can be tested and adapted as lessons are learned about what works, what does not, why, and what should be done differently to get the best results.

New areas of focus in AWARD communication strategy

- » Communication for outreach and advocacy on issues of gender responsive agriculture, including publications
- » Consistent communication with partners
- » Maximizing the utility of new media and social media tools
- » Alumni engagement
- » M&E feedback to fellows, mentors, partners and donor

Guiding Principles for M&E and Learning

The overall purpose of M&E is to empower all stakeholders, to ensure accountability to themselves and to others, to learn from success and failure for their own benefit, to celebrate their own achievements, and to share their knowledge more widely with the world. AWARD will encourage norms and organizational culture that promotes self-reflection and self-examination, seeks evidence, makes time to learn, and encourages experimentation and change. Specifically, the following principles will guide the practice of M&E and learning at AWARD:

• Useful to multiple stakeholders:

With a usage-focused approach that conducts M&E in order to provide credible, tested, and useful knowledge and insights to AWARD's management, participants, and sponsors, as well as those involved in policy making, funding, and similar interventions elsewhere.

- Balanced accountability: This includes accountability of AWARD staff and Fellows to themselves, to the society in which they work and live, to their peers in these efforts, and to those who support and sponsor them to make needed interventions possible. As a fully equitable practice, we seek to recognize the accountability of the sponsors to other stakeholders, the accountability of managers to participants, and the accountability of stakeholders to one another and to future generations.
- Appropriate and ethical methods, rigorously applied: Applying the "golden rules" of evaluation by a) employing designs, methodologies and methods appropriate to need and resources, b) ensuring quality design and rigorous execution across all dimensions of the work, and c) honouring people and their voice in order to bring benefit and not harm.
- Effective: Striving to foster highquality, useful and timely results that encourage buy-in and produce benefits for those responsible for providing and using data, and that are collected, stored, and analysed through systems that make retrieval and use easy for primary stakeholders.
- Focused on positive, enduring change: Being results-driven while recognizing the complex nature of change when working with empowering individuals, institutions and systems, as well as the need for a focus on the sustainability of positive change in the long term where appropriate and desirable.

• Facilitates adaptive management:
Embedding M&E within the
management approach of AWARD,
with the purposes, processes, and
tools understood, used and valued
by the management team and their
partners, and with sufficient resources
appropriately allocated for M&E to
fulfil its purpose.

Mobilizing Resources

The Bill & Melinda Gates Foundation, USAID, the Agropolis Foundation, and CORAF/ WECARD currently provide the financial support for AWARD's portfolio. While this approach to funding has been suitable for AWARD's model in previous phases (piloting and establishing it as a credible organization), our agenda is also of great relevance to the public and private sectors. The changing landscape of capacity development programming suggests that it will be prudent for us to establish new relationships with other funding partners. While continuing to engage our current donors, we will work to diversify AWARD's donor base, including both the private and public sector.

We are fully aware of the global trend toward donor focus on funding specific projects—i.e., "project-specific" funding. It will take time for us to match specific donors with AWARD priorities. In the meantime, we will need significant funding to support AWARD operations. We will profile the critical role AWARD can play to address the gender agenda at a continental level and highlight this point to national governments, regional economic communities, and the African Union Commission. However, given the slow response of governments and the modest and constrained national budgets in Africa, we will engage traditional as well as non-traditional

international development partners to help secure the resources required to enable implementation of the AWARD agenda. As part of the launch of this strategy, we will engage with donors and investors to help ensure early progress in securing the essential resources for the planned expanded AWARD program.

As part of our resource mobilization strategy, we will seek to continue the engagement of AWARD's founding donors—the current "friends of AWARD"—making the case for additional and flexible funding. Concurrently, AWARD will diversify its funding sources by approaching new, non-traditional investors. For all donor categories, we will emphasise more proactive investor relations, keeping donors informed of AWARD's changing priorities, challenges and opportunities as they arise—and not just through reporting. This will be done by treating donors as strategic partners, with deliberate investment in partner relations, and facilitating speci c donor meetings. This approach aims, over time, to help build the number of strategic donors and investors who are proud to be associate with AWARD, and to provide us wit a iverse but stable resource portfolio—in-kind and in-cash, as well as operations and project-related funding. Accordingly, at an early stage in the operationalization of this strategy, we will undertake a comprehensive donor/investor analysis to identify resourcing opportunities for activities under the various strategic Pillars and programs. This analysis will feed into a resource mobilization strategy that will be developed during Year 1 of this strategy.

AWARD will carefully aim for a balance between its own goals and objectives and the agendas and diverse interests of potential donors. Often, there may be a perfect confluence of interest between AWARD and its partners—which is the optimal scenario—but this will not always be the case. In crafting a resource mobilization strategy for 2017-2022, AWARD will consider the following factors:

- Pursue and maintain a broader international donor base;
- 2) Develop cooperation with nontraditional development partners;
- Engage pan-African institutions in advocacy, including the African Union, by leveraging continental initiatives with gender content;
- 4) Engage countries and Regional Economic Councils to commit counterpart funding specifically for interventions that speak to their interests, for example, within-country and within-region activities targeting explicit issues, the learning from which can be replicated;
- Develop partnerships with research and/or academic institutions in agriculture to attract funds from nontraditional development sources for knowledge generation and capacity development activities;
- Targeted partnerships with private-sector entities focusing on interventions critical for their business interests; and
- 7) Earn income from activities with paying clients.



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Appendix 1: The AWARD Program's Pioneering "Herstory"

AWARD and the legacy of the CGIAR Gender & Diversity Program

AWARD grew out of a portfolio of successful activities initiated and managed by the CGIAR's former Gender and Diversity (G&D) program. The CGIAR is a consortium of 15 non-profit agricultural research centers that are home to almost 10,000 scientists, researchers, technicians, and administrative and support staff. Although independent, these centers work together on integrated research programs to share expertise.

The G&D Program that was based in Nairobi and operated from 1999 to 2012 helped the CGIAR Centers to leverage their rich staff diversity to increase their research and management excellence, and to integrate gender and diversity issues into the organizations' activities, policies and programs. In doing so, it piloted and managed several successful initiatives, including formal mentoring programs within the CGIAR centers and leadership training workshops for women scientists and professionals at CGIAR and partner institutions (Debebe and CGO, 2007). It also established a pilot fellowship program for women crop scientists in three East African countries (Goh et al., 2008) and conducted a comparative evaluation with USAID/USDA's Norman E. Borlaug International Agricultural Science and Technology Fellows' Program for Women in Science (Ofir et al., 2008).

AWARD gleaned valuable lessons from these pioneering programs that have now been applied to its work with top-notch African women agricultural scientists. For example, the G&D program determined that these women:

- aspire to leadership positions to become more effective agents of change;
- need more access to careerdevelopment opportunities and role models to realize their aspirations;
- often lack opportunities for wider collaboration and would benefit from a strong community of peers; and
- are empowered through mentoring, leadership, development, and sound science skills, as well as increased visibility.

G&D also organized a very successful mentoring program for CGIAR staff, which gave evidence to AWARD that senior scientists and professionals, both male and female, are willing to volunteer their time to mentor emerging women scientists. Above all, G&D's legacy to AWARD has been a well-vetted set of activities and data-based evidence that investing in women scientists' empowerment and in strategic agricultural research and development partnerships:

- generates positive effects on the ARD sector toward becoming more gender-responsive in efforts to have positive impacts on the livelihoods of smallholder farmers, especially women;
- influences youth to consider a career in agricultural science; and
- encourages investments in similar efforts at different levels across Africa and elsewhere.

As evidence accumulated regarding the impact of the G&D Program for the CGIAR, and the pilot program for East African women scientists unfolded, the need for a more formal program to support African women scientists became clear. Two visionaries led the development of the program from a small pilot project to a multimillion-dollar program. Vicki Wilde, Director of the G&D Program, became the founding Director of AWARD. Dr. Peter Matlon, Director for sub-Saharan Africa at the Rockefeller Foundation, served as the first Chair of AWARD's Steering Committee. Determined to boost the contributions of outstanding women scientists to agricultural research in sub-Saharan Africa, they raised initial support of some US\$18 million for four years, expanding it to US\$ 40 million for the period 2008-2017.

Benchmarking the status of African women in agricultural science

At the time of AWARD's launch, sexdisaggregated data on human resources in sub-Saharan Africa's ARD institutions were scarce, if available at all. Yet AWARD needed that kind of data to provide a baseline for its work. Thus, while preparing for the first round of fellowships, AWARD commissioned a study on the scientific personnel (disaggregated by sex) of African national research systems in 20 countries. This research was conducted by the IFPRI Program on Agricultural Science and Technology Indicators (ASTI, https://www.asti.cgiar.org/). ASTI launched this benchmarking survey within a week of AWARD signing its first grant with the Bill & Melinda Gates Foundation (BMFG), and eventually published data from 125 institutions engaged in ARD and higher education in 15 sub-Saharan African countries. This was the first study of its kind on human resource data detailing African women's participation in the agricultural sciences. The ASTI study findings confirmed the underrepresentation

and modest influence of women in leadership and policy, highlighting the need that AWARD was addressing (Beintema & Di Marcantonio, 2010).⁵⁶

AWARD widely distributed this survey information among its African and international partners. With its focus on the main agricultural research institutes and universities, it provided valuable data about AWARD's context. ASTI showed an increase in women's participation in ARD for most surveyed countries between 2000/2001 and 2007/2008. AWARD has since analyzed its fellowship applications over several years, and now has data to back up its perception that the talent pool of African women in ARD is typically underestimated.

The AWARD Fellowship

The designers of AWARD made an important choice right in the beginning. Traditional capacity strengthening interventions for (women) scientists generally have only one or two components. Instead, AWARD was designed to be a holistic solution to the obstacles women scientists face—within themselves, in their professional interactions and in their scientific contributions. To make this happen, AWARD determined to empower individual fellows in multiple ways, cultivating a growing pool of African women to be:

- effective within ARD institutions supporting the agricultural value chain and across a range of research disciplines serving the sector;
- responsive to gender issues in the service of women, without excluding men; and
- technically competent to generate innovations needed by rural smallholders.

As a career-development program that equips top women agricultural scientists across sub-Saharan Africa to further their careers and their contributions to the African agricultural sector, AWARD aspires to be a catalyst for innovations with high potential to contribute to the prosperity and well-being of African smallholder farmers, most of whom are women. Specifically, AWARD was designed to:

- help close the gender gap in agriculture by preparing more women to compete for influential positions in agricultural research institutions and organizations in sub-Saharan Africa;
- demonstrate, document, and celebrate the contributions of women in African ARD:
- generate ripple effects by strategically investing in male and female mentors as agents of change within African institutions and professional networks; and
- develop, test, and document effective models for measuring the progress and impact of such a complex careerdevelopment program.

As AWARD began its work in 2008, it adopted four empowerment elements from traditional empowerment models (Ibrahim and Alkire, 2007; Rowlands, 1997; Sen, 1985, 1989) but further adapted them to fit the empowerment issues that affect African women scientists. Thus, AWARD developed the African Women in Science Empowerment Model (AWSEM – pronounced "awesome"). AWSEM asserts that to drive agricultural transformation, African women scientists need to acquire and express five distinct and different "powers":

• Power "within": incorporating selfawareness, confidence and motivation.

- Power "to do": incorporating competence, productivity, creativity, innovation, and teamwork, including a focus on gender responsiveness in their work.
- Power "over": incorporating networking, recognition, influence, and visibility.
- Power "with": incorporating collaboration and joining forces in science.

However, as the AWARD team assessed the results from its first funding phase (2008–2011), it realized it had become possible to think of AWARD Fellows—both those in the midst of their fellowships and the AWARD alumni—as a critical mass of motivated professionals. This meant they had the collective skills and enthusiasm needed to inspire and influence others, sharing forward and igniting a broader awareness of the unique needs of women in ARD, and multiplying opportunities for the next generations of women and girls. Thus, AWSEM added a fifth power to its model:

 Power "to empower": incorporating awareness raising, capacity strengthening, influencing, and mentoring, and demonstrating that power is only truly gained when it is shared forward to multiply the critical mass of women in ARD.

Funders

AWARD has enjoyed tremendous support from its two main donors—BMGF and USAID. Championed by Haven Ley of BMGF and Meredith Soule of USAID, AWARD became the first program to have a joint BMGF-USAID funding mechanism—a mechanism formally established in a memorandum of understanding between the two donors.

AWARD also benefited from the support of Agropolis Fondation, AGRA, and a number of other influential private and public organizations.

Institutional partners

Supportive partnerships have been critical to AWARD efforts to catalyze transformative change in the African agricultural ecosystem.

AWARD has built an excellent reputation within the African agricultural research community, thanks to the caliber of its participants. At a growing number of institutions, there are 20 or more AWARD Fellows, Mentors, and emerging women scientists, which represent a sizable force for supporting institutional transformation.

AWARD has developed strong partnerships with some 40 outstanding institutions in the agricultural sciences, often providing full or partial funding, enabling AWARD to offer advanced science training to more fellows. These include unique and valuable partnerships with private-sector companies, such as Dow AgroSciences, DuPont Pioneer, and Novus International.

USAID country missions emerged as AWARD partners, with USAID Ghana, Kenya, Mozambique, Tanzania and Zambia supporting fellowships and advanced science training. Additional support from CORAF/WECARD and Agropolis Fondation allowed the launch of a pilot program in West Africa in 2013, offering fellowships to five francophone women agricultural scientists.

AWARD staff

In 2008 when AWARD was launched, it had a staff of seven. By 2015, the number had grown to 20 dedicated professionals who support the AWARD Fellows and their mentors, and

oversee its increasingly complex calendar of activities. AWARD implements some 20 to 30 training courses and workshops annually, and also handles requests to participate in a variety of national, regional, and international events. It is organised into small units that support its three career components—fostering mentoring partnerships, building science skills and developing leadership capacity—with sub-teams that cover M&E, communications, and administration. This dedicated team optimizes cost effectiveness by monitoring the participation and logistics for each training course and event. AWARD is fortunate to have recruited a high-quality team of professionals, all of whom are passionate about the program's vision, mission, and goals.

The "A-TEAM" – African Trainers Embracing the AWARD Mission

The experience of every fellow and mentor who is part of AWARD rests in large part with the program's team of trainers. The set of leadership, management, and negotiation courses AWARD offers is one of its most appreciated elements. Initially, AWARD depended on international trainers, but there was a substantial cost involved in bringing the trainers from outside the African continent. At the time, Africa had very low training capacity for these types of courses. Thus, AWARD invested substantial time, attention, and funds in selecting, testing, and training African trainers in personal mastery, facilitation, coaching, curriculum development, and experiential methods of adult education. As a result, these African trainers are able to deliver all training courses independently.⁵⁷

AWARD trainers are carefully chosen based on interviews and evaluations over several training events, their passion for AWARD's goals and vision, and their willingness to embrace

experiential learning as a training approach. Creating a pool of dedicated African trainers in these skills provides an invaluable resource for AWARD and other institutions and organizations in Africa. Now known as the A-TEAM, its members are able to contextualize their training with material relevant to the continent. AWARD evaluated 47 trainers and selected 22 for membership in the A-TEAM.

As part of the training-of-trainers (ToT) program, the A-TEAM members co-facilitated sessions under the tutelage of international training partners until ready to take over. They also developed their own sets of culturally sensitive training material for the African context. The A-TEAM now delivers all of AWARD's mentoring, leadership, and science skills courses, and the trainers receive consistently high ratings, comparable to those of the international training partners.

The AWARD Steering Committee:

The Steering Committee has been immensely supportive of the program's vision and mission, tirelessly promoting it across Africa and globally. AWARD has been fortunate to attract renowned members of the science and donor community to its advisory body since its inception. Annual meetings rotate to different countries and include networking with partners. The members contribute to AWARD with support in selection of AWARD Fellows, strategic planning, and resource mobilization. From their respected positions, they also introduce the AWARD leadership to potential influential public- and private-sector partners, and help raise AWARD's visibility on the global stage.

Appendix 2. Glossary of Gender-Related Terms and Concepts

Agency

Refers to the innate ability to carry out own analysis, make own decisions, and take own actions. Empowerment focuses on how to enhance agency, i.e. every person has agency, and every person analyzes, decides, and acts.

Gender

Describes the socially constructed roles and responsibilities of men and women and boys and girls, which may vary over time and by location. These may differ across societies, cultures and families

Gender Analysis

Is a systematic study of differences in the conditions, needs, participation rates, access to resources and development, control of assets, decision-making powers, etc. between women and men (European Commission, 2004). A gender analysis begins with the collection and analysis of sex-disaggregated data (i.e. information that is collected and presented separately on men and women). Women and men often perform different roles, leading to different experiences, knowledge, talents, and needs. Gender analysis explores these different roles and experiences so that policies, programs and projects can identify and meet the different needs of women and men. Gender analysis also facilitates the strategic use of distinct knowledge and skills possessed by women and men.

Gender Awareness

Refers to a general understanding that there are socially determined differences between women and men based on learned behavior,

which affect their ability to access and control resources. This awareness needs to be applied through gender analysis into projects, programs and policies.

Gender Blindness

Refers to a conscious or unconscious lack of attention to different gender roles and responsibilities, and, consequently, the failure to analyze policies and projects in terms of the differences in their effects on women and men.

Gender Dizaggregated Data

Refers to a process of data collection and analysis that focuses on issues of particular relevance to women and men, girls and boys, and their different roles and positions within society. Statistics on household distance from wa-ter or fuel, for example, have different implications for women and men since it is usually women who spend time collecting those necessities. Also, the gender-disaggregation of data such as household income, food consump-tion, malnutrition rates, etc., can be useful to demonstrate inequalities.

Gender Discrimination

Occurs when individuals are treated differently on the basis of their sex. This affects both women and men. For example, when a woman is paid less for the same work as a man, this is gender discrimination. Generally speaking on a global level, gender discrimination leads to women being disproportionately represented among the poor, the less educated, the underpaid, the assaulted, and the powerless.

Gender Disparity

Disparity (or difference) occurs when women and men, girls and boys, have different access to resources, services or rights because of their gender. For example, in a number of countries (especially in sub-Saharan Africa) women lack an independent right to own land or property, or conduct/own a business. Also, women often have less access to resources such as legal information and financial resources. While women and girls bear the most direct burden of these inequalities, inevitably the costs harm everyone in society. Among the poor, these disparities contribute to significant risk and vulnerability in the face of family or personal crisis, and during economic hardships, including those arising from climate change.

Gender Division of Labour

Refers to the division of paid and unpaid work between women and men in the private and public sphere (European Commission, 2004). It concerns the allocation of the tasks and responsibilities of women and men at home, at work, and in society according to patterns of work that are felt to be acceptable in a particular place and time.⁵⁸

Gender Equality

Means that women and men enjoy the same status in society and have equal opportunity to realize their full human rights and potential to contribute to national, political, economic, social, and cultural development, and to benefit from the results. Originally it was believed that equality could be achieved simply by giving women and men the same opportunities. Today, the concept of equality acknowledges that women and men may sometimes require different treatment to achieve similar results, due to different life conditions or to compensate for past

discrimination. Gender equality, therefore, is the equal valuing by society of both the similarities and the differences between women and men, and the varying roles they play.

Gender Equity

Means being fair to women and men. To ensure fairness, measures are often needed to compensate for historical and social disadvantages that prevent women and men from operating as equals. Equity leads to equality.

Gender Gap

A measure of gender inequality. It is a useful social development indicator. For example, we can measure the "gender gap" between boys and girls in terms of the educational levels achieved.

Gender Indicator

A measurement of change over time. It is also a signal of a change. The change may be measured in terms of quantity, quality, and timeliness. A gender indicator is that which is sex-disaggregated, specific, logical, realistic, relevant, valid, and sensitive.

Gender Neutral

Operates on the principle that men and women should be treated equally in order to ensure that gender will no longer be a basis for the allocation of benefits and burdens in society.

Gender Perspective

Refers to when:

- a differentiation is made between the needs and priorities of men and women;
- the views and ideas of both women and men are taken seriously;
- the implications of decisions on the situation of women relative to men are

- considered: who will gain and who will lose; and
- action is taken to address inequalities or imbalance between men and women.

Gender Practical Needs

These are needs related to the roles of reproduction, production, and com-munity work of men and women which, when met, do not necessarily change their relative position/condition in society that arise from the gender roles.

Gender Relations

Refers to how men and women relate to each other, resulting in manifestations of genderbased power. This arises from the roles men and women are expected to play and the impact of their interactions. The family is a good example, as men assume the earner and leader roles and women assume the domestic and child-care/family-care roles. These power relations are uneven because the male has more power in making legally influential decisions. Roles, assumed attributes and social systems lead to the creation of blueprints for behavior. If we do not conform to these roles we are seen to be deviant by society. Power relations always result in one party being worse off than the other and create social imbalances.

Gender Responsiveness

This is planning and implementing activities that meet identified gender issues/concerns that promote gender equality.

Gender Roles

Are roles defined by society that are different for women and men? For example, in some societies men are expected to farm, while in others it is the responsibility of women. Traditional gender roles often mean that women have multiple responsibilities in the home, in the workplace and in the community while men's roles are most often focused in the workplace and community and not as much in the home. The roles that men and women play are influenced by the cultural and sometimes religious norms of the society, their social status in that society, other people's expectations and the image the individual wants to develop for him/herself. Changes in gender roles often occur in response to changing economic, natural, or political circumstances, including development efforts.

Both women and men play multiple roles in society. The gender roles of women may be identified as reproductive, productive and community-managing roles, while men's roles are often categorized as either productive or involved in community politics. Men are often able to focus on a particular productive role, and play their multiple roles sequentially. Women, in contrast, must often play their roles simultaneously and balance competing claims on time for each of them.

Gender Sensitivity

The ability to acknowledge and highlight existing gender differences, issues, and inequalities and incorporate these into strategies and actions.

Gender Stereotype

Formed when men or women are persistently attributed certain characteristics or roles, thereby creating the belief that these are invariably linked to gender. Gender stereotyping reinforces gender inequality by portraying assumptions and conditions that maintain the inequality as biologically or culturally fixed. For example, it is a stereotype that all women are more nurturing and therefore should be responsible for childcare.

Gender Strategic Needs

Refers to higher level of needs of women and men which, when met, help change their status in society. Examples of such needs are decision making and access to information.

Gender Transformation

Describes a situation where women and men change their way of thinking from patriarchy toward a gender-equality perspective.

Matriarchy

A form of social organization in a culture or specific community in which descent and inheritance are traced through the female line of a family.

Patriarchy

A form of social organization, prevalent in most societies globally, in which descent and inheritance are traced through the male line of a family. The term "patriarchy" is also used in the social development sector to connote the tendency for male ownership and control over resources in patriarchal societies, which is made possible by the exclusion and subjugation of women's position in society. Thus, patriarchy is viewed as a social system that underpins and sustains gender discrimination. Patriarchy is maintained by an assertion of male superiority that claims to be based on biological differences between women and men, cultural values, or religious doctrines.

Sex

Describes the biological or physiological differences between male and female, women and men, boys and girls. These differences are universal and are determined at birth.

Women's Empowerment

The process in which women reflect upon their reality and question the reasons for their situation in society. It includes developing alternative options and taking opportunities to address existing inequalities. It enables women to live their lives to their full potential based on their own choices in respect of their rights as human beings.

Gender Neutral, Gender Sensitive, and Gender Transformative

According to UN Women,⁵⁹ the primary objective behind gender integration is to design and implement development projects, programs, and policies that:

- do not reinforce existing gender inequalities (gender neutral);
- attempt to redress existing gender inequalities (gender sensitive); and
- attempt to redefine women and men's gender roles and relations (gender positive/transformative).

The degree of integration of a gender perspective in any given project can be seen as a continuum:⁶⁰

Gender	Gender	Gender	Gender	Gender
Negative	Neutral	Sensitive	Positive	Transformative
Gender inequalities are reinforced to achieve desired development outcomes. Uses gender norms, roles. and stereotypes that reinforce gender inequalities.	Gender is not considered relevant to development outcomes. Gender norms, roles, and relations are not affected (worsened or improved).	means to reach set development goals. Addressing gender norms, roles, and access to resources insofar as needed to reach project goals.	Gender is central to achieving positive development outcomes. Changing gender norms, roles, and access to resources is a key component of project outcomes.	Gender is central to promoting gender equality and achieving positive development outcomes. Transforming unequal gender relations to promote shared power, control of resources, decision making, and support for women's empowerment.

Appendix 3. Sustainable Development Goals and Selected Targets Related to Gender-Responsive Agriculture





SDG 1: End poverty in all its forms everywhere

- By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day.
- By 2030, reduce at least by half the proportion of men, women, and children of all ages living in poverty in all its dimensions according to national definitions.
- By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership, and control over land and other forms of property, inheritance, natural resources, appropriate new technology, and financial services, including microfinance.
- By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social, and environmental shocks and disasters.
- Create sound policy frameworks at the national, regional, and international levels, based on pro-poor and gender-sensitive development strategies, to support accelerated investment in poverty-eradication actions.



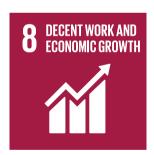
SDG 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture

- By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious, and sufficient food all year round.
- By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists, and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets, and opportunities for value addition and non-farm employment.
- By 2030, ensure sustainable food-production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding, and other disasters, and that progressively improve land and soil quality.
- By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional, and international levels, and promote access to and fair and equitable sharing of benefits arising from the use of genetic resources and associated traditional knowledge, as internationally agreed.
- Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development, and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in particular least-developed countries.



SDG 5: Achieve gender equality and empower all women and girls

- End all forms of discrimination against all women and girls everywhere.
- Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision making in political, economic, and public life.
- Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance, and natural resources, in accordance with national laws.
- Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women.
- Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels.



SDG 8: Promote inclusive and sustainable economic growth, employment, and decent work for all

- Achieve higher levels of economic productivity through diversification, technological upgrading, and innovation, including through a focus on high-value added and labor-intensive sectors.
- Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity, and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services.

Appendix 4. Categories of Potential AWARD Partnerships

WHAT	WHY	HOW
1. Regional	 Ability to influence policy across the continent Building buy-in for AWARD's mission from African governments 	Provide advocacy and dialogue platform
2. Sub-regional	 Direct links to governments Regional network & influence Have resources Have regional mandate to implement gender responsiveness through institutional and research 	 Provide advocacy and dialogue platform Anchoring resource mobilization Regional networking Hosting fellows and mentors Partner in implementation of gender policy and strategy Resource mobilization
3. National research institutes	 Lead target institutions Key sources of research agenda Have research facilities that fellows and mentors will need Have national mandate to implement gender responsiveness through institutional and research 	 Hosting fellows and mentors (including postdoctoral) Use them as platforms for delivering AWARD packages Mentoring, leadership and sciences skills, capacity building, participation at local and regional bodies
4. Relevant government ministries	Formulate policyImplementation partners	Direct participation Linkages with farmers

WHAT	WHY	HOW
5. Regional economic councils	Have regional economic mandates with interest in role of gender responsiveness through economic integration	Mentoring, leadership and sciences skills, capacity building, participation at local and regional bodies
6. Private-sector business	 Provide knowledge and skills on business development and entrepreneurship Fast track gender mainstreaming in private- sector 	 Hosting of fellows & mentors including post-docs Development & delivery of training modules on entrepreneurship There is a need to clearly define the private sector. This will enable AWARD to spot champions to accelerate gender mainstreaming in the private sector, improve their own gender focus, and corporate responsibility (Philanthropy)
7. Donors	Have resources Have pro-gender agenda	 Supporting country chapters Donor roundtables Networking Advocating for AWARD packages Networking and linkages AWARD can coordinate expectations that donors of gender aspects of grants that they offer. AWARD can then help Institutions meet donor requirements for gender research in their grant applications.
8. Local and international NGOS	Sources of best practices and experiencesSources of research agenda	Hosting fellows & mentors (including post-docs) Internship
9. International research centers	 Have resources Have skills Have research facilities that fellows and mentors will need 	Networking Hosting fellows and mentors Shaping curriculum to include
10. Accreditation bodies	Have regulation and quality assurance custody	Shaping curriculum to include gender in agriculture





African Women in Agricultural Research and Development (AWARD) is working toward inclusive, agriculture-driven prosperity for the African continent by strengthening the production and dissemination of more gender-responsive agricultural research and innovation. We invest in African scientists, research institutions, and agribusinesses so that they can deliver agricultural innovations that better respond to the needs and priorities of a diversity of women and men across Africa's agricultural value chains.

For more information, visit www.awardfellowships.org.

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