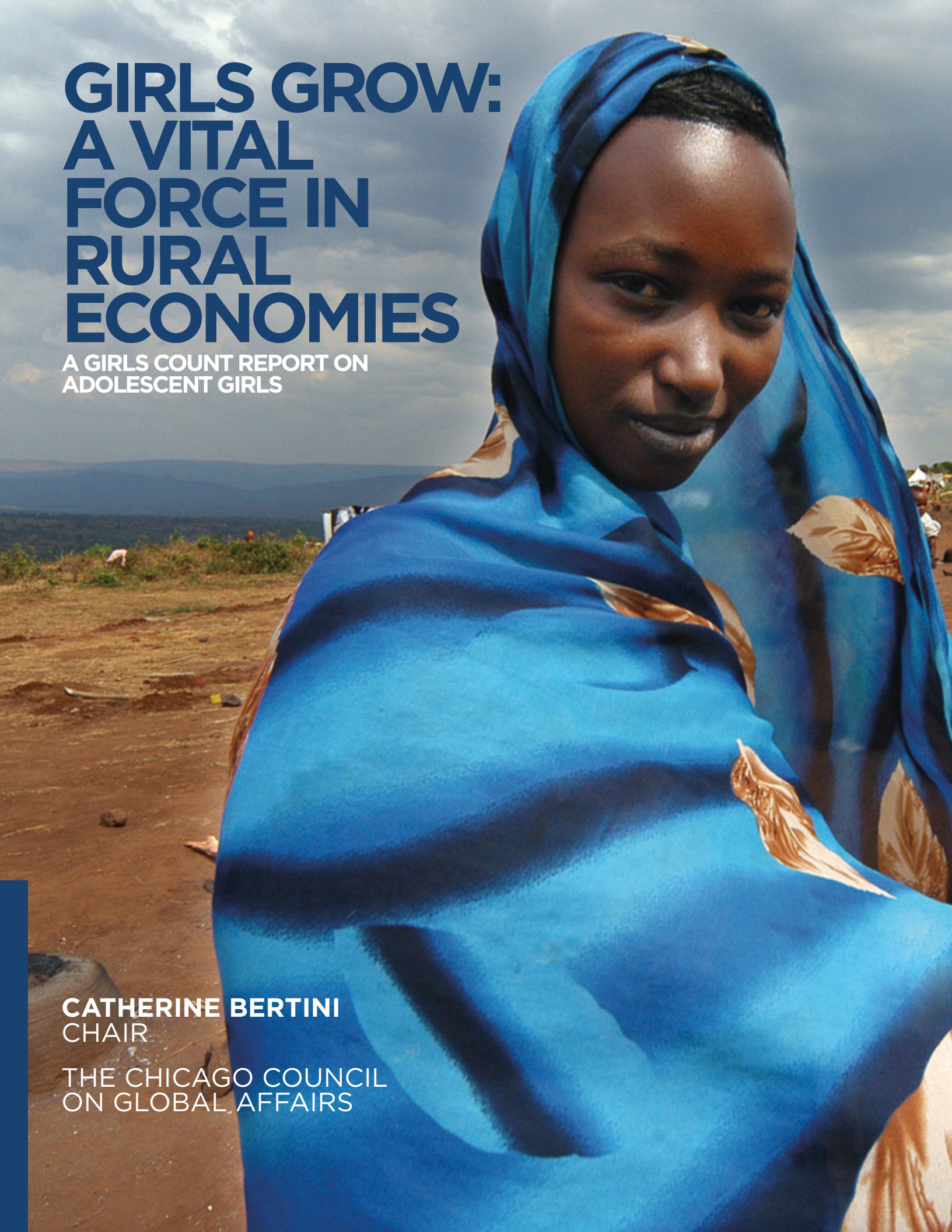

GIRLS GROW: A VITAL FORCE IN RURAL ECONOMIES

A GIRLS COUNT REPORT ON ADOLESCENT GIRLS

CATHERINE BERTINI
CHAIR

THE CHICAGO COUNCIL
ON GLOBAL AFFAIRS

Cover photo
A Rwandan girl waits to return home in a rural Tanzanian transitory returnee camp.

Photo Credit: Riccardo Gangale/ICRC

GIRLS GROW: A VITAL FORCE IN RURAL ECONOMIES

TAKE ACTION FOR RURAL GIRLS

1
Expand opportunities for rural adolescent girls to attend secondary school.

Nationally mandate and provide funds for universal primary and secondary education. Make schools girl friendly—including increasing safety standards, improving educational facilities, and employing more female teachers in rural areas—to support completion of primary and secondary school. Improve the quality of teaching and relevance of rural school curriculum. Provide incentives to parents to keep girls in school to help offset costs. Enhance adult literacy programs in rural areas to increase school enrollment among girls.

2
Equip rural adolescent girls to be entrepreneurs, workers, and managers in the rural economy and beyond.

Develop and promote time-saving technologies so girls can both attend school and focus on skill development. Incorporate practical knowledge and skill-building programs into both formal and nonformal rural economic development initiatives and education. Empower girls to be nontraditional extension agents, equipping them to offer agricultural, health, education, and adult literacy training to their families and communities. Offer innovation awards and incentives for creation of girl-friendly and supportive technologies. Support organizations, policies, and legal frameworks that eliminate discrimination against female workers and that support equal pay, safety, and security for working adolescent girls and women.

3
Prepare rural adolescent girls to be major stakeholders in agriculture and natural resource management.

Include adolescent girls in country-level agriculture investment plans. Ensure equitable inheritance and land rights for adolescent girls and women by supporting efforts to change and enforce relevant national and customary laws. Increase adolescent girls' access to assets such as financing and agricultural inputs. Encourage donors to disproportionately dedicate climate change adaptation and/or mitigation monies targeting natural resource management to programs that ensure participation of girls.

4
Empower and provide opportunities for rural adolescent girls to have an active voice in household, community, and national decision making.

Provide "safe spaces" and youth development programs—both girl-only and girls and boys—to build confidence and skills, develop peer connections, and provide mentoring. Support platforms for rural girls to participate in public dialogue and develop civic leadership skills. Use radio and television to inform and empower girls. Create more opportunities for girls' mobile phone ownership and Internet access.

5
Provide rural adolescent girls with comprehensive health information and services.

Integrate adolescent health as a priority in national systems and policies. Increase rural girls' access to information and services using schools and community centers as entry points. Encourage growth of highly nutritious indigenous foods, local manufacturing of vitamins, local food processing, and addition of micronutrients. Provide greater services to young expecting mothers.

6
Improve rural adolescent girls' safety and security.

Educate men and boys about the value of girls. Strengthen local and national practices for bringing perpetrators to justice. Educate girls on existing laws and offer services to those affected by violence. Find travel and time-saving solutions to girls' walking.

7
Count girls and measure progress.

Record all births and disaggregate household and population data by age; gender; marital, educational, and socioeconomic status; and geographic location. Establish benchmarks by developing or refining specific measures for recommended actions and then report on progress at international and regional public venues biannually for the next ten years.

GIRLS GROW: A VITAL FORCE IN RURAL ECONOMIES

A *GIRLS COUNT* REPORT ON ADOLESCENT GIRLS

CATHERINE BERTINI
CHAIR

THE CHICAGO COUNCIL
ON GLOBAL AFFAIRS

The Chicago Council on Global Affairs is a leading independent, nonpartisan organization committed to influencing the discourse on global issues through contributions to opinion and policy formation, leadership dialogue, and public learning.

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GIRLS GROW
ADVISORY GROUP

Catherine Bertini
World Food Prize Laureate 2003

Liberato Bautista
President, Conference of Nongovernmental Organizations in Consultative Relationship with the United Nations (2007 to 2010)

Carol Bellamy
Chair
Education for All Fast Track Initiative

Ben Cousins
DST/NRF Chair in Poverty, Land, and Agrarian Studies, Institute for Poverty, Land, and Agrarian Studies, University of the Western Cape, South Africa

Shenggen Fan
Director General
International Food Policy Research Institute

Donald T. Floyd Jr.
President and CEO
National 4-H Council, USA

Eleni Gabre-Madhin
Founder and CEO
Ethiopian Commodity Exchange

HRH Princess Haya Al Hussein
UN Messenger of Peace

Ruth Levine
Director of Global Development and Population Program, William and Flora Hewlett Foundation

Namanga Ngongi
President
Alliance for a Green Revolution in Africa (AGRA)

Nafis Sadik
Special Adviser to the United Nations Secretary-General

Clare Short
Secretary of State
UK Department for International Development (1997 to 2003)

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GIRLS GROW FOREWORD

If you want to change the world, invest in an adolescent girl.

An adolescent girl stands at the doorway of adulthood. In that moment, much is decided. If she stays in school, remains healthy, and gains real skills, she will marry later, have fewer and healthier children, and earn an income that she'll invest back into her family.

But if she follows the path laid down by poverty, she'll leave school and enter marriage. As a girl mother, an unskilled worker, and an uneducated citizen, she'll miss out on the opportunity to reach her full human potential. And each individual tragedy, multiplied by millions of girls, will contribute to a much larger downward spiral for her nation.

Investing in girls is the right thing to do on moral, ethical, and human rights grounds. Perhaps no other segment of society globally faces as much exploitation and injustice, and we owe girls our support as integral, yet overlooked, members of the human family.

Investing in girls is also the smart thing to do. With over 515 million adolescent girls in the developing world today, the best way to break the cycles of poverty is to keep girls off the path of school dropout, early marriage and early childbirth, and vulnerability to sexual violence and HIV/AIDS. Investments in girls yield large returns: an extra year of primary school boosts girls' eventual wages by 10 to 20 percent, and girls who receive an education marry later, have fewer children, and are less likely to experience violence. Women invest 90 percent of their earnings into their families compared to the 30 percent or 40 percent by men.

Yet today, only a tiny fraction of international aid dollars is spent—and spent effectively—on needs specific to adolescent girls. That underinvestment is the reality the Coalition for Adolescent Girls (www.coalitionforadolescentgirls.org) is trying to change.

Launched by the United Nations Foundation and the Nike Foundation in 2005, the Coalition's goal is to offer fresh perspectives, diverse resources, and concrete policy and program solutions to the challenges facing adolescent girls in developing countries. Our first step? Uncover adolescent girl-specific data and insights to drive meaningful action.

In 2008 *Girls Count: A Global Investment and Action Agenda* did just that. Authored by Ruth Levine, Cynthia B. Lloyd, Margaret Greene, and Caren Grown, *Girls Count* laid out the case for investing in girls and outlined actions that policymakers, donors, the private sector, and development professionals can and should take to improve the prospects for girls' well-being in developing countries.

Today, we are pleased that *Girls Count* has gone into its second printing. More importantly, the authors have continued beyond that groundbreaking work to explore girls' lives further. Together, the results comprise the new *Girls Count* series:

- In *New Lessons: The Power of Educating Adolescent Girls,* Cynthia B. Lloyd and Juliet Young demonstrate that education for girls during adolescence can be transformative, and they identify a broad array of promising educational approaches that should be evaluated for their impact.

- In *Start with a Girl: A New Agenda for Global Health,* Miriam Temin and Ruth Levine describe the positive multiplier effect of including adolescent girls in global health programs and policies—and the risks if they continue to be left out.

• In *Girls Speak: A New Voice in Global Development,* Margaret Greene, Laura Cardinal, and Eve Goldstein-Siegel reveal that adolescent girls in poverty are acutely aware of the obstacles they face, but are full of ambitious, powerful ideas about how to overcome them.

• Through *Girls Discovered: Global Maps of Adolescent Girls,* Alyson Warhurst, Eva Molyneux, and Rebecca Jackson at Maplecroft join the ranks of *Girls Count* authors by using their unique quantitative analysis of girl-specific data to literally put girls on the global map.

• *Girls Grow: A Vital Force in Rural Economies* offers a critical addition to the *Girls Count* series by addressing the preponderance of girls who live in rural areas. Catherine Bertini and The Chicago Council on Global Affairs highlight how girls, as the backbone of rural economies, have the powerful potential to be agents of economic and social growth and change in their homes, communities, and nations.

Each report takes us deeper into the lives of adolescent girls and contains an action agenda outlining how the global community can count girls, invest in girls, and advocate for girls. Taken together, the *Girls Count* series presents a powerful platform for action. Please visit www.coalitionforadolescentgirls.org for more information.

The girl effect is the missing and transformative force needed to achieve the Millennium Development Goals, with the unique power to break the intergenerational cycle of poverty. It is about the lives of 515 million adolescent girls and the millions more lives that are affected by them. Girls do indeed count.

GIRLS GROW PREFACE

Women and girls living in rural areas of the developing world play a vital yet unrecognized role as agricultural producers and hold the potential to be agents of food and nutritional security and economic growth. In the nations of Sub-Saharan Africa and South Asia, where a significant portion of Gross Domestic Product is dependent on agriculture, women and girls living in rural areas comprise nearly half of the region's total agricultural workers. However, less than 10 percent of total official development assistance for agriculture explicitly addresses gender issues, and only 33 percent of girls in rural areas of the developing world attend primary school. As the international community renews its focus on the importance of agriculture and rural economic development, the success of its efforts will be significantly enhanced if it includes a major emphasis on rural adolescent girls.

The Chicago Council on Global Affairs launched the *Girls in Rural Economies* project in mid-2009 to examine the nature of adolescent girls' participation in the rural economic sectors of Africa, Asia, the Middle East, Latin America, and the Caribbean and identify opportunities to better equip girls and young women to be agents of social and economic change. The study's conclusions and recommendations advanced in this report highlight ways for national governments and bilateral donors to better support rural adolescent girls' personal and professional development, health and safety, and in turn, to spur long-term economic growth and social stability at the community, national, and regional levels.

Project organization

The project is chaired by Catherine Bertini, former executive director of the UN World Food Program. The *Girls in Rural Economies* advisory group was convened in December 2010 to examine the role of adolescent girls in rural economies and the ways in which they could be empowered to affect change. Led by Ms. Bertini, the international advisory group brought together eleven distinguished individuals with expertise in agriculture, gender, development, education, youth, health, and entrepreneurship and informal employment.

A committee of experts was assembled to support the work of the advisory group by providing a summary of critical issues and policy options. Chaired by Ruth Levine, director of the Global Development and Population Program at the William and Flora Hewlett Foundation, this committee consisted of sixteen individuals from academia, programmatic/field work, policy, and NGO sectors with expertise in agriculture, health, education, human rights, legal rights, demography, anthropology, and civil engagement as they relate to adolescent girls.

The outcome of the *Girls in Rural Economies* project embodied in this report is a series of recommendations to national governments, bilateral donors, international organizations, the private sector, and NGOs on how adolescent girls can be equipped and empowered to spur growth in rural areas. This report lays out these recommendations and provides the background and the arguments for taking immediate action to implement them.

The Chicago Council on Global Affairs

The *Girls in Rural Economies* project draws upon The Chicago Council on Global Affairs' previous work on global agriculture and development policy, including the 2009 report *Renewing American Leadership in the Fight Against Global Hunger and Poverty; and the recently released Bringing Agriculture to the Table: How Agriculture & Food Can*

Play a Role in Preventing Chronic Disease. Founded in 1922, The Chicago Council on Global Affairs is one of the oldest and most prominent international affairs organizations in the United States. Independent and nonpartisan, The Chicago Council is committed to influencing the discourse on global issues through contributions to opinion and policy formation, leadership dialogue, and public learning. The Council believes that its midwestern base and knowledge of agricultural issues contribute to the value of this report and to the international discourse on issues.

Acknowledgments

The Chicago Council would first like to thank project chair Catherine Bertini for her vision, leadership, and dedication throughout the project's very demanding fifteen-month process. Ms. Bertini brings decades of experience and a passion for the complex issues surrounding the challenges rural adolescent girls' face and is particularly dedicated to empowering girls. Her long-time leadership, expertise, and deep policy experience were essential to the scoping, writing, and realization of this project. It speaks to the energy of Ms. Bertini and to the international regard in which she is held that the project garnered the support and assistance of key players in international organizations, academia, national governments, NGOs, advocacy groups, and research communities.

The Council extends its deepest appreciation to the members of the advisory group. Each member's distinct background, technical expertise, and views on the issues were essential to this cross-sectoral examination of adolescent girls' roles in rural economies. I would like to thank them for their time and willingness to exchange views candidly during and following the group's deliberations.

The Council is grateful to the Technical Experts Committee chair, Ruth Levine, who adroitly assembled a committee reflecting a variety of disciplines to provide critical thinking and guidance on the full spectrum of issues within the project's purview. Dr. Levine offered invaluable guidance throughout the project, including the development of the project's recommendations.

The Council also thanks the members of the Technical Experts Committee, who provided valuable knowledge and guidance to the project's chair and advisory group, first through identifying key issues to be included in the project's research and then serving as a resource throughout the development of the project's conclusions and recommendations.

The project chair and Council also acknowledge and thank the numerous leaders and experts in the research, NGO, policy, international organization, academic, government, and civil society communities who met and spoke with the project chair and team. These many individuals provided valuable information that was critical to the report's development. The chair and Council are especially grateful to Rajul Pandya-Lorch, Agnes Quisumbing, and Ruth Meinzen-Dick, Uma Lele, and Robert Thompson for reviewing and providing critical feedback on the report drafts.

The project drew from existing quantitative and qualitative data to gain greater perspective on the experiences of rural girls and women. The Council thanks the individuals and organizations that shared data with this project, including the Guttmacher Institute, the Food and Agriculture Organization of the United Nations, Lauren Weeth, 4-H Tanzania, and the Young Lives Project at Oxford University. Several rural girls agreed to share their stories so this publication could include "snapshots" of their

experiences. Special thanks are due to Janhabi Kishan, Diana Wambati, and Muzayyanah as well as those who documented their voices.

The Council is grateful for the support of the African Green Revolution Forum and the World Food Prize Foundation for facilitating working group meetings for the project in Accra, Ghana, and Des Moines, Iowa. The Council extends its appreciation to the All Party Parliamentary Group on Agriculture and Food for Development of the United Kingdom and the Girl Effect for partnering with the Council in the report's release in London. It is also grateful for the support offered by Sir Gordon and Dr. Susan Conway during the release event.

Credit is due to several members of The Chicago Council staff and others who played key parts in planning and implementing the project and creating the final report. Lisa Eakman, executive director, Global Agriculture and Food Policy, created the project design and oversaw the entire effort. Katie Gifford, senior project manager/lead researcher, managed the day-to-day operational support for all aspects of the project, organized and conducted the research, contributed to the drafting process, and provided key inputs on the project's materials and final report. Catherine Hug played a major role in the drafting of the report and managed the report editing and publication process. Ambereen Husain provided support to several aspects of the project with efficiency and cheerfulness. Chicago Creative Group oversaw the design of the report. Susan North expertly coordinated on-site logistics for the advisory group meeting in Rome. Christiane Berthiaume developed and executed the media strategy for the global launch event in London. Research assistants Julie Santella, Lisa Pye, Jessa Becker, and Aimee de la Houssaye contributed to research, fact-checking, and referencing for the report. Carole Palmer of Creative Services, Inc. finalized the publication's references. Other Chicago Council staff, including Jo Heindel, Elisa Miller, Elizabeth Lulla, Samantha Skinner, and Betsy Hushek also made valuable contributions to the effort.

The Chicago Council would like to express its deep appreciation and thanks to the Nike Foundation, The Bill & Melinda Gates Foundation, and the UN Foundation for the generous support that made this project and report possible.

Finally, the Council would like to recognize the millions of rural girls around the world. Thank you for all that you do today and will do in the future.

Marshall M. Bouton
President
The Chicago Council on Global Affairs

GIRLS GROW
EXECUTIVE SUMMARY*

Food price volatility and concerns about food insecurity have promoted renewed focus on rural areas of the developing world. As the world emphasizes agriculture and rural economic development, there is a tremendous opportunity to bring about successful rural transformation through strategies that include a special focus on rural adolescent girls.

Rural adolescent girls are positioned to become powerful agents of change in their communities and nations.

- They are many of the world's current and future farmers who will help increase the productivity of the land and serve as protectors of precious natural resources.

- They are the untapped talent pool that will support development of the broader rural economy, helping to raise family incomes and lift communities out of poverty.

- They are decision makers who will help tackle the economic, social, political, and environmental challenges of their rural homes.

- They are the mothers of tomorrow with the power to break the cycle of poverty and change the lives of their children.

Efforts to improve the lives of rural adolescent girls will be far more impactful if they are integrated into an overall, well-supported rural economic development strategy. The world now has an opportunity to pursue both the advancement of agricultural development and the empowerment of rural adolescent girls in tandem, each reinforcing the other to achieve significant benefits for girls and for society.

Girls have the power to transform rural economies.

Adolescent girls are the backbone of virtually every rural family, making important economic and social contributions. They work alongside their mothers and family members in the fields, tend gardens, and care for livestock. They gather water and firewood for the household. They look after younger siblings and older family members. They prepare food and handle domestic chores. Girls and women on average handle 43 percent of all farming and virtually all household work.

Empowering adolescent girls spurs economic and social growth in communities and nations, leading to transformational change.

As future farmers, adolescent girls and women are the key to fully realizing the productive potential of agriculture. If women farmers were given the same access to productive resources as men, the results could be significant.

- Women's agricultural yields could increase by 20 to 30 percent.

- National agricultural output could increase by 2.5 to 4 percent.

- The number of undernourished people could be reduced by 12 to 17 percent.

Girls' responsibilities at home and on the farm give them unique knowledge of local crop species and environmental conditions, making them natural players in natural resource management. They can become leaders in agricultural research and extension and as entrepreneurs and workers across the agricultural value chain.

* All sources for data in this section can be found in the main chapters of the report.

With adequate education and training, rural adolescent girls can help raise their family incomes and status and develop thriving rural economies through active economic participation as entrepreneurs and workers in all sectors.

- The returns to female secondary education are estimated to be in the 15 to 25 percent range, a higher rate of return than for men.

- An increase of 1 percent in female secondary school attendance adds .3 percent to the country's average annual per capita income growth.

- Investment in girls' education also provides nations a "demographic dividend" of greater savings and increased economic growth because of lower fertility rates and the larger, more productive workforce associated with higher levels of female education.

As adolescent girls become more educated and economically empowered women, their influence within the home and community also grows. Educated women are more likely to participate in civic life and to advocate for community improvements.

- Forty-three percent of rural women in Peru who participated in the design of a rural roads project reported earning higher incomes because of the reduced time spent gathering food and fuel and the increased time spent at markets and fairs.

- If men and women had equal influence in decision making, 13.4 million more children in South Asia and 1.7 million more children in Sub-Saharan Africa would be adequately nourished.

By equipping adolescent girls with what they need to become healthy and educated human beings, their social, economic, political, and human capabilities increase and are passed to the next generation, breaking the cycle of poverty. A mother's education, health, and status have a significant impact on the health of her children.

- Doubling the proportion of women with a secondary education would reduce average fertility rates from 5.3 to 3.9 children per woman.

- Educated women are 50 percent more likely to immunize their children.

The potential of rural adolescent girls to become partners and leaders in rural economic transformation is undeniable. Tapping this extraordinary potential is a precondition for reaping the full benefits of any agriculture and economic development efforts. The transformation begins by viewing rural adolescent girls as valuable human beings capable of significant accomplishments. It also begins by realizing that what we do for and in partnership with girls, we do for men, women, and boys.

Rural adolescent girls face a triple challenge.

Rural adolescent girls face special challenges. Taken together, the challenges of location, age, and gender often create a triple disadvantage unique to rural adolescent girls. This triple disadvantage severely restricts their development into the vital agents of change that they have the potential to become. More data is desperately needed to help document and quantify these challenges.

Rural location

Rural areas of the developing world are primarily the realm of the poor. While progress against rural poverty has been made in some regions, especially East Asia (particularly China) and Latin America, more than 60 percent of rural people in the developing world live in poverty (defined as earning less than $2 per day), and 34 percent live in extreme poverty. Although conditions vary widely across countries, regions, and communities, many rural areas suffer disproportionately in terms of investment, lacking roads, bridges, transportation, safe drinking water, sanitation, electricity, telephones, health-care facilities, and schools.

More than 80 percent of rural households in the developing world rely on farming to some degree, with the poorest households typically the most reliant. Most farmers in developing countries are smallholders, engaged in farming on plots of less than five hectares. Land and water resources are becoming scarcer due to land divisions, environmental degradation, population growth, and other factors. Smallholder farmers feel the greatest pressure from

these trends, in part due to their lack of adequate assets and resources and to unsustainable farming techniques. Support of these farmers—including and especially women farmers—is critical to environmental protection efforts and to increasing overall agricultural capacity.

Because farming alone often cannot sustain rural families, the nonfarm economy has become an increasingly important source of household income. It is estimated that 45 percent of rural income in twenty-five African countries stems from the nonfarm sector. Forty percent of rural employment in Asia is in the nonfarm sector. In Brazil and Ecuador, the nonfarm sector amounted to 30 percent in the early 1990s. Women make up between 10 and 40 percent of those employed in the nonfarm sector. Developing such opportunities is a crucial part of any rural economic development strategy, and adolescent girls can be a vital force in this development.

Gender

In addition to their rural location, girls suffer disadvantages because of their gender. This can be even more pronounced in rural areas, where social and cultural norms affecting gender roles are often most strongly entrenched. While boys are often coveted because of their expected roles as household heads and providers, girls may be seen as temporary family members because they join another household when they marry. When family resources are strained, boys are often seen as more valuable and worthy of investment.

Work burdens for rural adolescent girls are especially heavy. Overall, the workday in rural areas is 20 percent longer compared to urban areas. Women in rural areas spend an average of 20 percent more time than men working, compared to only 6 percent more for urban women. Adolescent girls have also been found to work longer hours than boys.

Among these work burdens are the fetching of water and fuel for the household. In some rural areas girls may spend up to eight hours a day walking to and from a local water source. These responsibilities require a great deal of physical exertion and time, but are often unrecognized and uncounted as productive labor.

Adolescent girls are also expected to care for younger siblings, the sick, and the elderly; cook; clean; and complete other household chores. Girls who bear these extraordinary work burdens often drop out of school long before they have gained the knowledge and skills they need to develop into healthy, thriving adults able to lift themselves and their families out of poverty. This has high opportunity costs not just for girls, but for households, communities, and the economy at large.

Early marriage is also a gender-based phenomenon that disproportionately affects rural girls. In rural areas of the developing world excluding China, 45 percent of women aged twenty to twenty-four were married or in union before the age of eighteen, compared to 22 percent of urban women. Married girls have been found to have consistently less education, limited social networks, and possibly greater reproductive health risks than unmarried girls.

Age of adolescence

While children under five have gotten increased attention in recent years and significant strides have been made in increasing enrollment and gender parity in primary school education, advances have been uneven, especially in rural areas. And girls in the second decade of life have largely been left out. As girls grow older and reach adolescence, much of the support they may have received earlier in life drops away despite this critical time of transition into productive and reproductive roles.

What happens in adolescence can reverberate for generations. The decade of adolescence offers a critical opportunity for actions to intervene early enough to change a girl's trajectory. Interventions that result in the delay of marriage and reduction of work burdens give girls a greater chance to continue their educations, help slow population growth, and prevent the passage of poverty and disadvantage to the next generation. Empowering adolescent girls spurs economic and social growth and leads to transformational change. It allows them to fulfill their potentials and become fully contributing members of society, helping to address the challenges that face their families, communities, and nations. And, it allows them to lead lives of dignity and respect as worthy members of the human family.

Recommendations

The following recommendations in the areas of education, economic opportunity, agriculture, voice and civic participation, health, safety, and data provide a road map for policymakers, donors, and implementers to equip and empower girls to improve their lives and become agents of change as farmers, entrepreneurs, decision makers, and mothers in rural economies. Each recommendation is followed by a number of specific actions that can be taken to implement the recommendation, including where girls themselves should be engaged.

Recommendation 1: Expand opportunities for rural adolescent girls to attend secondary school.

Action 1a. Nationally mandate universal primary and secondary education.

Action 1b. Make schools girl friendly.

Action 1c. Improve the quality of teaching and the relevance of the curriculum.

Action 1d. Provide incentives to parents to keep girls in school such as scholarships, stipends, cash transfers, training, literacy programs, and elimination of school fees.

Action 1e. Enhance adult literacy campaigns in rural areas to increase school enrollment among girls.

Recommendation 2: Equip rural adolescent girls to be entrepreneurs, workers, and managers in the rural economy and beyond.

Action 2a: Develop and promote adoption of time-saving technologies.

Action 2b: Incorporate knowledge and skill-building programs into rural economic development initiatives and education.

Action 2c: Empower girls to build nontraditional extension systems, equipping them to offer agricultural, health, education, and adult literacy training to their families and communities.

Action 2d. Offer innovation awards and incentives for creation of appropriate technologies.

Action 2e. Support organizations, policies, and legal frameworks that eliminate discrimination against female workers and that support equal pay, safety, and security for working adolescent girls and women.

Recommendation 3: Prepare rural adolescent girls to be major stakeholders in agriculture and natural resource management.

Action 3a. Include girls in country agriculture investment plans.

Action 3b. Ensure equitable inheritance and land rights for adolescent girls and women by supporting efforts to change and enforce relevant national and customary laws.

Action 3c. Increase adolescent girls' access to assets such as financing and agricultural inputs.

Action 3d. Encourage donors to disproportionally dedicate climate change adaptation and/or mitigation monies targeting natural resource management to programs that ensure participation of girls.

Recommendation 4. Empower and provide opportunities for rural adolescent girls to have an active voice in household, community, and national decision making.

Action 4a. Provide "safe spaces" and youth development programs—both girl-only and girls and boys—to build confidence and skills, develop peer connections, and provide mentoring.

Action 4b. Support platforms for rural girls to participate in public dialogue and develop civic leadership skills.

Action 4c. Use radio and television to inform and empower girls.

Action 4d. Create more opportunities for girls' mobile phone ownership and Internet access.

Recommendation 5. Provide rural adolescent girls with comprehensive health information and services.

Action 5a. Integrate adolescent health as a priority in national systems and policies.

Action 5b. Increase rural girls' access to information and services using school and community centers as entry points.

Action 5c. Encourage growth of highly nutritious indigenous foods, local manufacturing of vitamins, local food processing, and addition of micronutrients.

Action 5d. Provide greater services to young expecting mothers.

Recommendation 6. Improve rural adolescent girls' safety and security.

Action 6a. Educate men and boys about the value of girls.

Action 6b. Strengthen local and national practices for bringing perpetrators to justice.

Action 6c. Educate girls on existing laws and offer services to those affected by violence.

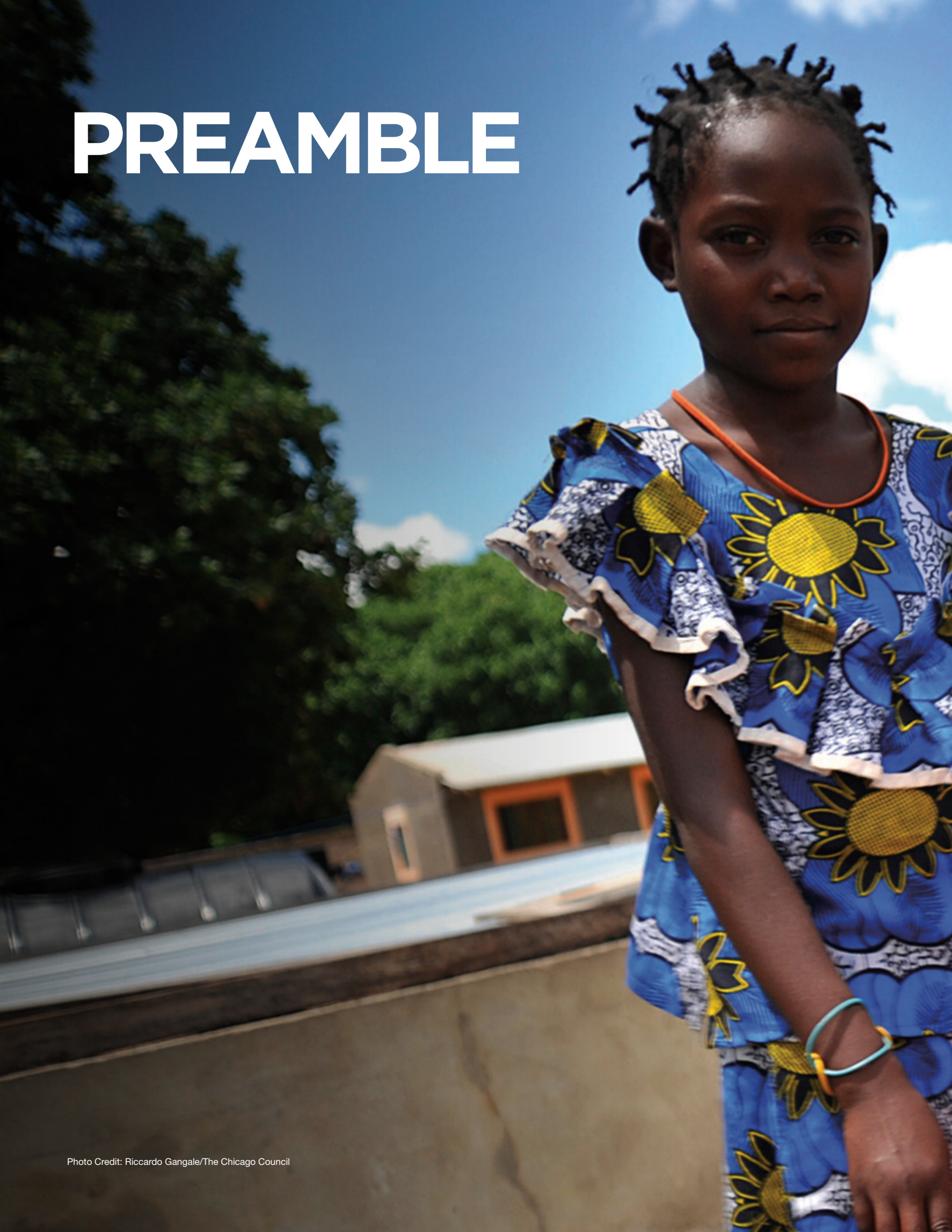
Action 6d. Find travel and time-saving solutions to girls' walking.

Recommendation 7. Count girls and measure progress.

Action 7a. Record all births and collect and disaggregate data.

Action 7b. Establish benchmarks and report progress regularly.

PREAMBLE



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MEERA AFRIDEV
DEEP WELL HAND PUMP
MEERA & CEHO PUMPS (P) LTD

The developing world's roughly 283 million rural adolescent girls can help reverse the poverty of rural people and put nations on the path to greater food security.

The food price crisis that first jolted global markets in 2008 shone a light on the fragility of the global food system. In countries already struggling with the vicious and unrelenting cycle of poverty, an estimated one hundred million more people were plunged into the ranks of the hungry. Throngs of desperate citizens took to the streets in dangerous urban riots that spread across forty nations, destabilizing economies and governments.

Today food price volatility has become a permanent feature in global markets and portends the growing dangers of inadequate global food supplies. Unprecedented demand for agricultural commodities, rising energy costs, and increasingly frequent crop shortfalls due to natural disasters—many associated with climate change—are combining with growing populations and shrinking natural resources to create a monumental global challenge. According to recent estimates, global food production will need to increase 70 percent by 2050 to meet growing demands and keep food supplies affordable and accessible. Much of this increase in production will need to come from the developing world.[1]

The rediscovery of rural areas.

This reality has brought much more attention to rural areas in the developing world, where there is more arable land, an abundance of labor, and a growing number of mouths to feed. More than 3 billion of the world's 6.9 billion people live in these rural areas, and they preside over a large share of untapped agricultural capacity.[2] Yet more than 60 percent of them live in poverty (34 percent in extreme poverty), often perpetuated generation after generation under conditions that can be difficult to escape.* The potential for agriculture to drive economic transformation has been gaining recognition as a solution to the dual and interrelated challenges of poverty and inadequate global food production (see Box 1).

As the world emphasizes agriculture and rural economic development, it cannot focus only on roads, seeds, and fertilizer. Efforts to grow more food and to decrease poverty will not be effective without significant investments in human capital. Rural populations in the developing world have the potential not only to dramatically increase agricultural production, but to drive the development of the nonfarm economy through a vibrant network of local businesses and institutions. Involvement in all aspects of the rural community—on and off the farm—is key to reducing poverty and improving rural livelihoods. Success requires that each and every person—men, women, boys, and girls—be engaged, not just as a mouth to feed, but as a human being endowed with enormous capacity to be part of the solution.

The importance of adolescent girls.

Rediscovering the importance of agriculture and rural economic development must also include the discovery of the very people who are critical to its operations and who could, with adequate support and policy changes, make the difference in its success—adolescent girls. In rural areas, perhaps more than anywhere else, the unrecognized contributions

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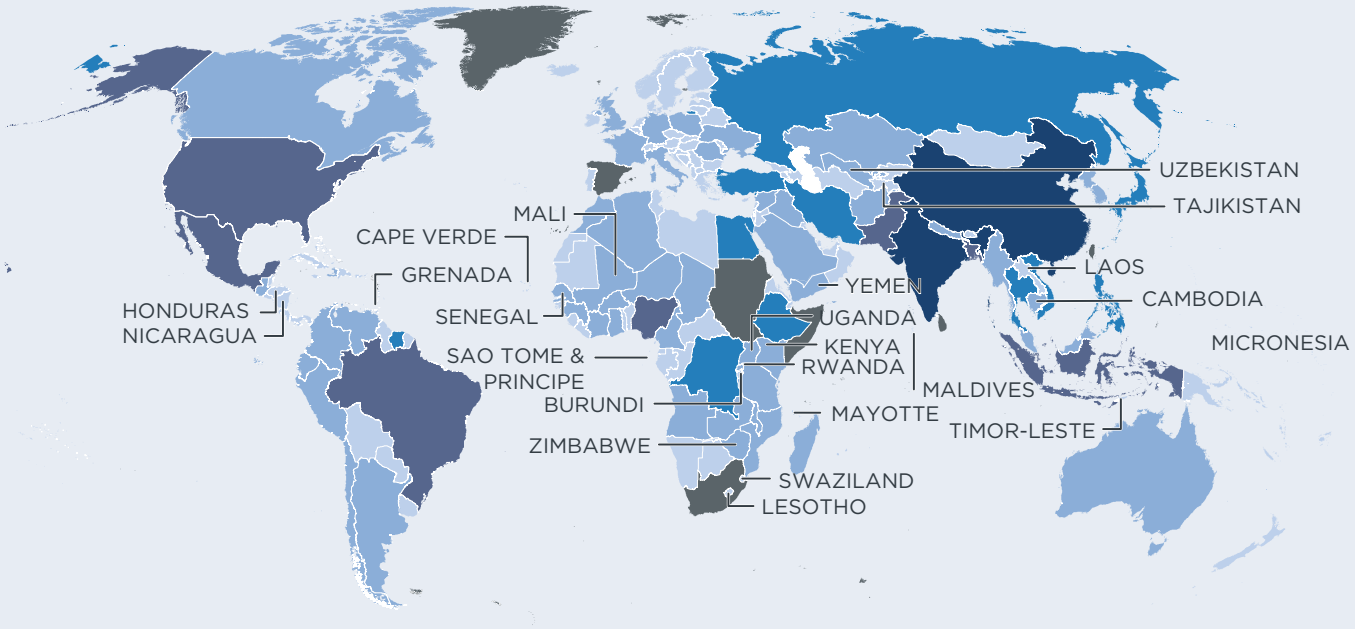
A girl in Groupo Betel, an orphanage in a rural district of Nampula, Mozambique, pumps water from the institution's eight-meter-deep well. The orphanage, which is supported by private and international donors, offers primary and secondary education plus extracurricular activities, which include the development of farming plots.

* Poverty is defined by the World Bank as anyone living on less than $2.00/day. Extreme poverty is defined as anyone living on less than $1.25/day.

FIGURE 1

588 million adolescent girls reside in the world, most in developing countries.

Population of adolescent girls aged ten to nineteen worldwide.



Source: United Nations Department of Economic and Social Affairs, 2009
Map designed by maplecroft

and work of adolescent girls are integral to familial, agricultural, and community enterprise. They work alongside their mothers and family members in the fields, tend gardens, and care for livestock. They gather water and firewood for the household. They care for younger siblings and older family members. They prepare food and take care of domestic chores. Girls and women on average handle 43 percent of all farming and virtually all household work in the developing world.[3] In all regions of the world, women work longer hours than men when care giving is included,[4] and longer than their urban counterparts. With education, support, and opportunity, the special power of the developing world's roughly 283 million rural adolescent girls can be tapped to help reverse the poverty of rural people and put nations on the path to greater food security and economic sustainability.[5]

Even as rural adolescent girls have the potential to make immense impact, they are often among the most disadvantaged. The challenges of location, age, and gender often combine to create a triple disadvantage. Girls are frequently undervalued within their societies—their existence, their contributions, and their potentials often given little credence. Rural adolescent girls commonly bear heavy work burdens. They often fulfill their duties

BOX 1

Investments in agriculture drive change in rural economies.

Support for rural agriculture in the developing world has recently been rediscovered after nearly three decades of neglect. Following strong support for agriculture from international donors and country governments in the 1960s and 1970s, aid began to collapse in the decades after. From 1980 to 2005 official development assistance (ODA) for agriculture dropped from 17 percent per year ($8 billion) to just 3 percent ($3.4 billion) of total ODA. There has been a slowing of the decline and indications of a positive reversal, with ODA investments rising to 5.5 percent in 2007 and slightly higher more recently.[6]

Tremendous advances in agricultural productivity and poverty reduction in parts of Asia, Latin America, and elsewhere were made as a result of the earlier agricultural investments. Yet when funding for agriculture dropped, progress in increasing productive capacity stalled before reaching areas in critical need. Low productivity in agriculture continues to contribute to endless cycles of poverty. Even in areas that benefitted from earlier investments, huge pockets of poverty remain. In some cases slow growth in agriculture more recently has combined with rapid industrial growth to leave rural areas behind as income gaps between urban and rural areas have widened.[7] More time, more research, and more investment in agriculture is needed to address the context-specific, climate-specific, and natural-resource-specific challenges facing the entire developing world as environments and conditions rapidly shift. Such investments are critical to increasing the agricultural output needed to reduce poverty and to meet exploding demand.

The power of investments in agriculture to drive rural growth and poverty reduction is well documented and now increasingly accepted. For example, gross domestic product growth from the agriculture sector reduces poverty twice as effectively as growth outside of agriculture.[8] No country in the world has industrialized without first developing its agricultural sector.[9] In addition, agriculture is critical as a provider of the environmental services essential for the survival of the planet, including carbon sequestration, watershed management, and the preservation of biodiversity.[10] Indeed, agriculture is not just about food, but is a powerful force serving multiple ends in the transformation of rural areas into productive and thriving communities that contribute to the overall health of nations.

This rediscovery of agriculture by governments, foundations, and the private sector must include a rediscovery of the people who make agriculture and rural economies function. Women, men, and boys all play important roles. Girls, though often invisible, are the backbone of rural work and can be key to positive solutions.

while suffering from malnutrition. They may have little or no time or opportunity for even the most basic education. The doors to productive economic livelihoods are often closed to them. They are vulnerable to harm and may be violated at a young age. Their reproductive roles make them at once powerful forces of change for the next generation and highly susceptible to having their life trajectories derailed. Too often they marry and become pregnant in adolescence, cutting short their own development into healthy, educated, and economically productive adults. In households and communities where hunger and economic hardship prevail, girls are sometimes viewed more as liabilities than assets. Such views are magnified in rural areas that are the deepest in poverty, the furthest from centers of economic opportunity and political influence, and frequently the most strongly influenced by customary law and traditional norms.

Efforts to focus attention on adolescent girls broadly in the developing world are gaining traction. These efforts must be sure to reach rural girls, who are among the most marginalized, yet have extensive untapped potential to make a difference. They are the mothers of tomorrow with the power to help break the cycle of poverty in the world's most impoverished areas. They are many of the world's current and future farmers, who will help increase the productivity of the land and serve as protectors of precious natural resources. When they grow up, they are the untapped talent pool that will help raise family incomes and lift rural communities out of poverty through active economic participation. They are decision makers who will help tackle the challenges facing their families, their rural communities, and their nations.

Women farmers, in particular, have enormous untapped productive capacity that could be transformative if they were reached as adolescent girls, especially with more education. With the same access to resources and decision making as men, their agricultural yields could increase 20 to 30 percent, national agricultural output could increase by an average of 2.5 to 4 percent, and the number of undernourished people could be reduced by 12 to 17 percent.[11]

Indeed, if rural adolescent girls are given a chance, they can do all this and more. They not only have answers for tomorrow, but answers for today. As they gain knowledge, they can teach and train others—to read and write, practice better health, and improve farming. They can support their own needs, forming groups to make school uniforms, grow nutritious food, and protect each other from violence. They can use their ingenuity to find time-saving solutions to their daily work. They can become leaders in their communities and advocate for their needs through radio, television, the Internet, and local forums. They can help lead themselves, their families, and their communities toward a more sustainable and prosperous future.

To relegate adolescent girls to the bottom of the societal pyramid is to miss a tremendous opportunity to halt poverty and hunger in its tracks and set nations on the path to progress. As leaders consider how best to develop agriculture and rural economies, they miss a tremendous opportunity if they do not concentrate specifically on empowering adolescent girls. At the same time, efforts to improve the lives of rural adolescent girls will be far more successful if they are integrated into an overall, well-supported rural economic development strategy. The world now has an opportunity to pursue these two goals in tandem, each reinforcing the other and achieving benefits for both girls and society.

This report provides a portrait of adolescent girls living in rural economies and their potential to become agents of social and economic change. It offers evidence, examples, and a road map for tapping their unique talents and seizing the opportunity to engage them in the remaking of not just their own lives, but also the lives of their nations and, indeed, the world.

It begins with a girl.

1

GIRLS HAVE THE POWER TO TRANSFORM RURAL ECONOMIES

Photo Credit: Tom Haskell

The transformation begins by viewing rural adolescent girls in a new light—one that shines on their value as human beings capable of great things.

"My grandmother told me to dream, and that will make my dreams come true."
—Rural girl, South Africa[12]

Adolescent girls are an essential part of the backbone of virtually every rural family, making important economic and social contributions. Unless girls gather water and firewood, the family cannot cook, eat, wash, or have heat or sanitation. Unless girls take care of their younger siblings, mothers cannot work as farmers or outside the home, reducing family incomes. Unless girls work in the fields, markets, homes, and in so many other roles for which they receive little or no pay, families would be even poorer. But if the lives of adolescent girls were improved and investments in their future made, girls, their families, and their communities could thrive. And if families and communities thrive, states and nations will as well.

Rural girls shift quickly to adult roles in adolescence.

Approximately 283 million of the developing world's 515 million adolescent girls (defined for this report as girls from ages ten to nineteen) live in rural areas.*, [13, 14] At the age of ten these girls stand on the threshold of the vital and potentially risky transition to adulthood called adolescence.[15] They will commence what the World Bank identifies as the "five transitions" in the areas of learning, work, health, family, and citizenship that are key to a young person's development.[16] This period should be a time to build upon earlier learning, develop interests and talents, become aware of oneself, and manage the important physical and psychological changes of puberty.

As described in more detail in this report, for many rural girls adolescence is the decade in which this time for learning and development is cut short. More than her urban counterparts, a rural girl often carries excessive work burdens, working long hours with little rest or free time. She is more likely than her urban peers to marry early and bear children soon after. She is more likely to be out of school because of work and family obligations. Because of the depth of poverty in rural areas, she is more likely to suffer from malnutrition, undermining her strength, energy, and cognitive functioning. She

Previous page
Like this girl in Colombia, rural adolescent girls throughout the world have the potential to be agents of change in their families and communities.

* While no universal definition of adolescence exists, this publication aligns with the United Nations definition of adolescence.

may be highly vulnerable to sexual violence, negatively affecting her physical and emotional health and even her "worth." What happens during this critical period of transition has long-term effects that can reverberate for generations.

While the decade of adolescence can dramatically alter her life path for the worse, it is also the time in a girl's life is when the cycle of poverty and disadvantage can be broken. Along with the period in utero through the second year of life, the decade of adolescence offers a powerful opportunity to intervene early enough in a girl's life to potentially alter the future. Interventions that result in the delay of early marriage and childbirth and the reduction of work burdens give girls a greater chance to continue their educations, help slow population growth, and prevent the passage of poverty and disadvantage to the next generation.

Building the human and social capital of girls early is critical because of the dynamism of this age. Children in their second decade of life brim with potential and ingenuity to change what has come before. Their capacity to learn is at a peak, and they are more likely to be innovative and entrepreneurial than older adults.[17] Girls can and must be equipped to become change agents who together with boys confront the serious challenges facing their communities and their countries. They are the ones who will be most affected. They are the ones who must lend their new and innovative ideas to create a sustainable future.

Empowering adolescent girls spurs economic and social growth in communities and nations, leading to transformational change. Girls that are educated, valued, healthy, and safe and that have access to economic opportunities are the entrepreneurs, decision makers, and later the mothers who drive positive change in rural communities.

Rural adolescent girls can be future farmers, increasing the food supply and protecting natural resources.

Women farmers hold a key to fully realizing the productive potential of agriculture. Many of the world's farmers are women, and their productive capacity is

BOX 2

More data is desperately needed.

Minimal high-quality and comparable data exist on adolescent girls in developing countries. While some of this information is being collected through censuses and national surveys such as demographic health surveys, more needs to be done. The data limitations are even starker when looking for robust information on *rural* adolescent girls. Throughout this report, where data specifically on rural girls is not available, broader data is used to help paint the picture of a rural girl's circumstances. The *Girls Count* series and other recent efforts to focus attention on adolescent girls in developing countries has contributed significantly to the call for better data on this important population. This report lends its voice in support of efforts to increase data on adolescents and young people, with particular focus on disaggregated data on rural adolescent girls (see Recommendation 7).

BOX 3

The "five transitions" of adolescence matter.

The World Bank's *World Development Report 2007* describes five major transitions that are key to young people's development: **learning, working, staying healthy, forming families, and exercising citizenship.** The timing of the transitions varies by age and context. They can overlap and influence each other. Public policy has a major role to play in creating an environment for successful transitions.

The *World Development Report* examination of the five transitions included a set of focus group discussions between 2006 and 2007 with young people from more than twenty countries. These focus groups were convened with special attention to reaching young people who are often not part of the dialogue, including female youth and rural youth.

As per the *World Development Report,* "For governments that create a policy environment conducive to all the transitions, the payoffs can be enormous."

Source: World Bank, 2006.

BOX 4

Females of all ages play a key role in agriculture.

- Women comprise 20 to 50 percent of the agricultural labor force in developing countries.
- In the least developed countries 79 percent of economically active women identified agriculture as their primary economic activity.
- Women make up two-thirds of the world's livestock keepers.
- Women in the developing world handle an average of 43 percent of all farming and virtually all household work.

Source: FAO, 2011; Doss, 2011; Thornton et al., 2002

inhibited due to gender inequities. In their adolescent years, rural girls often assume significant responsibilities on a farm. They plant, weed, thresh, and harvest the fields; tend poultry and livestock; sort and pound grain; collect milk, eggs, or fruit; help process food products; and transport goods over the long distances to market. They cultivate crops specifically for nutritional needs such as tubers, roots, and maize rather than cash crops. They gather the herbs, berries, nuts, or other basic foods needed to supplement the family's diet.

As adolescent girls become women, their roles on the farm increase. Yet women farmers, already so deeply involved in agriculture, have enormous productive capacity that is yet untapped because of gender imbalances in access to agricultural resources and decision making. If women had the same access to productive resources as men, the results could be significant, even without any additional training or inputs.

- Agricultural yields on female farms could increase to levels achieved by men, or by 20 to 30 percent.
- National agricultural output could increase by an average of 2.5 to 4 percent.
- The number of undernourished people could be reduced by 12 to 17 percent.[18]

In addition, countries with greater gender parity have higher cereal yields.[19] If women farmers have additional agricultural training, productivity increases could be even more dramatic. In Kenya an additional year of education for women farmers would increase maize yields by 24 percent.[20]

Rural adolescent girls as future women farmers also have an important potential role to play in improving production and yields among their women farming counterparts. Because women farmers are more likely to model farming activities of other women farmers,[21] increasing the education and training of women farmers and extension workers in yield-enhancing technologies can allow them to illustrate and share these technologies with others with better success.

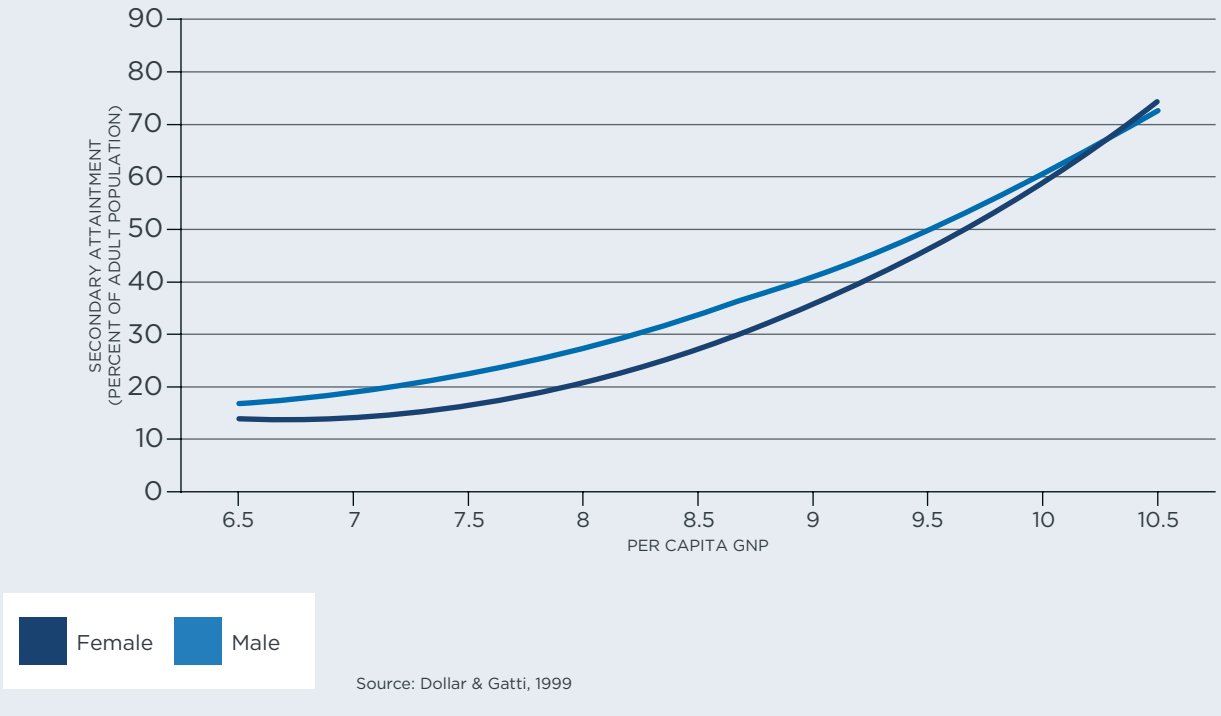
As today's adolescents become women working in agriculture, they are well positioned to produce indigenous crops and livestock that can increase family incomes. Such crops are often more culturally appropriate for women to cultivate.[22] Women working in agriculture also have the capacity to produce higher-value food products such as vegetables, fruits, flowers, and meat from small animals if given access to sufficient inputs and infrastructure. In Ecuador two-thirds of workers on flower farms are women, and in Mozambique women play a key role in cashew nut processing. In Afghanistan and Pakistan special efforts to engage women in dairy goat programs, where women are the predominate caregivers for livestock, have resulted in increased economic opportunities for families.[23] Although these examples are imperfect (working conditions are not satisfactory and women's wages are still inequitable to men), they demonstrate that new agricultural markets offer unique opportunities for women. Success in these areas may lead to the ability to move into larger livestock and cash crops.

Rural girls can also become important players in natural resource management both as adolescents and as they grow into women. Girls and women

FIGURE 2

Per capita GNP rises with secondary school completion.

Per capita GNP based on percentage of adult population attaining secondary education.



Source: Dollar & Gatti, 1999

often have unique knowledge of local crop species and contribute to environmental protection and sustainability through seed banks and preserving local species. Because their responsibilities often include regular interaction with the environment, adolescent girls and women are key to effective strategies to conserve land, water, and biodiversity.[24]

Beyond these roles, rural adolescent girls can become the agricultural educators, researchers, entrepreneurs, and innovators of tomorrow. From roles as entrepreneurs or workers in agroprocessing businesses, input supply firms, and milling facilities to roles as agricultural extension agents and conservation specialists, adolescent girls are well positioned to become leaders in driving sustainable agricultural and food system transformation in developing nations.

Rural adolescent girls can be essential economic contributors to the nonfarm economy.

Every day in rural areas adolescent girls are proving their value as hard workers. As an essential part of the "living infrastructure" for their families and communities, they replace missing physical infrastructure such as piped water and electrification with their human labor.[25] This may be in addition to their labor on the farm or in other, usually unpaid, economic roles. With education, health, and opportunity, these hardworking girls can play beneficial roles in their families and communities as adolescents and grow into highly productive women who have the potential to generate economic growth as entrepreneurs and workers in all sectors of the rural economy.[26]

They can spearhead small businesses, provide phone and Internet services, run small-scale manufacturing firms, create new products, and be educators and health-care workers.

Education and training empowers women to take on these roles and is proven to deliver multiple returns for both households and societies.[27]

- The returns to female secondary education are estimated to be in the 15 to 25 percent range, a higher rate of return than for men.[28]

- An increase of only 1 percent in female secondary school attendance adds 0.3 percent to a country's average annual per capita income growth.[29]

Investment in girls' education also provides nations with a "demographic dividend" of greater national savings and economic growth. This arises from the lower fertility rates that come with educating girls, resulting in fewer children per family, combined with the larger workforce that comes from working-age girls and young women entering the labor market with valuable education and skills.[30]

Rural girls can be influencers, decision makers, and change agents for their families and communities.

As rural adolescent girls become more educated and economically empowered women, their influence within the home and community also grows. Educated women are more likely to participate in civic life and to advocate for improvements in their communities.

For example, rural women in Peru who participated in the design of a rural roads project were able to advocate for inclusion of their needs. The project yielded new roads that connected communities, along with many "nonmotorized transport tracks" used mostly by women. Such tracks were ignored by other road programs. As a result, women were able to spend less time gathering food and fuel supplies and increase their participation in markets and fairs. Forty-three percent of them reported earning higher incomes.[31]

Younger women in Burkina Faso, Mali, and Senegal have found that increased income has encouraged them to challenge traditional norms about rural women's roles that limit their potential.[32] Through interactions with male family members—as daughters, sisters, aunts, and wives—as well as in relations with other women, empowered adolescent girls and women can demonstrate clearly the returns on investment in girls and help change attitudes that prevent them from effectively participating in the economic and social lives of their communities.

Education and active economic and civic participation also reduce the incidence of poverty at the community level.[33] It is estimated that an additional 13.4 million children in South Asia and 1.7 million children in Sub-Saharan Africa would be adequately nourished if there were greater gender parity in decision making.[34]

Rural adolescent girls can break the cycle of poverty.

The welfare of the next generation lies heavily on the shoulders of adolescent girls. Most of the rural girls of today will at some point become mothers. A mother's circumstances largely determine the outcomes for all of her children—girls and boys. Educated, healthy, and civically empowered women raise educated, healthy, and civically empowered children. By equipping adolescent girls with what they need to become healthy and educated human beings, their social, economic, political, and human capabilities increase and are passed to the next generation. As a UN Interagency Task Force on Adolescent Girls has found, "With the right opportunities and skills-building, these adolescent girls could hold the key to breaking the intergenerational cycle of poverty in the world."[35]

The impact of a mother's education, health, and status on her children is well documented.

- Educated girls may marry later and have fewer children overall. A sixty-five-country analysis found that doubling the proportion of women with a secondary education would reduce average fertility rates from 5.3 to 3.9 children per woman.[36]

- Women's status has a positive effect on children's nutritional status.[37]

- Women who are educated are 50 percent more likely to immunize their children.[38]

The potential of rural adolescent girls to become partners and leaders in rural economic transformation is undeniable. Tapping this extraordinary potential is a precondition for reaping the full benefits of any agriculture and economic development efforts. Yet girls' potential is often cut short at the very time it is most critical to cultivate it. Adolescence is a time when the world often contracts for girls and gender disparities in opportunity and expectations become particularly pronounced.[39] It is a time often marred by excessive work burdens, early marriage and childbearing, social exclusion, and limited educational opportunities.

The transformation begins by viewing rural adolescent girls in a new light—one that shines on their value as human beings capable of great things as mothers, wives, farmers, producers, wage earners, entrepreneurs, researchers, government workers, community leaders, managers, decision makers, and influential voices for the good of the future. It also begins by realizing that what we do for and in partnership with girls, we do for men, women, and boys too. No one will be left behind when adolescent girls are given a chance.

What we do for and in partnership with girls, we do for men, women, and boys too.

DREAMS AND REALITY
RURAL GIRL STORIES

Tribal Girl in India: Janhabi Kishan, 17

Janhabi Kishan lives in a small hamlet of the tribal village of Pithabhuin in rural India. The village, which is surrounded by dense forest, is home to thirty-five families who depend on agriculture for their livings. Janhabi lives with her father and mother and her younger brother (fifteen) and sister (thirteen). Both her parents suffer from illnesses that prevent them from working, even at home. As the eldest daughter, Janhabi had to drop out of school in the third grade to support her family. The family's diet consists of rice and potatoes. Once a month, if they are lucky, they may eat eggs. Janhabi has only a few dresses of poor quality. The village has no electricity.

To support her family, Janhabi works in the two acres of paddy fields that belong to her family and as a wage earner in the paddy and watermelon fields of other farmers. She also earns money by collecting Mahua flowers with her sister and Kendu leaves with her brother, two important nonwood forest products in the area. Mahua flowers can be used for food, syrup for medicine, or to make an alcoholic drink. Kendu leaves are used for wrapping bidis, a South Asian cigarette. Janhabi is able to keep half of the Mahua flowers she collects (the other half is given to the tree owners), and she earns about 1,000 to 1,200 rupees (about US$25) from the Kendu leaves in a season.

Janhabi's household chores include collecting firewood from the forest every four or five days, fetching water, cooking, cleaning, and giving medicine to her parents. Once a month she takes them to a doctor at the district headquarters, twenty kilometers away. She normally begins her day at 6 a.m. with household chores and fetching water, works all day in the fields, and then cooks dinner and cleans in the evening. During the agriculture season she may get up as early as 4 a.m. What little free time she has, she spends with her family.

While the work is difficult, Janhabi does it for the good of her family. She dreams of seeing her family in better position; being able to afford full, nutritious meals; and having a house with an asbestos roof and plaster walls. She wishes for a bicycle, better quality clothing, electricity, and a television. She looks forward to the marriage of her brother and sister and to her own marriage. Girls in her tribe generally marry at age fifteen, but she has been unable to get married because of her responsibilities to her family. Janhabi is not sure how to achieve her dreams, but hopes to find better livelihood opportunities with the help of others.

Source: Kishan, 2011

Rural Girl in Kenya: Diana Wambati, 15

Fifteen-year-old Diana Wambati lives in rural western Kenya in a small, mud-brick house with no electricity or running water. Her parents are smallholder farmers who struggle to grow enough food to feed her family on their small, two-acre plot. Despite this, Diana has been able to stay in school and is in her second year of secondary school. She likes school because it is a place where she can learn and socialize with friends. She particularly likes agriculture studies, biology, and Swahili.

The mother of one of Diana's friends talks about how things have changed for girls. "Things are so different now," she says. "In the past, girls weren't educated. Now, it's important for girls to get an education, so they will be independent."

Diana wakes at 5 a.m., before her five brothers and her parents. She lights the wood fire, washes pots and pans, and sweeps inside and outside the house. At 6:30 a.m. she leaves for school, a ten- to fifteen-minute walk down a dirt path. There she finishes up any remaining homework before school begins at 8 a.m. During breaks at school she socializes with friends, plays soccer or skips rope, or just runs around the schoolyard.

By 5 p.m. she is back home collecting firewood for dinner and completing chores. Her family gets water from a well on the farm, so while she does not have walk far, she must hoist the water from the well. After dinner she does homework by the light of a paraffin lamp, usually working until 11 p.m. before going to bed.

On Saturday she does chores in the morning and visits friends or walks to the market in the afternoon. She attends church on Sunday morning and in the afternoon washes her school uniform for the coming week and finishes her homework. Diana also helps her parents with farming, especially during the busy planting and harvesting seasons.

Diana does not, however, want to be a farmer. “It’s too hard, and it’s tiresome,” she says. Her dream is to become a doctor. “I’d like to treat people,” Diana says. “I have a heart for helping the sick. Right now, there are no doctors around here to help people. It would be good if I am the one.”

Source: Wambati, 2011

Rural Girl in Indonesia: Muzayyanah, 17

Seventeen-year-old Muzayyanah, whose nickname is Yen, lives with her mother, father, and younger brother in Madura, Indonesia. Madura is one of the poorest regions of the East Java province, where subsistence agriculture predominates. Her parents are rice and tobacco farmers. While the family does not have much money, Yen has been able to continue her education. She is currently in eleventh grade in senior high school. On her days off school, Yen helps her parents on the farm. During planting time, she helps plant rice paddies or tobacco, and during harvest time she helps to dry the rice and tobacco. Yen’s household chores include helping her mother prepare food, sweeping the floor and the yard of her house, and washing clothes. She spends around two hours a day doing housework. If her mother goes to the rice field, Yen helps her younger brother get ready for school.

Yen’s day generally begins at 5 a.m. with a bath, prayers, and breakfast. She is in school from 7 a.m. to 1 p.m., after which she prays and takes a nap. She takes an English course for two hours in the afternoon, then prays and eats dinner. She watches television for an hour at night, then studies for school and goes to sleep by 9:30 p.m.

If Yen has free time, she watches television, plays with her younger brother, or reads books. Yen would like to continue her education until she finishes her bachelor’s degree, but realizes her parents may not be able to pay for it. When she gets older Yen hopes to help her family, and if she is successful, she wants to teach English in high school. “I want to share my knowledge with other people,” she says. “I believe I can reach my ambition if I study hard, try to be the best, and have spirit to face my life.”

Source: Muzayyanah, 2011

2

RURAL ADOLESCENT GIRLS FACE A TRIPLE CHALLENGE

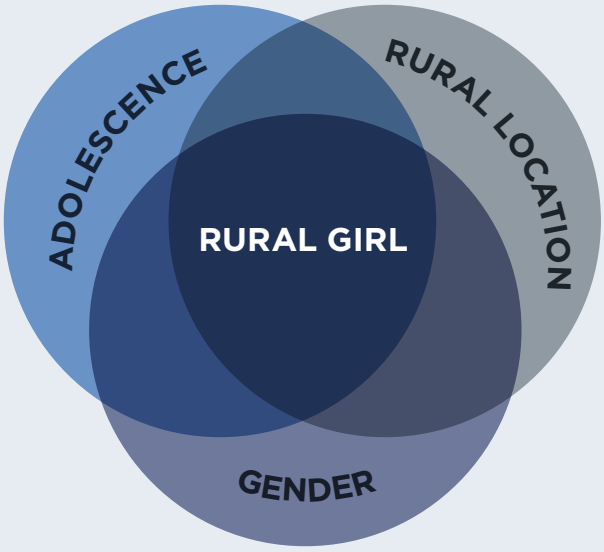
Photo Credit: Leslie Pratt

The challenges of location, age, and gender often create a triple disadvantage unique to rural adolescent girls.

Previous page
In spite of an approaching sandstorm in Lac Abhe, Djibouti, three girls are not distracted from their daily goat-herding responsibilities.

FIGURE 3

Rural girls face three levels of exclusion.



Source: Lloyd, Mete, and Grant, 2007

"I think for us women, happiness comes once in a while because you are busy all the time."
—Rural girl, Uganda[40]

The trajectory of a rural adolescent girl often puts her on a path that leads back where she started—a life of struggle and poverty with limited opportunity or hope of something better. While the experiences of girls vary widely across developing regions, rural adolescent girls face special challenges compared to their urban peers and to rural adolescent boys. Taken together, the challenges of location, age, and gender often create a triple disadvantage unique to rural adolescent girls.[41] This triple disadvantage severely restricts their development into the vital agents of change that they have the potential to become. If girls are also ethnic minorities, internally displaced or refugees due to conflicts, or disabled, these disadvantages are further compounded. Yet if these challenges can be overcome and a girl's trajectory reversed, her fortunes and those of her community can be changed for the benefit of everyone.

Rural location

Rural areas of the developing world are as diverse as the adolescent girls that live in them. From the Andes of Peru to the jungles of conflict-ridden Democratic Republic of the Congo, from the banks of the Nile to the paddy fields of Bangladesh, rural people face dramatically different life circumstances stemming from their highly varied languages, cultures, politics, economics, landscapes, and climates. While these differences make it hard to generalize about the rural place, information and data on common features of rural areas—pervasive poverty, reliance on agriculture, and changing household structures—help paint a picture of the special challenges faced by adolescent girls in rural areas.

Poverty

Rural areas are predominately the realm of the poor. Approximately two-thirds of all poor in the developing world live in rural communities, including around 70 percent of those in extreme poverty. Regionally, some dramatic progress in reducing rural poverty has been made, especially in East Asia (particularly China), where the percentage of people living on

less than $2 per day dropped from 98 percent to 35 percent from 1988 to 2008. Rural poverty in Latin American and the Caribbean dropped from 42 percent to 20 percent over the same time period and from 33 to 12 percent in the Middle East and North Africa. In Sub-Saharan Africa, however, rural poverty is increasing, jumping from 75 percent to 87 percent from 1988 to 2008. It is also very high (80 percent) in South Asia, having dropped by 5 percentage points over the past two decades. Overall in the developing world, rural poverty has dropped roughly 14 percent in the past twenty years, from 2.1 billion to 1.8 billion, while population has increased from 3.8 to 5.2 billion.[42]

Although progress has been made, there is much work left to be done. As commodity price volatility continues, populations grow, and resources become scarcer, there is a real risk that more families and communities could be plunged back into poverty.

Even as some areas have made strides in reducing poverty, its impact in rural areas of the developing world overall is pervasive. Undernourishment is prevalent and has been increasing since the mid-1990s. After a spike in 2009 in the aftermath of the food price crisis, the number of malnourished stood at 925 million in 2010, up from approximately 825 million in 1995-97.[43] Children are among the highest numbers of malnourished, with approximately 27 percent of children in the developing world malnourished.[44] Notably, in all developing regions of the world, rural children are more likely to be hungry than children living in cities or towns.[45]

Isolated from the centers of economic and political of power because of their remote locations and geographic terrain, rural areas also suffer disproportionately in terms of investment.[46] Many lack roads, bridges, transportation, safe drinking water, sanitation, electricity, telephones, health-care facilities, and schools. Although access to these basic human needs varies widely across regions, countries, and communities, poor rural populations share in the struggle to sustain their lives and livelihoods against strong odds.

While many rural households struggle with an unending cycle of poverty from which they find no

BOX 5

Rural girls are different from their urban peers.

Ten differentiators

1. Rural children in many countries are less likely to be registered at birth than their urban counterparts.

2. Rural children are two times more likely to be underweight than their urban counterparts.

3. Children in rural areas are more likely to die before their fifth birthday than their urban counterparts.

4. Rural children are twice as likely to be out of school as those from the wealthiest households in urban areas, with the gap slightly wider for girls.

5. The distance from home to secondary school tends to be much longer in rural than in urban areas. Distance to school is a major barrier to school attendance for rural girls.

6. Heavy work burdens for girls interfere with schooling and other learning opportunities. In some rural areas girls may spend up to eight hours a day walking to and from a local water source.

7. Young women are less likely than young men to have HIV/AIDS knowledge, and rural youth overall are less likely to have this knowledge.

8. Rural women are less likely to use contraception when compared to their urban peers.

9. Worldwide, rural births are significantly less likely to be delivered with a skilled health provider.

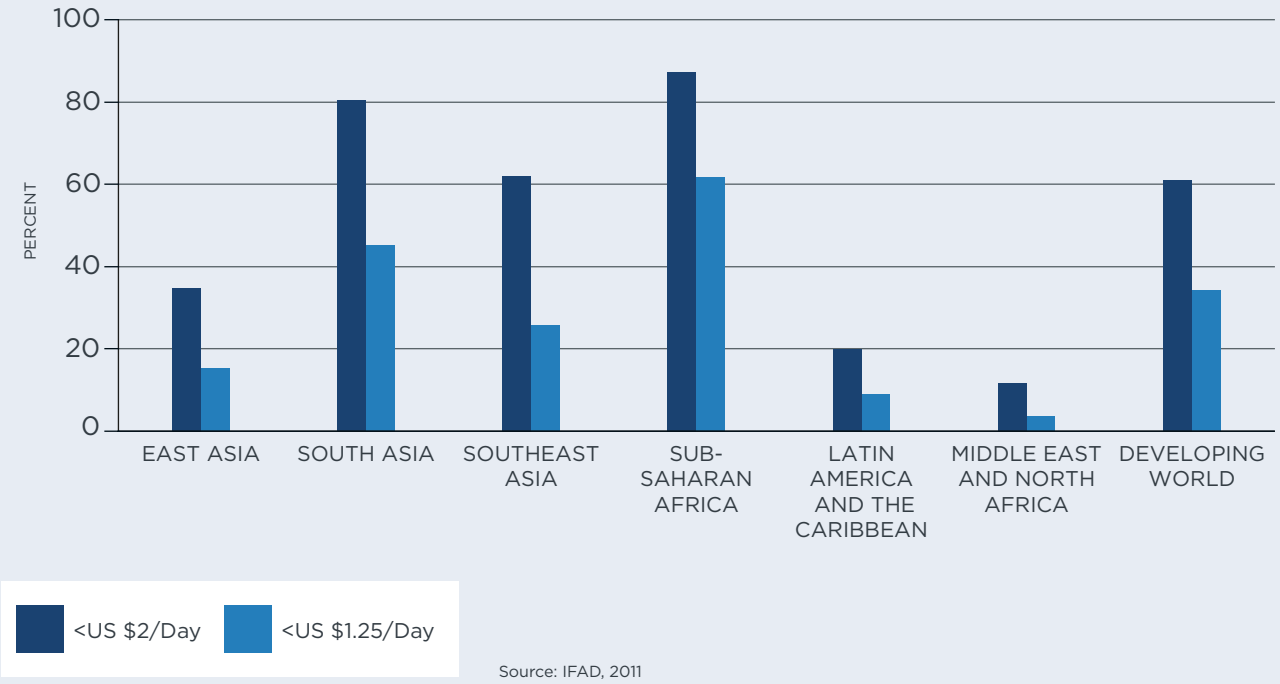
10. As rural environments are often characterized by resistance to change, rural girls face greater pressure than their urban peers to adhere to traditional practices and customs.

Sources: UNICEF, 2010; Klugman, 2010; UNICEF, 2006; Cohen, 2006

FIGURE 4

Poverty defines many rural areas of the developing world.

Percentage of rural people living in poverty (<US$2/day) and in extreme poverty (<US$1.25/day).



Source: IFAD, 2011

escape, there are many others that find themselves moving in and out of poverty at different points in time. For those in a fragile state, shocks such as ill health, accidents, bad harvests, natural disasters, conflict, and food price spikes can suddenly plunge them into poverty. Poor rural adolescent girls often bear the brunt of such crises[47] through increased work burdens, school dropout, and deteriorating nutrition and health. Yet adolescent girls also have the potential to affect huge change in combating the poverty of rural areas if given the chance.

Reliance on agriculture

Agriculture remains a core livelihood among rural households. More than 80 percent of rural households in the developing world rely on farming to some degree, with the poorest households typically the most reliant.[48] Most farmers in developing countries are smallholders, engaged in farming on plots of less than five hectares, sometimes not even on land that they own.[49] Farmers are women and men, girls and boys. Many are subsistence farmers, producing only enough for their families; others are market-oriented smallholders who may be delivering surpluses to food markets or growing cash crops for local and global markets.

The challenges facing rural farmers in the developing world are compounding. Land is becoming scarcer because of land divisions through inheritance, environmental degradation, population growth, and major land purchases or rentals from governments and private sector companies to secure future food supplies. As a result, many farmers in the developing world are trying to sustain their livelihoods and produce more food on smaller and smaller plots.[50]

Water is also becoming an increasingly precious and scarce resource. Irrigated farming is employed

on 18 percent of lands cultivated in the developing world, but produces approximately 40 percent of agricultural output.[51] At the same time, growing demand for water for industrial, urban, and environmental uses—along with unsustainable irrigation systems that have led to water depletion and deteriorating water quality—is reducing water available to agriculture and rural communities. Fresh water supplies are already fully used in many countries.[52]

Smallholder farmers feel the greatest pressure due in part to their lack of adequate assets and resources and the fact that they are often engaged in environmentally unsustainable farming techniques. However, as the majority of farming in the least developed countries of the world is done by smallholders, it is these smallholder farmers who have the opportunity not only to increase production, but to be critical natural resource managers. Developing sustainable technologies and encouraging adoption among smallholders will be critical to enhancing environmental protection efforts, regenerating the degraded resources so necessary to keeping rural communities vibrant, and increasing agricultural capacity.

While large commercial farmers will play a role in increasing production, history has shown that developing countries that promoted smallholders in their own nations—such as China, India, and Indonesia—have been successful in using agriculture as a driver for growth and foundation for industrialization.[53] The support of smallholder farmers is particularly critical for women and girls, who make up a significant portion of smallholder farmers and agricultural laborers and have the potential to make tremendous contributions to increased productivity in agriculture as well as to natural resource management.

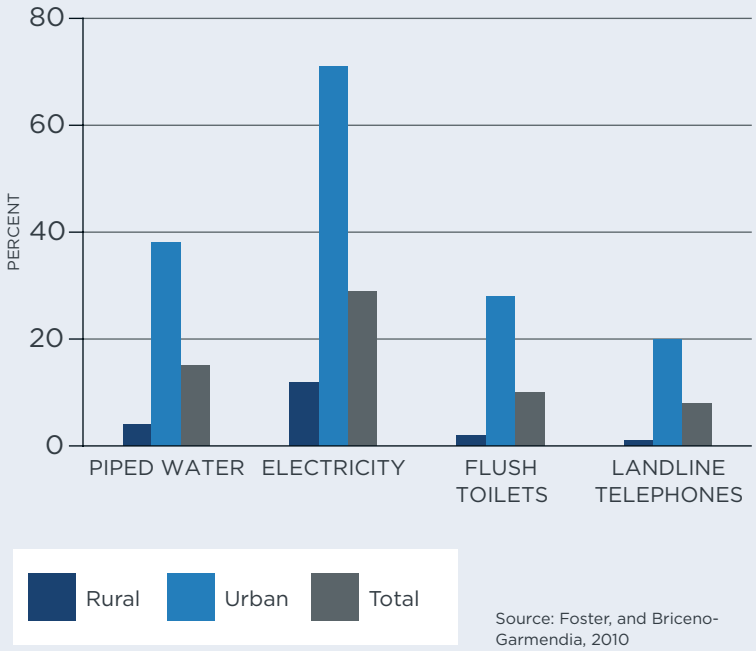
Changing households

Poverty and the increasing difficulties for smallholder farmers are combining to alter household structures, changing the family makeup along with roles and responsibilities. Adolescent girls are often most dramatically affected by these changes in terms of their workloads, ability to attend school, and life circumstances. Girls must be given the tools they need to deal with such changes and turn their challenges into opportunities.

FIGURE 5

Rural Africa lags far behind urban areas in basic services.

Percentage of population with access to services.



Source: Foster, and Briceno-Garmendia, 2010

Need for nonfarm income

Despite dependence on farming, farming alone often cannot sustain rural families and their communities. The nonfarm economy has become increasingly important for rural households, with income from nonagricultural wages or self-employment often the only way to increase farm household income. In Asia 40 percent of rural employment is now found in the nonfarm sector, and in India it is growing twice as fast as farm employment. In Latin America a rapid increase nonfarm employment can be seen in Brazil and Ecuador, where the nonfarm sector amounted to 30 percent in the early 1990s. It is estimated that 45 percent of rural income in twenty-five African countries stems from the rural nonfarm sector.[54] Women are increasingly engaged in nonfarm employment, making up between 11 and 39 percent of those employed in the rural nonfarm economy in Africa, Asia, and Latin America.[55]

BOX 6

Deforestation often affects rural adolescent girls and women disproportionately.

Prevailing resource degradation and deforestation in many developing nations is due in part to the demand for firewood used for cooking and heating. In addition, unsustainable farming methods contribute to losses of soil fertility, leading farmers to clear forests in order to cultivate. With growing populations and demand for food, the degradation of natural resources only accelerates. Women and adolescent girls are highly affected by these trends because of the large amount of time they spend collecting firewood.

Nepal remains a prime example of low-productivity agriculture coupled with detrimental environmental degradation. Forests in Nepal occupy nearly 40 percent of the entire country, and 88 percent of the country's fuel comes from traditional sources, including wood. The United Nations suggests the use of biogas and improved cook stoves as alternative fuel sources would save firewood in households, easing both the pressure on remaining forests and the workload for women and girls.

The Green Belt Movement in Kenya is a positive example of mobilizing community awareness of deforestation on degraded lands. Started in 1977 by Dr. Wangari Maathai, the first African woman to receive a Nobel Peace Prize, this nonprofit, grassroots organization uses tree planting to help promote peaceful democratic change, environmental protection, and female empowerment.

Sources: Green Belt Movement, 2002; United Nations Commission on Sustainable Development, 2002

Developing such opportunities is a crucial part of any rural economic development strategy. Success in agriculture breeds success in agriculture-related industries and other areas of the rural nonfarm economy through the multiplier effect.[56] Each dollar of additional value added in agriculture generates another 30 to 80 cents in income gains elsewhere in the economy.[57] Countries that have effectively reduced rural poverty have increased diverse economic opportunities for rural dwellers through the nonfarm sector.[58]

Adolescent girls are well positioned to contribute to the building and sustenance of a thriving nonfarm economy. As the agriculture and nonfarm economies grow, rural places can provide more diverse livelihood options for rural adolescent girls of working age.[59]

Burgeoning youth populations

Development of these opportunities is especially important because of the burgeoning youth population. The number of adolescents in the world has doubled since the 1950s, and their numbers in absolute terms are expected to continue growing until around 2030.[60] This, combined with higher fertility rates in rural areas, means that rural families have more dependents of nonworking age. For example, in Ethiopia rural households have an average of 5.6 household members compared to an average of 4.9 for urban households.[61] Youth unemployment is increasing and is a major challenge for rural areas already struggling with lack of opportunities in the nonfarm economy.

Increasing migration

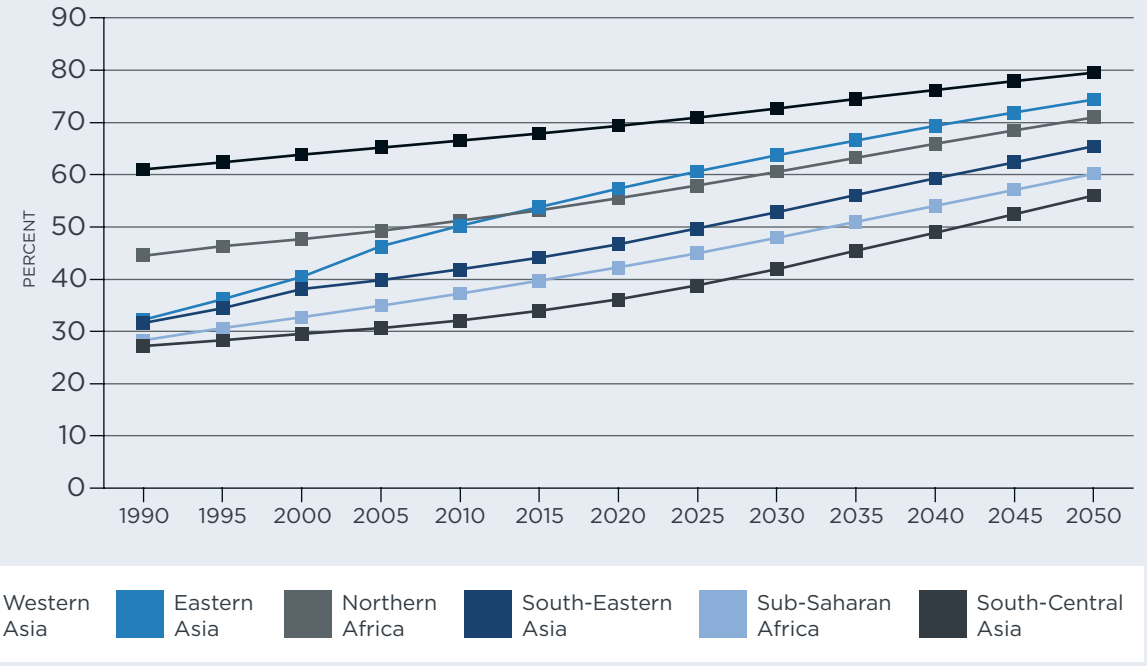
In many areas low productivity on the farm and the lack of nonfarm employment opportunities—along with natural disasters and violent conflict—are contributing to migration. For some rural people migration to cities and periurban areas is a natural and necessary part of the development process and plays an increasingly important role in diversifying rural incomes. Remittances from migration are surpassing income provided by agriculture in many parts of Asia and Africa.[62] Overall, rural to urban migration is moving at rapid pace across the developing world. Developing country populations increased by 1.2 million people per week between 1995 and 2005.[63] While slowing, the urban populations of Africa and Asia are expected to double between 2000 and 2030.[64] Urban populations increased anywhere from 20 to 60 percent between 1995 and 2005.

Approximately 35 million international migrants are between the ages of ten and twenty-four years, about 17 percent of the total migrant population. Twenty-one percent of the international migrant population in less developed countries are youth.[65, 66, 67] Young people often view migration as an avenue to improve their status, learn new skills,

FIGURE 6

Urbanization is moving at a rapid pace in Africa and Asia.

Percentage of population residing in urban areas from 1990 to 2050.



Source: United Nations Department of Economic and Social Affairs, 2010

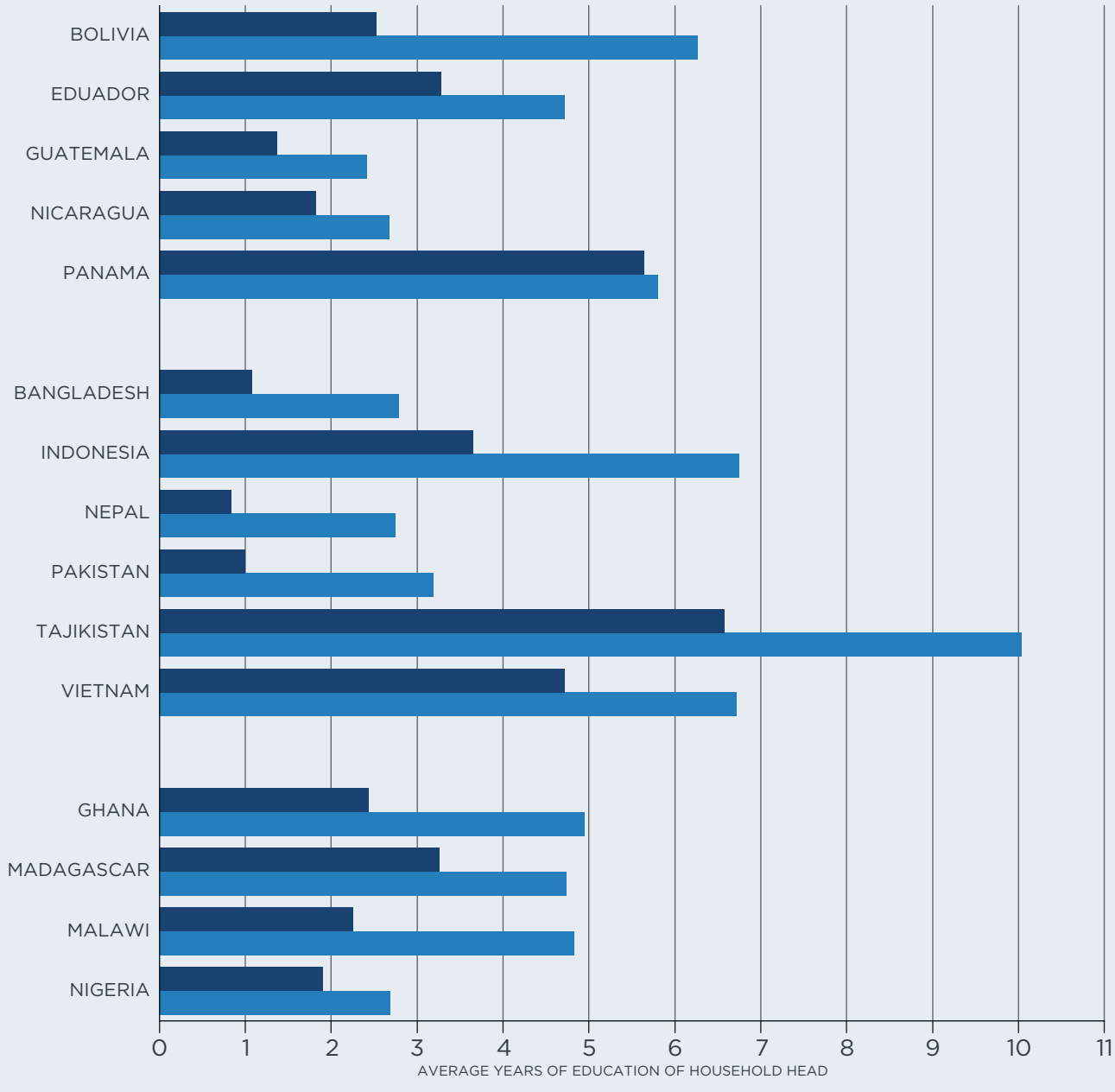
and transition into adulthood. But migration also has its dangers, and adolescent girls face unique challenges. Despite hopes for better opportunities in urban areas, in many cases few good opportunities exist. Female migrants promised a better life in cities can be subject to trafficking. Many adolescent girls migrate for marriage, only to be left without social networks and support systems, increasing their isolation and vulnerability. Those who migrate for jobs as domestic workers are highly vulnerable to poor treatment and sexual abuse. Education can play a large role in mitigating these dangers and preparing those who do migrate to make a successful transition.

At home, migration is one factor contributing to major changes in the makeup of rural households. This includes the increase in some places in the number of female-headed households due to the migration of men. In Sub-Saharan Africa 31 percent of rural households are headed by women, while in Latin America and the Caribbean and Asia, women head 17 percent and 14 percent, respectively. While there are different types of female-headed households, in almost all countries female-headed households are concentrated among the poorer strata of society and often have lower income than male-headed households.[68] When male family members migrate to seek employment, women and children are often left to carry the full burdens of agricultural production and other responsibilities. The placement of additional tasks on the shoulders of adult women may require them to shift more work to younger female household members,[69] negatively affecting their ability to complete their schooling.

FIGURE 7

Gender creates a disadvantage among rural household heads.

Female rural household heads have less education than men.



Source: FAO, 2011; Anriquez, 2011

The same can be true when women migrate, with adolescent girls left to care for younger siblings and older family members. In other cases the migration of young people, including adolescent girls, accelerates the aging of rural populations, leaving a gap in the labor force among the potentially most productive.

In addition to migration, the effects of HIV/AIDS have also had a dramatic impact on rural households in some countries, especially in Sub-Saharan Africa. The majority of people affected by HIV depend on agriculture as their main livelihood.[70] Deaths from HIV/AIDS have in many cases further increased the share of female-headed households. In other cases, however, the deaths of young adults from HIV/AIDS have left farm households in the hands of children and grandparents.[71]

Women and girls can be disproportionately affected by such changing household structures because of less education and the lack of access and control over resources and decision making. In addition, women and girls often have no legal protection or rights to property ownership, leaving them vulnerable to land grabbing by relatives and displacement. Reducing and eliminating such barriers will be essential to ensuring that women and girls can effectively deal with the changing circumstances in which they find themselves.[72]

Even as migration and urbanization accelerate, the importance of rural areas—and the role of agriculture within them—will remain central to the future of nations and the world. The overall numbers of rural people are still growing. While the rate of growth of rural populations is slowing down in all regions, with rural populations expected to peak by 2025,[73] the challenge of poverty in these areas will remain acute for decades to come. As demand for food increases, creating vibrant economic rural communities will help equip local, regional, national, and global food and economic systems to meet the needs of growing populations everywhere.

Investments in rural economic development provide a tremendous opportunity to keep young people, including adolescent girls, "at home" and gain from their talents and potentials to make a difference in their communities. Moreover, adolescent girls that are properly equipped—those that are healthy, educated, safe, and know how to assert themselves in civic and decision-making frameworks—will also be better able to migrate safely and become economic and social contributors wherever they choose to live and work.

Gender

While there are great variations in how girls are viewed within their families and communities, in many places girls are last on the family priority list. While boys are often coveted because of their expected roles as household heads and providers, girls may be seen as temporary family members because they join another household when they marry. When family resources are strained, boys are often seen as more valuable and worthy of investment since investments in girls are viewed as benefitting someone else's family. While the lower value of girls is also a broader phenomenon, it is often more pronounced in rural areas that are deepest in poverty and the furthest from centers of economic opportunity and political influence. These are areas where social and cultural norms affecting gender roles are often most strongly engrained.[74] Such norms, in turn, greatly influence a girl's understood "place" within society, often restricting her own view of what is possible.

"Girls have housework so boys get better grades. . . . Our parents believe that a girl is born to work."
—Rural girl, 20, Ethiopia[75]

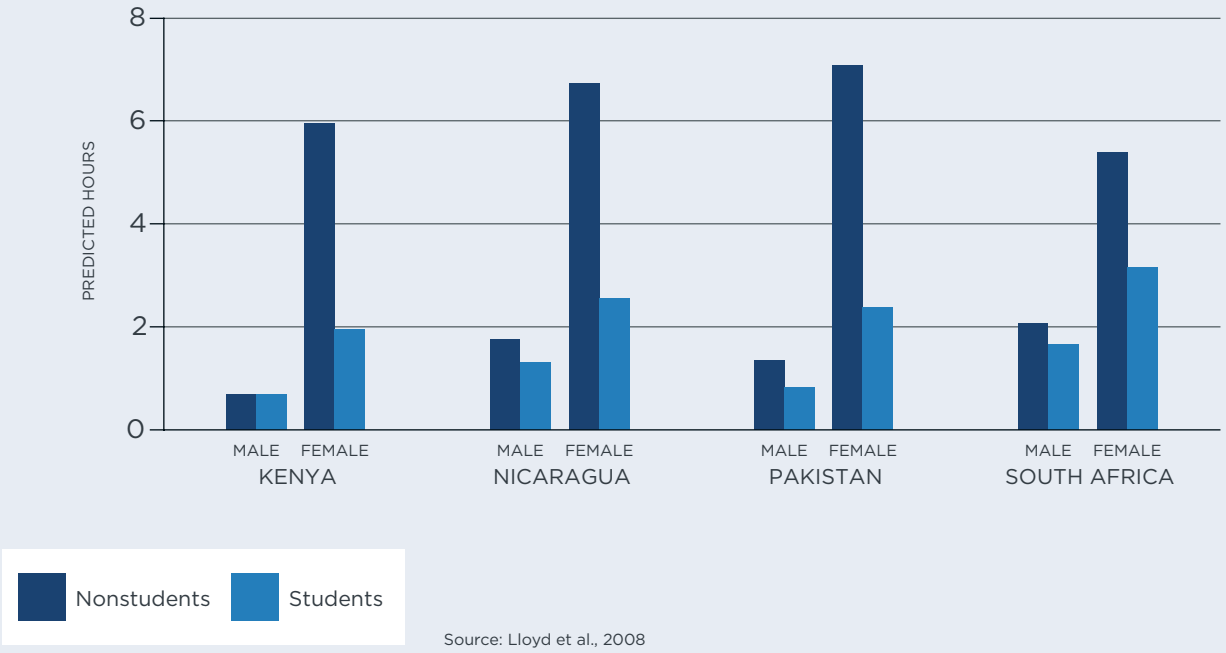
Heavy work burdens

For a rural adolescent girl, her female gender combines with the challenges of her rural location to place extraordinarily heavy work burdens on her. Infrastructure challenges, the demands of farming, and the prevalence of poverty place large loads on all members of rural families. In rural areas the total workday is 20 percent longer as compared to urban areas.[76] Gender compounds these burdens, with women and girls commonly carrying the dual load of domestic and other work responsibilities. Women in rural areas spend an average of 20 percent more time than men working. In urban areas women spend only 6 percent more time than men working.[77]

FIGURE 8

Rural out-of-school girls spend a disproportionate amount of time on household work.

Average daily hours spent on household work for rural, unmarried adolescents aged fifteen to sixteen years old, by sex and enrollment status.



Source: Lloyd et al., 2008

The lack of adequate infrastructure such as running water, electricity, and toilets in many rural areas is especially burdensome for rural women and adolescent girls. Only 31 percent of rural people in developing countries have access to piped water, compared to 73 percent in cities. In Sub-Saharan Africa the situation is even more challenging, with only 5 percent of rural areas having piped water access, compared to 35 percent in urban areas.[78] The average rate of rural electrification is 58 percent, compared to 90 percent in urban parts of the developing world. The rates are drastically lower in the poorest countries.[79] For example, only about 5 to 10 percent of rural Africans have access to modern electricity. The remaining 90 to 95 percent depend heavily on traditional fuel sources such as wood or cow dung and other biomass fuels for cooking, heat, and light.[80]

In these environments rural girls and women are often the main fetchers of water and fuel. They may spend hours walking long distances to carry water and collect firewood and clean up and carry away waste. In much of Sub-Saharan Africa women and girls transport the vast majority of water and fuel for domestic use.[81] In some rural areas girls may spend up to eight hours a day walking to and from a local water source.[82] These responsibilities require a great deal of physical exertion and time, but are often unrecognized and uncounted as productive labor as they are hidden in the unpaid domestic work category.

BOX 7

Child labor in agriculture undermines rural girls' chances.

Recent global estimates indicate that more than one hundred million girls, or 46 percent of all child workers between the ages five and seventeen years are involved in child labor worldwide. This includes everything from work in small-scale farming, home-based manufacturing, scavenging, quarrying, and fishing to bonded labor and prostitution. The majority of child labor among those aged five to fourteen years is in agriculture—one of the most dangerous sectors in terms of work-related deaths, accidents, and occupational hazards.

Children's work on the farm often goes far beyond what is considered "light" and "age appropriate" by the International Labor Organization and can be especially hazardous for children. Dangers include carrying heavy and awkward loads, often over long distances, and strenuous repetitive tasks, both of which can lead to chronic illness. Extreme temperatures and working barefoot in fields and around livestock can result in dehydration, cuts, bites, injuries, skin disorders, and water-borne diseases. Farming equipment and cutting tools can also be dangerous, especially to children. Skin problems, poisoning, and cancer can result from exposure to toxic substances such as pesticides. Often the health consequences are not recognized until adulthood given the cumulative and irreversible effects of prolonged exposure to such hazards. Malnutrition and disease can further complicate these problems.

The International Labor Organization has established an important legal framework addressing the problem of child labor. Convention No. 138 states that the minimum age for employment should not be lower than the age for finishing compulsory schooling (usually fifteen). Further, it states that children thirteen to fifteen years of age (or twelve to fourteen, where the minimum age is fourteen) may engage in "light work," defined as "not likely to be harmful to the health or development of young persons and not such as to prejudice their attendance at school, their participation in vocational orientation or training programs approved by the competent authority, or their capacity to benefit from the education received." These standards are, however, hard to enforce, especially in rural areas. Many of the recommendations in this report can help reduce child labor by educating parents about the value of education for their daughters and providing incentives that help offset economic costs and make it easier for girls to attend school.

Source: Murray, Quinn, and Allais, 2009

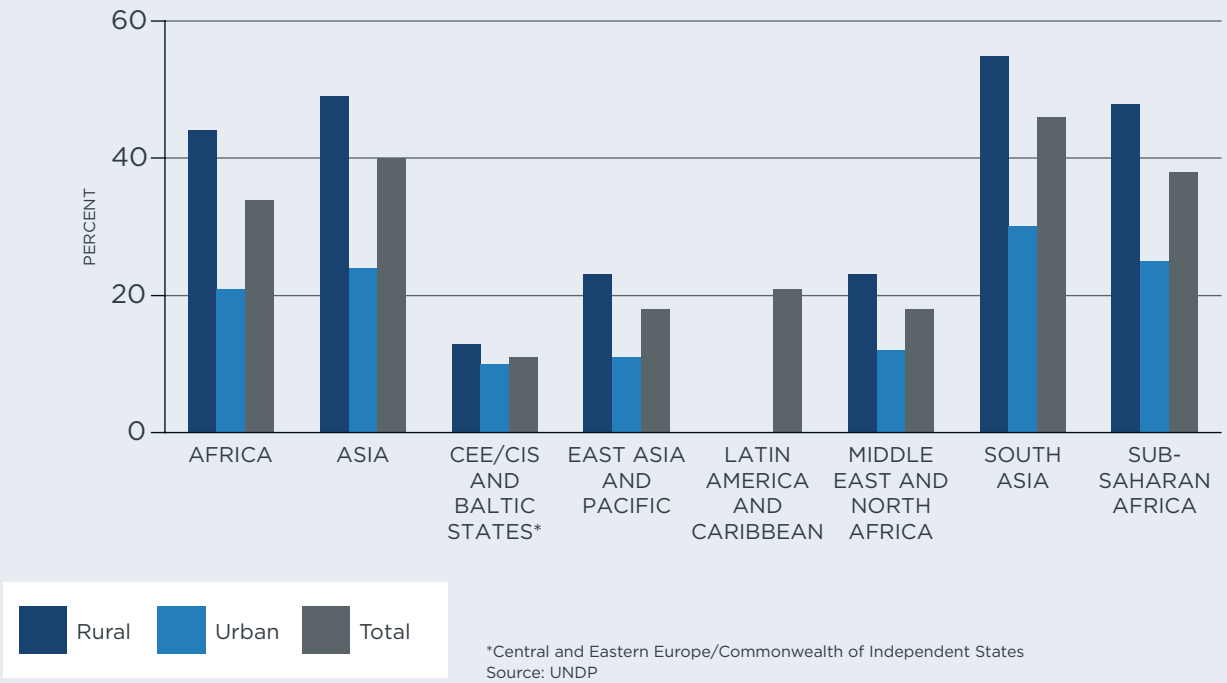
Adolescent girls are also expected to care for younger siblings, the sick, and the elderly; cook; clean; and complete other household chores. For example, girls have been found to spend approximately 85 percent more time per day on unpaid care work than boys.[83] They are also engaged on the farm alongside their parents (often their mothers), helping in the fields, looking after livestock, helping process food products, and helping transport and sell goods in rural markets. While both rural boys and girls work, rural girls have longer work days than boys. A 2009 study on child labor by the International Labor Office found that while the average hours in employment for boys aged five to fourteen is slightly higher than for girls in the same age group (20.2 hours per week for boys compared to 19.2 hours per week for girls), when the hours spent on unpaid domestic (household) work are factored in, the total hours of work for girls is greater than for boys.[84] While these statistics are not broken down between urban and rural children, together with statistics for rural women, they suggest higher work burdens for rural girls.

Girls who bear these extraordinary work burdens often drop out of school long before they have gained the knowledge and skills they need to develop into healthy, thriving adults able to lift themselves and their families out of poverty. While the immediate benefit of girls' work may seem

FIGURE 9

Many more rural than urban girls marry before the age of eighteen.

Percentage of women aged twenty to twenty-four that were married or in union before they were eighteen.



*Central and Eastern Europe/Commonwealth of Independent States
Source: UNDP

indispensable to poor, struggling families, excessive work burdens that compromise their health and education have high opportunity costs not just for girls, but for households, communities, and the economy at large.[85]

"During drought periods, we sell firewood. It takes an hour to collect the firewood and then another two hours to walk to Lalibela. And we start at 4 a.m., even 3 a.m. And if we don't manage to sell the firewood in the morning, we will have to stay in the market all day, and it stops me from going to school."
—Rural girl, 14, Ethiopia[86]

Early marriage

Early marriage—a phenomenon unique to adolescent girls that is more prevalent in rural areas—can also present significant challenges to a rural girls' development. Adolescent girls who live in rural areas, come from poorer households, and have less schooling are more likely to marry early.[87] In rural areas of the developing world (excluding China), 45 percent of women age twenty to twenty-four were married or in union before the age of eighteen, compared to 22 percent of urban women.[88] In Bangladesh, Chad, and the Niger, approximately one-third of women aged twenty to twenty-four were married by the age of fifteen.[89]

Married girls are consistently less educated than unmarried girls; have less freedom of movement than their unmarried counterparts; have less decision-making power in the household; have less access to modern media than unmarried girls; have fewer social connections; may be at greater risk

for gender-based violence than females who marry later; and possibly face greater reproductive health risks than their unmarried counterparts and married young women who have already had a child.[90]

Girls who marry early also tend to become pregnant early. Early childbearing increases the risks to them and to their future children.[91] In addition, adolescent mothers aged fifteen to nineteen are twice as likely to die during pregnancy or childbirth as those over age twenty. Girls under age fifteen are at even greater risk.[92]

"We young women are not prepared to become mothers. I would like to continue my studies, but since I have had my daughter my options have changed because I have many more obligations now. I hope that this will not be a barrier for me to succeed in life."
—Eylin, 19, Honduras[93]

Age of adolescence

As discussed in chapter one, the age of adolescence is a critically important time. Especially for rural adolescent girls, their experiences in the second decade of life can either put them on a path to hope and opportunity for a better future or confine them to an unending struggle against poverty, hunger, ill health, and indignity.

A renewed focus on human development, including gender issues, by the development community—especially through efforts to achieve the Millennium Development Goals (MDGs)—has brought some improvements. Children under five have gotten increased attention, with great progress in reducing infant mortality and increasing survival in early childhood. There are significant increases in enrollment and gender parity in primary schools.[94] These advances are important and have given many newborn baby girls a much greater chance at life than they might have had thirty years ago.

Yet the advances have also been uneven, especially in rural areas. And they have largely left girls in the second decade of life out of the picture. As girls grow older and reach adolescence, whatever support they may have received earlier in life drops almost completely away despite this critical time of

BOX 8

Berhane Hewan program in Ethiopia reduces child marriage.

Berhane Hewan, a program initiated in 2004 in the Amhara region of Ethiopia, aims to reduce early marriage among girls ten to nineteen years old through the provision of life skills, literacy, reproductive health education, and opportunities to save money. Ethiopia has one of the highest rates of early marriage in Sub-Saharan Africa, with almost half of all girls married before their fifteenth birthday. Groups of unmarried and married girls who met regularly were formed and led by adult female mentors. Girls who completed the program were offered a goat upon graduation.

An evaluation of the program after two years showed that the program had the greatest impact on girls aged ten to fourteen. These girls were almost three times more likely to be in school compared to an area without the program. Not one girl in the village was married during the previous year. The program also increased knowledge of HIV, sexually transmitted infections, and family planning methods for girls in the intervention area.

The initiative was developed through a partnership of the Ethiopia Ministry of Youth and Sport, the Amhara Regional Youth Bureau, and the United Nations Population Fund, with technical assistance provided by the Population Council.

Source: Erulkar & Muthengi, 2007

BOX 9

An Islamic Imam in Liberia uses teachings of the Prophet to advocate for girls.

"Today you find that some people will claim to be practicing Islam while acting against women. I say to the contrary. Ladies must be emancipated from degradation, emancipated from the odds against them, as human beings."
—Imam Abdul Massaquoi

Imam Abdul Massaquoi, a missionary, preacher, and leader in the Liberian Islamic community, has become a strong advocate for women and girls. His work is based on the example set by the Prophet Muhammad, whom he calls "the liberator of women." Imam Massaquoi finds and interprets passages of the Quran that explain the religious rights of women: "He who has a daughter and does not bury her alive or humiliate her, nor give a son preference over her will be admitted to Paradise by Allah." He has applied this edict by recruiting young women for school, speaking with parents, and serving as a foster parent to troubled young women. He has also begun reaching out to the wider Islamic community through radio programs.

In a region where young girls are often removed from school to take part in traditional activities or work, Imam Massaquoi tells parents: "If you take your girl child and send her to school and she achieves education, what you are looking for now can be achieved. But if you want to put the cart before the horse you will not move! Where you are, there you will remain."

Source: Nike Foundation, 2011

transition into productive and reproductive roles. It is important to focus attention and investment on the adolescent girls of today to ensure we maintain the gains made among younger children. It is the girls entering adolescence now who were babies when the MDGs began.[95]

In addition to efforts to reduce the excessive work burdens and delay the marriage of rural adolescent girls, interventions to improve their education, health, safety, voice, and preparedness for roles in the rural economy are critical not just to the future of girls, but to fully realizing the potential of agriculture and rural economic development. Empowered rural girls have great capacity to affect change within themselves, their families, and their communities. As participatory members of communities, they can lend their skills, ideas, and voices to help make real change happen. As people with a stronger voice, they can contribute more to their families. As educated members of society, they can share their knowledge with others. Rural adolescent girls can thrive, learn, and grow, but only when they have opportunity and space to do so. The right enabling environments will allow rural girls to seize their futures, and by doing so, positively impact their nations and, indeed, the world.

COUNTRY SNAPSHOTS
A RURAL GIRL'S LIFE

Guatemala	
Water and sanitation	• 51 percent of rural Guatemalan households access water from Guatemala's public aqueduct system. • 21 percent of the country's rural households access water via mechanical well. • 10 percent draw from nonimproved water sources such as rivers and springs. • 88.5 percent of rural households can access drinking water in fewer than fifteen minutes.
Personal items	• 78 percent of rural adolescents live in a household with a radio. • 40 percent live in a household with a television.
Education	• 24 percent of rural Guatemalan girls aged ten to fourteen were not attending school in 2006, compared to 10.1 percent of urban girls. • 72.6 percent of rural girls aged fifteen to nineteen were not attending school in 2006, compared with 45 percent of urban girls. • Another study found that 36.2 percent of rural girls never receive educational training, compared to 20.3 percent of urban girls. • Only 8.7 percent of rural girls complete secondary school, compared to 24.3 percent of urban girls. • Access to education is especially limited among rural Guatemalan girls of indigenous groups, which comprise 42 percent of Guatemala's total population and live primarily in rural areas.
Time traveling to school	• 11.1 percent of rural girls aged fifteen through twenty-four who completed primary school were forced to discontinue their secondary studies because the school was too far away.
Marriage	• 13.9 percent of rural girls marry before age fifteen, and 52.9 percent of rural girls marry before the age of eighteen. • These statistics increase for indigenous rural girls to 16.5 percent and 57.9 percent, respectively.
Source: Annan, 2001; Lewis and Lockheed, 2007; UNFPA & Population Council, 2009; Program de Encuestas, 1999; Population Council, 2003	

Pakistan	
Rural population	• 67.2 percent of girls aged ten to fourteen and 64.5 percent of girls aged fifteen to nineteen in Pakistan live in rural areas.
Birth registration	• 24 percent of rural people are registered at birth, approximately 8 percentage points lower than birth registration in urban areas.
Water and sanitation	• 87 percent of rural people have access to safe water. • 35 percent have access to modern sanitation.
Education	• 40.5 percent of rural girls aged ten to fourteen are out of school. • 67.7 percent of rural girls aged fifteen to nineteen are out of school. • At the age of ten, 62.5 percent of rural girls attend school. • At the age of seventeen, only 23.8 percent are in school. • At all ages, rural girls are the most disadvantaged compared to their male rural counterparts and to their urban sisters.
Literacy	• 74 percent of rural girls aged fifteen to nineteen years are illiterate or unable to read a simple sentence.
Marriage	• 54.1 percent of rural girls are married by the age of eighteen. • 14.5 percent of rural girls are married by the age of fifteen. • More than 20 percent of girls and young women (aged fifteen to twenty-four) report that their husband/cohabitating partner is more than ten years older (similar to percentage for urban females).
Family planning	• 79 percent of rural females aged fifteen to twenty-four who have ever been married have never used a modern form of contraception.
Maternal health	• For rural girls aged fifteen to nineteen who have experienced a pregnancy, the mean number of antenatal visits is 2.0, compared to the average of 3.6 for pregnant urban girls. • Only 35 percent of rural girls in the same age category deliver their babies with the assistance of skilled health personnel.

Source: UNFPA & Population Council, 2009; UNICEF, 2011

Ethiopia*

Birth registration	• 1 percent of rural young people surveyed said they were registered at birth.
Water	• 63 percent said their rural households used nonimproved water sources such as rivers, lakes, or ponds (33 percent) or unprotected wells and springs (30 percent). • 20 percent had access to piped water or water from a tap. • 63 percent of rural young people considered their drinking water unsafe, yet 90 percent did nothing to treat it. • 91 percent of female respondents and 56 percent of males reported fetching water (both urban and rural). • Of those who fetched water in rural areas, 43 percent said they spent thirty minutes or longer, with only 29 percent saying they spent less than ten minutes.
Personal items	• Roughly one in five rural young people said they did not have shoes. • One-third of boys and half of girls said they did not have a blanket. • 12 percent of rural boys owned their own radio, compared to 6 percent of rural girls. • Only 2 percent of rural boys and less than 1 percent of rural girls owned mobile phones.
Education	• 71 percent of rural girls and 61 percent of rural boys had less than five years of education, compared to 28 percent of urban girls and 16 percent of urban boys. • Only 7 percent of rural girls and 10 percent of rural boys had over eight years of education, compared to 46 percent of urban girls and 57 percent of urban boys. • Only 1 percent of young people attained the university level of education. • 55 percent of rural girls reported that their parents value education, compared to 63 percent of rural boys.
Time traveling to school	• Rural youth spent an average of 77 minutes traveling to and from school.
Health	• Health extension workers had reached 19 percent of rural girls and 16 percent of rural boys.
Menstruation	• 25 percent of rural girls did nothing to manage menstruation, simply washing or secluding themselves in the forest, desert, or field.
Work	• 40 percent of rural girls and 54 percent of rural boys who had worked for pay started work before age fifteen, compared to 27 percent of urban girls and 39 percent of urban boys.
Marriage	• 41 percent of rural girls had been married, compared to 23 percent of urban girls. • 72 percent of girls with no education had been married, compared to 22 percent of girls with nine or more years of education. • Only 25 percent of rural girls and 29 percent of rural boys believed their parents respected their opinions on marriage.
Mobility	• Over 90 percent of rural girls needed permission before leaving the house or going to a youth club. • 95 percent reported that their parents/spouse knew their whereabouts at all times. Urban males reported the lowest levels of regulation.
Voice	• The vast majority of both parents and young people wished they could discuss issues more freely.
Social support	• Young people in rural areas tended to have more social support than their urban counterparts such as having a person from whom to borrow money, having an alternative place to stay, and having support in case of a medical problem. Urban girls reported lower levels of social support in all dimensions.

*These data come from a survey and are not official statistics. The 2009 survey included nearly 10,000 young people aged twelve to twenty-four in urban and rural areas of Ethiopia.
Source: Erulkar, et al., 2010

3 THE WAY FORWARD: EMPOWERING RURAL ADOLESCENT GIRLS

Photo Credit: Glen Christian/Peter Arnold Worldwide

Offering rural adolescent girls the tools to realize their potentials will yield economic and social benefits that impact families, communities, nations, and the world.

Equipped and empowered, rural adolescent girls can become agents of economic and social change. They can be effective mothers and leaders in their communities. They can be productive farmers or successful entrepreneurs. If they choose to migrate, they can do so safely and be productive workers wherever they settle. They can change the face of their rural communities. Offering rural adolescent girls the tools to realize their potentials will yield economic and social benefits that impact families, communities, nations, and the world.

The following sections outline the special challenges that face rural adolescent girls and offer recommendations to overcome them. If implemented, these recommendations provide a road map to equip and empower girls to be agents of change as farmers, entrepreneurs, decision makers, and mothers in rural economies and elsewhere. They include proposed actions that governments, bilateral donors, international organizations, the private sector, and civil society actors can take to invest in girls' human capabilities and create and ensure access to economic opportunities. By focusing on rural girls as a group that is among societies' most marginalized, crucial interventions are ensured to reach large swaths of the overall population.

The proposed recommendations were developed from a set of shared assumptions, principles, and priorities:

1. Girls in rural areas live in unique environments. Due to incomplete data, their circumstances are not fully known. Better data about adolescent girls must be gathered and solutions adapted to their specific contexts to be effective.

2. These recommendations must be implemented in concert with broader rural economic development plans.

3. The human capital of the rural poor is an incredible asset that must be developed and utilized to support thriving agriculture and nonfarm rural economies.

4. More productive agriculture, along with more diverse local economies, can be transformative.

Previous page
A girl in rural Yemen fetches her family's daily supply of water.

BOX 10

Rural adolescent girls are highly diverse and require differentiated solutions.

Defining who a "rural adolescent girl" is and what her needs are can be a challenge. To some, rural is a population statistic, to others a geographic location. Some studies define rural as small communities; other research defines rural as a remote town. The International Fund for Agricultural Development (IFAD) defines rural along two main lines: "First, rural people usually live on farmsteads or in groups of houses containing perhaps 5,000 to 10,000 persons, separated by farmland, pasture, trees, or scrubland. Second, the majority of rural people spend most of their time on farms." In addition, periurban environments have many commonalities with rural environments.

The idea of who is an adolescent also varies. For the purposes of this publication, an adolescent is between ten and nineteen years old. However, when applied to a local environment, this definition may not be as meaningful. Age, marital status, education level, and socioeconomic factors are all important life-defining characteristics for rural girls. All too often this diversity is unrecognized in policymaking, program development, and even research. Rural adolescent girls are often grouped together as "young women" or "youth." Too little distinction has been made between girls aged ten to fourteen and those aged fifteen to eighteen and even twenty to twenty-four. Researchers from Family Care International (FCI) found a considerably wide range of worldviews among girls living in remote rural areas in three West African countries, depending on whether they were younger (aged ten to fifteen) or older (sixteen to twenty-two), what level of education they had, and if they were married or single.

Recognizing that complex structural, demographic, and even sociological circumstances exist for rural girls will facilitate further research and contribute to more effective approaches to reach rural adolescent girls. Potential interventions need to be meticulously designed to target very specified and defined groups of girls living within the developing world's rural setting.

Sources: Bruce, 2006; Bruce & Chong, 2006; Family Care International, 2003; IFAD, 2000/2001; Ghatti & Reinhardt, 2009

5. The challenges for rural girls in education, economic opportunity, agriculture, civic participation, health, and safety are highly interdependent. Solutions in these areas must be pursued in tandem to achieve the best outcomes.

6. Efforts to unlock girl potential must be pursued in partnership with women, men, and boys and not in competition with them. What is recommended for girls will benefit everyone.

7. The recommendations offer an initial yet transformative step toward equipping rural girls to fulfill their potentials. Leadership and long-term commitment to these recommended actions are necessary to sustain transformational changes.

The recommendations address seven areas in which action must be taken:

1. Education
2. Economic opportunities
3. Agriculture
4. Voice and civic participation
5. Health
6. Safety
7. Data

Each recommendation includes background information as well as several specific actions that can be taken to help implement the overall recommendation. Where possible, promising examples are given, showing how girls themselves can be engaged to provide solutions. For a summary of the recommendations and action items as well as which stakeholders can play a role in their implementation, see the Appendices A and B.

Photo Credit: Tom Haskell

RECOMMENDATION 1:
Expand opportunities for rural adolescent girls to attend secondary school.

Action 1a. **Nationally mandate universal primary and secondary education.**
Action 1b. **Make schools girl friendly.**
Action 1c. **Improve the quality of teaching and the relevance of the curriculum.**
Action 1d. **Provide incentives to parents to keep girls in school such as scholarships, stipends, cash transfers, training, literacy programs, and elimination of school fees.**
Action 1e. **Enhance adult literacy campaigns in rural areas to increase school enrollment among girls.**

"Our village has been in existence now for more than one hundred years but has never produced a girl with a diploma. For us education remains both a possibility and a remote dream."
—Rural girl, 18, Mali[96]

Education is the single most vital component of improving the lives of rural adolescent girls and helping them live up to their potentials. Education helps reduce poverty and hunger, lower fertility rates and unintended pregnancies, and increase school attendance among the next generation of children. It can help delay the first sexual experience and slow the spread of HIV/AIDS, which disproportionately affects young women.[97] The education of a mother impacts her own health as well as that of her children, reducing infant mortality and child stunting, increasing childhood immunizations, and improving nutrition. Girls pursuing an education are less likely to be involved in or become a victim of a crime and youth violence.[98] Education for girls has high returns in terms of income and livelihood opportunities, including increasing agricultural productivity.[99] Girls who continue through secondary school develop the critical assets of self-confidence and self-esteem needed to find their voices and let them be heard, giving them a powerful role in helping to change attitudes and outcomes for themselves and their children.

As former UN secretary-general Kofi Annan has said, "To educate girls is to reduce poverty. Study after study has taught us that there is no tool for development more effective than the education of girls."[100] Indeed, girls' education yields some of the highest returns of all development investments, benefiting individuals, families, and society at large.

The focus on achieving universal primary education as embodied in the second Millennium Development Goal and the work of the Education for All Fast Track Initiative has brought dramatic improvements over the past decade. Enrollment rates in primary school for the developing world overall have now reached 89 percent, following a strong push to improve these numbers over the past decade.[101] With the exception of a few countries in Africa, the overwhelming majority of children age ten to fourteen are in school.[102]

Yet wide disparities in access to education still exist, especially in rural areas. Many rural adolescent girls struggle to enroll in school. In some rural districts of Uganda, for example, girls account for only 35 percent of total primary school enrollment. In the first grade, the gender gap in enrollment is only 1.1 percent, but it reaches 15.7 percent by the seventh grade.[103] In the majority of poor countries outside Latin America and the Caribbean, completion rates through sixth grade for young women are still below 50 percent. In rural areas of the developing world overall, 31 percent of primary school-age children are out of school, double the number in urban areas (15 percent), with the gap for girls slightly wider than for boys.[104]

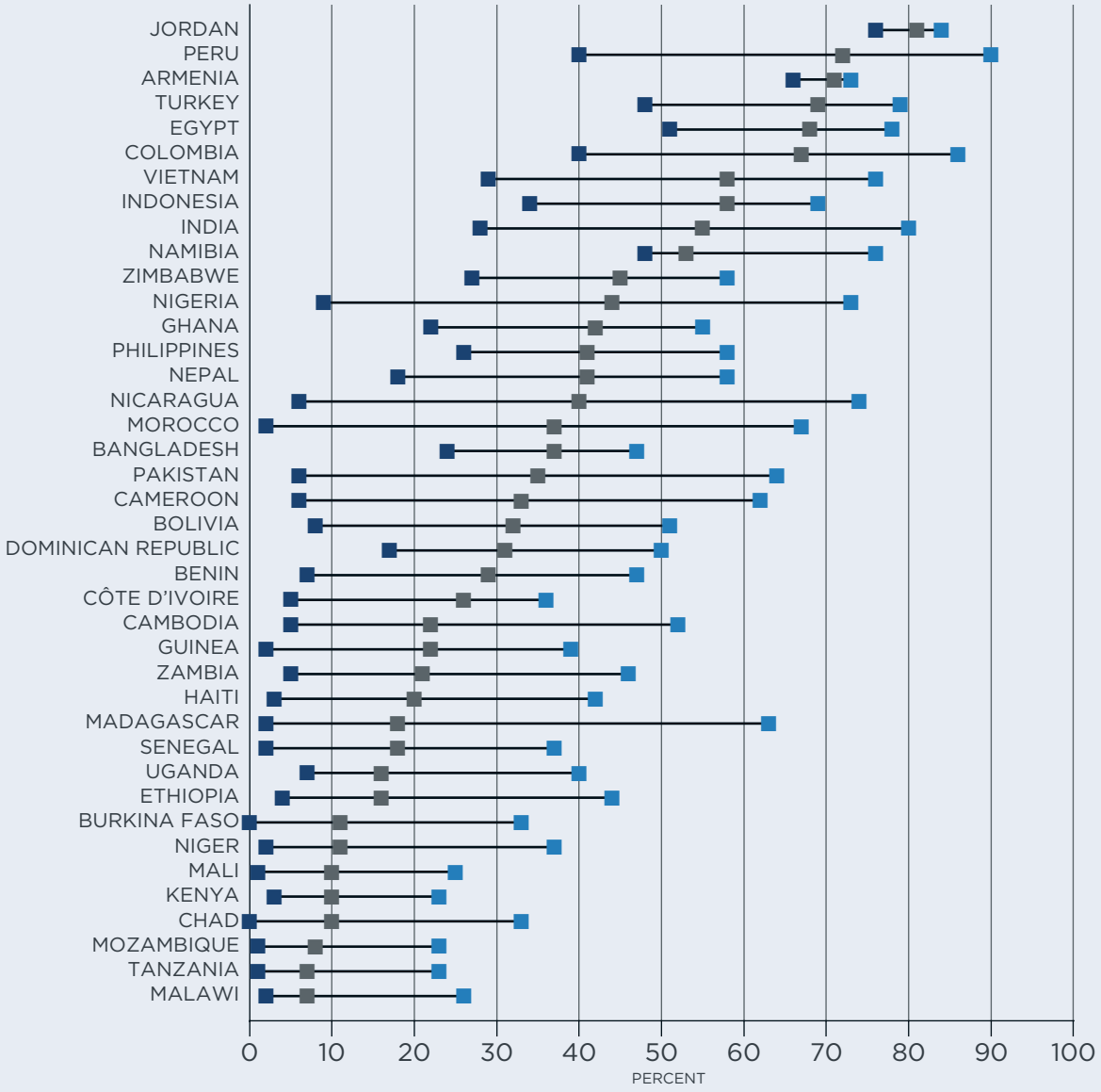
More difficult for many rural adolescent girls is the transition to secondary school. Enrollment rates for secondary school range from 34 percent overall in Sub-Saharan Africa to 89 percent in Latin America

Opposite page
Female teacher conducts a class for girls in Afghanistan. School is held outside because there is not an indoor place for them to gather.

FIGURE 10

Poor rural girls have much lower rates of secondary school attendance than rich urban girls.

Percentage of poor rural girls and rich urban girls attending secondary schools, along with the country averages.



Note: Data refer to most recent year available (2003-2008).
Source: Seck & Azcona, 2010

and the Caribbean. Poor rural girls are among the furthest behind, especially in Sub-Saharan Africa and South Asia. In Tanzania only 1 percent of poor rural girls are enrolled in secondary school, compared to 23 percent of rich urban girls.[105] In only eight of thirty-seven Sub-Saharan countries is the secondary school completion rate for girls greater than 15 percent. In nineteen countries, the completion rate is below 5 percent. Making education mandatory through secondary school has been shown to impact attendance rates. In Yemen nine years of schooling has been required (and free) since the early 1990s, boosting enrollment for girls and boys in these grades from 2.3 million in 1999 to 3.2 million in 2005.[106]

The disadvantages that girls suffer in access to education tend to accumulate through their lives, as basic education is a foundation for further education and vocational development.[107] While this is true for both boys and girls,[108] girls face a variety of challenges that often combine to give them less chance of completing their education than boys.

"A girl studies in school, and afterwards she goes home, where a lot is expected of her. She does everything in the house, and she doesn't have time for studying . . . and she doesn't get good grades in school, so she drops out. And that's the problem."
—Rural girl, Morocco[109]

Work

First, rural adolescent girls are often needed to work. Time away at school often has immediate opportunity costs that many poor households feel they cannot afford. Those costs are often higher for girls because of their greater household and caregiving responsibilities. Girls may be needed at home or on the farm or may have to earn additional income as child laborers. While many parents may want to send their girls to school, they often do not think it is possible. In other cases, a secondary education for girls may be seen as less important than for boys because girls are likely to marry and leave the household and may not be seen as economic contributors. The investment of time and money in a girl's education may therefore not be viewed as having a return. As a result, girls in poor countries with low female education rates are more likely to be pulled out of school when household income declines.[110] Other shocks such as the contraction of HIV/AIDS, the death of parents, conflicts, and gender-based violence all can cause girls with no support systems to leave school.

Girls are often called on to care for their younger siblings and sometimes drop out of school to care for their own children. Child-care facilities are seldom available. The Self Employed Women's Association (SEWA) in India has developed a child-care cooperative to provide care for its members' children. SEWA runs 147 child-care centers in six Indian states, including those supporting agricultural workers. This program enables women to pursue employment opportunities in the formal labor market and has successfully supported the transition for the majority of the children into primary school.[111]

Distance to school

A lack of educational facilities in many rural areas, especially secondary schools, increases the distance to school and can further affect girls' school attendance.[112] While an obstacle for both boys and girls, long distances to school can create an extra challenge for girls.[113] Many parents are unwilling to send girls away to these schools because of the high susceptibility to taunting and violence along the way. The time needed to travel long distances further contributes to the opportunity cost for girls of time away from home.

Often, primary schools are in more abundance and generally closer to small populations than secondary schools. Data from twenty-one countries has shown that distance to the nearest primary school averaged about two kilometers, ranging from 0.2 kilometers in Bangladesh to more than seven kilometers in Chad. The distance to the nearest secondary school ranged from 1.8 kilometers in Bangladesh to more than seventy-one kilometers in Mali, with an average of 21.5 kilometers.[114]

In countries as diverse as Pakistan and Ghana, reducing the distance to a secondary school has been found to impact attendance rates for girls more than boys. Another study in Laos found that the impact on attendance of having a school in the community is two times stronger in rural areas than

BOX 11

BRAC schools help train out-of-school girls in Afghanistan.

To help reduce childhood illiteracy in Afghanistan—which stands at 70 percent among young girls—BRAC worked with the Ministry of Education to establish Community Based Accelerated Learning Schools (CBALSs). Girls between the ages of ten and fifteen who have never attended or dropped out of school spend two years studying the government curriculum for grades one through three. Classes of no more than thirty-five girls are held for four hours a day and are led by a single teacher who stays with the girls until graduation. The goal is for the girls to reenter the formal school system in grades four or five.

Schools are located in communities that lack schools within reasonable distance. A simple facility may be built by BRAC on donated land in the village, or classroom space may be rented. Teachers are trained for fifteen days before school opens and receive a small monthly honorarium. Teachers and students receive all reading material and school supplies at no charge. About 95 percent of the girls rejoin the formal education system, and "most are generally above the level of their peers who have studied continuously in formal schools."

Source: BRAC, 2011; Ayari, 2010

in urban areas and that the effect is even greater for girls.[115] When schools were built in rural areas of Egypt during the 1980s, girls' enrollment went up by 60 percent, compared to 19 percent for boys.[116] Research in Nepal indicates that road access impacts school enrollment for girls more than boys. When a school was a four-hour walk from the road, girls' enrollment was 31 percent, compared to 56 percent for boys. When the school was a thirty-minute walk from the road, girls' enrollment increased to 51 percent (up 20 percentage points), while boys' enrollment increased to 67 percent (up 11 percentage points).[117]

School conditions

Insecure school environments and inadequate school facilities can also play a role in preventing adolescent girls from completing their educations. Although these challenges plague schools in all parts of the developing world, they affect adolescent girls in rural areas more adversely. Sexual violence of adolescent girls in school settings can be more likely in rural areas because schools are often male dominated and more traditional cultural norms are prevalent.[118] Research has found that various measures of gender treatment are significantly associated with dropout rates for girls but not for boys.[119]

Rural schools are also less likely to have adequate facilities.[120] Problems such as the lack of desks, poor classroom conditions, permeability to rain, lack of a library, and a low student/teacher ratio are all associated with higher dropout probability. For adolescent girls the lack of adequate sanitation facilities and privacy can have an impact on schooling, especially as they begin menstruation. Many girls have difficulty managing this even at home, let alone in a school setting. Therefore, the availability of private, same-sex toilets is especially important. A study in Pakistan found that parents require a toilet for girls, or the girls do not go to school.[121] Research has shown that providing toilets and hygiene education in schools is highly beneficial for girls. For example, in Bangladesh separate sanitation facilities for girls were found to reduce the risk of sexual harassment and violence in schools and increase girls' attendance.[122]

Teachers and curricula

Low-quality teaching and irrelevant curricula can also play a role in the perceived lack of return on investment for adolescent girls' education. This includes the problem of teacher absenteeism and the ratio of students to teachers. A study in rural Bangladesh found that teachers for rural schools often arrive two hours late and teach for only two hours, effectively reducing the learning time for students by 50 percent.[123] The low quality and relevance of many rural school curricula mean that rural children are often ill-prepared and ill-equipped to take advantage of decent work and livelihood opportunities that could help build better futures.

Curricula and textbooks in primary and secondary schools are generally developed for urban schools and do not take into account the needs of rural people.[124] For example, a science curriculum focused on agriculture and natural resources would be highly relevant in rural communities given

the prevalence of agriculture. Once out of school, girls have limited opportunity to gain such skills. Because girls are often already last on the priority list in terms investment for education, the lack of quality and relevance can further compound the disincentives for sending girls to school.[125]

Teacher competence, training, availability, gender, and reliability are key in insuring quality education. A study in rural Mozambique found that the gender composition of the teaching staff was highly important in household decisions to send children to school. Countries like Bangladesh, Pakistan, and India have set national goals for hiring women teachers. As a result, tens of thousands of qualified women are becoming teachers in South Asia and Africa.[126]

Securing female teachers in rural areas, however, is a large challenge. For single women, such positions may be seen as difficult culturally, unsafe, or limiting to marriage prospects.[127]

An incentive program run by Oxfam helped attract qualified female teachers from the provincial capital to move to remote, rural areas of the Badakhshan province of Afghanistan. "Without a female teacher, many families are hesitant to send their girls to school," said Nasima Sahar, the Oxfam gender officer in Badakhshan. Girls' attendance at the school went from only seventy girls before the incentive program began to over 1,100.[128]

In rural communities in Pakistan, where secondary schools have been available for some time, girls' schools are staffed with female teachers trained in the local community. In communities without a secondary school, local schools must hire teachers from outside the community because there is no local supply. Nonresident teachers are more likely to have higher rates of absenteeism.[129]

Promising teacher training programs are being run by the Australian Himalayan Foundation in the remote and impoverished Solu Khumbu region of the Himalaya in Nepal as part of the foundation's Quality Education project. The project is funded in part by the Footprints Network, an alliance of online e-commerce companies that help raise money for projects run by charities and NGOs.

BOX 12

Primary schools in rural Rwanda integrate natural resource management and agriculture skills into curriculum.

In line with the long-term goal of the government of Rwanda to promote practice-oriented educational curricula to reduce poverty and unemployment, CARE initiated the Farmers of the Future Initiative (FOFI) in Rwanda in 2006 to develop a curriculum for rural primary schools that integrated sustainable natural resource management and rural enterprise development knowledge and skills. The curriculum was designed to replace the purely "academic" schooling at the primary level with relevant skills for the local environment. Twenty-seven pilot schools were chosen for the project, reaching nineteen thousand students, their parents, and surrounding communities. More than five hundred headmasters and teachers were trained in natural resource management and rural enterprise development techniques.

The schools are digging erosion ditches, managing nurseries and planting trees, using organic manure, and planting fodder crops. Food crops include cabbages, onions, carrots, eggplants, tomatoes, maize, and beans. They are raising cattle, and all schools fertilize their fields with organic manure. All schools have started selling the products in their communities.

The initiative has already increased home production, mainly in vegetable gardens, as families transfer the new techniques to their own gardens. The school staff have become role models for the community. While further evaluation of the initiative is pending, initial results suggest a high level of promise.

Source: CARE, 2008

The programs aim to improve teaching, school performance, retention rates, and girls' enrollment in an area where future opportunities for children are limited. The project includes the training of "key teachers" who then train other teachers, refresher training for teachers who have already attended training in the past, training for inexperienced teachers who only have basic education, community support workshops to ensure community involvement, and the provision of materials and resources

BOX 13

Goat keeping pays for girls' education in rural Kenya.

In 2003 the Kenya Girl Guides Association established the Saka Girl Guides unit to help girls pay for their educations. A goat-keeping project was initiated with two goats. The milk from the goats provided a source of revenue that not only paid for educational expenses, but provided girls' families with a significant amount of income. The milk also helped improve girls' nutrition. The birth of new goats as often as twice a year helped sustain the project. The gift of goats was so successful that the World Association of Girl Guides and Girl Scouts Friendship Fund and Girlguiding UK later donated another one hundred goats. According to the Kenyan Girl Guides Association's former chief commissioner Margaret Mwaniki, "The project has helped the community appreciate the girl child. Girls have been given an opportunity to prove that they can be of assistance to their parents."

Source: WAGGGS, 2006

to schools. The project is managed locally by the Rural Education and Environmental Development Center, a Nepalese NGO based in Kathmandu dedicated to improving education in rural areas of Nepal. Responses to the programs by participants have been overwhelmingly positive. Trainers and key teachers reported seeing "obvious improvement in teachers' classrooms and the teaching classroom environment."[130]

A BRAC project based in Afghanistan focuses on creating safe places for girls to attend single-sex schools. In addition to building school structures, the project has partnered with the Ministry of Education to foster better teaching training. A lead teacher from the school participates in the training for two weeks and then returns home with the responsibility of training the other teachers. This is done in conjunction with local NGOs with the idea that BRAC will turn the training responsibilities over to local groups.[131]

Language and literacy

Adult literacy can make a significant difference in girls' school attendance. One study in Mozambique suggests that making household heads literate in the bottom per capita consumption quartile will raise rural primary school enrollment by 18 percent.[132] In Pakistan it was found that rural girls whose mothers have some formal schooling are less likely to drop out.[133]

Teaching in the "mother tongue" is also effective in keeping girls in school. In Mali teaching in the mother tongue decreased dropout rates and grade repetition, with rural children scoring higher on national exams than their urban peers.[134] Most linguists also agree that having command of your native language is the best basis for learning a foreign language or an official language such as French or English. The return to mother tongue languages in the classroom has spurred the creation of numerous organizations that seek to preserve native languages and develop school materials in those languages.

Costs

"We are many, and we do not have enough this year to be educated. There are family health problems, and my father cannot even buy food for my brothers."

—Rural girl, 14, Burkina Faso[135]

Finally, costs can be a major barrier in the decision by poor rural families to send their girls to school. These includes school fees and other costs such as uniforms, books, and school supplies. Although cost is a problem throughout the developing world, it is a particularly significant challenge in rural areas because families tend to be more impoverished. Economic constraints on families often mean that other basic needs such as water, food, and fuel have to be prioritized over education, and when forced to choose, families often prioritize boys' education over girls'.

For example, when school fees were waived in 1997 in Uganda, the gender gap in primary enrollment was eliminated. Total girls' enrollment increased from 63 to 83 percent.[136] In Tanzania school attendance doubled after eliminating fees for primary school.[137] When Kenya abolished school fees for primary education in 2003, enrollment rates went up 28 percent as of 2006.[138]

BOX 14

Marginalized rural girls in Upper Egypt reap the benefits of a "second-chance" program.

"For the first time in my life I learned that girls have equal rights to education as boys. In the past my understanding was that girls did not need to be educated because they were going to marry."
—Ishraq participant

In 2001 the Population Council and Save the Children partnered with Caritas and the Centre for Development and Population Activities (CEDPA) to create Ishraq, a program to give out-of-school rural girls in Upper Egypt a chance to be educated in safe learning environments and to improve their health and social opportunities. Ishraq, meaning "sunrise" in Arabic, brought together 278 girls aged thirteen to fifteen in four rural villages to promote literacy in the mother tongue (reading and writing in Arabic) and life skills focused on reproductive health, civic engagement, building social networks, and basic arithmetic.

The program also worked with the community to foster acceptance of social change. Sports were taught alongside the curriculum to help boost girl's self-confidence, leadership skills, and relationships with girls their own age. For two-and-a-half years girls met four times a week with local female secondary school graduates recruited by Ishraq. Girls who went on to take the national government literacy exam had a 92 percent passing rate, and 68.5 percent of those girls went on to enroll in preparatory school. As a result of the program, girls aspired to join local associations, opposed female genital mutilation for future generations, and wished to marry at a later age.

Based on the success of the pilot project, Ishraq scaled up the program in 2009 and is now serving over 1,800 previously out-of-school girls, ranging in age from eleven to fifteen, in more than thirty rural communities in Egypt. Program evaluation has shown the need to continue to pay special attention to the training of teachers, engagement of the parents and community leaders, lower participant age (eleven instead of thirteen), and strengthening institutional ties with formal schooling systems.

In 2007 the National Council of Youth (NCY) and the National Council for Childhood and Motherhood (NCCM) incorporated Ishraq into their programs. International partners, along with the cooperation of NCY and NCCM, took Ishraq activities to two of Egypt's poorest and most socially conservative governorates. The Ishraq model shows that collaboration between the private and public sectors, NGOs, and local community members can contribute to successful and sustainable programs for rural girls.

Sources: Population Council, 2011; Population Council, 2010

BOX 15

Bangladesh Female Secondary School Assistance Program increases enrollment rates for girls.

One way to reduce costs and increase incentives for girls' schooling is school stipends channeled directly to young girls. The Bangladesh Female Secondary School Assistance Program, initiated jointly by the government of Bangladesh and the World Bank, has been particularly successful with this model. Along with the cash incentives, the program improved quality through teacher training and water and sanitation facilities. The program, launched in 1993, targeted girls aged eleven to fourteen, transferring money directly to personal bank accounts set up for them to cover tuition, books, uniforms, and transportation. Transfers were contingent on attendance, performance, and remaining unmarried.

As a result of the program, girls' enrollment in secondary school went from 33 percent in 1991 to close to 55 percent in 2008. Pass rates for girls in the project area increased from 39 percent in 2001 to 62.8 percent in 2008. More than 33,000 teachers, 64,000 school management committee members, and 64,000 Parent-Teacher Association members from 6,000 institutions were trained in school management accountability, focusing on quality and conducive learning environments. A decrease in early marriage and childbirth, better nutrition, and higher incomes among employed females are also associated with the project.

Sources: World Bank International Development Association; World Bank, 2006

Incentives are useful in this context. A recent joint report by the World Food Program and the World Bank on school feeding programs says that providing school meals to children in qualifying families can be the equivalent of adding an extra 10 percent to average household incomes.[139] School feeding programs in Sub-Saharan Africa have increased girls' school enrollment, on average, by 28 percent and enrollment of boys by 22 percent.[140]

In rural Pakistan there are schools that provide a five-liter can of vegetable oil to every girl who attends school for the majority of each month. This oil is worth a significant amount of her family's earnings, and the attendance increases documented by the World Food Program were as high as 247 percent when these programs began.[141]

Progresa/Oportunidades in Mexico offers cash transfers conditioned on enrollment and regular school attendance as well as visits to health clinics. Transfers are given directly to mothers, as women have been found to be more likely to reinvest funds in their families, resulting in improvements in child education, health, and nutrition.

The program has been shown to significantly increase school attendance by both girls and boys and reduce their participation in work activities. Girls were found to spend less time on domestic work at all ages and spend more time on school activities. In addition, better conditions for mothers in the program were found to correspond with better conditions for their daughters.[142]

Rural adolescent girls must be able to overcome the obstacles to their educations, successfully complete primary grades, and make the transition to secondary school. The transition to secondary school is one of the key "choke points" where girls need support to move on.

The *Girls Count* report *New Lessons: The Power of Educating Adolescent Girls* provides in-depth analyses and recommendations for how to improve educational opportunities for adolescent girls in the developing world, but targeted actions can complement those recommendations to address the unique educational challenges faced by rural girls.

Action 1a. Nationally mandate universal primary and secondary education.

Without national mandates and the corresponding budgets to support these mandates, school attendance will never meet its full potential. National governments, international organizations, and other stakeholders should give equal attention to mandating and funding both universal primary and secondary education.

Increase access to secondary schools.
Secondary schools must be located closer to rural communities so they are more accessible to rural adolescent girls at a safe distance from their homes. While this may require the building of new schools in some cases, it is not always necessary to wait for enough funding to build new schools from the ground up. Communities and governments should survey standing buildings that are not used twenty-four hours per day to investigate whether they could be used as schools. These might include places of worship, public meeting halls, municipal buildings, and others. Moreover, nonformal schools can be upgraded, certified, licensed, and linked to formal education facilities to serve girls who may be prevented from continuing their formal educations.

Teach in the mother tongue.
Learning in a mother tongue should be encouraged. This enables more children to continue on to secondary school, as oftentimes students do not pass entrance and exit exams because they are not written in the mother tongue.[143] This does not negate the need to teach other languages, including the national language.

Fluency in the mother tongue also makes economic sense. Most rural commerce, especially at markets, is conducted in the local language. If rural girls stay in school and learn the mother language first, they will have greater ability to negotiate. Their negotiation skills will increase as their language skills increase.

Fluency in one's native language also means better communication in all areas of life. Most rural health clinics utilize the local language. As eventual mothers, adolescent girls will be able to speak about themselves and their children at clinics and understand programs directed at improving health. When important information is well understood, it can have a greater impact on the lives of girls and their families. Switching to a nonnative language too soon decreases the opportunity to learn to speak and negotiate with sophistication in the native language.[144]

Action 1b. Make schools girl friendly.

Governments, donors, and communities should work to make schools "girl friendly" to maximize girls' attendance.[145] Identifying issues in a given community that make it difficult for girls to attend school is a starting point. While those will vary in each community, some factors are widespread and could be addressed to make rural schools more girl friendly.

Make schools safe for girls.
Training for male teachers to help change negative attitudes and treatment of girls in the classroom and holding teachers and students accountable for harassment and violence against girls would improve conditions for girls and help create the necessary girl-friendly environment.[146] Same-sex schools should be created when possible, especially at the secondary school level.

Research indicates that single-sex schools make girls feel safer. Not having boys in the classroom eliminates the potential for harassment between and during classes and the sharing of bathrooms.[147] Further, single-sex environments provide the opportunity for girls to take on leadership roles, speak more in class, and not worry about appearing "smart" or "smarter" than boys in a cultural environment that might not support this.

Improve educational facilities, especially with sex-specific latrines in mixed-gender schools.
Improving the physical conditions in schools could go a long way toward making schools more girl friendly.

Increase the number of female teachers in rural areas.
Exposure to female teachers is one of the greatest quality indicators for girls' schooling[148] and has been shown to have a positive effect on enrollment and retention rates. The presence of female teachers in a school can help to make the school environment a safer and more productive place for girls and provide important role models.

BOX 16

Common girl-friendly features.

I. Demand-side strategies to remove constraints to school attendance

Scholarships/stipends: Cash and in-kind contributions to girls and/or families for the purpose of school attendance

Transportation/boarding: Interventions to reduce or eliminate the costs for girls traveling to/from school and ensure their safety

Advocacy or community engagement in girls' education: Efforts to promote positive attitudes and other community and social resources that support girls in obtaining an education

Safety policies and training; codes of conduct: Interventions to ensure girls' safety within the school environment

Toilets and provision of sanitary supplies: The provision of separate toilet facilities for girls at school and/or the provision of sanitary supplies to adolescent students

II. Supply-side strategies to enhance the learning environment

Recruitment/training of female teachers, para-teachers, and other educators: Training programs that target young women, hiring policies to support women in entering and remaining in the teaching force, and the use of complementary teaching staff—such as para-teachers—to support girls in large classes

Gender training for teachers: Training to promote positive attitudes towards the learning capacities of girls and boys and/or training in teaching methodologies that are effective in engaging and supporting girls' learning

III. Supply-side strategies directed at girls' developmental and learning needs

Mentoring, tutoring, and peer support: Activities to support girls' development and learning needs by engaging them in supportive relationships with peers, older girls, or adults, especially women

Life skills or literacy training: An umbrella category encompassing a variety of approaches to training girls in skills they did not learn as younger children and that they need for life

Livelihoods or vocational training: Any training to support girls in developing specific skills that will help them to earn income either as employees or as entrepreneurs

Source: Lloyd & Young, 2009

Provide incentives to attract female teachers to rural areas.
The problem of deploying teachers to rural areas can be partly addressed by employing and increasing training of local teachers (female and male). In Pakistan local teachers give parents an increased sense of security when girls go to school[149] and helps reduce teacher absenteeism. This is an important opportunity for rural girls and should be cultivated. Girls who aspire to become teachers themselves can help staff local schools.

Provide child care.
Community child-care programs should be piloted. The purpose is to allow rural girls who care for younger siblings or who are mothers themselves to attend school. There is consensus that women need to have greater access to affordable child care, but few examples of effective programs exist.

Action 1c. Improve the quality of teaching and the relevance of the curriculum.

Increasing enrollment and attendance rates will not necessarily ensure that girls (and boys) are receiving an adequate education. Quality teaching is important to adequately train children in any school setting. It is even more important when attempting to keep girls in school, as their parents may consider school a waste of time if girls are learning very little and are needed at home.

Strengthen teacher training to improve teacher quality in rural areas.
As most rural teachers are primary as opposed to secondary teachers, additional teacher training is important.

Improve schools' curricula and ensure they incorporate vocational training.
Skills needed for success in the rural economy and beyond must be incorporated into school curricula to eliminate gender-specific barriers. This includes practical courses such as animal husbandry, cattle care, soil conservation, agriculture, nutrition, social forestry, and food preservation.[150]

More broad-based skills for enhancing livelihood opportunities should also be included such as problem-solving and decision-making skills, financial literacy, and computer skills. Focus on such skill development must be substituted for a purely academic curriculum.[151] School curricula should also include important life skills such as listening and speaking skills, study and learning skills, proper health and hygiene, and sexual and reproductive health.

Decentralization of educational planning can facilitate curriculum reform, allowing consideration of the economic and sociocultural context of the specific rural area. Nongovernmental organizations and women's groups—as well as adolescent girls themselves—should be involved in the reform to help ensure relevance and the incorporation of gender-specific needs as well as to help shift harmful traditions.

Complementary schools or programs should be developed in the nonformal education system to support girls who begin school late or have dropped out so they can complete their primary education and transition into secondary education effectively. Additional information on vocational training—both informal and formal—will be discussed in Recommendation 2.

1d. Provide incentives to parents to keep girls in school—such as scholarships, stipends, cash transfers, training, literacy programs, and elimination of school fees.

Incentives for parents to send girls to school can help address root economic issues that magnify gender disparities. In some countries the elimination of school fees has contributed to a dramatic increase in school enrollment, also helping to increase gender parity. As part of vocational training, donors could provide a basic program for girls in garment making. Girls could organize coops to make school uniforms at minimal cost. Additional types of ventures could teach tangible business skills while yielding a profit to cover fees accrued with school attendance.

BOX 17

A nineteen-year-old Yemeni girl lifts her family out of poverty through education and initiative.

Ibtsam is nineteen and has a high school diploma. She lives in Talhamah Village, Jaharan District of Yemen, one of the driest, poorest countries in the world. Her father owns a small grocery shop in the village and is a smallholder farmer. She has eight brothers and sisters. Like most rural Yemeni girls, Ibtsam grew up grazing animals, helping her father on the farm, and doing her homework in her spare time. Her face is completely hidden behind a veil.

Through a project supported by the International Fund for Agricultural Development (IFAD), Ibtsam acquired important new skills as part of a literacy and teacher training program. Today, Ibtsam teaches reading and writing to other women in her community, and her mother is one of her students. She also serves as the chairperson of the village savings and credit committee, which has thirty-five members. With her new business skills she took out a loan of 40,000 Yemeni rial (about US$200) from the savings and credit association to expand her father's shop. She has already paid back 33,000 rial as well as the 10 percent service charge. With this financial contribution she has gained 50 percent ownership of the shop. With her savings from allowances she received during the training program she bought and sold some sheep at a profit. She has also started a successful business selling gas cylinders in the community and has opened a small shoe shop from her village home.

Through her business activities Ibtsam has already managed to lift her family out of poverty. Her family's nutrition has improved significantly, with meat and other high-protein foods now part of the family's diet. Family income has almost doubled, from 50,000 rial to nearly 100,000 a month.

"I now enjoy a different status in the family and in the village. I have gained more respect within my family and my community," she says. "I feel I am more empowered than ever before, and above all I can see the light at the end of the tunnel that my family and I have been living in for decades."

Source: IFAD

Implement school feeding programs and take-home food rations.
School feeding programs can be used as incentives to recruit and keep girls in school. Such programs are based on the recognition that pervasive malnourishment among poor children contributes to low school enrollment, absenteeism, poor classroom performance, and early school dropout. Mothers could be recruited to help plan and cook the meals. Girls and boys could learn cooking as vocational skills.

School gardens, promoted by the Food and Agricultural Organization, could be implemented in every school setting, teaching girls and boys about agriculture and nutrition. Special attention should be given to vocational opportunities for girls to grow vegetables at home for sale in their communities. Take-home food rations should also be implemented, rewarding girls for attending school.

Implement conditional cash transfers as appropriate.
In some regions conditional cash transfer programs have been found to incentivize parents to send and keep girls in school by addressing the problem of direct and indirect costs to families. While cash transfer programs can have dramatic results, they should also be carefully scrutinized. They may not be effective in all contexts for a variety of reasons. Transfers to increase incentives for girls' schooling will not be sufficient if returns to the investment are not also increased in the form of livelihood opportunities once

girls have completed their educations. This is equally true for reduced school fees and stipends.

Action 1e. Enhance adult literacy campaigns in rural areas to increase school enrollment among girls.

Literate mothers are much more likely to send their children—girls and boys—to school than those without basic education.[152] Illiteracy is more common among women in rural areas.[153]

Train girls to advance literacy in their homes and communities.
Girls should be trained in school to train their mothers, aunts, sisters, grandmothers, and friends to be literate. Girls can thus make very significant use of their educations, the families can see the value, and the entire community's opportunities can be improved.

Conduct literacy campaigns for young mothers.
Communities and schools can reach out to these mothers who may not have had the opportunity to continue with their formal education.

Photo Credit: Brent Stirton/Getty Images

RECOMMENDATION 2:
Equip rural adolescent girls to be entrepreneurs, workers, and managers in the rural economy and beyond.

Action 2a. **Develop and promote adoption of time-saving technologies.**
Action 2b. **Incorporate knowledge and skill-building programs into rural economic development initiatives and education.**
Action 2c. **Empower girls to build nontraditional extension systems, equipping them to offer agricultural, health, education, and adult literacy training to their families and communities.**
Action 2d. **Offer innovation awards and incentives for creation of appropriate technologies.**
Action 2e. **Support organizations, policies, and legal frameworks that eliminate discrimination against female workers and that support equal pay, safety, and security for working adolescent girls and women.**

"When we are given leadership training, we all benefit because the boys learn the importance of women becoming leaders."
—Rural girls, Tanzania[154]

To improve their lives and achieve their potential as agents of change, girls must be equipped to pursue economic opportunities, especially as they complete their educations. This not only allows girls to put their talents and interests to work, but increases family incomes, adds to the talent pool, and contributes to poverty reduction and economic growth.

During adolescence, girls have a tremendous capacity for learning and sharing. Rural girls are also especially hard workers. When empowered, rural girls can play a critical role in transmitting knowledge and information to their families and community members. They can contribute to small enterprise and build their skills and experience. As they grow into women, adolescent girls can contribute to and strengthen the rural economic sector by becoming entrepreneurs, researchers, health-care workers, and educators.

Yet educating girls for these roles is not enough. Increasing girls' enrollment and attendance in school quickly loses meaning if livelihood opportunities are not available for girls after they complete their studies. With low productivity on the farm and few outside employment opportunities, many adolescent girls have limited opportunity to pursue decent work even if they complete their educations. Of girls aged fourteen to nineteen, 42 percent in South Asia and 26 percent in Sub-Saharan Africa neither work for pay nor study.[155] While this may also be due to social and cultural norms or personal choice, lack of opportunities plays a role.

As rural economies develop, there will be growth in both the agricultural and nonfarm sectors. As the global economy grows, businesses, governments, and international organizations are increasingly linking rural dwellers in the developing world to larger markets, both expanding business opportunities and making them more profitable. To enable girls to take advantage of these opportunities, they must have reduced work burdens at home as well as access to vocational training and equal opportunity in the workplace.

Time-saving technologies

The ability of rural girls to spend time learning and pursuing economic livelihoods can be greatly enhanced by relatively simple additions to their lives. If water sources were nearer their homes, much time could be saved. If wood was not required for fuel, they would not have to fetch it, and the environment would be the better for it.

Creating and encouraging adoption of time-saving measures would free up adolescent girls to attend

Opposite page
Females comprise almost 50 percent of the agricultural workforce in Sub-Saharan Africa. Although women tend to be paid less than men, new jobs in higher-value agricultural products are presenting them more economically viable opportunities.

school or have more productive and profitable time in agriculture and other pursuits. Special focus should also be placed on technologies that free up women's time, as often this reduces the work burdens on their daughters.

For instance, use of postharvest processing technologies, stoves, and intermediate means of transport (IMTs) all have been shown to decrease the workloads of women and girls. In Nigeria a mechanized grater reduced processing of cassava to prepare gari, a local convenience food, from approximately one day to fifteen minutes. In Tanzania fuel-efficient wood-burning stoves reduced time spent gathering firewood by 145 hours each year. In Asia improved stoves have been shown to reduce cooking time significantly.[156] When designed specifically for women and girls, IMTs such as donkeys for carrying water and bicycles to reduce travel time to and from school have been shown to free up time and also support educational enrollment and business ventures.[157]

Social and cultural attitudes must also be addressed for adoption and use of such technological advances to increase. In many cases women and girls are not involved in designing infrastructure improvements or determining priorities. They lack access to credit to purchase machinery, or cultural traditions may deter them from adoption. Attempts to distribute stoves for free have often not increased adoption for a variety of reasons, including unequal decision-making power in households between men and women and the perception that the costs of changing from traditional cooking methods outweigh the benefits.[158]

New programs to introduce time-saving technologies that take into account social and cultural factors may offer more promise. For example, water programs introduced through the Kenya Central Dry Area Smallholder and Community Services Development Project have established water user associations that own, operate, and maintain water supply facilities. Although women represent just 29 percent of water user association membership, time spent by women and girls in collecting water has been reduced from half a day to only minutes.[159]

The World Food Program provides postharvest processing technologies and training to women's cooperatives to both save time and provide income. These programs meet first with families to discuss the benefits of such technologies and to secure the support of village elders and men. The technologies are then given to women's cooperatives, where women are trained in usage and maintenance. In many cases, after the processing of grain is complete, the women are trained then to nutritionally fortify the grain. These technologies provide processing services not only to the women in the cooperative, but also to surrounding communities for a profit.[160]

Vocational training

Vocational education can be critical to girls' skill development. Although formal technical training institutes are at times available, they are often inaccessible to rural youth and have gained a reputation as "second class" in many rural areas. Moreover, there often exists a strong bias that vocational education should be limited to boys, which has led to discriminatory practices against girls accessing certain technical subjects. Formal and informal vocational education targeted to both rural girls and boys equitably will help girls transition from school to work in a variety of sectors.

The Farmer Field School model created by the Food and Agriculture Organization, which offers hands-on experience to youth groups, is a potential mechanism through which adolescent girls could be exposed to and trained in agriculture and farming techniques. Extension services, designed as rural outreach programs to help support farmers in agriculture production as well as nonfarm businesses important to rural communities, are offered in scores of countries around the world and should target and develop programs for adolescent girls. These services are usually funded by governments, though sometimes also by universities or the private sector. The quality and effectiveness vary greatly, and they are often run by men for male farmers, especially considering cultural and traditional customs. Modification of these programs as appropriate could help reach women and girls, who play critical role in agriculture and the nonfarm economy.

BOX 18

Special schools in Paraguay prepare rural girls for futures in agriculture.

"If we want to help the poor farmer, we have to better the lives of rural women."
—Dr. Celsa Acosta, educational director, San Francisco Agricultural School

In a country in which over half of the population works in agriculture, small farmers often struggle to compete in an economy dominated by large-scale agricultural production. To combat the lack of practical vocational training in the country's educational system that would help small farmers thrive in Paraguay's rural economy, Fundación Paraguaya founded the San Francisco Agricultural School in 2002 in Cerrito, Paraguay. Its innovative curriculum combines classroom learning in agricultural theory with hands-on experience in the school's orchards, fields, and dairy compounds. The school also teaches business skills that prepare students to market and sell their products. The school is self-sufficient, covering costs through profits on the sale of high-quality organic products cultivated by students. Male and female students share the same responsibilities and are offered the same opportunities.

To further focus its efforts on the education of girls, Fundación Paraguaya joined with Fundación Moisés Bertoni to establish an all-girl, self-sustainable educational center in the Mbaracayu forest preserve of eastern Paraguay. The Mbaracayu Educational Center mirrors the San Francisco Agricultural School's commitment to hands-on learning, environmental consciousness, and self-sufficiency. The center provides girls with internship and scholarship prospects, access to rural fairs and markets, the chance to travel throughout South America for conferences, and other opportunities otherwise inaccessible to rural Paraguayan girls. These experiences provide girls with a sense of confidence and self-worth that has transformed them into aspiring agricultural, environmental, and educational leaders and role models for their peers.

Source: Fundacion Paraguaya, 2011; Fundacion Moises Bertoni, 2011; Fundapar, 2010

The Alliance for a Green Revolution in Africa (AGRA) also provides a model for involving adolescent girls in the business of agriculture. AGRA currently funds training for both male and female agrodealers in business practices and in providing extension services to local farmers. These agrodealers could take on older adolescent girls to learn both the business and the trade.

Giving adolescent girls the skills they need is only the first step. Skills and vocational training for youth can have the greatest impact when they are combined with employment services, counseling, and life skills.[161]

Equal opportunity in the workplace
For older adolescent girls and women who enter the workforce, cultural norms and values often place them in an inferior position, affecting their prospects and severely limiting their opportunities. In some countries and industries, employer preference for young female workers opens up opportunities for girls and women. However, these tend to be areas in which low labor costs are a crucial part of international competitiveness, and women's wages are typically lower than men's.

Specific examples include the garment industry in Bangladesh,[162] export agribusiness in Mexico,[163] coffee and tobacco farmers in Honduras,[164, 165] and the export processing zone in Madagascar.[166] As working-age girls continue to enter the paid workforce, measures must be taken to ensure that women are not simply relegated to menial, informal, and insecure jobs in this sector, but can advance into managerial positions and receive equal pay for equal work. More research will be needed to ensure that the engagement of women

BOX 19

BRAC targets adolescent girls for economic empowerment.

BRAC has found that financial illiteracy is a constraint to adolescent empowerment and is working with its partners to help build the life skills, financial literacy, and self-confidence of rural adolescent girls. In 2002 BRAC developed a specialized microfinance program aimed specifically at adolescent girls. Initially called Employment and Livelihood for Adolescents (ELA), the initiative began by targeting rural Bangladeshi girls between the ages of fourteen and twenty-five. The program has been expanded to Uganda and Tanzania under the name Empowerment and Livelihood for Adolescents and continues in Bangladesh under the name Social and Financial Empowerment of Adolescents.

In Tanzania the ELA program targets vulnerable adolescent girls aged thirteen to nineteen with the goal of social and financial empowerment. The program combines innovative livelihood and life skills training with a customized microfinance program. Program features include:

Adolescent clubs—Safe spaces where girls can meet and interact and engage in skill building, sports, and other recreational activities.

Adolescent leaders—Older adolescent girls (of at least nineteen years of age) trained by BRAC to manage and lead the clubs and the training courses.

Life skills training courses—For all club members to build social skills and avoid early marriage.

Income-generation skills training—Older and out-of-school girls can select one income-generating training area of interest that is designed for the local economy. Central to this feature is training in basic market analysis and help in selecting training that suits a girl's interests and skills.

Appropriately designed microfinance—Includes adolescent female loan officers, smaller loan amounts than those given to adults, and a minimum borrowing age of sixteen.

Community participation—Information about the program is provided to communities, including parents and guardians, to help them understand it and to encourage them to support their adolescent girls.

Many of the girls' clubs are in rural areas and therefore linked to agriculture. Some areas of income-generation training that have been shown to work for first-time microloan recipients are vegetable cultivation, poultry rearing, food processing, tailoring, and other nonfarm businesses.

Sources: BRAC

in the global value chain does not undermine their economic security.[167]

Action 2a. Develop and promote adoption of time-saving technologies.

Time-saving technologies that are specially tailored toward adolescent girls must be developed and deployed. Knowledgeable, sensitive efforts to encourage adoption must be in place.

Listen to girls' concerns and ideas.
Girls' voices must always be heard in the process of developing new technologies designed to benefit them. For example, girls could be incentivized and supported to help develop new systems in their own communities.

Include improvements in infrastructure projects that will reduce work burdens for adolescent girls.
The creation of wells close to homes or schools could allow girls to carry water home after school and reduce the time needed to fetch it throughout the day. In addition, rural electrification programs can improve women and girls' health, security, and income while reducing time spent on collecting firewood and cooking.

Action 2b. Incorporate knowledge and skill-building programs into rural economic development initiatives and education.

Adolescent girls with relevant skills and knowledge are better able to take advantage of opportunities wherever they may arise or to create their own such opportunities by starting small businesses or improving output on the farm. With work burdens eased, girls are freer to focus on the learning they need to succeed in the rural economy.

Incorporate core technical and vocational skills into all rural school curricula.
Curricula should be designed to equip girls to become effective economic contributors as entrepreneurs and employees across an array of sectors. Such skills include financial literacy, how to access credit and assets, business knowledge, presentation skills, and how to find and secure employment. Informal skill-building and training programs outside formal school systems are also important to reach out-of-school girls and provide post-schooling opportunities.

Offer specialized training in agriculture-related vocations to both girls and boys.
This can help provide the knowledge and training needed to increase productivity. This will expand opportunities not just in farming, but also in the processing, fortification, and packaging of agricultural products all along the value chain. Equipping girls with the knowledge and skills to be part of the agricultural sector gives girls a unique expertise that they can apply in their everyday lives and pass on to their families and peers, even if they choose to enter a different profession. Further information on how adolescent girls can be uniquely prepared to be change agents in the agriculture sector is provided in Recommendation 3.

Give special attention to high-value food products, processing, and fortification.
Schools and formal and informal vocational programs should offer girls and boys the opportunity to learn how to grow nutritious food through community and school gardens, which can also be used for school feeding programs. Teaching girls how to use machinery to process and fortify indigenous grains such as cassava or maize can reduce work burdens, improve nutrition, and provide business opportunities.

Offer internship opportunities to girls to provide on-the-job experience and strengthen recruiting.
Rural schools and businesses should integrate these opportunities into the formal school curricula so as to not take girls away from receiving their education or adding to their responsibilities at home. Government educators and health-care providers could develop internship programs in rural areas. Universities and research institutes in rural areas could also offer hands-on training to secondary education students. Businesses and individual entrepreneurs should be encouraged to offer training programs to girls to get practical business experience while also learning a trade.

BOX 20

World Food Program helps women fortify food products in Ghana.

The World Food Program (WFP) recently began partnering with women in Northern Ghana to help them address nutritional deficiencies within their communities through the fortification of food. One initiative, a joint UNICEF and WFP project, provides rural women's groups with iodized salt as start-up capital and with business training. Women break the large sacks of salt into smaller sachets that they sell in their communities. The profits are used to purchase supplies for their families. One woman entrepreneur said that women's husbands do not give them much trouble about the business venture because now they have an income. Importantly, the women are also now strong advocates for good nutrition and iodized salt.

In addition, WFP initiated a community-based milling and fortification project in several communities in Northern Ghana in 2007. Through the project, women's groups are provided with milling machines, vitamins that can be used to fortify the grain, business training, and training in maintenance of the milling machines. As of January 2011 the project was working with 720 women from twenty-seven women's groups in Northern Ghana. Women report that their children are healthier and that they now have sufficient income to feed their families.

While neither of these initiatives is aimed specifically at rural adolescent girls, the potential of their applicability to older, working-age girls is promising. These girls could be integrated into the women's groups, where they could learn from older female community members and build business skills for the future, or girl-led groups could be created in other communities.

Source: United Nations World Food Program, 2011

Action 2c. Empower girls to build nontraditional extension systems, equipping them to offer agricultural, health, education, and adult literacy training to their families and communities.

Investments in vocational training not only benefit girls later in life, but can empower them to be nontraditional extension agents to their families and communities in agriculture, health, technology, and literacy. Extension services, which provide families and communities critical information and resources for remaining productive on farms and for remaining healthy, are limited in rural areas. Agricultural systems also generally target men. Without access to extension, women and girls lack critical information on developments in agricultural technology, training, access to credit, and health information and services.

There is a real opportunity to utilize girls to fill this gap. Girls are well positioned to share knowledge they gain about health, agriculture, literacy, and technology at school, vocational training programs, and peer groups with their families and communities.

Support schools, programs, or groups of girls that equip girls in agricultural practices.
Once girls have the necessary knowledge, donors should then provide opportunities for them to engage in agricultural extension services. Separate networks of girl experts could be trained and organized to provide basic health information. Girl "extentionists" could share information about nutrition, hand washing, menstrual pad use, and HIV/AIDs prevention to other girls in their communities. Girl extensionists could also be adult literacy providers as well as instructors in new technologies.

Action 2d. Offer innovation awards and incentives for creation of appropriate technologies.

Partner with private foundations.
Bilateral donors and national governments should partner with private foundations to offer royalty-like awards to incentivize the development and spread

of high-impact innovations to provide time-saving technologies for girls. Innovation could be encouraged in a number of areas such as sanitary pad manufacturing and disbursal, improved methods of blood disposal, and development of locally nutritious foods.

Involve girls in the technological development and distribution of new technologies. For example, PATH's Menstrual Cycle Initiative has developed sanitary products through consultations with girls in developing countries and has experienced positive results. Girls could be employed to test and later distribute and train others to use the technologies.

Action 2e. Support organizations, policies, and legal frameworks that eliminate discrimination against female workers and that support equal pay, safety, and security for working adolescent girls and women.

Publish laws and make them known. National laws should be written and printed in local languages. This information could then be distributed in both print and radio formats. Local laws should also be written and printed in the national language so national governments and NGOs can become familiar with them.

Recruit and train girls to be spokespeople. Organizations that work toward these goals should be identified and supported. To help advocate for legal, political, and social change, girls could be recruited and trained to be spokespeople on local, regional, and national levels.

BOX 21

Heifer International programs benefit adolescent girls in Guatemala.

Heifer International has been working for sixty-five years to help rural families in the developing world achieve more sustainable lifestyles by obtaining a source of income and food. Heifer's model is to provide long-term assistance in the form of gifts of livestock and training funded through donations from the public.

The gift of goats through Heifer International's programs has had a dramatic impact on girls in drought-ridden eastern Guatemala. Traditionally, farmers in the area raised dairy cows. However, cows drink as much as eighteen gallons of water a day, placing huge burdens on women and girls who are responsible for fetching water. They often had to make up to ten trips a day to the closest water source with twenty-pound jugs on their heads. The introduction of goats by Heifer International has greatly reduced these burdens, as goats need only about one gallon of water per day. Goats also reproduce more quickly and adapt rapidly to the tough terrain. The reduction in time required to fetch water means rural girls are able to spend more time in school in an area where most young girls would quit school by the sixth grade. In addition, the farmers have become self-reliant enough to form a farmer organization that is involved in a reforestation project.

Source: Heifer International

Photo Credit: Ron Giling/Peter Arnold Worldwide

RECOMMENDATION 3:
Prepare rural adolescent girls to be major stakeholders in agriculture and natural resource management.

Action 3a. **Include girls in country agriculture investment plans.**
Action 3b. **Ensure equitable inheritance and land rights for adolescent girls and women by supporting efforts to change and enforce relevant national and customary laws.**
Action 3c. **Increase adolescent girls' access to assets such as financing and agricultural inputs.**
Action 3d. **Encourage donors to disproportionally dedicate climate change adaptation and/or mitigation monies targeting natural resource management to programs that ensure participation of girls.**

"I produce vegetables. I produce very little. I want to grow more lettuce, more tomatoes. Through [microfinance] loans, I can improve my knowledge of the craft and invest the money in more seeds. . . . You know—this work is ideal. I can make money and look after Fadila at the same time. When I run my own business, I can prioritize my time."
—Safidja Soumana, 19, Niger[168]

As rural economic development will be largely driven by agricultural development, it is important to invest in the rural area's future farmers, agricultural workers, agrodealers, processors, wholesalers, and managers: youth, and in particular, adolescent girls. In many places women and girls are primarily responsible for weeding and hoeing, transporting crops, tending to livestock, and processing food.[169] As agricultural economies develop and diversify, women and girls can benefit and help affect positive change if they become an integral part of the planning and development process and are able to gain equal access and control over productive assets and resources.

Women and girls in agricultural development
Many countries have developed comprehensive investment strategies that support rural economic growth. These plans often include shared objectives for all stakeholders—national governments, businesses, NGOs, bilateral donors, and international organizations—to pursue in concert. They also often coalesce with regional investment strategies. In Africa, continent-wide coordination for agricultural development is facilitated by the African Union's New Partnership for African Development (NEPAD) under the framework provided by the Comprehensive Africa Agriculture Development Program (CAADP). This program, which came out of a commitment by African ministers to put 10 percent of their GDP towards agricultural development, supports the development of country and regional-level strategy to boost agricultural productivity.

Yet country investment plans for agricultural development designed by national governments, bilateral and multilateral donors, the private sector, and NGOS rarely focus on youth development, much less acknowledge adolescent girls. Today's adolescent girls will not be able to fully realize their potential in the agriculture and food sector if their needs and value are not taken into account.

There are efforts under way and significant research about how to drive agricultural development and ensure women can participate in the sector equitably. However, what is missing is how to ensure adolescent girls can be equipped to take advantage of growing opportunities in the agriculture and food sectors.

Although there is limited data available on rural adolescent girls' aspirations for the future, the research that has been done indicates that adolescent girls find agriculture and food to be unattractive professions. A study in Tanzania found that many youth "regard farming as a 'dirty activity' due to lack of proper facilities. . . . Agriculture is [there-

Opposite page
Girls in Bangladesh carry small trees at a local tree nursery to support reforestation efforts.

BOX 22

AWARD program supports women in agricultural research and provides role models for girls.

The Consultative Group on International Agricultural Research (CGIAR) is home to the African Women in Agricultural Research and Development (AWARD), a two-year fellowship given to African women scientists and professionals engaged in research that benefits rural communities and in particular, women. For example, Sheila Ommeh, a 2008 fellow who grew up raising chickens with her mother and grandmother in Kenya, is a PhD fellow at the International Livestock Research Institute in Nairobi and is working on introducing a disease-resistant chicken using indigenous breeds that can be easily produced by women farmers. Onome Davies, a 2009 fellow, aspires to fight poverty in Nigeria and Africa by increasing fish production. She has already established the African chapter of the World Aquaculture Society and worked to include Nigeria in an aquaculture program of the American Soybean Association's International Marketing Office in Bangkok, Thailand.

AWARD was established on three pillars. The first is pairing fellows with mentors in an effort to pass on existing knowledge and expand the pool of beneficiaries from the program. The second is helping the fellows build scientific capacity and an international network. Finally, fellows are expected to serve as role models for young girls, building leadership capacity and inspiring younger women to take up careers in agricultural science.

Source: AWARD, 2011

fore] regarded as an employer of the last resort to young people."[170] In South Africa a study found that adolescent girls living on fruit farms "had negative views of farm life, relating to the nature of farmwork and low wages; low status ascribed to farm children compared to children living in towns and villages; alcohol abuse, gossip, and jealousy among farmworkers; lack of privacy, boredom, and social isolation."[171] Efforts to improve the attractiveness of agriculture as a legitimate and valuable livelihood will be critically important. Involving adolescent girls and women in development plans and adaption of technologies to their local environments could go a long way in achieving this.

The African Women in Agricultural Research and Development (AWARD) outreach strategy to adolescent girls may present a good model. The program supports women as agricultural researchers and scientists by connecting them with mentors and resources in the science community. At the same time, the program requires participants to go to rural communities to speak to adolescent girls about their experiences to inspire them to take up careers in agriculture. This model should be evaluated for effectiveness. If its success is proven, the program should be brought to scale.

Land and inheritance rights

Control over assets plays an important role in increasing decision-making power and allowing adolescent girls and women to deal with the growing responsibilities, changes, and opportunities of the rural place. Among the most crucial assets for rural people are land and property. Access to land, whether through ownership or secure tenure rights, is essential for meeting food, housing, and livelihood needs. It increases social status and access to credit.

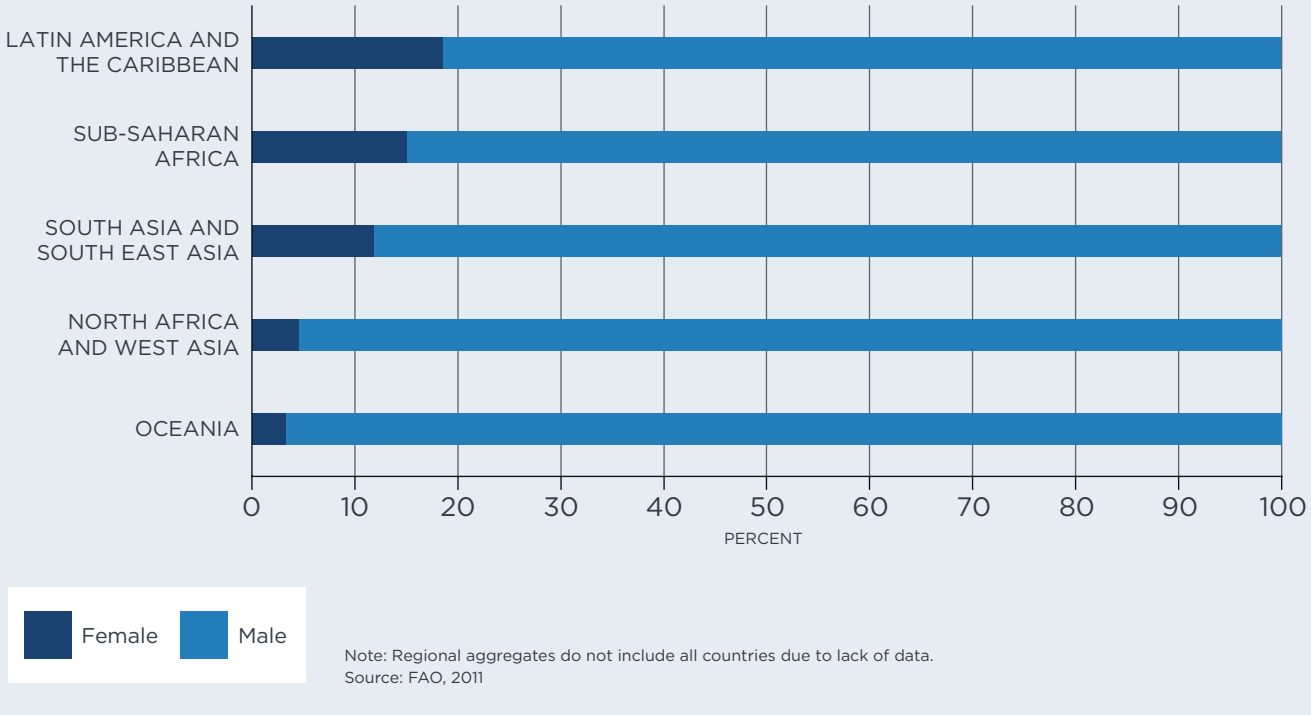
Marital and inheritance laws often exclude girls and women from inheriting or securing access to land and other productive assets critical to increasing productivity on the farm and developing sustainable livelihoods. Women frequently lose access as a result of divorce, widowhood, or migration. On average only 10 to 20 percent of all landholders in the developing world are women.[172] The land they do have access to is often smaller and of lesser quality than it is for men. On farms producing both food and cash crops, fields dedicated to food crops—in which women and girls are more likely to be active—are often located farther away than those devoted to the cash crops that men cultivate, placing an additional time burden on women.

While there is little research on children's inheritance rights,[173] children overall have particularly insecure property rights, usually subsumed under the mother's rights. Therefore, inheritance laws for women have a large impact on their children.[174] Examples of inheritance laws that disadvantage women include those in Lesotho and Swaziland, where women are considered legal minors and cannot own property, enter into contracts, or

FIGURE 11

Females make up only a small minority of agricultural holders in the main developing regions.

Share of land belonging to women.



Note: Regional aggregates do not include all countries due to lack of data.
Source: FAO, 2011

receive bank loans without a male relative.[175] In South Asia inheritance norms are also traditionally patrilineal.[176] While exceptions exist such as in Cambodia, Indonesia, Laos, the Philippines, and Vietnam, where women have equal rights to land under both customary and formal law,[177] reform is needed to allow women and their daughters to gain control over assets that are rightfully theirs. This includes careful consideration of customary laws and practices that may be affected by reform. In some cases, women's land rights are weaker under customary law and in other cases they are stronger. Legal reforms for inheritance should consider how laws are enacted or interpreted at the local level and ensure that existing customary rules favorable to women and girls are not counteracted by less favorable outcomes.

Some countries such as Bangladesh and Uganda have attempted to introduce gender-equalizing land or inheritance policies. In Ghana, Mozambique, Zimbabwe, and elsewhere, progressive legislation has been passed, but implementation often remains problematic because of women's inadequate access to information, their poor representation on local decision-making bodies, and their lack of access to complementary assets and capital to make productive use of ownership of land. To date, the record in terms of such land reforms is rather poor—with few exceptions, notably China.

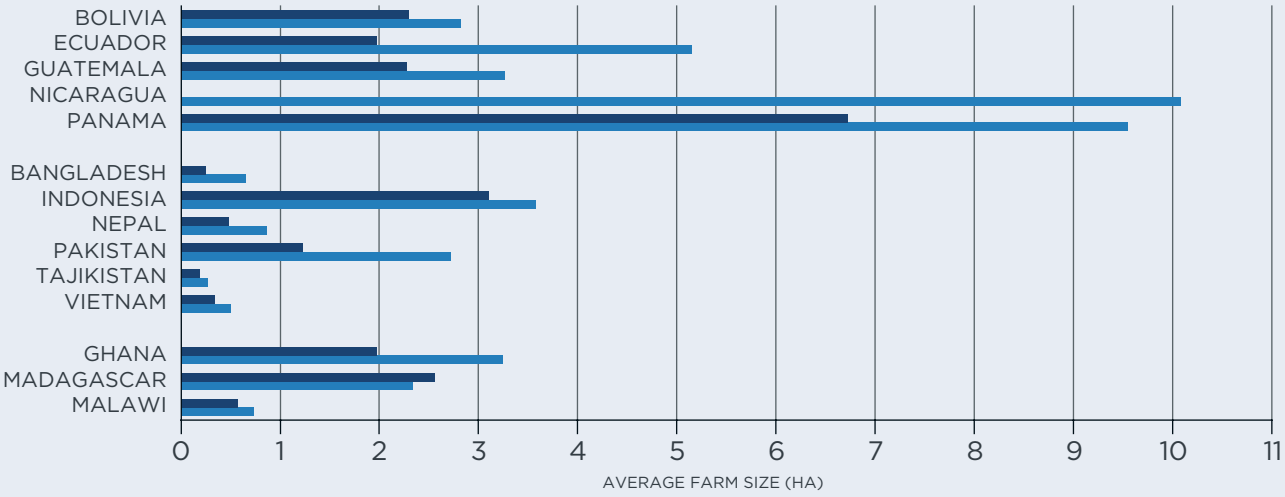
Credit and financial services

Across regions, women do not have adequate access to and control over either the resources and decisions that go into farming or the resources and

FIGURE 12

Female-headed households have smaller farms than male-headed households.

Average farm size in hectares for female- and male-headed households.



Note: Differences between male and female-headed households are statistically significant at the 95 percent confidence level for all countries, except for Guatemala, Indonesia, Madagascar, and Nicaragua.
Source: FAO, 2011; Anriquez, 2011

decisions that come out of it.[178] Just as women are often not viewed as farmers, girls and young women who aspire to run their own businesses face great obstacles, as self-employed women are not regarded as entrepreneurs in many rural communities. The lack of access to assets and resources such as credit and training services limits their capacity to succeed. Only 10 percent of agricultural credit is extended to women.[179] In some cases, even when women gain credit, it is used for men's productive activities.[180] While efforts to increase women's access to small savings, loan, and microinsurance programs or to products designed specifically for women are a positive step, more emphasis must be placed on promoting equal access to services across "the entire range of financial services, including remittance transfer services, leasing arrangements, and larger loans for productive investment."[181]

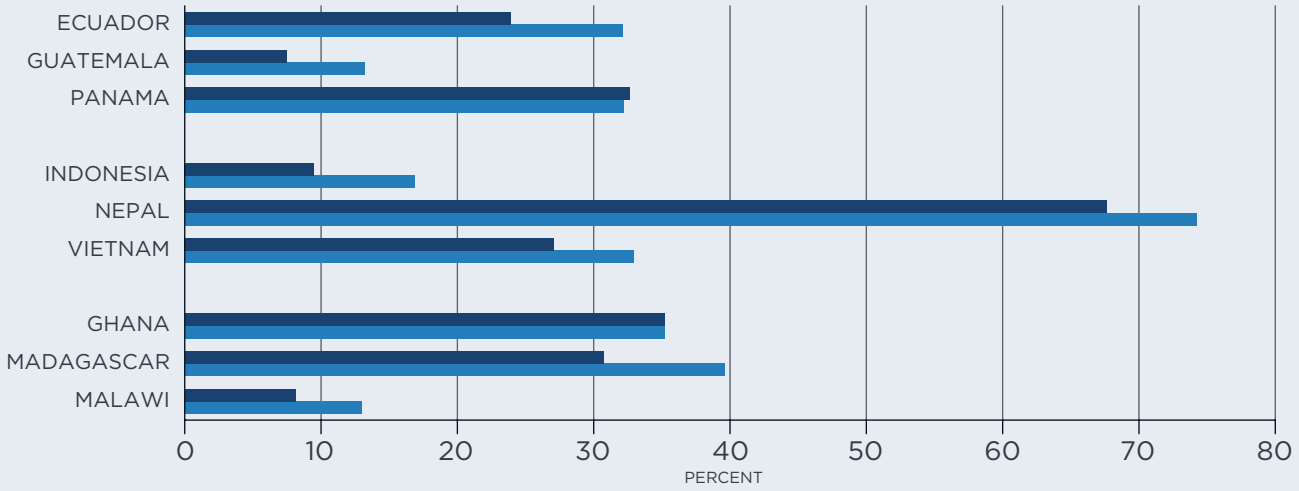
To increase banks' confidence in lending to nontraditional recipients, the Alliance for a Green Revolution in Africa (AGRA) has offered funds to back low-interest loans given to smallholder farmers in certain regions of Sub-Saharan Africa. AGRA also offers training to loan recipients in financial management. Loans to smallholder farmers is a fairly new system, so integrating women and girls now will help insure that the loans do not perpetuate male-only roles as borrowers.

The organization BRAC has devised creative solutions to alleviate poverty and promote agriculture and financial independence among rural adolescent girls. In Bangladesh the Borga Chashi Development Project targets three hundred thousand rural adolescent girls to help them borrow up to $3,000 to help rent land and become financially literate. This creative solution organizes the payments in

FIGURE 13

Fewer female-headed households use credit than male-headed households in rural areas.

Percentage of rural female- and male-headed households that use credit.



Note: Calculations made using nationally representative household surveys. The gender gap is calculated as the difference between the percentages of female- and male-headed households that use credit, which includes both microcredit and other financial instruments.
Source: FAO, 2011; Anriquez, 2011

both a traditional monthly repayment plan as well as seasonal payments during harvest times, as that is when money is available.[182]

The environment and climate change

Growing environmental challenges and climate change are increasing the need for effective disaster responses, environmental services, and natural resource management. Girls are disproportionately affected by climate change and natural disasters, but also are uniquely positioned, alongside women, to support a sustainable response. Adolescent girls, as the collectors of water and fuel and as agricultural workers, have a great deal of knowledge about natural resources and should be an integral part of any new policies.[183]

Girls in the developing world—whether urban or rural—are most negatively impacted by extreme weather and natural disasters. When families are hit by crisis, girls are taken out of school more often than boys to contribute to household income and help with domestic responsibilities. Girls also report that they face a noticeable increase in early or forced marriage after floods and droughts due to their families' inability to support daughters financially. They are often excluded from activities that increase a person's likelihood of surviving disasters such as swimming or tree climbing.[184]

In rural areas girls in particular are often reliant on natural resources to fulfill their responsibilities of providing food, fuel, and water for their families. Natural disasters, drought, or deforestation intensify girls' work burdens, as they may have to travel farther away from home to secure these assets or be left with less arable land on which to grow food.[185]

BOX 23

SEWA campaign in rural India engages women in water management.

In 1995 the Self-Employed Women's Association (SEWA), a female trade union active in Gujarat, India's water management, responded to its members' concerns about local water access by launching the Women, Water, and Work Campaign. Prior to the campaign's launch, men dominated water infrastructure management and development. SEWA's campaign established and trained local groups of women to maintain, manage, and monitor community water sources and provided women with leadership skills to confidently represent their cause at the local, district, and state levels. The campaign combines traditional water management strategies with modern technology and environmental protection, all governed by women. The effort now extends across eleven districts and reaches over two hundred thousand women in five hundred of Gujarat's villages, providing better water access and quality.

SEWA's work has had an enormous impact on Gujarat's women and girls. Since the campaign's launch, Gujarat's women are able to sleep more, spend less time doing housework, and spend less time fetching water. They have more time to generate income and achieve financial security. The campaign's success has led SEWA to harness women's collective potential to address issues such as health, education, and gender-based violence. Women's increased confidence and self-reliance has also contributed to greater autonomy and decision-making power in the household, impacting children's welfare and girls' education in particular. The campaign's work has led to a considerable decline in migration of women and girls throughout the Gujarat area.

Source: Panda, 2007

Despite these challenges, girls and women have specialized indigenous knowledge about the area's biodiversity, soil health, resource shortages, and weather patterns, making them uniquely positioned to be natural resource managers and effective in climate change mitigation efforts. Yet, women and girls are not included in climate change and natural resource management efforts.[186]

Designing policies and institutions that include women and girls in climate change mitigation and natural resource management can help conserve resources and provide economic opportunities. When women are involved in planning and management, natural resources are used more effectively and agricultural productivity increases. For example, in Madhya Pradesh, India, control of illicit grazing and felling increased by approximately 26 percent, while the regeneration of allotted forest grew by 28 percent when women belonged to forest protection committees, participated in committee meetings, and patrolled the forest.[187]

The involvement of women in natural resource management also makes households better equipped to cope with the impact of natural disasters, while mitigating the damage to natural resources. The need for watershed, biodiversity conservation, antidesertification, and carbon sequestration services also presents unique economic opportunities for women and adolescent girls.

Action 3a. Include girls in country agriculture investment plans.

Country and regional plans should include specific strategies and funds to support rural adolescent girls' current and future involvement in agriculture.

Develop location- and culturally sensitive strategies.
Strategies could include agriculture and food-specific vocational education and training, lending, and property and inheritance rights programs that are tailored to adolescent girls. Identifying strategies and allocating funding towards these efforts is an important first step in recognizing and cultivating the important role adolescent girls play and will play in agriculture and food system development.

Make agriculture-based occupations more attractive to rural adolescent girls.
The research around the aspirations for rural adolescent girls and youth in general is in nascent stages and deserves further exploration. Further studies should be conducted to better understand how young people view agriculture and why. Programs can then be created to make agriculture and food a more attractive industry, with incentives for girls to stay involved.

BOX 24

Landesa project provides microplots to landless families, with girls as coinheritors.

Because of the strong link between lack of land rights and poverty, the Landesa Center for Women's Land Rights (part of the Landesa Rural Development Institute) works alongside governments and other partners to provide landless families who have daughters but no sons a microplot of land in which girls are named as coinheritors. This enables young girls to enter marriage as future landowners, improving their positions as wives. The house and garden plots allow families to produce enough fruits and vegetables for survival and usually enough extra to provide supplemental income to their earnings as laborers. Extra income enables parents to place their young daughters or children in school.

In one example, a fourteen-year-old girl by the name of Poonam was given a Landesa land plot in the state of West Bengal, India. Previously, Poonam's family was poor, hungry, and landless, her father earning no more than $14 a month as a garbage picker. Despite her interest in studying, her parents could barely afford two meals a day and doctor visits, let alone a proper education. A microplot the size of two tennis courts has enabled Poonam's family to build their first home, plant a garden, and boost their nutrition. They are able to sell their harvest in summer months, nearly doubling the family's income.

Source: Catino, Colom, & Ruiz, 2011

Action 3b. Ensure equitable inheritance and land rights for adolescent girls and women by supporting efforts to change and enforce relevant national and customary laws.

Research national and local land and inheritance law and reform policies where necessary.
National and local policy leaders can be instrumental in reform of inheritance and land policies, but further research is necessary on how to rectify gender inequity in land and inheritance laws.

Action 3c. Increase adolescent girls' access to assets such as financing and agricultural inputs.

Increase girls' access to credit and financial instruments.
Vocational assets—including agricultural inputs—should be made available to girls and women as their access to financial instruments increases.

Package technologies, supplies, and inputs in smaller quantities.
For example, fertilizer and more productive seed varieties packaged in smaller quantities are more affordable and better suited for small-scale production.[188]

Action 3d. Encourage donors to disproportionately dedicate climate change adaptation and/or mitigation monies targeting natural resource management to programs that ensure participation of girls.

Climate change initiatives by donors should dedicate monies to support girls' participation in climate change mitigation and natural resource management programs. Designing policies and institutions that include women and girls in climate change mitigation and natural resource management conserves resources and has the potential to provide economic opportunities.

Photo Credit: Brent Stirton/Getty Images

RECOMMENDATION 4:
Empower and provide opportunities for rural adolescent girls to have an active voice in household, community, and national decision making.

Action 4a. **Provide "safe spaces" and youth development programs—both girl-only and girls and boys—to build confidence and skills, develop peer connections, and provide mentoring.**
Action 4b. **Support platforms for rural girls to participate in public dialogue and develop civic leadership skills.**
Action 4c. **Use radio and television to inform and empower girls.**
Action 4d. **Create more opportunities for girls' mobile phone ownership and Internet access.**

"Girls should get organized in each village and insist on getting equal opportunities for education as well as recreation and in the decision making in the family."
—Vandana, 15, India[189]

Rural adolescent girls have a lot to say. They have ideas, dreams, and aspirations. They have questions and concerns they want and need to discuss. They have unique and powerful opinions and perspectives. And, they have answers. Together they are a commanding force. Yet all too often, their voices go unheard—in families, communities, and the public sphere.

If girls are to become agents of change for themselves, their families and their communities, their status and levels of social and civic participation must be elevated. Their contributions must be given credence, their potentials must be recognized, and above all, their value must be acknowledged. Rural girls with respect, confidence, and social and leadership skills are not only better equipped to advocate for themselves, their families, and their communities, but also to grow into women whose participation in the public sphere can affect change. For example, in India, where one-third of seats in local governing councils are reserved for women through a constitutional amendment, studies in two states found an "unambiguous association" between the priorities of women in these councils and spending in those areas. These priorities included infrastructure and improvements for drinking water, housing, school, and health.[190] Including adolescent girls in decision-making processes is one of the major tools for sparking economic and social change.

Social networks

For rural girls, the communal nature of farmwork and chores such as fetching water from community sources offers some opportunity for informal social interaction. Yet opportunities for interaction and networking among peers in more formalized settings or "safe spaces" where they can make friends, talk freely, and connect with others are much less common. In many settings, the onset of puberty decreases a girl's access to her peers and her freedom to move about the community. Parents may fear for their daughter's safety or her honor if sexual advances by men are likely. Adolescent girls are frequently "invisible or unwelcome" in public spaces, limiting their opportunities for social growth and economic development.[191]

Social or cultural factors may inhibit girls' participation in decision making and dialogue. During adolescence, rural girls begin to learn what is perceived as possible from the gender roles that play out within their families and communities every day, lessons that shape their identity and aspirations. Some cultural norms may hinder rural girls' opportunities and access to platforms where they can raise their voices. For example, norms about rural girls'

Opposite page
Youth development programs give girls the opportunity to build confidence, receive mentorship, and develop valuable vocational skills.

BOX 25

"Safe spaces" initiative boosts skills and confidence of rural Guatemalan girls.

Abriendo Oportunidades was established in 2004 by the Population Council to create "safe spaces" in which socially and economically marginalized rural Mayan girls can come together to gain meaningful skills, confidence, and self-esteem. The program organizes rural Mayan girls aged eight through eighteen into locally based girls' clubs in which young female mentors conduct workshops on life skills, self-esteem, sexual and reproductive health, financial skills, and planning for the future. By organizing clubs near girls' homes, Abriendo provides an environment free from violence and discrimination in which girls can draw from shared experiences and work together to solve common problems. The program works specifically with the local public sector and international NGO partners to implement violence prevention at the community level by placing girls as interns with local gender violence prevention organizations and by "safety mapping" with girls to facilitate a better understanding of where, when, and with whom rural girls feel safe.

An evaluation of the program found that 100 percent of Abriendo girls had completed primary school, compared with 81.5 percent of girls nationally. Ninety-seven percent remained childless during their time in the program, compared with 78.2 percent of their female counterparts nationally. Finally, 94 percent of Abriendo girls reported having greater autonomy and self-confidence, 84 percent said their role at home had improved due to the program's positive influence, 88 percent reported having a bank account, and 44 percent had obtained paid employment throughout the course of the program.

Source: Catino, Colom, & Ruiz, 2011

mobility can restrict their access to information and environments where they can develop their voices and speak up.

As a result, adolescent girls are less likely than adolescent boys to have a close network of friends, a place to stay if they are unable to be at home, or a friend from whom they can borrow money.[192] For rural girls, the isolation of the rural place from diverse outside influences—including limited access to communication technologies—restricts their exposure to positive role models and mentors who can help shape and support their aspirations.

Safe spaces

Rural girls need access to places where they can connect with their peers, develop life skills, and gain confidence and leadership capabilities. Of equal importance is exposing girls to positive role models in a variety of professions and walks of life to support girls' hopes and dreams and show them that they can be achieved. Limited educational opportunities and resources, lower socioeconomic status, and social pressures to maintain a "traditional" way of living are all factors that limit rural girls' ability to dream.

The organization of youth groups can be helpful in developing social skills for girls. Structures for effective girl-only and mixed-sex groups will depend on local circumstances, but some models have had success in rural areas. The Population Council's "safe spaces" programs, currently in nine countries, are generally girl-only groups that are led by a young woman in the community with whom the girls participating can identify. A mentor develops a curriculum that is most relevant to the girls in the group. Programs include literacy training, health behavior education, discussions of gender-based violence, and when appropriate, strengthening girls to delay early marriage. Most often the groups are connected to community health services. The groups also strive to develop girls' life skills such as interpersonal negotiation, goal setting, and leadership. For example, a program in Kishori Abhijan, Bangladesh, is working through adolescent clubs in rural areas to reach girls aged fifteen to nineteen to promote financial literacy through mentoring.[193] In India young women community health workers provide support to rural girls in the creation of self-help

BOX 26

4-H changes the lives of girls in Tanzania.

Ending her studies because her parents did not have the means to pay her school fees was not what Stella Francis Mlangwa of Muhenza, Tanzania, had planned as a young girl. Fortunately, she had joined her school's 4-H club while in fifth grade, giving her the skills and confidence she needed to become a successful business woman in her rural, northeast town. She learned basic skills such as recordkeeping and how to manage a bank account. She learned how to set goals, get along with others, and to be a leader. Now in her early twenties, she sells fruits, juice, and other foodstuffs to schoolchildren outside a secondary school. She is active in another 4-H club for out-of-school girls as a volunteer peer counselor in sexual and reproductive health and serves as a role model for other girls who are not able to continue formal schooling.

Stella is not alone. 4-H—which stands for Head, Heart, Health, and Hands—has helped thousands of adolescent girls identify safe and promising opportunities in their communities through life and vocational skills training, including how to manage money, open a bank account, apply for and pay back a small loan, and identify business opportunities. Equally important are the confidence, self-esteem, and creativity that the program builds in its participants.

Leila Mohamed was still in school when she joined 4-H, but she immediately knew that what she was learning about vegetable gardening and about her own talents would help her whether she advanced to secondary school or not. Ana Aloyce used the skills and profits from her primary school 4-H vegetable gardening project to open a restaurant. Samai Hamoud Hamad now owns a dress shop in Muheza. She says her success is due to her training in her primary school 4-H program.

4-H programs focus on preprofessional projects in agriculture, poultry, small animals, home economics, handicrafts, and other businesses that not only help provide income for youth to continue school or to contribute to the household, but develop skills for life. More than 50 percent of the thirty-five thousand 4-H members in Tanzania are girls, many in all-girls clubs. With the support of the Nike Foundation, the organization is conducting a gender assessment to learn how to improve opportunities for girls through 4-H and to spread those successful practices to other African 4-H programs.

Source: Agunga et al., 2010

groups. Some communities have also organized girl-specific confidence-raising programs such as the program implemented by the Starfish Foundation in The Gambia.

Other examples are the 4-H programs implemented by grassroots leaders in more than seventy countries. These programs are based on the positive youth development model, the idea that competence, confidence, connection, character, and caring or compassion—the "Five Cs"—are critical for youth to make a healthy transition into adulthood. In Africa alone 4-H programs involve two hundred thousand members in nine countries, 47 percent of whom are females. Members range in age from six to forty, but the majority are between the ages of six and seventeen. In many countries, especially those where food insecurity is a persistent threat, 4-H programs focus on agricultural and other income generating practices and livelihood skills while integrating opportunities to learn life skills useful in any walk of life. Throughout the world 4-H programs use innovative partnerships to connect youth with positive mentors and advisors to provide hands-on training that builds skills to support home and healthy living responsibilities and that contributes to sustainable communities. 4-H's emphasis on citizenship—teaching the importance of community service and developing leadership and public speaking skills—strengthens members' ability to be involved in decision making in communities. As 4-H continues to enhance its programs in the develop-

BOX 27

Africa Farm Radio Research Initiative provides a model for reaching rural girls.

Radio can be an effective way to reach rural people—including adolescent girls, with important information. In 2007 Farm Radio International launched the African Farm Radio Research Initiative (AFRRI) with support from The Bill & Melinda Gates Foundation to explore how to use radio to help rural farmers improve their lives. Through radio campaigns in five African countries, the initiative has reached 39 million farmers with important information on disease-resistant crops, composting, animal housing, soil and water management, and other vital agricultural issues.

An important feature of these programs is the communication from farmer to farmer, which encourages them to try new things. In Ghana a local agricultural extension officer found that he could reach far more farmers on the radio than on his motorcycle, sharing information such as the potential drought resistance of a new rice seed variety. In addition to providing information, he takes calls from listeners to facilitate dialogue and answer questions. These programs are working. Faustina, a female farmer said, "Hearing about the rice from other farmers made it more convincing."

The project also surveyed women farmers about when they could listen so programs were broadcast at times they were home and when they could determine what station to listen to. This radio model could also be adapted to engage and reach rural adolescent girls with programs of pertinence to them.

Source: The Bill & Melinda Gates Foundation, 2010

ing world, it is taking steps to ensure adolescent girls are included.[194]

The World Association for Girl Guides and Girl Scouts (WAGGGS) works closely with governments, NGOs, and international organizations to create girl-only groups that facilitate friendship formation and community-building projects. The Africa region has an emphasis on creating a safe environment for girls to learn life skills, including small business development. In this region alone, WAGGGS has thirty-one associations and over seven hundred thousand members. Recent projects promote financial independence through small business enterprises. In Madagascar, for example, the Center for Rural Development and Training Sahafanilo runs various activities, including fish breeding, bee keeping, and rice growing along with a visitor center. This center supports the association in its delivery of educational programs to girls and young women. In Kenya the organization works with young refugee girls to develop a culture of peace.[195]

Communication technologies

"And we should have a girl's access to Internet here so that the world opens up to us and so that our studies remain the important thing, so that we can realize our ambitions in Moroccan society."
—Rural girl, Morocco[196]

In addition to direct interactions with peers and role models, technology has a huge role to play in raising girls' voices and empowering them to fulfill their potentials—as individuals and as part of larger social networks. The changes sweeping the Middle East are evidence of what young people—girls, boys, women, and men—can do when they are connected through technology and empowered to raise their voices. Communications technologies, including radio, television, the Internet, and mobile telephones, are critical tools for learning, networking, and communicating as well as for building successful livelihoods on and off the farm through better market connections and financial services.

Traditionally, radio has been a primary source of information for rural communities. In fact, 70 percent of rural Africans have access to a radio,

which is often the main form of communication and contact within the household.[197] Radio can and should be used more effectively to help girls learn and connect. A challenge for many adolescent girls is that they have little time to listen, and programs of interest may not be broadcast at times they are available to listen. This is particularly a challenge for married girls. A study in rural Bangladesh found that 53.3 percent of unmarried girls listened to the radio compared to only 40.1 percent of married girls.[198] Programming may also not be interesting or relevant to their needs. Men may control the radio dial, hindering girls from listening or accessing programs of their choice.[199]

Despite these challenges, radio is arguably still the most easily accessible and inexpensive communications tool for reaching rural girls. It can deliver a wealth of content, including health and nutritional education, basic literacy, adolescent-friendly public information, agricultural information, and messages from key leaders about girls' importance. It is also an important tool for role modeling and for actively engaging girls. For example, in rural Peru a radio program was initiated where male and female rural adolescents (fifteen to nineteen years old) acted as the radio speakers. They delivered information about gender roles, romantic relationships, pregnancy, and overall sexual and reproductive health in the local language. The radio program reached their peers and adults in their communities, providing valuable knowledge and entering their voices into the public dialogue.[200]

In addition, mobile technologies hold great promise for empowering rural girls on multiple levels. Mobile technologies help girls connect with their peers, increasing social interaction and the sharing of knowledge and information. They help improve girls' safety by giving girls a way to communicate if they are in trouble. They can improve girls' health by allowing them to get information or help more quickly when they are pregnant or sick. They can aid girls' learning by helping them get needed information. They can help make girls' voices and opinions heard in public forums. And they can facilitate personal financial and business transactions.

Access to mobile phones in rural areas, however, varies widely. Fixed telephone lines never reached

BOX 28

"Hidden World of Girls" initiative brings girls' stories to broad audiences.

Launched in 2010, the multimedia series "Hidden World of Girls: Girls and the Women They Become" is an initiative by the Kitchen Sisters, documentary radio producers, and National Public Radio. It aims to bring to light untold stories of girls and women through various media, including radio, written articles, photographs and audio. The series uses Facebook and YouTube to disseminate information and gather story ideas. Stories can also be submitted by telephone.

One story captures the voices and aspirations of young girls attending school behind closed doors in Kandahar, Afghanistan. In the midst of an ongoing war, these girls have hope for their futures. They describe the time when they lived under Taliban rule and the importance of education for their futures. In the words of one eleven-year old girl, "Education is gold—more precious than any other possession."

None of the current "Hidden World of Girls" stories specifically address the experiences of a rural adolescent girl. Yet this type of multimedia effort presents an opportunity for the voices of rural adolescent girls to be heard, providing an outlet for them to share their experiences, aspirations, and perspectives.

Source: NPR, 2011

BOX 29

Grameen leverages mobile phone technology to empower poor rural women.

Grameen Bank pioneered the use of mobile-phone-based microfinance programs to help empower rural women in the fight against poverty. Started in Bangladesh in 1997, the Village Phone program provided low-cost loans to women in villages with limited landline access to establish mobile phone enterprises. The program not only provided a means of income for the participants, but connected rural villagers to information vital to improving their livelihoods on and off the farm. In 1997 Grameen Foundation was established by friends of Grameen Bank keen on replicating the Village Phone model elsewhere in the developing world. In 2002 the first African Village Phone program was established in Uganda, and it has since expanded throughout Sub-Saharan Africa, including to Rwanda, Cameroon, and Nigeria.

As mobile phone ownership has grown in some areas of the developing world, the Grameen Foundation has adapted its model beyond simply providing mobile phone access. A new "mobile microfranchise" model developed in Indonesia in 2007 provides female operators not only with a mobile phone, but also the ability to resell mobile airtime and to provide a wide range of data services that bring critical information to entrepreneurs in underserved rural communities. The Grameen Foundation also launched the PT Ruma program, a social enterprise that utilizes the unique Progress Out of Poverty Index (PPI) to identify Indonesia's poorest residents and provide them with the tools to improve their livelihoods. In 2009 PT Ruma launched the "managed channel" to directly recruit and support poor female entrepreneurs with "mobile microfranchise" materials, and in mid-2011 RUMA plans to unleash the "mass market channel," which will provide budding entrepreneurs with mobile applications and services. By March 2011 RUMA had succeeded in recruiting 6,876 rural entrepreneurs into the network—85 percent of whom are among Indonesia's poorest women—to serve 560,000 mobile customers. Based on the notion that connectivity equals knowledge, which in turn equals power, Grameen Foundation's innovative work presents a promising example of how information technology can be utilized to promote gender equitable change and alleviate poverty in the rural developing world.

Sources: Grameen Telecom; Grameen Foundation

most rural households, but the lower cost of mobile infrastructure has allowed swift expansion of this technology. The proportion of rural households in the developing world that have a mobile telephone ranges from as low as 4 percent in the Democratic Republic of Congo to levels above 50 percent in countries such as Armenia, Egypt, Ecuador, the Dominican Republic, Ukraine, and the Philippines.[201] As with other forms of communication technology, the lowest-income developing countries tend to have relatively few households with a mobile telephone.

In terms of signal coverage, current data suggest that 80 percent of rural populations globally are covered by a mobile cellular signal. For rural populations in Africa, the number is just over half (52 percent) as of 2008.[202] These numbers represent the theoretical potential of populations to gain access to mobile devices, and they are growing rapidly.

Yet many rural dwellers are finding ways to gain access. Even though individual access among poor households is low because of cost, mobile phone use in rural areas with service is often shared.[203] For example, while the average per capita income of villagers in rural Bangladesh is less than $200 a year, as a group they are huge consumers of telecommunication services. The lack of electricity for charging phones is also being overcome. In some places someone from the local community collects all mobile phones and takes them to the nearest place with electricity to recharge them. As competition and technological advances bring down prices,

cellular phone services are becoming more accessible to poor people.

For adolescent girls, gender disparities are still an obstacle in ownership and control over mobile phones in many areas. Women are 37 percent less likely than men to own a mobile phone if they live in South Asia, 24 percent in the Middle East, and 23 percent in Africa.[204] In a study in Ethiopia, boys were more likely to own radios or mobile phones compared to girls, and ownership was higher in urban areas. Ownership of mobile phones was 24 percent for urban boys and 2 percent for rural boys, compared to 18 percent for urban girls and less than 1 percent for rural girls.[205] Yet rural female youth generally are more likely to use mobile phones than their mothers.[206] The Cherie Blair Foundation survey found that girls and young women between the ages of fourteen and twenty-seven had the highest rates of mobile phone ownership among women, and where they did not own a phone, were prepared to borrow one from someone who did.[207]

In the Grameen Bank experience in Bangladesh, where women were given loans to buy cell phone licenses, phones, and generators, "phone ladies" became the village telephone operators. As a result of the fees they charged, they became the wealthiest people in the communities, often using their earnings to invest in other community businesses.

Text messaging is an especially important tool for such initiatives and also holds great potential for girls. As the least expensive form of distance communication it is highly useful for those who spend long hours in the fields or who travel long distances to work.

Texting applications are already being deployed to help health-care workers communicate with distant rural villages, to help local leaders communicate with community members, and to facilitate dialogue among community members. Many such applications are designed to allow texting to individuals and groups and to allow users to tailor the applications to their specific needs and uses, including translation into local languages. Examples of such initiatives include Tostan's Jokko Initiative in Senegal to encourage group decision making in villages[208] and Georgetown University's Institute for Reproductive Health (IRH) m-health initiative to provide reproductive health information.[209] Texting initiatives should be developed on topics relevant to rural adolescent girls and should be sure to target girls for inclusion more broadly. Schools should also provide basic literacy in the use of communication technologies, including mobile phone and texting applications.

Action 4a. Provide "safe spaces" and youth development programs—both girl-only and girls and boys—to build confidence and skills, develop peer connections, and provide mentoring.

National governments, donors, and NGOs should work together to create youth groups in rural areas that focus on increasing peer interaction, providing both adolescent girls and boys a platform for raising their voices, building skills, and increasing exposure to role models and mentors.

Provide spaces within formal systems and/or through nonformal groups.
These should be provided as appropriate to the local context and the rural girl's situation. There should be opportunities for girls to participate in girl-only groups and in activities involving both boys and girls, depending on local circumstances. Youth groups and mentoring programs, together with a broadened educational curriculum and increased access to technology, can raise girls' aspirations and expectations.

Action 4b. Support platforms for rural girls to participate in public dialogue and develop civic leadership skills.

National and local governments and international and national youth forums should take steps to ensure rural adolescent girls are included in dialogues.

Strengthen frameworks for capturing girls' voices.
Currently, frameworks to capture youth "voices" only weakly address female youth and do not

BOX 30

Jokko Initiative uses mobile technologies to improve lives in rural Africa.

The Jokko Initiative, a partnership between Tostan and UNICEF, is leveraging mobile technologies to increase literacy and social interaction and empowerment, especially among women and girls. In 2009 the initiative was added to Tostan's already well-established Community Empowerment Program (CEP), its core nonformal education program, in rural Senegal. Participants learned how to use a cell phone and were given access to a Community Forum based on text messaging. Literacy and numeracy skills were also included.

Results showed that the number of participants able to use a cell phone increased 40 percentage points, the number able to read text messages increased 60 percent, and the number of text messages sent and received increased 400 percent. The initiative has now become a standard part of the CEP in areas with access to mobile phones.

In addition, the Jokko Initiative is working to integrate innovative mobile technology solutions into its programs. For example, it has developed a telecenter model that uses solar-powered charging stations, providing better access for communities as well as an income-generating activity for community members. The initiative strives to provide practical text-messaging applications that can accelerate positive change for individuals and communities.

Source: Tostan

specifically focus on rural adolescent girls. The lack of "voice" in policy is exemplified by the minimal amount of development funding focused on adolescent girls overall. Less than two cents of every development dollar goes to programs specifically for girls, particularly those aged ten to fourteen years.[210] National and local governments should take steps to include girls' voices in policy development and feedback that is especially relevant to adolescents.

Encourage participation in all types of forums for decision making.
Meaningful participation in family and community life helps adolescents develop into active, engaged citizens as they mature into adults. The ideas and opinions of youth can help shape policies that address not just their own needs but those of the entire society.

Active participation should be encouraged in everything from contributing to family decisions, joining school governments, volunteering in the community, meeting with local leaders, and participating in youth councils and other forums for youth. Involvement in youth and peer groups, as described above, will help equip girls with the skills to raise their voices.

Action 4c. Use radio and television to inform and empower girls.

Broadcast programs of interest at appropriate times.
Although radio will not reach every girl all the time, surveys should be done to determine when most girls use the radio as well as what they like and want to listen to. Relevant radio programming on girl-friendly topics should then be created and broadcast at those times.

Support girls to become active in radio.
Girls can be trained to be radio announcers, bringing news and other information to the public. In addition, girls groups could organize various self-improvement and extension-like programs and then broadcast them to their peers.

Incorporate positive role models.
Television programming on regional and national levels that promote respect for girls and show positive role models should also be encouraged.

Action 4d. Create more opportunities for girls' mobile phone ownership and Internet access.

Ensure that as Internet technology becomes more available in poor rural areas, girls get high priority for access.

Access to mobile phones for adolescent girls must be increased to expand their access to information, enable them to interact with others, and make their voices heard. Mobile phones and minutes could be distributed at schools to provide attendance incentives.

Train girls in the use of mobile phone applications and text messaging to improve lives and incomes.
Applications in the areas of education, health, safety, civic participation, and business can transform girls access and empowerment. Opportunities should be leveraged through speech, text, and when available, computing technologies.

Photo Credit: Brent Stirton/Getty Images

RECOMMENDATION 5:
Provide rural adolescent girls with comprehensive health information and services.

Action 5a. **Integrate adolescent health as a priority in national systems and policies.**
Action 5b. **Increase rural girls' access to information and services using school and community centers as entry points.**
Action 5c. **Encourage growth of highly nutritious indigenous foods, local manufacturing of vitamins, local food processing, and addition of micronutrients.**
Action 5d. **Provide greater services to young expecting mothers.**

"I want to help people who are suffering, especially those in my home area. The doctors and nurses who treat us are people we don't know from the cities. I want to work to change this so we can help ourselves in our community."
—Mary, Malawi[211]

Health is essential to a fully functioning body and mind. It contributes significantly to whether a girl will be able to fulfill her potential—whether she will succeed in school, contribute productively to home and work life, and have a healthy family of her own. Healthy girls affect a nation's productivity and its prospects for growth and development.

Adolescence is a critical time for health, when dramatic physical changes transform girls' lives and futures. Behaviors established during this time, including hygiene, diet, exercise, and sexual behavior, have lasting effects.[212] They form the basis of health in adulthood and of health in the next generation. During this period girls' health can be positively reinforced and strengthened, or it can be irreparably and unnecessarily damaged.

Addressing the health of all rural adolescents is an important part of any national health strategy.

Rural adolescent girls' health can be particularly fragile. Lack of adequate infrastructure, health services, security, and education in rural areas are particular challenges. Rural girls are also frequently involved in work with high physical demands such as carrying water and fuel and helping on the farm. These tasks can further compound their health issues. Rural girls' health is also affected by social and cultural norms that may determine when and what they eat, whether and how health issues are addressed, and at what age they marry and have children. Adolescent girls often do have control over these decisions, making it difficult to manage their own health.

Health information and services

Rural areas are at a marked disadvantage in terms of access to health information and services.[213] The most remote rural areas may have no health services available. When they do exist, health clinics in rural areas are often small and provide limited services, due in part to staffing and supply constraints. Circumstances vary widely, but generally speaking rural populations struggle with access to basic care, access to health information, efficient transportation to get to a needed facility, poor quality, potentially long waits, and lack of access to medical supplies and resources that people elsewhere take for granted.

The lack of available medical personnel in rural areas is a key part of the challenge. Although approximately one-half of the global population lives in rural areas, there is a worldwide shortage of health personnel in these areas.[214] Rural areas are served by only 38 percent of the total nursing workforce and by less than 25 percent of the total physician workforce. The situation is especially dire in fifty-seven countries where a critical shortage of trained health workers means an estimated one billion people have no access to essential health-care services.[215] In Bangladesh, for example, 30 percent

Opposite page
Sheuli, age seventeen, in the white scarf, is one of seven sisters. She took it upon herself to join the BRAC program where she was able to start her own embroidery business. With the profits she makes she has been able to put herself and her younger sister through school. The rest she reinvests in her business. With this independence she has been able to avoid early marriage, unlike her five older sisters.

BOX 31

Efforts to increase sexual and reproductive health knowledge show promise in Africa.

Below are three examples of efforts to reach rural adolescents with sexual and reproductive health information. There is a great need for further information and evaluation to guide additional efforts.

MEMA Kwa Vijana (Good Things for Young People) is a program in rural Tanzania providing sexual and reproductive health education and services to students in the last three years of primary school (twelve to nineteen years old). The program is teacher-led, peer-assisted, and includes training and supervision of health workers in the provision of youth-friendly health services, peer condom promotion and distribution, and wider community activities. While the results are promising, they show potentially greater effects for adolescent boys.

In the rural Jinja district of Uganda, youth-friendly health services were provided to address the issues of young females becoming involved with older male "sugar daddies." Implemented in four health centers, the initiative trained health providers to communicate nonjudgmentally and provide counseling in sexual and reproductive health. In response to youth comments, the health centers extended hours, provided recreational activities, and offered treatment for sexually transmitted infections (STIs) and contraceptives.

In Ethiopia the BBC Trust developed and broadcast, in collaboration with Radio Ethiopia, a mass media sexual and reproductive health information campaign through high-quality radio programming in Amharic and Afan-Oromo languages. This initiative included listening groups, where young people could discuss the radio messages and follow-up newsletters to reinforce the information.

Source: BBC, 2009; Matatu, Njau, and Yumkella, 2001; MEMA Kwa Vijana, 2010.

of nurses serve the 15 percent of the population living in four metropolitan districts.[216] In South Africa only 12 percent of doctors and 19 percent of nurses are working in rural areas even though 46 percent of the population lives there.[217]

Constraints on mobility can also limit rural girls' access to health care.[218] In some communities rural girls may not be allowed to visit public places without a chaperone due to norms and concerns about safety. Girls may be embarrassed or afraid to seek health services, especially sexual and reproductive health services, for fear of being stigmatized.[219] Providers themselves may also be judgmental toward girls, or they may simply lack the skills and knowledge to effectively interact with and treat the specific health issues of adolescent girls. Finally, girls may not be able to access services because of time constraints such as work and school. As a rural Ghanaian girl has said, "The hospital workers close at a time when we are free and can visit, and they work when we are in school."[220]

Access to sexual and reproductive health information is critical for rural adolescent girls, especially given the prevalence of early marriage and childbirth in rural areas. Such information can improve overall health and can help reduce the risks of disease, unintended pregnancies, and complications of pregnancy.

Yet rural adolescents are much less likely than their urban counterparts to have such information. A multicountry study in Sub-Saharan Africa found that the proportion of young women and men aged eighteen to twenty-four with knowledge of modern family planning methods was much lower in rural areas than in urban areas. Rural adolescent girls can have even less access to this information, due in part to limitations on educational attainment (particularly at the secondary level), cultural norms that constrain girls' willingness and/or ability to discuss sex, and limitations on opportunities to access this information.[221]

In rural Ghana the Grameen Foundation supplies prenatal information through mobile phones and also uses mobile devices to help community health workers locate women in need of services.[222]

"Young people talk to those they trust, but will not talk to those they don't trust."
—Rural girl, Ghana[223]

Nutrition

Large numbers of rural adolescent girls also struggle with inadequate nutrition. According to the Food and Agriculture Organization, 925 million people worldwide were undernourished in 2010,[224] with children disproportionately among the undernourished. In all developing regions rural children are more likely to be hungry than children living in cities and towns.[225] Undernutrition in every form presents significant threats to health throughout the life cycle. It can impede the growth of young children, constrain cognitive ability of school-aged children, weaken the immune system, restrict productivity, and pose serious health risks for adolescent mothers. Three of the four main causes of maternal death in childbirth are related either directly or indirectly to nutrition (hemorrhage, sepsis, and obstructed labor).[226]

Efforts to address rural girls' undernutrition should occur at critical junctures in the life cycle. The most opportune moment to intervene is during the period in utero to age two.[227] In addition, there is increasing recognition that intervention during early adolescence can facilitate some corrections of earlier undernutrition and address issues prior to a first pregnancy.[228] Parents (or other family members) may not be aware of the specific nutritional needs of their adolescent daughters. Adult pregnant women who attend nutritional programs can be educated that their adolescent daughters should receive nutritional information and supplementation to support their ability to learn and their future nutritional strength. In food secure areas, nutritional education may begin to affect change. However, many rural areas are food insecure and therefore nutritional education may need to be combined with food supplementation.[229]

Anemia requires specific attention due to its prevalence and implications for rural adolescent girls. Poverty, inadequate diet, diseases, and poor access to health services all contribute to disproportionately high levels of anemia in developing countries.[230] While all young people are at particular risk because of the high iron requirements needed

BOX 32

Addressing anemia in rural adolescent girls must become a priority.

Specific interventions to address anemia broadly include iron supplementation, diet modification to include more iron-rich foods, iron fortification of foods, and treating worms and other parasitic infections such as malaria.* While there is no magic bullet to effectively and sustainably reducing anemia among rural adolescent girls, specifically targeting the nutritional needs of adolescent girls is the first step. At the policy level, attention to the issue of adolescent female anemia must be included in global health initiatives. Initiatives to address anemia should become an integral part of adolescent reproductive health as well as maternal, child, and newborn health efforts.

One promising approach is the distribution of a micronutrient powder called "Sprinkles" that can be sprinkled on food. The small packets are distributed in eighteen countries worldwide and has been demonstrated to be effective in reducing childhood anemia in countries from Bolivia to Bangladesh. In Cambodia, where 70 percent of rural children under twenty-four months are anemic, Helen Keller International worked with local health centers to distribute "Sprinkles" to mothers and train them about the benefits of the product when included in food. While these initiatives have not been rigorously evaluated or specifically aimed at rural adolescent girls, they hold significant promise.

Rural adolescent girls themselves can be engaged to participate in anemia education and service delivery. In rural Gujarat, India, adolescents took on administrative responsibilities for a school-based education and iron supplementation study when school staff were unable to do so. Adolescent girls involved the study reported tangible results, including increased energy, and expressed a desire to continue taking the iron supplements after the study was completed. In Uganda, Swaziland, and Rwanda, the Girl Guides Anemia Prevention Badge Project allows Girl Guides between the ages of seven and eighteen to earn a badge in anemia prevention through educational programs and community involvement in anemia control.

*The World Health Organization has recommended against universal iron supplementation for children under the age of two years living in malaria-endemic areas. Screening to identify iron-deficient children was recommended with directed treatment.

Source: Elder, 2000; Helen Keller International; USAID

for rapid growth, the incidence of anemia among female adolescents aged fifteen to nineteen is considerably higher than for their male counterparts.[231] Girls require 10 percent more iron than boys due to menstrual blood loss.[232] Following the end of their growth spurt, boys rapidly regain adequate iron status, whereas girls may continue to be or become more deficient because of the increased requirements for iron due to menstruation, pregnancy, and lactation.[233] This is a particular challenge for rural girls who often marry and have children earlier than their urban counterparts.

For rural girls the challenge of anemia is compounded by the high physical demands of their work and the often combined presence of poverty and hunger in rural areas. In countries like India, where the issue of anemia is pervasive, data show that rural girls have higher rates of anemia as compared with their urban sisters.[234] While data are limited on the impact of anemia on rural girls' energy, anemia in adults has been found to reduce productivity by 17 percent for heavy manual labor and by 5 percent for less arduous activities.[235] Additionally, data illustrates that anemia adversely affects children's cognitive abilities.

Adolescence is a key time to address anemia because of increased deficiencies during this time, especially for rural girls. Evidence indicates that intervening to address anemia prior to pregnancy is an important step to improve maternal and infant health outcomes.

Early pregnancy and childbirth

In all regions of the world, rural girls have children earlier than urban girls—with adolescent birthrates almost double those for urban areas.[236] This occurrence can be linked to the higher rates of early marriage in many rural areas, as early pregnancy commonly follows shortly after marriage.[237] Whether early pregnancy occurs within a marital context or outside of it, its effects can be serious and potentially devastating.

Pregnancy-related illnesses are a significant cause of death and disability for young women fifteen to twenty-nine years old. In South Asia, Sub-Saharan Africa, and the Middle East and North Africa, between 15 to 20 percent of all female deaths are pregnancy related.[238] The younger a girl is when she becomes pregnant, the greater the risks to her health. Girls who are younger than fifteen years old are five times more likely to die in childbirth than young women aged twenty or older.[239] In Latin America, one study showed that girls who became mothers before the age of sixteen were three to four times more likely to suffer maternal death than women who gave birth after age twenty.[240]

Problems of early pregnancy can be especially acute in rural areas because of the inadequate health-care services. According to the World Health Organization and UNICEF, women should receive care from a trained health-care practitioner at least four times during the course of their pregnancies. However, less than half of pregnant women in developing regions and only a third of rural women receive the recommended four visits. Among rural women in Southern Asia, the share is only 25 percent.[241]

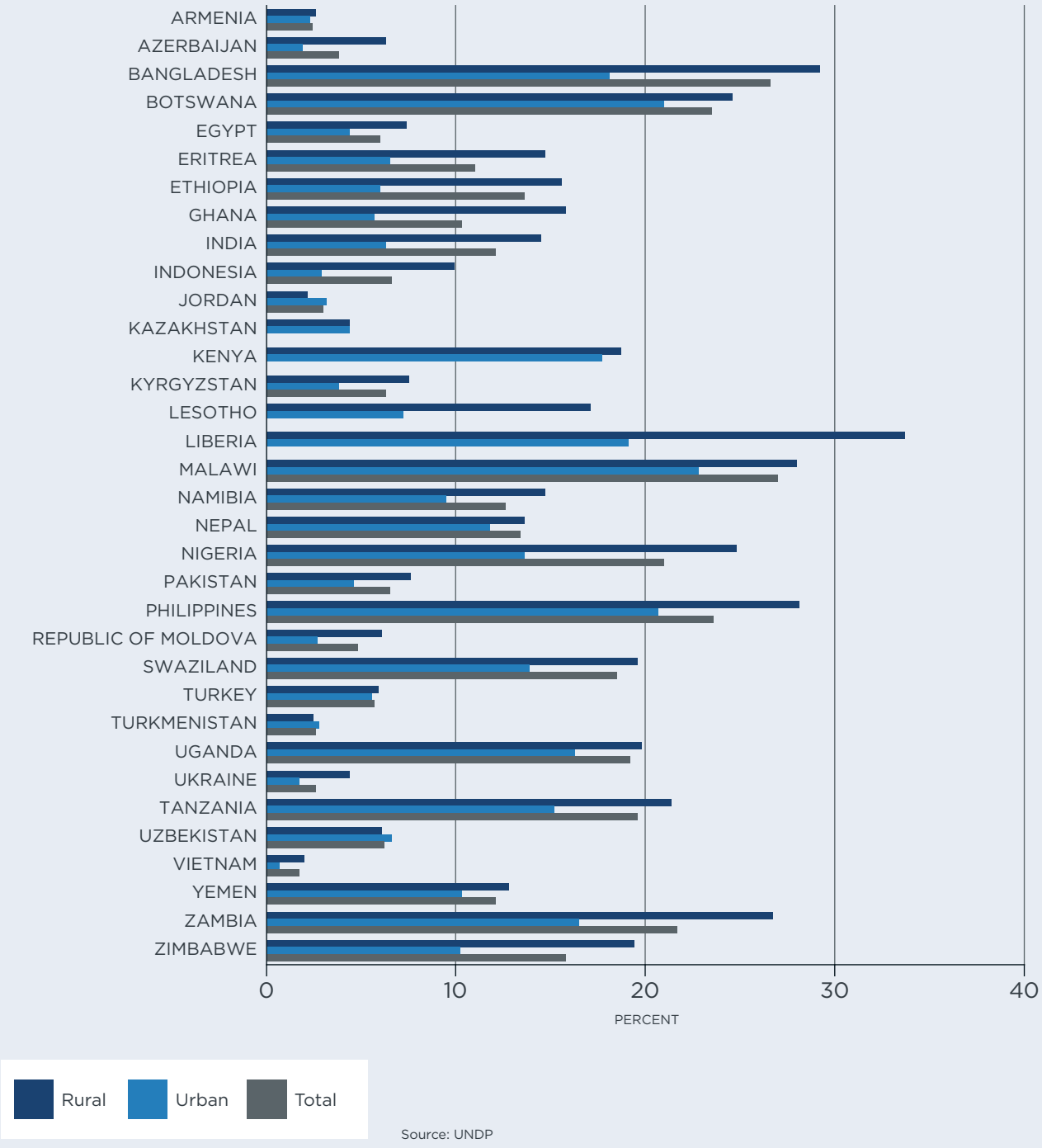
In addition, most rural girls deliver their babies without a skilled birth attendant. Overall, only 28 percent of births in rural areas have a skilled attendant, compared to 79 percent of city births.[242] While there have been documented improvements in the disparity between skilled attendance at birth for rural and urban women, inequities persist in regions where attendance by skilled personnel is lowest and maternal mortality highest—notably Sub-Saharan Africa, Southern Asia, and Oceania.[243] For example, 60.6 percent of deliveries in urban settings in Pakistan, 52.8 percent in Angola, and 46.9 percent in Yemen are attended by a skilled birth attendant. In the same countries, rural deliveries attended by skilled personnel are two to four times lower.[244]

There is a strong connection between nutritional status of adolescent girls and pregnancy outcomes. Stunting, the result of chronic undernutrition, increases the risk of childbirth complications such as obstructed labor.[245] Combined with adolescence, when girls' bodies may not be fully developed, this issue contributes to serious health risks that can result in devastating consequences like obstetric fistula. Anemia also places rural adolescent girls at greater risk of maternal mortality.[246, 247]

FIGURE 14

Rural girls are more likely to give birth as adolescents than urban girls.

Proportion of girls aged fifteen to nineteen who have given birth.

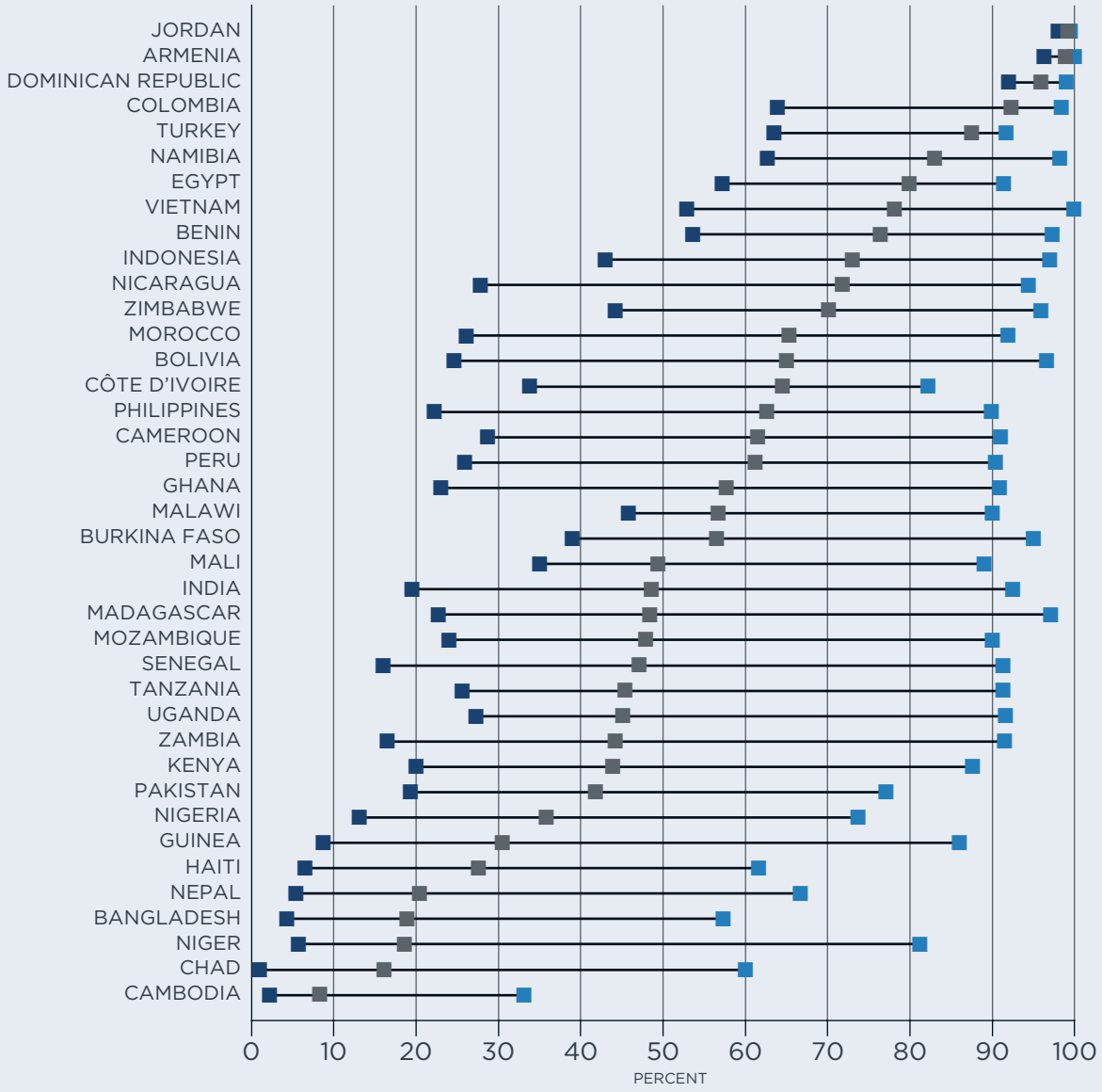


Source: UNDP

FIGURE 15

Poor rural women are much less likely than rich urban women to be assisted by a skilled health professional during childbirth.

Percentage of rural poor and urban rich women attended by a health professional at delivery.



Notes: Data refer to most recent year available (2001-2008). Skilled attendance defined as having had assistance by a doctor or nurse. In this analysis the lowest and highest quintile in the DHS wealth asset index are used to define "poor" and "rich," respectively.
Source: Seck & Azcona, 2010

The risks of early pregnancy and childbirth affect not just the health of girls, but the health of their babies. Studies have shown that regardless of income or educational level, children born to adolescent mothers tend to have lower birth weights, greater mortality, and lower nutritional status in childhood than those born to adult mothers.[248] Poor nutrition extends throughout the life cycle and across generations. Undernutrition in adolescence and pregnancy has an "additive negative impact" on the birth weight of future babies, and these infants are less likely to survive the first year of life. Low birth weight can cause irreversible harm to a child's ability to learn and be productive in the workforce when of working age.[249] A mother's poor nutrition also negatively impacts her infant during breast-feeding.

In countries like Bangladesh and Ethiopia, community health extension workers have been sent out to remote parts of the country to help the most isolated get much needed information. UNICEF, in partnership with the Ethiopian Ministry of Health, has trained and sent nearly 34,000 health extension workers to rural areas to advise women that free maternal health care is available. The program's purpose is to halve Ethiopia's maternal mortality rate.[250]

Education plays a huge role in reproductive health. Contraceptive use is four times higher among women with a secondary education than among those with no education. Indeed, surveys conducted in twenty-two countries in Sub-Saharan Africa show that contraceptive use to avoid or delay pregnancy is lowest among rural women, among women with no schooling, and among those living in the poorest households.[251]

School enrollment has been shown to significantly reduce engagement in sexual activity. One study based on a global review of school enrollment revealed that currently enrolled, unmarried girls aged fifteen to seventeen were far less likely than girls of the same age who were not enrolled in school to have had sexual relations, sexually transmitted diseases, or be pregnant.[252]

These myriad issues, often interconnected, can affect girls' health and deserve attention in the effort to give girls the foundation they need to become change agents in their communities. The *Girls Count* report, *Start with a Girl: A New Agenda for Global Health*, provides a global assessment of how to improve girls' adolescent health, but targeted actions are needed to support the unique health needs of rural girls.

BOX 33

Obstetric fistula affects rural girls and women disproportionately.

One of the most serious childbearing injuries is obstetric fistula, a hole in the vagina or rectum caused by labor that is prolonged—often for day—without treatment. Usually the baby dies. Because the fistula leaves women leaking urine or feces, or both, it typically results in social isolation, depression and deepening poverty. Left untreated, fistula can lead to chronic medical problems. Like maternal mortality, fistula is almost entirely preventable. Yet at least two million girls and women in Sub-Saharan Africa, South Asia, and the Arab region are living with fistula, and some fifty to one hundred thousand new cases develop each year. Obstetric fistula occurs disproportionately among impoverished girls and women, who often suffer from malnutrition, especially those living in rural areas far from medical services.

Source: UNFPA

Action 5a. Integrate adolescent health as a priority in national systems and policies.

Commit to a standardized health check for adolescents at the age of twelve.
This would ensure that adolescent girls are reached by the government health system. A twelve-year-old check-in can include an overall health exam and other components to be determined based upon context and in consultation with communities. If implemented, this approach could provide the opportunity to deliver information and services to prevent poor health outcomes in the future, begin the dialogue about sexual and reproductive health, and also address nutritional needs of adolescent girls. To be sure it reaches rural areas, the check-in can be delivered through various approaches as described in 5b.

BOX 34

A twelve-year-old health check-in would ensure that adolescent girls are reached early.

As part of a comprehensive effort to reach rural adolescent girls with better health information and services, governments and donors should commit to the creation and implementation of a standardized twelve-year-old health check-in. This standardized approach, led by governments, could become a part of a regular set of check-ins, including the check-ins recommended for babies and young children. Intervention during the early adolescent period offers the potential to correct earlier health "misses" and introduce critical health information and behaviors. The conceptualization of the check-in was developed by Judith Bruce and colleagues at the Population Council.

The package of interventions can be defined by the specific country and/or district. Such a check-in provides an opportunity to address universal health concerns, tackle specific health needs, share information with young people about their health rights, and facilitate an initial connection with the existing health system. Also, for adolescent girls who are accompanied by a parent for the check-in, it can provide an opportune time to discuss with parents girls' value, the importance of investing in their health, and the risks of early marriage and harmful traditional practices.

As stated in *Start with a Girl: A New Agenda for Global Health,* the twelve-year-old check-in can be implemented in numerous ways such as through annual community-based health campaigns, outreach and incentives promoting universal coverage, core campaign teams reaching the most vulnerable and excluded girls, private-public partnerships, social mobilization, household visits, central administration, and recruitment and fielding of female community health workers to conduct screenings. The twelve-year-old check-in also provides an opportunity to collect and track health and demographic data. This would allow for a longitudinal assessment of women's health, including a subset of girls at critical ages.

Sources: Bruce & Chong, 2006; Temin & Levine, 2009

Single out adolescence as a critical time to address health needs and Integrate rural girls into broader nutritional policies and programs. Health needs of children under two and pregnant mothers are well known, and recent efforts to support those populations are somewhat effective. However, health needs of adolescents are also critically important, and not often highlighted. National health policies and donor support for them could potentially be improved for rural girls if adolescence were singled out as a critical time period and relevant health needs were addressed.

Action 5b. Increase rural girls' access to information and services using schools and community centers as entry points.

Make health systems "youth friendly."
World Health Organization guidelines define youth-friendly health services as equitable, accessible, acceptable, appropriate, and effective. They can be provided through the health system, when present in rural areas, and/or through civil society, private services, or community health extension. Youth-friendly services require nonjudgmental providers who are trained in adolescent-specific areas, convenient and private facilities, and community outreach to expand coverage.[253] To ensure full access, youth-friendly health services need to be targeted to reach the most isolated adolescents, particularly poor rural girls.

Use schools to share information.
Nurses or trained health-care professionals could visit secondary schools. In addition, adolescent girls can be trained to be health-care extension workers. They have unique access to other girls of all ages throughout their communities (see Action 2c). Information can also be provided through youth centers or girl-only safe spaces for girls in and out of school.

Use media of all kinds to communicate important health messages.
Outlets include print, radio, television, and mobile phones. Many people influence rural adolescents' health and development through their actions and interactions with them. The more information that is provided through all these "influencers" for girls, the more impact it can have.

Ensure girls are educated.
Education has the most significant impact on contraceptive use and delayed pregnancies. Implementing this report's first recommendation to expand opportunities for adolescent girls to attend secondary school will go a long way toward improving the health of rural adolescent girls.

Action 5c. Encourage growth of highly nutritious indigenous foods, local manufacturing of vitamins, local food processing, and addition of micronutrients.

Approaches include:

- empowering girls to cultivate, process, and sell nutritious food and supplements;

- identifying and facilitating the growing of indigenous nutritious foods in gardens and at schools in every community;

- organizing training via radio and other extension programs;

- providing seeds and other inputs;

- creating models for local facilities for processing indigenous crops and to add biofortification; and

- creating simple vitamin manufacturing programs that can be implemented in rural areas.

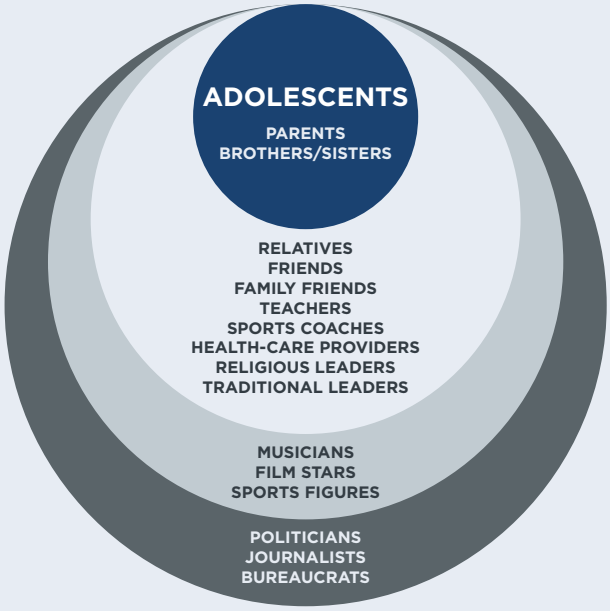
Action 5d. Provide greater services to young expecting mothers.

Rural adolescent girls need to have access to appropriate prenatal information and services with different modalities of delivery that are appropriate for their specific contexts.[254]

Provide information individually or in places girls frequent.
Information can also be provided through media communication campaigns and adolescent girl health extension workers. Community health extension workers can also be important sources of information on issues such as family planning.

FIGURE 16

Many people influence adolescent behaviors.



Source: Department of Child and Adolescent Health and Development World Health Organization, 2001

Photo Credit: Brent Stirton/Getty Images

RECOMMENDATION 6:
Improve rural adolescent girls' safety and security.

Action 6a. Educate men and boys about the value of girls.
Action 6b. Strengthen local and national practices for bringing perpetrators to justice.
Action 6c. Educate girls on existing laws and offer services to those affected by violence.
Action 6d. Find travel and time-saving solutions to girls' walking.

"There are a lot of problems; among them is the fact that the route to school isn't safe. There is no transportation, and the school is far away. This creates problems for girls going to school."
—Rural girl, Morocco[255]

Adolescent girls often face pervasive risks to their physical, emotional, and psychological safety. Rural girls (as well as their urban counterparts) can face insecurity in all areas of life. Specific safety issues include sexual violence, harassment, bullying, and harmful traditional practices such as early marriage and female genital cutting. However, rural areas often have more traditional beliefs around gender roles, which may contribute to violence against women being more accepted in rural areas. An Ethiopian household survey of approximately 1,800 adolescents in the Amhara region found widespread acceptance of gender-based violence, especially among rural females.[256]

Violations of safety can occur at home, at school, in public places, and/or within relationships. The perception of violence as normative can contribute to silence around its occurrence and affect availability and/or use of systems of recourse.

Violence against girls can cause long-term and often irreversible physical and psychological harm. It deprives them of their human capabilities—suppressing their voices, constraining their choices, and denying them control over their physical integrity and future. It also increases girls' risks of sliding into and remaining in poverty.[257] In many places, when safety concerns arise for girls, their families may restrict their freedom of movement, remove them from school, and/or marry them at an early age. The occurrence of violence against girls and women has also been found to be associated with limitations on their access to and control of resources.[258]

Violence at home

There is limited data on violence against women and girls within the home due to the general invisibility of such violence and the frequency with which it is hidden by fear, silence, and stigma. However, it has been found that globally 39 percent of those who have ever experienced domestic violence are aged fifteen to nineteen years. The World Health Organization argues that this is partly because girls have lower status compared to older women.[259]

In some societies dowry may lead to gender-based conflict and violence in the home. The only assets a girl has in her "possession" may come from a transfer of her dowry at the time of marriage. Research indicates that girls' dowries are typically of lesser value than the transfers brought by men into marriage.[260] The assets are often not controlled by girls and can contribute to intrahousehold gender violence.[261] For example, there is evidence from India and rural Bangladesh that dowry can actually increase women's exposure to domestic violence,[262] which can in turn further constrain her feelings of control and opportunity within the household.

Violence at school

School-based violence can include bullying, sexual violence, corporal punishment, and/or verbal abuse. Both boys and girls can experience violence in school, but it often takes different forms.[263] Corporal punishment tends to be more severe for boys.[264] Between 20 and 65 percent of school children report being verbally or physically bullied in school.[265]

As discussed in Recommendation 1, adolescent girls are particularly vulnerable to sexual violence at the hands of male teachers or students, including rape, assault, and physical and verbal harassment.[266] Specific places on school grounds—such as latrines—can be risky for girls to visit by

Opposite page
Mollika, age nineteen, from rural Bangladesh and a graduate of BRAC, trained and now works in her community as an HIV educator. As a BRAC graduate she learned life skills, including microfinance. With the profits from the dairy she started she has been able to put herself through university. In contrast, her sister-in-law, who is the same age as Mollika, left school at fifteen and had two daughters by age nineteen.

BOX 35

Instituto Promundo's Program H helps change the attitudes of young men in Brazil.

Program H, named for the Portuguese and Spanish words for "man" (*homens* and *hombre,* respectively) challenges traditional gender norms among young men aged fifteen through twenty-eight. Through group-oriented educational activities as well as radio announcements, billboard advertisements, and community events, the initiative focuses on issues relevant to young men such as reproductive health, gender-based violence, condom use, and household gender roles. Rural boys themselves are engaged in the design, implementation, and evaluation of the initiatives.

An evaluation found that men who complete the program are less likely to support the belief that child care is a woman's responsibility and that domestic violence is appropriate in some cases. The percentage of men who agreed that a woman's most important responsibilities are caring for the house and cooking declined from 41 to 29 percent after completing the program. Completion of the program also corresponds with increased intention among young men to use condoms, pay greater attention to health needs, and be active fathers. Program H also now operates elsewhere in Latin America (Nicaragua, Costa Rica, and Panama), Asia (India, Nepal, and Thailand), and Sub-Saharan Africa (Ethiopia, Mozambique, and Namibia).

Source: Promundo; Barker et al., 2003; Population Council; 2004

themselves. While boys also suffer sexual violence, an estimated 150 million girls globally suffer sexual violence each year.[267] The prevalence of sexual abuse, particularly of girls, by teachers and other students, has been documented in some Sub-Saharan African countries.[268] According to a study conducted in Malawi, more than 50 percent of girls interviewed reported being touched in a sexual manner by a teacher or male student without permission.[269] The experience of sexual violence at the hands of male teachers can be very damaging and long lasting. Sexual violence is complicated by its being linked with offers of favors such as better grades or money in exchange for sex.

Despite recognition of its prevalence, school-based sexual violence is often underreported and at times even accepted. For example, in South Asia and Southeast Asia, girls are unlikely to report sexual violence and are therefore more susceptible to it.[270] For some girls, lack of safety in or around schools is the chief obstacle to getting an education.

Also as discussed in Recommendation 1, the trip to and from school can be fraught with danger for girls, especially in rural areas where schools are located farther away from the home and there is less infrastructure to support safety such as lighting and roads. Long distances to school intensify risks and are often listed as reasons why parents do not want their daughters to attend school.[271] Parents may also be reluctant to allow their daughters to walk to school because they do not have a large peer group of girls to walk with for protection; boys traditionally, have a much larger peer group.[272]

Qualitative data from interviews with rural girls in Morocco reveal pervasive acts of bullying and violence by males when girls travel to secondary school. For example, one girl stated "We get out at 6 p.m., and it's dark out in the park. We have a lot of problems with boys on the street."[273] In the same set of interviews girls reiterated that their parents kept them home due to fears for their physical safety.

Violence in public

Girls also face security risks in public areas. Rural girls are particularly vulnerable when engaged in household tasks such as firewood gathering and water collection. These tasks often require girls to walk long distances by themselves through isolated areas with limited infrastructure. Moreover, rural girls are more likely migrate, which poses security risks enroute to their new destinations and when they settle. While migrating, girls are at risk of being trafficked for labor or sex.

Balanced legal and customary frameworks are an essential part of any approach to address rural girls' safety. Supportive laws can help girls in seeking recourse and ensuring that action is taken to protect them. In some countries the laws need to be better understood. In others new frameworks should be created. For example, in Pakistan laws addressing gender-based violence do not exist. Low levels of

education and lack of access to information make rural girls among the most disenfranchised from legal and customary systems. In many cases laws are not enforced and girls may face retribution if they speak out. The enforcement of existing laws and customs to bring perpetrators to justice are important to protect girls and to set more appropriate behavioral standards.

Action 6a. Educate men and boys about the value of girls.

Create media programs for men and boys.
Programs for radio, television, and other media can increase awareness about the value of girls and women and the negative impact of violence. Such programs can help men and boys become critical allies in making girls more secure. Such programming should be tested for widespread usage in rural areas to help reduce the incidence of violence.

Provide teachers with training about how to make schools more secure.
This includes teachers being held accountable for their actions if violence occurs in schools. In addition, parent organizations should be created in schools to hold faculty and staff accountable. Increasing the number of female teachers in rural areas can also help reduce sexual violence and sensitize men to the value of girls.

Recruit religious leaders.
They can be especially influential in changing attitudes and behaviors. They can identify religious textual references to the importance of girls and use these to speak out against ill-treatment of girls.[274]

Action 6b. Strengthen local and national practices for bringing perpetrators to justice.

Develop training and education for local law enforcement.[275]
In addition, collaborative efforts with civil society organizations can facilitate community awareness of the issues and girls' rights to demand enforcement of laws.

Action 6c. Educate girls on existing laws and offer services to those affected by violence.

Girls' awareness of their rights should be increased through schools, the media, local organizations, and community platforms. Laws or customs that protect girls should be communicated to girls so they will understand their existing rights. This can encourage a culture that is less tolerant of gender-based violence and encourage those affected by violence to speak out.

Decrease girls' social isolation.
Connecting girls to their peers and positive mentors can help reduce gender-based violence.

Provide support services to survivors of violence.
Community support should be provided through health and educational platforms to offer health, legal, and psychosocial services.

Action 6d. Find travel and time-saving solutions to girls' walking.

Adjust school times.
School times could be adjusted to ensure girls can walk to and from school in the daylight.

Develop time-saving technologies.
Many time-saving technologies not only empower girls and women but help keep them safe by minimizing walking away from home. If wells were routinely dug at schools so girls could carry water home after school, fetching time could be decreased and school attendance increased. If creative approaches could be developed for cooking without fuel, firewood would not have to be collected, protecting girls, saving time, and improving the environment. All it takes is ingenuity.

Construct roads.
If more farm-to-market roads were constructed, girls and others could have far shorter routes to market.

Photo Credit: Tom Haskell

RECOMMENDATION 7:
Count girls and measure progress.

Action 7a. Record all births and collect and disaggregate data.
Action 7b. Establish benchmarks and report progress regularly.

Rural girls remain largely invisible in official statistical and policy frameworks and silent in local, national, and international forums. To remedy this, greater emphasis should be placed on collecting gender and age-disaggregated data and developing and tracking progress against benchmarks specific to adolescent girls.

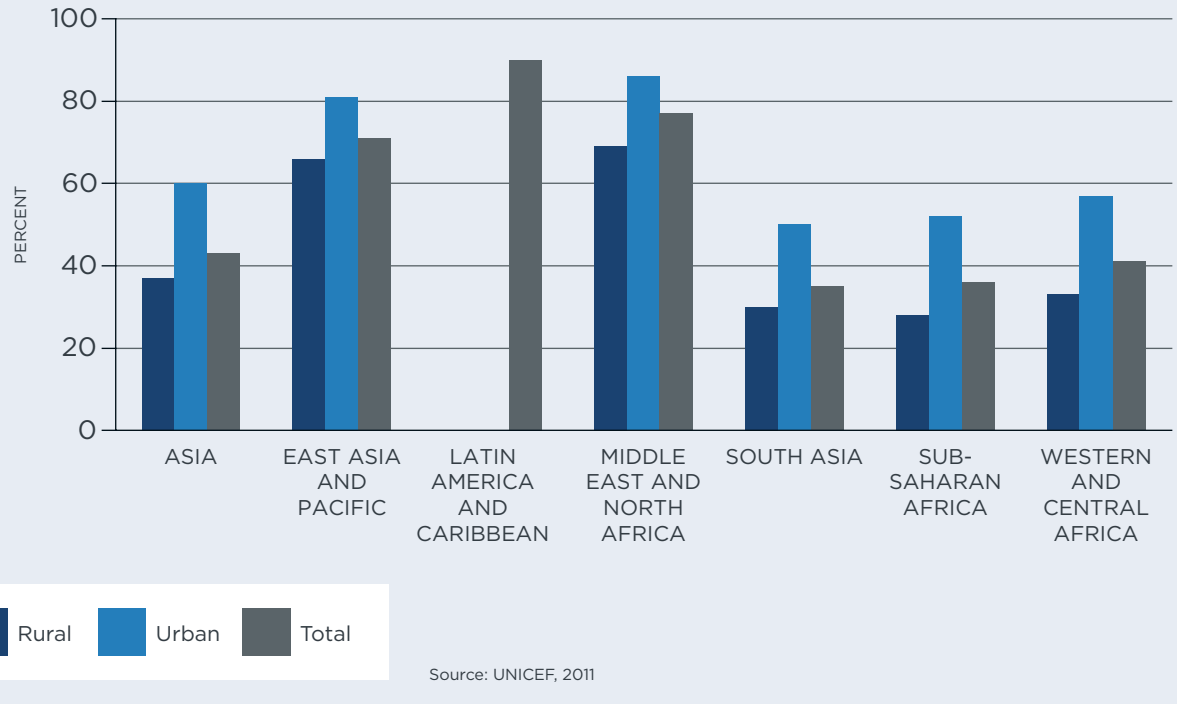
In rural areas of many countries, births are not recorded. Lack of birth registration is only the beginning of a data gap that marginalizes rural youth, especially girls, and keeps them off the political radar. Many statistics on rural girls are either minimal or nonexistent. No organizations track girls' lives outside of the home or resources available to girls. Although maternal mortality is tracked by the World Health Organization, it is not disaggregated by age; and the World Bank does not comprehensively track disaggregated gender and age data for populations living in rural areas.

Opposite page
A girl in the Republic of Guinea practices mathematics during a daily lesson.

FIGURE 17

Fewer births are recorded in rural areas.

Percentage of rural and urban births recorded by region.



Source: UNICEF, 2011

BOX 36

Birth registration is a matter of protection.

Birth registration is not just a basic right to identity and citizenship, but necessary to child protection. Without proof of age, it is more difficult to defend against early marriage or convict perpetrators of sexual violence against underaged girls. In addition, access to health care, social services, and legal rights is difficult if not impossible for those with an unregistered status.

In most developing countries birth registration in rural areas is lower than in urban areas. Costs and social disadvantages play a key role in whether or not a child is registered, and children from the poorest 20 percent of households are much less likely to be registered. Along with other political and logistical barriers, governments with small budgets and countless demands may see a registration system as costly and remain reluctant to direct their scarce resources to creation of an effective system.

Brazil is one country where campaign actions targeted at rural and indigenous communities have significantly increased registration rates. In 1997 Brazil made birth registration free of charge. In 2001 registration units were placed in maternity wards with low rates of registration, and in 2003 a national movement campaign was launched.

According to UNICEF, actions to support increased birth registration include the creation of national action plans, policy reforms, advocacy and capacity building, and integrating registration into services such as health and education.

Sources: UNICEF, 2010; UNICEF, 2002

These data are essential to most effectively integrate girls' needs into national policy and program planning and broader development efforts.

Measurement against benchmarks facilitates examination of what is being done well and where adjustments are needed to improve approaches.

Action 7a. Record all births and collect and disaggregate data.

All births should be recorded. This may require capacity building in rural areas. In addition, household and population data should be disaggregated by age; gender; martial, educational, and socioeconomic status; and geographic location. National censuses, demographic health surveys, and labor surveys should specifically include rural girls.

Action 7b. Establish benchmarks and report progress regularly.

Develop or refine benchmarks specific to rural adolescent girls.
International organizations and national governments should establish benchmarks for each action that are specific to rural girls' circumstances.

Report on progress against these benchmarks biannually for the next ten years.
Governing bodies should then report progress at international and regional public venues to evaluate how activities can be revised and improved to better support the empowerment of girls. Benchmarks and progress could be discussed regionally at agriculture-related meetings such as the Alliance for a Green Revolution in Africa's biannual meeting or the Borlaug Dialogue hosted by the World Food Prize Foundation. Progress can be formally reviewed at the Food and Agriculture Organization of the United Nations Conference Session and then at regional meetings.

Support and monitor country strategies.
This can be done through initiatives like the Poverty Reduction Strategy Papers and the United Nations Development Assistance Frameworks.

BOX 37

Poverty Reduction Strategy Papers must include youth issues.

Poverty Reduction Strategy Papers (PRSPs) lay out a country's macroeconomic, social, and structural programs and policies to reduce poverty and promote growth. The International Monetary Fund and the World Bank introduced PRSPs in 1999 to increase accountability for poverty reduction reform between governments and development stakeholders. Countries generally prepare a new PRSP every three to five years.

Youth issues are either completely absent or inadequately addressed in PRSPs and are left out of action and budgetary plans. Where youth issues are addressed, opportunities for *rural* youth are generally overlooked. Rural adolescent girls may be even more routinely left out, due in part to the fact that boys are frequently more visible in income-generating activities.

The Framework for Action on Adolescents and Youth established by the United Nations Population Fund is helping to address this problem, advocating for youth in national development and poverty reduction strategies. Some countries in Latin America are showing particular progress in PRSP processes and youth. In Chile the Department of Youth conducts a survey every three years assessing youth conditions. This review provides helpful information to the ministries that handle specific youth issues within the context of the PRSP such as the ministry of education and the ministry of health.

Sources: Bennell, 2007; IMF, 2011; UNFPA, 2007

4

ALL STAKEHOLDERS MUST PLAY A ROLE

Photo Credit: Brent Stirton/Getty Images

Adolescent girls must be heard—by their families and community leaders, in the halls of government, in the corridors of the United Nations, in the strategies of donors, and on the airwaves of their countries.

All players named in this paper—governments, donors, international organizations, the private sector, international and local NGOs, and most importantly, girls—are critical to virtually all of these recommendations.

Government

Almost all government ministries at the national and provincial levels and all local governments must be involved. Whether the agricultural ministry, or health, education, justice, interior, finance, environment, women's affairs, youth, or commerce—each has an important role in impacting opportunities for rural adolescent girls.

Of course, responsibilities between national and provincial governments differ from country to country, which is why the organization of national and subsequently provincial and local plans are important. For these recommendations to take hold, each stakeholder must take a lead in the areas of its prime expertise or where its role is unique.

National governments in particular must take on the challenge of national mandates for universal education through secondary school and for mandatory health programming and check-ins for adolescents. They are also ultimately responsible for the security of their people, for the rule of law, and thus for the safety of every girl who lives in their country. Creating or changing national law to provide girls and women access to land, inheritance, credit, and other key legal rights are the responsibility of national governments. Counting girls when they are born and in national censuses also begins with the national government.

Donors

Donors—governments, foundations, international organizations, and sometimes international NGOs—should be involved in every step as funders, initiators, trendsetters, evaluators, and influencers. They must take the lead in innovations, in creating sustainable funding mechanisms, in providing incentives for important initiatives, in setting standards. And they must be consistent so that fledgling projects can count on funding at least for the time needed to get up and running.

Previous page
Mukta, age sixteen, dropped out of school at fifteen when her parents could not pay tuition. Shortly thereafter she was married. She does the household chores, as her in-laws work in a local factory. As a student of English and history she wanted to start a business, but her in-laws won't allow it.

International organizations

International organizations, especially large research entities like the World Bank, UNESCO, the World Health Organization, and the Food and Agriculture Organization, must take the lead in creating and implementing complete data collection policies. They should also take the lead in evaluation systems. And in each country, the UN country team, lead by the resident coordinator, should be charged with including adolescent girls in all aspects of UN planning and work with government and in communities.

Private sector

The private sector is always important, but often overlooked and not often offering assistance. But in the recent past, businesses have shown a keen interest in rural communities. This interest should be encouraged by governments, donors, and international organizations. Private sector entities would be first in line to invent time-saving systems, to expand technology use, to create specialized vocational training, to create nutritious foods, to invest through loans in the labor of rural adolescent girls, and, of course, to provide the jobs required to build economically stronger rural communities.

Nongovernmental organizations and community groups

Nongovernmental organizations and community groups are essential to any positive movement on behalf of girls. They are the glue that connects policy, funding, and girls. They can take the lead in making schools accountable, in literacy programs, in girls' transition from primary to secondary school. They can take the lead in developing systems for girls to have access to information and resources. They must be the people most involved in messaging and outreach to men and boys. New technologies will be implemented by these groups. Successful youth organizations and mentoring programs rely on them. And governments must hear from them about issues that continue to need attention and action.

Rural adolescent girls

Last but most importantly, adolescent girls are themselves part of the solution. This paper would not be necessary were it not for the unique challenges and opportunities for adolescent girls. They are the students who are learning, the mothers who are raising children, the workers supplying families with basic needs. As stated in the Preamble of this report, rural adolescent girls are in a special position to be empowered to teach and train others—to be literate, to know effective sanitation, to have basic information about their own bodies, to know better what to eat, to raise crops and animals more effectively. Adolescent girls can organize groups to support their own needs—making school uniforms, sanitary napkins, processed foods, vitamins, school gardens. Adolescent girls can be catalysts behind expanded technology use and experimentation and then promotion of new time-saving devises. With more support and knowledge, adolescent girls are natural stewards of the environment. Girls can be leaders in their communities, communicators on radio and television, spokespeople for their needs and those of the community. And adolescent girls must be heard—by their families and community leaders, in the halls of government, in the corridors of the United Nations, in the strategies of donors, and on the airwaves of their countries.

It begins with a girl.

GIRLS GROW
APPENDIX A

At-a-glance summary of recommendations and action items

Equip and empower rural girls to become positive agents of economic and social change.

1. Expand opportunities for rural adolescent girls to attend secondary school.

1a. Nationally mandate universal primary and secondary education.
- Increase access to secondary schools.
- Teach in the mother tongue.

1b. Make schools girl friendly.
- Make schools safe for girls.
- Improve educational facilities, especially with sex-specific latrines in mixed-gender schools.
- Increase the number of female teachers in rural areas.
- Provide incentives to attract female teachers to rural areas.
- Provide child care.

1c. Improve the quality of teaching and the relevance of the curriculum.
- Strengthen teacher training to improve teacher quality in rural areas.
- Improve schools' curricula and ensure they incorporate vocational training.

1d. Provide incentives to parents to keep girls in school such as scholarships, stipends, cash transfers, training, literacy programs, and elimination of school fees.
- Implement school feeding programs and take-home food rations.
- Implement conditional cash transfers as appropriate.

1e. Enhance adult literacy campaigns in rural areas to increase school enrollment among girls.
- Train girls to advance literacy in their homes and communities.
- Conduct literacy campaigns for young mothers.

2. Equip rural adolescent girls to be entrepreneurs, workers, and managers in the rural economy and beyond.

2a. Develop and promote adoption of time-saving technologies.
- Listen to girls' concerns and ideas.
- Include improvements in infrastructure projects that will reduce work burdens for adolescent girls.

2b. Incorporate knowledge and skill-building programs into rural economic development initiatives and education.
- Incorporate core technical and vocational skills into all rural school curricula.
- Offer specialized training in agriculture-related vocations to both girls and boys.
- Give special attention to high-value food products, processing, and fortification.
- Offer internship opportunities to girls to provide on-the-job experience and strengthen recruiting.

2c. Empower girls to build nontraditional extension systems, equipping them to offer agricultural, health, education, and adult literacy training to their families and communities.
- Support schools, programs, and groups of girls that equip girls in agricultural practices.

2d. Offer innovation awards and incentives for creation of appropriate technologies.
- Partner with private foundations.
- Involve girls in the technological development and distribution of new technologies.

2e. Support organizations, policies, and legal frameworks that eliminate discrimination against female workers and that support equal pay, safety, and security for working adolescent girls and women.
- Publish laws and make them known.
- Recruit and train girls to be spokespeople.

3. Prepare rural adolescent girls to be major stakeholders in agriculture and natural resource management.

3a. Include girls in country agriculture investment plans.
- Develop location- and culturally sensitive strategies.
- Make agriculture-based occupations more attractive to rural adolescent girls.

3b. Ensure equitable inheritance and land rights for adolescent girls and women by supporting efforts to change and enforce relevant national and customary laws.
- Research national and local land inheritance law and reform policies where necessary.

3c. Increase adolescent girls' access to assets such as financing and agricultural inputs.
- Increase girls' access to credit and financial instruments.
- Package technologies, supplies, and inputs in smaller quantities.

3d. Encourage donors to disproportionally dedicate climate change adaptation and/or mitigation monies targeting natural resource management to programs that ensure participation of girls.

4. Empower and provide opportunities for rural adolescent girls to have an active voice in household, community, and national decision making.

4a. Provide "safe spaces" and youth development programs—both girl-only and girls and boys—to build confidence and skills, develop peer connections, and provide mentoring.
- Provide spaces within formal systems and/or through nonformal groups.

4b. Support platforms for rural girls to participate in public dialogue and develop civic leadership skills.
- Strengthen frameworks for capturing girls' voices.
- Encourage participation in all types of forums for decision making.

4c. Use radio and television to inform and empower girls.
- Broadcast programs of interest at appropriate times.
- Support girls to become active in radio.
- Incorporate positive role models.

4d. Create more opportunities for girls' mobile phone ownership and Internet access.
- Ensure that as Internet technology becomes more available in poor rural areas, girls get high priority for access.
- Train girls in the use of mobile phone applications and text messaging to improve lives and incomes.

5. Provide rural adolescent girls with comprehensive health information and services.

5a. Integrate adolescent health as a priority in national systems and policies.
- Commit to a standardized health check for adolescents at the age of twelve.
- Single out adolescence as a critical time to address health needs.
- Integrate rural adolescent girls into broader nutritional policies and programs.

5b. Increase rural girls' access to information and services using schools and community centers as entry points.
- Make health systems "youth friendly."
- Use schools to share information.
- Use media of all kinds to communicate important health messages.
- Ensure girls are educated.

5c. Encourage growth of highly nutritious indigenous foods, local manufacturing of vitamins. local food processing, and addition of micronutrients.
- Empower girls to cultivate, process, and sell nutritious food and supplements.

5d. Provide greater services to young expecting mothers.
- Provide information individually or in places girls frequent.

6. Improve rural adolescent girls' safety and security.
6a. Educate men and boys about the value of girls. • Create media programs for men and boys. • Provide teachers with training about how to make schools more secure. • Recruit religious leaders.
6b. Strengthen local and national practices for bringing perpetrators to justice. • Develop training and education for local law enforcement.
6c. Educate girls on existing laws and offer services to those affected by violence. • Decrease girls' social isolation. • Provide support services to survivors of violence.
6d. Find travel and time-saving solutions to girls' walking. • Adjust school times. • Develop time-saving technologies. • Construct roads.
7. Count girls and measure progress.
7a. Record all births and collect and disaggregate data.
7b. Establish benchmarks and report progress regularly. • Develop or refine benchmarks specific to rural adolescent girls. • Report on progress against these benchmarks biannually for the next ten years. • Support and monitor country strategies.

GIRLS GROW
APPENDIX B

Recommendations' responsibilities by stakeholder*	Government		
	Head of state/ parliament	Agriculture	Education
1. Expand opportunities for rural adolescent girls to attend secondary school.	✔		✔
2. Equip rural adolescent girls to be entrepreneurs, workers, and managers in the rural economy and beyond.	✔	✔	✔
3. Prepare rural adolescent girls to be major stakeholders in agriculture and natural resource management.	✔	✔	
4. Empower and provide opportunities for rural adolescent girls to have an active voice in household, community, and national decision making.	✔	✔	✔
5. Provide rural adolescent girls with comprehensive health information and services.	✔	✔	✔
6. Improve rural adolescent girls' safety and security.	✔	✔	✔
7. Count girls and measure progress.	✔	✔	✔

*Additional stakeholders not identified here can also be responsible for bringing about change; all stakeholders share responsibility for supporting action on behalf of adolescent girls.

Government			Donors	International organizations	Private sector	Nongovernmental organizations and community groups	Families	Rural adolescent girls
Finance	Health	Justice						
✔			✔	✔		✔	✔	✔
✔		✔	✔	✔	✔	✔	✔	✔
✔		✔	✔	✔	✔	✔	✔	✔
	✔	✔	✔	✔	✔	✔	✔	✔
✔	✔		✔	✔	✔	✔	✔	✔
✔	✔	✔	✔	✔	✔	✔	✔	✔
✔	✔	✔	✔	✔	✔	✔		

GIRLS GROW ADVISORY GROUP

Catherine Bertini is a senior fellow at The Chicago Council on Global Affairs, where she chairs the *Girls in Rural Economies* project. She is also a professor of public administration and international affairs at the Maxwell School of Citizenship and Public Affairs at Syracuse University. She previously served as UN under secretary-general for management (2003 to 2005) and as executive director of the UN World Food Program, the world's largest international humanitarian agency (1992 to 2002).

Catherine is the 2003 World Food Prize Laureate. She was awarded the Gene White Lifetime Achievement Award for Child Nutrition in 2007 and the Borlaug Council for Agricultural Science and Technology (CAST) Communication Award in 2011. She was decorated by the Republic of Italy with its Order of Merit and holds eleven honorary doctorates from universities in four countries.

For two years Catherine was senior fellow, agricultural development, at the Bill & Melinda Gates Foundation. Before serving at the United Nations, Catherine was assistant secretary for food and consumer services at the U.S. Department of Agriculture, where she ran the nation's then $33 billion domestic food assistance programs. She was fellow at the John F. Kennedy School of Government at Harvard University and policymaker in residence at the Gerald R. Ford School of Public Policy at the University of Michigan.

Catherine is a member of two U.S. Agency for International Development advisory committees—the Board for International Food and Agricultural Development and the Advisory Committee on Voluntary Foreign Aid. She also serves on the High Level Panel of Experts on Food Security for the United Nation's Committee on World Food Security & Nutrition. She is a member of the board of directors of the Tupperware Brands Corporation, a member of the Council on Foreign Relations, and a fellow of the National Academy of Public Administration, the American Academy of Arts and Sciences, and the International Academy of Food Science and Technology. She is a member of the jury for the Hilton Foundation's Humanitarian Prize and of the board of the Stuart Family Foundation.

Liberato C. Bautista is the assistant general secretary for United Nations and International Affairs for the General Board of Church and Society of The United Methodist Church. In this capacity he serves as the organization's main representative to the United Nations, a position he has held for fourteen years.

Until January 2011 Liberato was president of CoNGO, the Conference of Non-Governmental Organizations in Consultative Relationship with the United Nations, an international nonprofit organization with secretariat offices in New York, Geneva, and Vienna.

In 2007 Liberato served on the board of directors of the United Nations Association of the USA. He was also chair of the New York Council of Organizations of the UNA-USA in 2006 and 2007. Since 2008 he has been lecturing at the Summer Global Collaborative in Global Governance and East Asia Civilization at Kyung Hee University in Seoul, Korea.

Liberato studied political science, history, and international studies at the University of the Philippines and did doctoral studies in religion and social and political ethics at Drew University in Madison, New Jersey. Liberato is an ordained minister in The United Methodist Church. His most recent publication is *Meditations and Devotions on the Millen-*

nium Development Goals: A Prayerful Guide (2011), which he cowrote.

Liberato writes, lectures, and is published in a variety of fields, including international affairs, religion and society, and human rights and human dignity. He has traveled extensively in many parts of the world.

Carol Bellamy presently serves as chair of the Education for All Fast Track Initiative (EFA FTI) board of directors. Since its creation in 2002, EFA FTI has grown to become a dynamic global partnership endorsing the education sector plans of forty-five developing countries around the world and granting approximately $2 billion in support of these strategies. Prior to this Carol served as president and CEO of World Learning, a private, nonprofit organization promoting international understanding through education and development in over seventy countries. Carol previously served ten years as executive director of UNICEF, the children's agency of the United Nations. She was also the first former volunteer to become director of the Peace Corps.

Carol has worked in the private sector at Bear, Stearns & Co.; Morgan Stanley; and Cravath, Swaine & Moore. She spent thirteen years as an elected public official, including five years in the New York State Senate. In 1978 she became the first woman to be elected to citywide office in New York City when she was elected president of the New York City Council, a position she held until 1985. Carol was named one of *Forbes* magazine's 100 Most Powerful Women in the World in 2004. In 2009 she was awarded the Légion d'Honneur by the government of France. Carol also chairs the board of governors of the International Baccalaureate.

Ben Cousins is DST/NRF Research Chair in Poverty, Land, and Agrarian Studies at the University of the Western Cape (UWC). He worked in agricultural training and extension in Swaziland (1976 to 1983) and Zimbabwe (1983 to 1986) and has carried out research on rural social dynamics in Zimbabwe (1986 to 1991) and South Africa (1991 to 2010). His main research interests are the politics of land and agrarian reform, agrarian change and agrofood regimes, land tenure reform, livestock production and common property resources, and the political economy of rural development. He has published widely in both academic and nonacademic formats, and edited or coedited five books on these topics.

In 2008 he was invited onto the editorial advisory board of one of the leading journals in the field, the *Journal of Agrarian Change.* He has been invited to present several keynote addresses to international conferences, most recently in Montpellier, France, in 2006 and Entebbe, Uganda, in 2007. In 2008 he was awarded the UWC Deputy Vice Chancellor's prize for Research in the Humanities and Social Sciences. His books include *At the crossroads: Land and agrarian reform in South Africa into the 21st century* (2000) and, with Aninka Claassens as coeditor, *Land, power, and custom: Controversies generated by South Africa's Communal Land Rights Act* (2008). Ben is former director of the Institute for Poverty, Land, and Agrarian Studies at the University of the Western Cape.

Shenggen Fan was appointed director general of the International Food Policy Research Institute (IFPRI) in December 2009. After joining IFPRI in 1995 as a research fellow, he led IFPRI's program on public investment and later became the director of IFPRI's Development Strategy and Governance Division. Shenggen has conducted extensive research on pro-poor development strategies in developing countries in Africa, Asia, and the Middle East. His work has helped identify which kinds of public

spending are most effective in reducing poverty and generating agricultural growth.

Before joining IFPRI he held positions at the International Service for National Agricultural Research in the Netherlands and the Department of Agricultural Economics and Rural Sociology at the University of Arkansas. Shenggen received his PhD in applied economics from the University of Minnesota and his bachelor's and master's degrees from Nanjing Agricultural University in China.

Shenggen has served on the editorial boards of various academic journals and is currently an executive committee member of the International Association of Agricultural Economists. He has also received many awards, including the Distinguished Professional Contribution Award from the Southern Agricultural Economics Association and the Outstanding Alumni Award in Applied Economics from the University of Minnesota.

Donald T. Floyd Jr. is president and CEO of National 4-H Council. Under his leadership National 4-H Council led 4-H in the National Conversation on Youth Development in the 21st Century and created the first national action agenda for youth policy. In addition he has led 4-H expansion in after-school programs, science programs, technology, and the creation of the Global 4-H network. Don has been associated with innovative leadership of youth-serving, nonprofit organizations for more than thirty-five years. For seventeen years he held local and national positions, including national executive vice president of Junior Achievement, with which he led expansion of the international program and its first venture into classroom-based programming, which today is the organization's largest program.

Don recently completed his term as chair of the National Collaboration for Youth (a coalition of the top fifty-six youth organizations) and is currently a trustee with the America's Promise Alliance. Don served as a trustee of Albright College and was secretary of the board, a member of the executive committee, and vice chair of their governance committee. He is former chair of the International Leaders Committee of the Institute for Applied Research in Youth Development, Tufts University. He was one of six inaugural recipients of the International Fellows in Applied Developmental Science. He is an elder at Bridgeway Community Church, a large nondenominational, multicultural congregation in Columbia, Maryland.

Don is a 1965 graduate of Reading High School, served in the U.S. Air Force (1966 to 1970), and is a 1973 graduate of Albright College in Reading, Pennsylvania. He has travelled to thirty-five countries to establish youth programs and has lived in Japan and Ghana. Don and his wife, Carolyn, have five children.

Eleni Z. Gabre-Madhin is founder and chief executive officer of the Ethiopia Commodity Exchange (since 2008). She is an internationally recognized thought leader on agricultural marketing in Africa and on global development, with a career spanning both research and development practice and now business. Prior to returning to Ethiopia she served as senior research fellow with the International Food Policy Research Institute.

Eleni has also held positions as senior economist with the World Bank, focusing on cotton and other commodity market reforms, and as commodity trading expert with the United Nations in Geneva. She has worked extensively over the past eighteen years with traders and markets in over nine African countries and authored numerous publications and articles on this subject, including *Reforming Agricultural Markets in Africa* (Johns Hopkins University Press, 2002).

Eleni holds a PhD in applied economics from Stanford University, an MSc in agricultural economics from Michigan State University, and a BA in economics from Cornell University. She was awarded the Outstanding Dissertation by the American Agricultural Economics Association in 1999 for her thesis, titled "Social Capital, Transaction Costs, and Market Institutions in the Ethiopian Grain Market."

She recently represented the African business community at the G-20 Business Summit in London and sits on several advisory groups, including the Expert Group on Development Issues (EGDI) for the Government of Sweden, the Economic Commission for Africa Expert Group on Sustainable Development, and the Stiglitz Task Force on Africa. She is a

founding fellow and board member of the Ethiopian Academy of Sciences and was recently nominated Outstanding Businesswoman of the Year by African Business Awards.

HRH Princess Haya Al Hussein is a devoted wife and mother, a former Olympic athlete, a humanitarian, a member of the International Olympic Committee, a UN Messenger of Peace, president of the International Equestrian Federation, and the only Jordanian woman who holds a license to drive heavy trucks.

Princess Haya's work and interests, locally and internationally, concentrate primarily on health, education, youth, and sports. She continues to raise awareness of the Millennium Development Goals, with a focus on eliminating poverty and hunger, and advocates for the rights of children and underprivileged communities to have access to food, health care, education, and security. She works tirelessly to give to others and is motivated by the belief that sport improves lives, empowers women, and breaks down barriers between people and nations.

In 2003, in memory of her mother, Her Majesty the Late Queen Alia, Princess Haya founded Tkiyet Um Ali, the first food aid NGO in the Arab world, and became the chairperson of its board of directors. She was also the first Arab and first woman to serve as World Food Program Goodwill Ambassador (2005 to 2007). In that role she travelled to Malawi, Ethiopia, and Syria to witness first-hand the impact of the food crises in those areas.

In March 2007 Princess Haya was appointed the chairperson of International Humanitarian City (IHC) following a decree issued by His Highness Sheikh Mohammed Bin Rashid Al Maktoum. One of the largest supply depots for aid in the world, the IHC aims to facilitate aid and development efforts by providing local and international humanitarian actors with facilities and services specifically designed to meet their needs.

In September 2007 Princess Haya was selected by UN secretary-general Ban Ki-moon as a United Nations Messenger of Peace, the highest honor bestowed on a global citizen by the United Nations secretary-general to address pressing problems around the world.

In January 2010 Princess Haya visited the Kenyan capital of Nairobi to encourage an effective local and global response to catastrophic food shortages. On January 22, just ten days after the devastating 7.0 earthquake hit Haiti, Princess Haya traveled to Port-au-Prince to oversee a delivery of ninety metric tons of relief supplies for the Haitians (a shipment organized by the IHC), meet with Haitian and UN officials, and raise awareness of the need for international aid.

Most recently, in February 2011, Princess Haya visited Siem Reap in Cambodia to bring further attention to the ongoing food crisis in that area.

Ruth Levine, a development economist and expert in international development, global health, and education, serves as the director of the Global Development and Population Program at the William and Flora Hewlett Foundation. Before joining the foundation, Ruth was a deputy assistant administrator in the Bureau of Policy, Planning, and Learning at the U.S. Agency for International Development. In that role she led the development of the agency's evaluation policy.

Previously, Ruth spent nearly a decade at the Center for Global Development, an international policy research institute in Washington D.C. There she served as a senior fellow and vice president for programs and operations. Ruth is the author of scores of books and professional publications, including two of the reports in this *Girls Count* series: *Girls Count: A Global Investment & Action Agenda* and *Start with a Girl: A New Agenda for Global Health.* She also is coauthor of the highly regarded report *When Will We Ever Learn? Improving Lives through Impact Evaluation.*

Ruth holds a B.S. in biochemistry from Cornell University and a PhD in economic demography from the Johns Hopkins University.

Namanga Ngongi has been the president of the Alliance for a Green Revolution in Africa (AGRA) since 2007. He has diverse professional experience at national and international levels in areas related

to agriculture, food security, and management of international organizations. He began his career in Cameroon working as an extension officer and deputy head of projects in the Ministry of Agriculture. In 1980 he was appointed representative to the UN food agencies in Rome.

He joined the World Food Program in 1984 and became deputy executive director in 1994. In 2001 he was appointed special representative of the UN secretary-general to the Democratic Republic of Congo and led the peacekeeping mission (MONUC) for two years. He helped put together the transitional government. Namanga retired from the UN in 2003. He has since undertaken several high–level missions for the United Nations, including a study on food reserve systems in Africa and coordination of an international conference on disarmament, demobilization, and reintegration in Sierra Leone.

Namanga received a PhD in agronomy/crop science in 1976 from Cornell University.

Nafis Sadik, a national of Pakistan, is a special adviser to the United Nations secretary-general and his special envoy for HIV/AIDS in Asia and the Pacific. She was the former executive director of the United Nations Population Fund from 1987 to 2000 and was the first woman in the United Nations to head one of its major voluntarily funded programs.

Nafis is well-known for her dynamism and is a guiding force in the field of maternal and child health and reproductive and sexual health. She is a strong advocate for education, prevention, and other aspects related to HIV and AIDS. Under her leadership as secretary-general of the International Conference on Population and Development held in Cairo in 1994, the approach to reproductive health that includes empowering women through education and economic opportunity was unanimously agreed to by the international community.

Fundamental to Nafis's approach to public health is the view that personal health and well-being is the baseline indicator for development. At the same time, an integrated approach to social development will be the determining factor in achieving universal health. Goals in one area of social development can be reached only by parallel action towards all goals. Empowerment of all individuals, particularly women, and their freedom to make decisions concerning their lives is both an aim and a condition of an integrated approach. Gender equality and the needs of women became a primary concern in the latter part of her career.

She was the recipient of the 2001 United Nations Population Award for her outstanding contribution to the awareness of population issues and recognition of her significant, lifelong contribution to addressing women's rights and sexual and reproductive health rights.

Nafis was as a member of several of the UN secretary-general's high-level panels and, in addition to her responsibilities as UN special envoy, serves as a director/trustee on the board of several national and international NGOs.

She is the author of publications on reproductive health and family, population and development, women, and gender and development.

Clare Short was a member of the British parliament for Birmingham Ladywood from 1983 to 2010 and secretary of state for international development from 1997 to May 2003. The Department for International Development was a new ministry created after the 1997 general election to promote policies for sustainable development and the elimination of poverty.

Of Irish ancestry, Clare was born in Birmingham on 15 February 1946. She was educated at St Paul's Grammar School, Birmingham, and at the Universities of Keele and Leeds. She holds a bachelor of arts with honors in political science.

She previously worked as a civil servant at the Home Office, as a director of Youthaid and the Unemployment Unit, and as a director of AFFOR, a community-based organization promoting racial equality in Birmingham. She entered the House of Commons in 1983 as the member of parliament for Birmingham Ladywood, which is the area where she was born and grew up.

Since 2006 Clare has been a member of the Advocacy Panel of Cities Alliance, which is an alliance

of the World Bank, UN–HABITAT, local government and development partners, committed to meeting the UN target to develop cities without slums.

She stood down from parliament in 2010 and is now active in various organizations working on slum upgrading in the developing world, African-led humanitarian action, destitute asylum seekers in Birmingham, Gay Pride in Birmingham, Trade Justice for the developing world, and for a just settlement of the Palestinian/Israeli conflict. She is a trustee of Hope Projects (West Midlands) Ltd, Trade Out of Poverty, the Welfare Association, Africa Humanitarian Action, and the Human Trafficking Foundation. She is patron of the Israeli Committee Against House Demolitions UK and Birmingham Pride. She is a member of the advisory committee of International Lawyers for Africa and chairs the International Advisory Board of the Cranfield Masters in Security Sector Management Program. In March 2011 she was elected chair of the Extractive Industries Transparency Initiative (EITI).

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