



GENDER EQUALITY AND FOOD SECURITY

Women's Empowerment
as a Tool against Hunger



GENDER EQUALITY AND FOOD SECURITY

Women's Empowerment
as a Tool against Hunger



© 2013 Asian Development Bank

All rights reserved. Published in 2013.
Printed in the Philippines.

ISBN 978-92-9254-171-2 (Print), 978-92-9254-172-9 (PDF)
Publication Stock No. RPT135782-3

Cataloging-In-Publication Data

Asian Development Bank.

Gender equality and food security—women’s empowerment as a tool against hunger
Mandaluyong City, Philippines: Asian Development Bank, 2013.

1. Gender Equality. 2. Food Security 3. Nutrition I. Asian Development Bank.

The views expressed in this publication are those of the authors and do not necessarily reflect the views and policies of the Asian Development Bank (ADB) or its Board of Governors or the governments they represent.

ADB does not guarantee the accuracy of the data included in this publication and accepts no responsibility for any consequence of their use.

By making any designation of or reference to a particular territory or geographic area, or by using the term “country” in this document, ADB does not intend to make any judgments as to the legal or other status of any territory or area.

ADB encourages printing or copying information exclusively for personal and noncommercial use with proper acknowledgment of ADB. Users are restricted from reselling, redistributing, or creating derivative works for commercial purposes without the express, written consent of ADB.

Note:

In this publication, “\$” refers to US dollars.

6 ADB Avenue, Mandaluyong City
1550 Metro Manila, Philippines
Tel +63 2 632 4444
Fax +63 2 636 2444
www.adb.org

For orders, please contact:
Fax +63 2 636 2648
adbpub@adb.org

Contents

List of Tables, Figures, and Boxes	v
Abbreviations	vi
Foreword	vii
Acknowledgments	viii
Executive Summary	ix
I. Overview	1
Recognition, Reduction, and Redistribution	3
Participation, Representation, and Food Security	4
II. Current Challenges	8
Three Global Crises	8
The Gender Dimension: Why Does It Matter?	11
Breaking the Cycle of Gender Discrimination	16
III. Better Availability—Improving the Productivity of Women Food Producers	19
Access to Land	24
Access to Inputs, Technology, and Services	28
Access to Markets	36
Two Models for Support of Women Farmers	39
Women in the Fisheries and Aquaculture Sectors	42
IV. Better Access to Food through Decent Rural Employment	44
Waged Employment on Farms	44
Off-Farm Employment	48
V. Better Access to Food through Social Protection	51
Cash Transfer Programs	52
Public Works Programs	55
Asset Transfer Programs	59
School Feeding Programs	60
Voluntary Insurance Associations	63
From Social Protection to Empowerment	63

VI. Adequacy and Utilization: The Nutrition Dimension	66
Women’s Empowerment and the Adequacy of Care	68
Care or Income: A False Dilemma	69
The Agriculture–Food–Health Nexus	71
VII. Conclusions and Recommendations	73
Country-Level Strategies	73
Project-Level Gender Components	76
Appendixes	
1 Women’s Rights as Human Rights	77
2 Women’s Rights in Employment	80
3 Mainstreaming Gender in the Food Security and Sustainable Livelihood Programme for the Pacific	82
References	83

Tables, Figures, and Boxes

Tables

1	Global Crises Affect Women Disproportionately	12
2	Representation of Women, by Sector, in the Economies of Selected of Asian Countries	21
3	Percentage of Women and Men Working in the Agriculture Sector in Asia and Pacific Regions in 2000 and 2011	21
4	Gender-Sensitive Support to Farmers and Alternative Farming Models	41

Figures

1	Cross-Country Variation in Child Mortality Explained by Differences in Gender Development	2
2	Food and Agriculture Food Price Index, 1990–2012	9
3	The Cycle of Gender Discrimination	17
4	Ranking of Countries according to the Social Institutions and Gender Index, 2010	18
5	Percentage of Economically Active Women, by Sector, in Selected Countries	20
6	The Gendered Nature of the Agrarian Transition	23
7	Ownership of Land by Women in Selected Countries, 2012	24
8	Distribution of Agricultural Land Ownership: Comparison of Ecuador, Ghana, and Karnataka (India)	26
9	Growth of Mobile Phone Connections, 2005–2015	31
10	Causes of Child Malnutrition, Death, and Disability	68

Boxes

1	Water Campaign of the Self Employed Women's Association in Gujarat, India	7
2	Food Security Impacts of an Economic Crisis: The 1997–1999 Precedent	14
3	Do Women or Men Benefit most from Microcredit Schemes Targeting Women?	34
4	Bangladesh Crop Diversification Project	39
5	The Gender Action Plan in the <i>Pantawid Pamilyang Pilipino</i> Program	54
6	India's National Rural Employment Guarantee Act	55
7	Investing in Women to Build Resilience in Times of Crisis: The Cambodia Emergency Food Assistance Program	56
8	Rural Road Maintenance by Women's Groups in Yunnan Province of the People's Republic of China	58
9	Innovations in Challenging the Frontiers of Poverty Reduction in Bangladesh	60

Abbreviations

ADB	–	Asian Development Bank
BMI	–	body mass index
CCT	–	conditional cash transfer
DMC	–	developing member country
FAO	–	Food and Agriculture Organization of the United Nations
FDI	–	foreign direct investment
FSSAP	–	Female Secondary School Assistance Project (Bangladesh)
GDP	–	gross domestic product
ICRW	–	International Center for Research on Women
IFAD	–	International Fund for Agricultural Development
IFPRI	–	International Food Policy Research Institute
ILC	–	International Labour Conference
ILO	–	International Labour Organization
IUF	–	International Union of Food, Agricultural, Hotel, Restaurant, Catering, Tobacco and Allied Workers' Associations
kg	–	kilogram
MGNREGA	–	Mahatma Gandhi National Rural Employment Guarantee Act (India)
MDG	–	Millennium Development Goal
NGO	–	nongovernment organization
NISP	–	National Income Support Program (Pakistan)
OECD	–	Organisation for Economic Co-operation and Development
PESP	–	Primary Education Stipend Project (Bangladesh)
PPB	–	participatory plant breeding
PRC	–	People's Republic of China
SEWA	–	Self Employed Women's Association (India)
UN	–	United Nations
UNCTAD	–	United Nations Conference on Trade and Development
UNDP	–	United Nations Development Programme
UNESCAP	–	United Nations Economic and Social Commission for Asia and the Pacific
UN ECOSOC	–	United Nations Economic and Social Council
UNGA	–	United Nations General Assembly
UNICEF	–	United Nations Children's Fund
UN-OHRLS	–	United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States
UNRISD	–	United Nations Research Institute for Social Development
VFC	–	Vegetable and Fruit Cash Crop Programme (Nepal)
WFP	–	World Food Programme
WHO	–	World Health Organization

Foreword

Food security and hunger eradication are among the top priorities on the international agenda today in view of the impact on agricultural productivity of global economic crises, food price spikes, and climate change. The extent to which gender inequalities in general, and the gender gaps in agriculture in particular, thwart attainment of these twin priority goals is a key concern given the vital role of women smallholders in household and community food and nutrition security.

Across the Asia and Pacific region, rural women assume critical roles in attaining each of the pillars of food security: availability, access, and utilization. Their role is thus crucial throughout the agricultural value chain, from production on the family plot, to food preparation, to distribution within the household. However, their roles are generally undervalued and constrained by limitations on their access to resources, services, and labor market opportunities. Most rural households and communities in the region manage their agricultural production systems based on social norms and practices that determine the gender division of labor. These vary from the notably constrained roles and opportunities of women in South Asia (with the exception of Sri Lanka) to the more complementary gender roles found in parts of Southeast Asia and some of the Pacific island nations. A lack of data, combined with gender-biased perceptions, have limited awareness and appreciation of rural women's productive roles and contributions to food security in the region. In addition, poor education and health indicators for women limit their access to resources and opportunities.

This publication analyzes gender inequalities that constrain women's roles in agriculture and food production, and in the long run undermine achievement of food and nutrition security in the Asia and Pacific region. It recommends priority interventions that would enhance food and nutrition security in the region by ending gender discrimination and empowering women. It argues for policy reforms to advance gender equality and strengthen country-owned food security strategies. Social protection policies that address the structural causes of poverty and vulnerability are strongly recommended, as are policies that improve women's access to agricultural production resources and services, and to decent wage employment.



Bindu Lohani
Vice-President for Knowledge Management and Sustainable Development
Regional and Sustainable Development Department
Asian Development Bank



Hiroyuki Konuma
Regional Representative for Asia and the Pacific
Food and Agriculture Organization of the United Nations

Acknowledgments

We would like to thank the author, Olivier De Schutter, the United Nations Special Rapporteur on the Right to Food, for his dedication in writing the report under the pressure of a demanding time schedule. Appreciation is also extended to Imrana Jalal and Lourdes Adriano from the Asian Development Bank (ADB) and Nandini Gunewardena of the Food and Agriculture Organization of the United Nations (FAO) for guiding and technically supporting the preparation of the report. Thanks are also extended to Shanny Campbell, Sonomi Tanaka, and Wendy Walker of ADB, for their comments and inputs.

Consistent with the spirit of cooperation, this publication is a joint undertaking of ADB and the FAO Regional Office for Asia and the Pacific, reflecting the high-level commitment of both organizations to support the pursuit of gender equality and women's empowerment in Asia and the Pacific. We hope that readers will find it a useful and thought-provoking source of information and policy ideas.

Executive Summary

This report explores how gender equality can contribute to food security. Its focus is on Asia and the Pacific, though developments in other regions are also referenced. The report describes the relationship between gender-based discrimination and the different channels through which households and individuals access food. It concludes that while equality of treatment between women and men and food security are mutually supportive, gender equality remains an elusive goal in many regions, and a transformation of traditional gender roles is urgently needed. Such a transformation can be enhanced with improved information about the range of inequalities and specific constraints facing women. A simultaneous and integrated pursuit of such information and transformation is essential for gender equality strategies and food security strategies to complement each other and maximize their synergy. Measures that only help relieve women of their burdens and recognize their largely undervalued contributions to household chores and the “care” economy are insufficient. Such measures must be linked with strategies that pave the way to transformed, equitable gender systems.

Women and girls worldwide face many inequities and constraints, often embedded in norms and practices and encoded in legal provisions. Some laws, such as those governing access to land, include inequitable and exclusionary provisions, thus institutionalizing discrimination. Where such legislative measures are not in place, customary rules and practices often have restrictive consequences for women limiting their access to key resources such as land and credit, and affecting household food security and nutrition. Not only are women and girls affected directly, but members of their households and communities are also affected inter- and intra-generationally.

Women and girls are affected through two main channels. One is the limits on their access to education and employment opportunities, which curtails their economic autonomy and weakens their bargaining position within the family. Their weakened bargaining position translates into little or no voice in household decisions, differential feeding and caregiving practices favoring boys and men, food and nutrition insecurity, and lower health and nutrition outcomes.

Second, the discrimination they face not only exposes women to material deprivation, it also makes it more difficult for them to fulfill their vital roles in food production, preparation, processing, distribution, and marketing activities. Challenging the constraints women face must therefore be treated as a key component in the fight against hunger and malnutrition. Such an approach is achievable, it is inexpensive, and it can be highly effective. The cost to society of not acting urgently and more decisively will be considerable.

However, more than good intentions are required to remove the inequities and obstacles facing women and girls. Nor is amendment of legislation that is gender-discriminatory by itself sufficient. Social and cultural norms and the gendered division of roles they impose must be challenged. Empowerment of women is required. This means a greater role for women in decision making at all levels, including the household, local communities, and national parliaments. Women’s empowerment is not only a priority goal in itself but an intrinsic human right, already recognized as

such in pledges and commitments by governments. It is recognized also because it has instrumental value and is a condition for society to benefit from the increased contribution of women to food security and adequate nutrition. Society urgently needs the full potential of women's contribution, but it can only materialize with wider recognition and acknowledgment—by women and men alike—of its benefits to all society, and the vital importance of reshaping social structures.

This report opens with an overview of the links between gender empowerment and food security, and the importance of the Millennium Development Goals and their follow-up. Global challenges confronting the world in the form of food price increases, economic and financial crises, and the ecological crisis are then reviewed. The relevance of these developments to the gender dimension is then discussed, particularly their impact on women and girls.

The five chapters that follow convey the report's central messages. The different dimensions of food and nutritional security—availability, access, and use—are examined in turn to show how policies that are more gender-sensitive can be more effective in supporting advances in each.

The role of women as small-scale food producers is assessed in chapter III. Women are increasingly important as farmers and livestock herders as a result of the agrarian transition and its gendered nature. Their autonomy as food producers, however, is usually very limited by the significant obstacles they face in accessing land, financial services, extension services, and markets, and in benefiting from agricultural research and development. Removal of these obstacles through gender-sensitive approaches would result in significant productivity gains benefiting not only the women concerned, but their households, communities, and society as a whole.

The choices implicit in policy approaches are then discussed, including the relative benefits of reshaping existing farmer support modalities to ensure that women, as well as men, can improve their productivity and maximize their income-generating potential. Other forms of support may be required for home-based farming geared toward satisfaction of family and community food needs. The latter forms of support would serve the values of resilience, autonomy, and stability and be less oriented toward profit and market competitiveness. Examination of the role of women in the fisheries and aquaculture sectors concludes chapter III. Women play an important role in these sectors, which are growing and are of particular significance in Asia and the Pacific.

The discussion shifts in chapter IV to efforts to improve income security by promoting better access for women to waged employment—on-farm, off-farm, and in both the informal and the formal sectors. Improved access to waged agricultural employment can bring important benefits to women. Various obstacles continue to limit their access and control, however, including their overrepresentation in the “peripheral” segment of the workforce. This segment is characterized by low skills and wages, a lack of formal contracts, modes of remuneration that disfavor women, and ample evidence of discrimination and violence against women. The need for women's better access to decent off-farm employment is also emphasized. This requires education and employment policies that are more gender-sensitive.

The benefits of better education of girls and women are assessed, as are existing obstacles and successful strategies for their removal. Programs that will improve girls' access to school are essential for poverty reduction and improved nutritional outcomes. Better education of girls delays the age of marriage and the number of children per family. Obstacles that limit girls' access to school, particularly in rural areas, need to be aggressively tackled to overcome the cycle of disempowerment. Girls' lower schooling limits employment opportunities and increases their vulnerability to discriminatory practices, which in turn serve as disincentives for family investments in their education. The only way to exit this cycle is to ensure strong girls' education outcomes and adequate and equitable compensation for women workers.

Chapter V examines how social protection can support access to food for low-income households—especially those headed by women—when incomes are insufficient for adequate living standards.

The specific impacts of existing government social security programs on women and on gender equality remain largely ignored. Since these programs typically do not acknowledge the specific situation of women, women usually do not benefit from them as much as they should. Additionally, the opportunity these programs represent for gender empowerment may be missed. Analyses of the various components of social protection using a gender lens are provided with an assessment in turn of programs for cash transfer, public works, asset transfers, and school feeding, as well as voluntary insurance associations.

Chapter five concludes with a discussion of four tools through which social protection can be transformative for women—not simply addressing symptoms, but challenging the structural causes of poverty and vulnerability resulting from social injustice and disempowerment. These tools illustrate how the implementation of social programs can be used as opportunities to empower beneficiaries, and to accommodate the specific needs of women while at the same time challenging traditional gendered role divisions. Social development measures can also be delivered in the course of social program implementation, as can contributions to other interventions that in time will provide households with a way out of dependency on public support.

Nutritional security is investigated in chapter VI. Improved food intake translates into better health and nutritional outcomes only if accompanied by access to adequate education, health services, water, and sanitation. This chapter shows how gender-sensitive policies that empower women within households can contribute to nutritional security. Provision of child-care services and the redistribution of power within the household are shown as vitally important—not only to allow women to make the choices and provide the care that matter for infants, but also to ensure that men value and contribute to such care. The apparent dilemma between income and care is examined, concluding that the “income effects” of mothers’ employment outside the household generally more than compensate for any negative effects on nutritional outcomes that may be associated with less time devoted to housework and child-care by mothers. The report finds, however, that the gradual redistribution of household responsibilities must be a central component of any gender-sensitive employment policy.

The effects and dangers of the nutrition transition is then investigated, where in many countries a widespread shift is seen away from traditional diets to diets relying more heavily on processed foods and food prepared outside the home. Assessment of the agriculture–food–health nexus notes that investments in agriculture aimed at improving productivity and access to markets, while essential components of food security strategies, will not necessarily translate into improved health or nutrition. Such investments should have the complementary aims of reducing micronutrient deficiencies through promotion of sufficiently diverse and balanced diets, and reducing rural poverty. The gender dimension is critical to addressing these links and to the effectiveness of support to agriculture. Support needs to increase the incomes of the poorest households, and within these households, benefit women in particular. Support also needs to incorporate an expanded role of women in decisions regarding the priorities of agricultural research and development.

Chapter VII provides conclusions and recommendations. The report recommends support of country-owned food security strategies that maximize the synergy between gender equality and food security. Such strategies should cut across sectors, support women’s collectives, and adopt a rights-based approach in order to improve accountability and encourage independent monitoring of progress. National strategies should be developed in a participatory fashion, involving women in particular, but incorporating appropriate participation of men. Men should be co-opted into strategies aimed at improving the situation of women to increase their chances of success. Strategies should be phased and multiyear, particularly components that are to be transformative of existing gender roles. Any strategy must incorporate a time frame sufficient to undertake its challenges.

Integrating gender equality issues and concerns has assumed steadily growing importance in the work of the Asian Development Bank (ADB). In April 2013, ADB approved the *Gender Equality*

and Women's Empowerment Operational Plan, 2013–2020: Moving the Agenda Forward. The plan emphasizes the need for deepening gender mainstreaming and for direct investments in women and girls to close remaining gender gaps and achieve better gender equality outcomes. Investments are needed in women's and girls' education, health, and economic empowerment, as well as in public transport facilities, better water services, and clean energy sources—especially in rural areas. The plan highlights the importance of supporting the efforts of ADB's developing member countries to establish and strengthen social protection strategies and programs that integrate gender dimensions in their design and implementation. Emphasis is also placed on support for investment in agriculture through technology transfer; through enabling infrastructure such as irrigation systems, farm-to-market roads, and vendor markets; and through measures that benefit women's cooperatives and other associations. All such support should incorporate measures that ensure the participation of women.

Overview

Women and girls are overrepresented among those who are food-insecure. Worldwide, an estimated 60% of undernourished people are women or girls (United Nations Economic and Social Council [ECOSOC] 2007, para. 14; World Food Programme [WFP] 2009a, p. 6). This is clearly unacceptable, and calls for a concerted effort against gender discrimination in access to food being given global priority. By investing more in women using an approach that is empowering and enlarges their freedoms, the gains accrue to all of society. As we formulate solutions to the multiple crises we are facing, we will act more effectively and achieve more lasting results by taking into account the specific situation of women and girls.

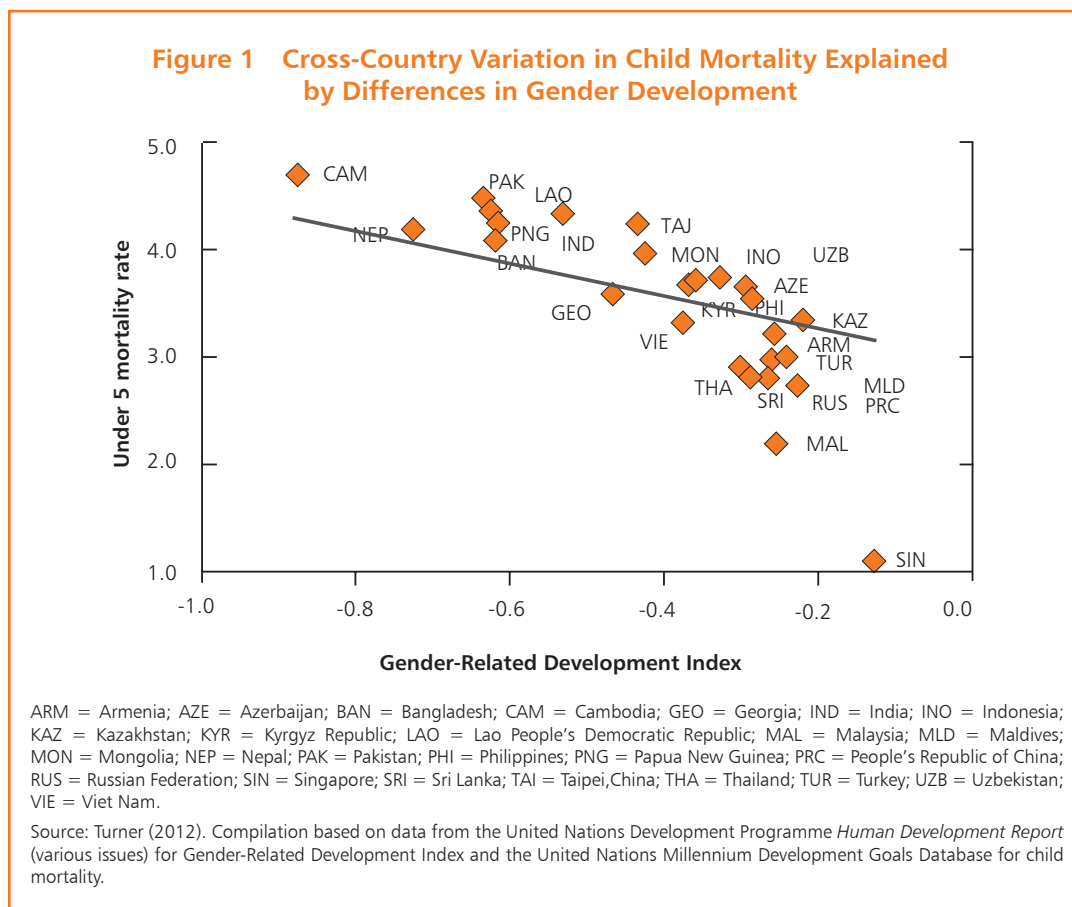
There is a mutually reinforcing relationship between expanding social and economic opportunities for women. This is particularly true of improving women's access to education, and strengthening their role in decision making within the household and within society. Greater economic autonomy improves the bargaining position of women within the household and increases their voice in public decision making. Empowerment, in turn, can accelerate the elimination of obstacles to expansion of their opportunities for self-employment and in the labor market.

Expanding the opportunities of women and girls is a duty of states, which ratified various human rights instruments on the human rights of women in general (Appendix 1) and the rights of women at work (Appendix 2). Fulfillment of these commitments matter to women and girls and should be seen as an objective in its own right, essential to full attainment by women and girls of their right to food. However, it is not for their benefit alone. Gender equality can make a substantial contribution to a country's economic growth (Abu-Ghaida and Klasen 2004; World Bank 2012), and it is the single most important determinant of food security. A cross-country study of developing countries covering the period 1970–1995 found that 43% of the reduction of hunger that occurred was attributable to progress in women's education. This was almost as much as the combined effect on hunger reduction of increased food availability (26%) and improvements to the health environment (19%) during that period. An additional 12% of the reduction of hunger was attributable to increased life expectancy of women. Thus, fully 55% of the gains against hunger in these countries during those 25 years were due to the improvement of women's situation within society (Smith and Haddad 2000).

Recent global comparisons show a strong correlation between hunger and gender inequalities. Countries ranking highest on the index of global hunger are also those where such inequalities are more severe (von Grebmer et al. 2009). Various studies have confirmed the positive association between the education of women and children's health outcomes such as height, weight, or immunization (Dwyer and Bruce 1988; Hobcraft 1993; Bicego and Boerma 1991; Buvinic and Valenzuela 1996; Pitt et al. 2003; Duflo 2005; Haddad, Hoddinott, and Alderman 1997; Quisumbing and Maluccio 2003). Recent data illustrate the strong correlation between higher levels of the gender equality index and lower child mortality (Figure 1).

[F]ully 55% of the gains against hunger in these countries during those 25 years [1970–1995] were due to the improvement of women's situation within society

Gender equality can make a substantial contribution to a country's economic growth, and it is the single most important determinant of food security



It is in part because of the awareness of this relationship that women’s and girls’ rights were given so much attention when the Millennium Development Goals (MDGs) were adopted in 2000. This may be seen in brief descriptions of the key MDGs.

MDG 1. Relates to the eradication of extreme poverty and hunger. It includes a target (1.B) of “full employment and decent work for all, including women and young people.” This constitutes an implicit recognition that women, due to discrimination and lack of educational opportunities, are generally disadvantaged in access to employment.

MDG 2. Relates to universal primary education, and aims to ensure that by 2015, “children everywhere, boys and girls alike, will be able to complete a full course of primary schooling” (target 2.A).

MDG 3. Explicitly aims at the promotion of gender equality and the empowerment of women, with a view to eliminating gender disparity in primary education by 2005, and at other levels of education by 2015 (target 3.A). While no explicit target is associated with the empowerment of women, the main indicator used is the representation of women in national parliaments and among government executives. Despite significant progress in recent years, by 2010 women still occupied less than 10% of the seats in parliaments in 58 countries in the world. Globally, only 16% of cabinet members were women by that year (United Nations Department of Public Information [UNDPI] 2010).

MDG 5. Relates to maternal health, where the associated targets concern reduction of maternal mortality (target 5.A) and universal access to reproductive health (target 5.B).

Recognition, Reduction, and Redistribution

The Millennium Development Goals recognize that key ingredients of development are

- improved access to education for girls;
- improved access to employment for women, particularly in sectors outside agriculture; and
- improved political representation of women.

Beyond the MDGs themselves, further commitments were made in the MDG process that strengthen the inclusion of gender equality and women's and girls' rights as ingredients of development. Most importantly, when the outcome document, *Keeping the Promise: United to Achieve the Millennium Development Goals*, was adopted at the 65th session of the United Nations General Assembly (UNGA) in September 2010, heads of state and government made a number of pledges pertaining to MDG 3 (UNGA 2010). Because of their potential significance for food security, three pledges in particular deserve notice.

One pledge in the 2010 MDG summit outcome document recognizes the need to invest in "infrastructure and labour-saving technologies, especially in rural areas, benefiting women and girls by reducing their burden of domestic activities, affording the opportunity for girls to attend school and women to engage in self-employment or participate in the labour market" (UNGA 2010, para. 72 [e]). Because time poverty is one of the major obstacles facing women, reducing the burden of women has a key role to play in any strategy to advance gender equality. Removing this obstacle would allow women greater opportunities for education and employment, particularly employment outside subsistence agriculture.

Improved access to education and employment opportunities are of course linked, so that reduction of time poverty can put a virtuous cycle in motion. Cross-country comparisons show that in all regions, women perform the bulk of unpaid work in both agricultural production and the "care" economy. The latter includes the minding and education of children, fetching water and fuelwood, purchasing and preparing food, cleaning, and caring for the sick and the elderly (Bread for the World Institute 1995).

In developing countries, particularly in rural communities, women are underserved by public services (Razavi 2007; Budlender 2010). Expanding such services could bring about significant improvements. A study on the Indian state of Gujarat estimated that reducing to 1 hour a day the time spent fetching water by women would allow the women to increase their incomes by \$100 yearly using the time saved (United Nations Development Programme [UNDP] 2006). Defining priorities for public services in a way that recognizes the imperative of relieving women and girls of these burdens is vital to their empowerment. In addition to the establishment or expansion of public transport and child-care services, improved access to cleaner energy sources for household needs should be central to such a strategy. This would not only save women time, but also reduce reliance on traditional cook stoves. These stoves are damaging environmentally and cause annually about 1.9 million deaths worldwide due to indoor pollution, disproportionately affecting women and children (World Health Organization [WHO] 2012; Tirado 2012).

A second pledge of heads of state and government contained in the 2010 MDG summit outcome document was to ensure that women benefit from policy measures aimed at generating full and productive employment and decent work for all, "recognizing women's unpaid work, including care work" (UNGA 2010, para. 72 [d]). This is a modest, almost invisible, reference to the immense contribution of care to the market economy. It has been estimated that in middle-income countries such as the Republic of Korea and South Africa, unpaid care work represents the equivalent of 15% of gross domestic product (GDP) if it were valued in monetary terms (as when such services are subject to market transactions). The comparable figure is 63% for low-income countries such as India and Tanzania (Budlender 2010). If this unpaid care work were to be financed by

If this unpaid care work were to be financed by the public purse, it would represent 94% of the total tax revenue of the Republic of Korea, and 182% of the total tax revenue of India

the public purse, it would represent 94% of the total tax revenue of the Republic of Korea, and 182% of the total tax revenue of India (Budlender 2010). This gives an idea of the considerable debt of society as a whole to women who perform the vast majority of this work—largely unpaid, undervalued, and unrecognized.

Modest as it is, this recognition of women’s unpaid work does matter. It acknowledges the importance of care to the economy in general. This unpaid work is also vital to maintenance of the agricultural workforce, and is key to food security (Food and Agriculture Organization of the United Nations [FAO], International Fund for Agricultural Development [IFAD], and International Labour Organization [ILO] 2010, p. 35). Recognition of women’s unpaid work in the care economy breaks down the common dichotomy that, while men (or women who join the labor market) produce, women at home consume. The difference is not between production and consumption, it is between work that is recognized and compensated, and work that is not. Unpaid and largely unrecognized care work also functions as a safety net of last resort, as women work harder to make up for inadequate government support, or for the reduction of such support in times of crisis because of public budget constraints.

Recognition of women’s unpaid work in the care economy breaks down the common dichotomy that, while men (or women who join the labor market) produce, women at home consume. The difference is not between production and consumption, it is between work that is recognized and compensated, and work that is not

Reduction and recognition are incomplete, however, unless accompanied by the redistribution of roles (Elson 2010; Eyben and Fontana 2011; Fälth and Blackden 2009). Until responsibilities in the care economy are more evenly shared between women and men, such responsibilities and those who perform them will continue to be largely undervalued, neglected, and unsupported:

Redistribution initiatives are about supporting men’s and women’s own efforts to change gender norms that prevent men assuming equal roles in care responsibilities, making it easier for men to become more involved in and respected for sharing the family’s caring responsibilities as well as for doing paid care work (Eyben and Fontana 2011, p. 10).

Given the importance of care for the improvement of nutritional outcomes, initiatives that encourage men to contribute a greater share in the care economy are critical for food and nutrition security. They must go hand in hand with reduction and recognition of women’s unpaid care work. That is why this report systematically examines how government policies aimed at achieving food and nutrition security can be designed to also challenge the existing division of gender roles. In the absence of redistribution of existing gender roles, gains for women that should result from investments in physical infrastructure, for example, may be short-lived, or benefit them less than men. After one village in the People’s Republic of China (PRC) was electrified, it was found that the main effect was to lead women to shift their domestic responsibilities to the evening, resulting in them working longer hours in the field. Leisure time increased for the village as a whole, but men were the primary beneficiaries (FAO, IFAD, and ILO 2010, p. 40, referring to Lucas et al. 2003).

Participation, Representation, and Food Security

Women’s empowerment and the adoption of gender-sensitive policies are crucial because of the contribution both can make to shifts in gender roles. A third pledge by the heads of state and government contained in the 2010 MDG summit outcome document is to:

improve the numbers and active participation of women in all political and economic decision making processes, including by investing in women’s leadership in local decision making structures and processes, encouraging appropriate legislative action and creating an even playing field for men and women in political and Government institutions (UNGA 2010, para. 72 [f]).

Some best practices are emerging in this area. In the Indian states of Madhya Pradesh and Kerala, village meetings must be comprised of at least one-third women for their deliberations to be considered valid (Kabeer 2005). Improved representation of women at the local level is at least as

significant as such improvements in national parliaments and executives. Decisions made at the local level are of great practical importance to what matters most to women's ability to contribute to food security. Such decisions may concern allocation of land, choice of which crops to grow, or how available labor is shared between the plots of land. Participation in local decision making is where women can most readily challenge dominant representations concerning power and voice.

This is one reason why enhancing leadership and participation of women in rural institutions is one of the four pillars of the initiative launched in September 2012 jointly by the United Nations Entity for Gender Equality and the Empowerment of Women (UN Women), FAO, IFAD, and WFP. The program, *Accelerating Progress toward the Economic Empowerment of Rural Women*, will be implemented during its initial 5-year phase in Ethiopia, Guatemala, Kyrgyz Republic, Liberia, Nepal, Niger, and Rwanda. It is premised on the idea that economic and political empowerment are mutually supportive and should go hand in hand. The expansion of economic opportunities for women and their enhanced role as economic agents improves their status within the community and can create the necessary social consensus for their greater role in rural institutions and local governance. At the same time, women's political empowerment can facilitate adoption of reforms in public policies that will improve their status in the economy. Neither economic empowerment nor political empowerment should be seen as a prerequisite of the other. Both processes should go hand in hand, leading in time to a virtuous cycle in which women's economic emancipation facilitates a greater voice in decision making, which in turn leads to the removal of more obstacles that impede their economic autonomy.

The 1996 World Food Summit Plan of Action defined food security as existing "when all people, at all times, have access to sufficient, safe, nutritious food to maintain a healthy and active life" (World Food Summit 1996, para. 1). Food security is built on three pillars:

- food availability: sufficient quantities of food available on a consistent basis;
- food access: sufficient resources to obtain appropriate foods for a nutritious diet; and
- food use: appropriate use based on knowledge of basic nutrition and care, as well as adequate water and sanitation.

Relying on this broadly accepted definition, this report examines the contribution of gender equality to food security and its three components. It assesses the obstacles women in Asia and the Pacific face as a result of discriminatory laws and social and cultural norms, and the consequences of such obstacles for food and nutrition security. Limited access to educational and employment opportunities restrict their economic autonomy and independence, reducing their access to adequate food. This may occur through the market, where lower economic opportunities for women result in reduced purchasing power for female-headed households, for example. Women's lower economic autonomy may also be manifest in a weaker bargaining position of women within the family. Differential feeding and caregiving practices may favor boys over girls, thus leading to poorer nutritional outcomes for women and girls, and making it more difficult for women to adequately fulfill even their traditional roles in caregiving and food systems. The cost of this to society is considerable, both in lost productivity, and worse, in health and nutritional outcomes.

Challenging the constraints women and girls face and enlarging their access to opportunities is an essential component of the fight against hunger and malnutrition. It is achievable, it is cost-effective, and it may form the basis for a sustainable strategy for reducing food insecurity. However, removal of these constraints requires more than good intentions and legislative reform of discriminatory legal provisions. Social and cultural norms, and the gender roles that these norms impose, must also be challenged.

Empowerment—an increased role for women in decision making, at all levels, including the household, local communities, and national parliaments—is required. Women's empowerment is of course a goal in itself, a human right that governments have pledged to uphold. It also is vital for society to benefit from the increased contribution that women can make to food and

nutrition security. The potential of women is one we cannot afford not to reap, and can only materialize if there is an overarching effort to reshape hierarchies in current social structures.

Inclusive and participatory efforts are essential in reshaping inequitable social structures. A major cause of the persistence of existing gender roles is that many men in the formal sector work long hours, providing at least a partial explanation of why they are not assuming a greater share of family responsibilities. In countries such as Indonesia, Republic of Korea, and Pakistan, more than 30% of all employees work more than 48 hours per week. Male employees especially tend to work excessive hours—both a consequence and cause of gender stereotypes reinforcing the existing division of labor (Lee, McCann, and Messenger 2007, p. 240).

In countries such as Indonesia, Republic of Korea, and Pakistan, more than 30% of all employees work more than 48 hours per week. Male employees especially tend to work excessive hours—both a consequence and cause of gender stereotypes reinforcing the existing division of labor

While men work long hours outside the home, women work long, unpaid, and undervalued hours at home. The gender roles associated with the existing division of labor are clearly difficult to challenge without rethinking the broader issues associated with employment patterns and questioning the pressures currently imposed on both men and women. Yet, a number of measures that would alleviate burdens on families would benefit both women and men—e.g., better public transport, water, and energy services, as well as child-care services and institutional care for the sick and the elderly. Both men and women would also benefit from measures encouraging men’s caring role, such as nontransferable parental leave for both parents. The ILO Committee of Experts notes that “measures designed to promote harmonization of work and family responsibilities, such as child-care services, should not be specific to women” (ILO 1999). Achieving equality of treatment of women and men is not a zero-sum game. It should lead to a better balance for all in a healthier and more inclusive society.

The involvement of men in achieving a transition to a more equal society will reduce the risks of desirable changes meeting with resistance. It can help convince those in power that empowered women present an opportunity, not a threat (Ambler et al. 2007). Ensuring that men are active participants in strategies for empowerment of women is essential to the cultural change required for redistribution of tasks within the household. Unless such change takes place, improvements to the situation of women may remain only partial, offset by the inequalities in the care economy. Women working outside the household, for example, may continue to take on all household responsibilities in order to avoid conflicts about “neglecting” traditional duties. While investments that reduce the drudgery of the care economy and improved organization can contribute to women’s empowerment, men need to be involved and actively participate in the transitional redistribution of household roles. These are the lessons which may be drawn from the Self Employed Women’s Association water campaign in Gujarat, India (Box 1).

Box 1 Water Campaign of the Self Employed Women's Association in Gujarat, India

The Self Employed Women's Association (SEWA) launched its Women, Work and Water Campaign in Gujarat in western India in 1995. The campaign aimed at improving access to water primarily for domestic use and to some extent for agricultural irrigation, in order to relieve women from the time-consuming chore of fetching water. The campaign included

- awareness-raising and training;
- establishment of local water users' groups (*pani samitis*), composed of a majority of women, for the management of community water sources;
- capacity building for women, including for the maintenance and repair of water pumps; and
- the improvement of water supply systems with small infrastructure works such as roof rainwater harvesting systems, rural piped water supply schemes, and revival of traditional water sources (ponds and wells).

The campaign was greeted with skepticism by many women. It also initially raised some hostility from men, as it was seen as intruding on "male territory." Meetings and the work of the women technicians improving water supply, however, gradually led women to gain confidence and men to accept the role of women in water maintenance, and to encourage them to participate in the program.

Ten years after the launch of the campaign, it involved 30,000 women across 500 villages in Gujarat. Time previously dedicated to fetching water is now devoted to mostly productive activities, leading to increased incomes. In addition, women have demonstrated their ability to occupy "public" space and maintain public assets, gaining self-confidence and changing men's perceptions of women's role. Gender relations were transformed, at least in some households, particularly those with SEWA leaders:

men have become more supportive of allowing women to spend time outside of the home and make decisions in accumulated savings, as well as educating the girl child. That women are able to come out of the confines of their home and participate in the water campaign activities is a big achievement for SEWA and is also a critical step towards women's empowerment (Mishra Panda 2007, p. 22).

However, this transformation remains constrained:

Within the household, women tend to avoid conflicts and take on the burden of all domestic responsibilities so that they are not prevented by their husbands from going out to work for the water campaign. While an increase in income places women in an advantageous bargaining position within the household, visible changes in gender relations are yet to occur in the private sphere. Indeed, the observations in the field indicate that although gender-equitable change processes have begun at the household level they are yet to have a widespread impact (Mishra Panda 2007, p. 24).

Source: Mishra Panda (2007).



Current Challenges

Three Global Crises

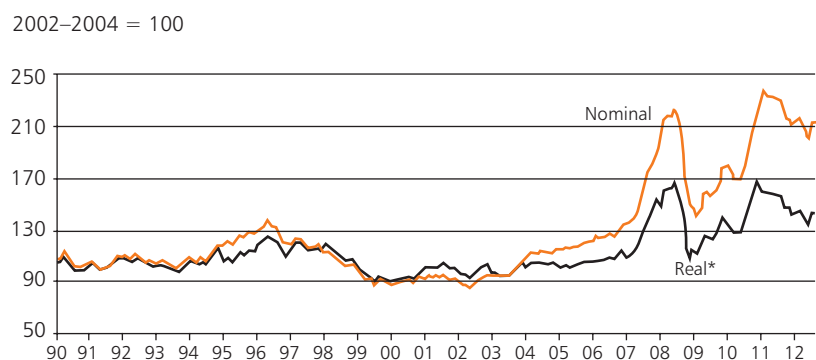
This report on the contribution of gender equality to food security strategies in Asia and the Pacific was prepared against the background of three overlapping crises. Since the sudden surge in prices of major cereals on international markets in the spring of 2008, food prices are higher and more volatile than they have been over the past 25 years. The financial and economic crisis developed shortly thereafter. Both the food price crisis and the financial and economic crisis are taking place against the backdrop of a major ecological crisis, the full import of which the markets have yet to absorb.

Food Price Crisis

The global food price crisis exploded in 2007–2008, placing food security in sharp focus and leading to a succession of international summits. From November 2007 to June 2008, prices of the main commodities went through significant increases on global markets. The food price index rose by nearly 40%, compared to 9% in 2006 (von Braun 2008). Price increases were significant for wheat, maize, and rice. The price for maize almost tripled from 2000 to 2008, and the price of wheat quadrupled during the same period, largely due to low stocks resulting from increased demand for agrofuels (Organisation for Economic Co-operation and Development [OECD] 2008; Mitchell 2008). The price of rice also quadrupled from January to April 2008, in large part due to export restrictions imposed by major exporters in what is a relatively thin global market. According to some measures, these increases meant that real prices of food commodities reached a 30-year high in June 2008.

International price increases affect most severely food-deficit countries, which are more dependent on imports to feed their populations. Within those countries, the poorest net food buyers are the worst affected because they dedicate the largest proportion of their household budget to the purchase of food. The way international prices affect prices on domestic markets varies significantly from country to country. Many of the least developed countries, however, cannot afford high levels of food subsidies and have no social safety nets in place. Poor consumers are thus directly exposed. They are especially vulnerable where a small number of companies import and commercialize staples, occupying an oligopolistic position in the downstream market. Such companies may be tempted to pass on the full cost of price increases to end consumers.

Consumers affected by high prices include many of the poorest rural households. Even if they farm, these households often are net food buyers, not producing enough food to be self-sufficient (World Bank 2007a, p. 109, Box 4.7). A 2008 World Bank study based on surveys in nine low-income countries estimated that price increases during the first trimester of 2008 would result in a 4.5% increase in poverty rates in the absence of measures to mitigate them. This would drive an additional 105 million people into poverty globally (Maros and Will 2008). In other words, given the 0.7% average annual rate of poverty reduction since 1984, a 4.5% increase in poverty would unravel almost 7 years of poverty reduction efforts.

Figure 2 Food and Agriculture Food Price Index, 1990–2012

* The real price index is the nominal price index deflated by the World Bank Manufactures Unit Value Index (MUV).

FAO = Food and Agriculture Organization of the United Nations.

Notes: The FAO Food Price Index measures the monthly change in international prices of a basket of food commodities. It consists of the average of five commodity group price indices (representing 55 quotations), weighted with the average export shares of each of the groups for 2002–2004. It thus provides a measure of the impacts of price variations for food-importing countries.

Source: FAO Food Price Index. <http://www.fao.org/worldfoodsituation/wfs-home/foodpricesindex/en/> (last accessed 6 September 2012).

The 2007–2008 crisis was a wake-up call for the international community. More price spikes were to follow, however, and the global food price crisis has not left the top of the international agenda since it first exploded. Prices for most basic food commodities peaked again on international markets during September 2010–February 2011, moving higher than the 2008 peak. Following a decline, the index went up again after June 2012 (Figure 2).

The higher the share of food in total household expenditures, the greater the impact of food price increases on the household budget. Thus, price increases are felt acutely in the poorest households, where a large percentage of their budget is dedicated to food. In poor countries, this may mean a significant part of the population. In Bangladesh, the share of food expenditures in total expenditures for most of the population is more than 60%—63.7% for the moderate poor, and 67.0% for the extreme poor (Zohir et al. 2010, p. 65). Certain socioeconomic groups or households are more at risk than others, including

- those with fixed or low incomes that do not adapt automatically to rising food prices;
- households with a high dependency ratio (large families with few earning members); and
- female-headed households—such households typically present a high dependency ratio (widows or women separated from, or abandoned), and are typically the object of discrimination.

Financial and Economic Crisis

The impacts of the global food price crisis are being magnified by the global financial and economic crisis that emerged in 2008–2009. Low-income countries throughout the developing world have been suffering from a crisis they had no responsibility in creating. On the one hand, the level of remittances has remained stable and even grown in recent years. Many countries that had significantly increased their openness to trade and their dependency on exports in the 1980s, however, have been negatively impacted by shrinking global demand. Foreign direct investment (FDI) also slowed in many developing countries, particularly in Africa (United Nations Conference on Trade and Development [UNCTAD] 2012).

In comparison to other regions, Asia has performed relatively better. While FDI inflows are expected to decline in 2012 in other parts of the world, growth of 10% is anticipated in Asia (UNCTAD

2012). (Importantly, global FDI flows increased over 16% in 2011, surpassing the level of 2006 but not the peaks of 2007 and 2008.) However, there appears to be growing concern about Asia among international investors, leading to considerable instability in capital flows and in asset and currency markets. Pakistan and some of the smaller economies of South Asia witnessed sizeable capital outflows in 2011, but India and Bangladesh recorded increases of 31% and 24%, respectively (UNCTADSTAT). The PRC is reported to have experienced net capital outflows in October and November 2011 (Fleming 2012). Some Asian countries may also suffer revenue losses from lower exports as traditional markets in Europe and the United States recover from the crisis. The social consequences may be particularly important for less developed countries such as Bangladesh, Bhutan, and Cambodia. A high proportion of exports in these countries—sometimes approximating 70% before the crisis—is in highly labor-intensive manufactured products such as textiles, clothing, and footwear (Karshenas 2009, pp. 7–9).

Ecological Crisis

Appreciation of the severity of the global ecological crisis has become apparent. Planetary boundaries are being tested by dispersion of toxic chemicals and contamination of the food chain, ocean acidification and loss of fish stocks, disruption of the hydrological cycles and water scarcity, land system change and land degradation, loss of biodiversity and plant genetic diversity, and climate change. The acceleration of climate change is the most prominent of these trends, and highlights the magnitude of the ecological crisis.

In South Asia, climate change will have considerable impact on agricultural yields. By 2050, it is anticipated that the region’s rice production will drop by 14%, wheat production by 49%, and maize production by 9%—as compared to a scenario without climate change (Nelson et al. 2009). In East Asia and the Pacific, losses (again in comparison to a scenario of no climate change) will be less severe overall, but not insignificant. Rice production may drop by 11% by 2050, while wheat production may increase slightly.

While the effects of climate change will vary across crops and regions, it now appears beyond doubt that sharp price increases for all major crops may be expected to result from anticipated climate changes accompanied by population growth, shifting diets, and rising demand for non-food crops. These estimates do not take into account the potential carbon fertilization effects of global warming—accelerated plant growth resulting from greater concentration of carbon dioxide in the atmosphere. However, some observers estimate that by 2050, child malnutrition could increase by 20% as a result of climate change and associated developments (Nelson et al. 2009). The impacts will be especially severe on women and girls, both because of the increased proportion of women among small-scale food producers, and because of their unequal bargaining power within households.

Although most global studies of climate change and food security focus on agriculture, climate change is expected to also have major effects on the fisheries sector, threatening the supply of fishery products and the capacity to meet growing demand. Rising levels of concentration of carbon dioxide in the atmosphere are increasing sea temperatures and the acidification of oceans. This endangers many calcifying organisms such as mollusks, plankton, and coral reefs, on which numerous dependent fish populations rely. Warmer sea temperatures may lead to more frequent and severe outbreaks of algae blooms, which can have a devastating impact on fish populations.

Extreme climate-related events may destroy coastal habitats. Mangrove forests, seagrass meadows, salt marshes, and coral reefs play a vital role in the reproductive cycles of many marine species. Yet since the 1940s, 35% of the world’s mangrove forests have been destroyed, and a third of seagrass areas and 25% of salt marshes have been lost (Nellemann et al. 2009). For some habitats, declines are accelerating. One-third of coral reefs have disappeared in the last 50 years.

In the Indo-Pacific region, which accounts for 75% of coral reefs worldwide, reefs have been disappearing at an average of 3,168 square kilometers each year for the past 20 years (Bruno and Selig 2007). Marine species respond to ocean warming by moving to colder water. They may shift their latitudinal range or move to greater depths. Some fish will gradually move away from certain rich tropical waters, resulting in localized extinctions as well as invasion by species not previously found there (Cheung et al. 2009). Unsustainable fishing practices are amplifying all these threats.

This is of particular relevance to Asia and the Pacific. On average globally, fish consumption represents only about 33 kilocalories (kcal) per capita per day. However, the value of fish consumption in food security in many locales is considerable and is not adequately reflected by this low figure. In countries such as Bangladesh, Cambodia, Indonesia, Japan, Sri Lanka, and small island states, fish can represent an important portion of the intake of animal protein. Asia accounts for two-thirds of global fish consumption, averaging 20.7 kilograms (kg) annually per capita. In Oceania, average annual consumption is 24.6 kg per capita.

The role of fish in the diets, particularly among the poor, is rising rapidly in many countries of Asia and the Pacific. (The exception is Japan, where the past 20 years has seen a relative decrease from high levels.) From 1961 to 2009, annual per capita fish consumption rose in East Asia from 10.6 kg to 34.5 kg, and from 12.8 kg to 32.0 kg in Southeast Asia. In the PRC, where annual fish consumption per capita averaged 31.9 kg in 2009, the annual increase averaged 4.3% from 1961 to 2009. It averaged 6% over the past 20 years, a direct result of increases in incomes and the diversification of diets in that country.

The role of fish in diets is not simply a matter of its energy component. In 2009, fish accounted for 16.6% of the global population's intake of animal protein and 6.5% of all protein consumed. It provided about 3 billion people with almost 20% of their average per capita intake of animal protein. Fish possesses a wide range of essential micronutrients, including various vitamins (e.g., D, A, and B), minerals (e.g., calcium, iodine, zinc, iron, and selenium), and polyunsaturated omega-3 fatty acids. Fish is clearly rich in such micronutrients and its role is vital where diets are otherwise insufficiently diverse (FAO 2012b, pp. 82–88).

For many coastal communities, small-scale and artisanal fishing, although typically underreported in official statistics, constitutes a vital safety net in times of crisis. It allows these communities to feed themselves rather than purchase food (De Schutter 2012). Globally, the fisheries and aquaculture sector is a source of employment for a significant number of people, particularly in Asia and the Pacific. Some 31 million people in Asia (and 70,000 in Oceania) fish for their livelihoods, and 16 million others (6,000 in Oceania) rely on fish farming (aquaculture). About three times as many people (especially women) work in pre- and post-capture and farming activities than work in the actual capture and farming of fish (FAO 2012b, p. 41).

The Gender Dimension: Why Does It Matter?

Gender equality and the rights of women and girls are vital in the search for appropriate responses to the challenges posed by the three overlapping global crises just outlined. Taking them into account matters because women and girls are typically the primary group to experience the effects of these crises. The inherent gender vulnerabilities they face are exacerbated in times of crisis, as summarized in Table 1.

Table 1 Global Crises Affect Women Disproportionately

Global Crisis	Major Sources of Vulnerability for Women and Girls
Food price crisis: increased volatility of food prices and higher prices relative to income	<ol style="list-style-type: none"> 1. Female-headed households are disproportionately represented among the poorest households and among households with a high dependency ratio. 2. Comparatively lower purchasing power of women due to fewer economic opportunities related to their lower educational levels, wage disparities, and overall income insecurities. 3. Women and girls disfavored in the intra-household allocation of food. 4. Girls are removed from school first in order to reduce education-related expenses.
Financial and economic crisis	Overrepresentation of women in the sectors most affected by the slump in demand (export-dependent sectors), and concentration of women in the informal, low-skilled or semi-skilled, and low-wage segments. Women are the first to be retrenched when such crises occur.
Ecological crisis	<ol style="list-style-type: none"> 1. Women directly affected as food producers heavily dependent on weather-related events. 2. Women indirectly affected by the impacts climate-related events will have on the price of foodstuffs. 3. Women’s and girls’ time poverty may increase as a result of the impacts of climate change on resources (e.g., water and fuelwood availability). 4. Restrictions on their mobility make women more vulnerable to extreme climatic events.

Source: Author.

In many regions, female-headed households fare less well than male-headed households due to the obstacles women face and because of the generally higher dependency ratio in female-headed households

Women and the Food Price Crisis

Women’s vulnerability is most evident in the impact of the global food price crisis and its ripple-effects across food markets since 2008. They are the first affected as prices of staples rise as a result of climate change and speculation. They, more often than men, experience extreme poverty. In many regions, female-headed households fare less well than male-headed households due to the obstacles women face and because of the generally higher dependency ratio in female-headed households. The absence of a male wage earner in the family usually has very negative consequences on income, and women are generally less able to command labor—both within and outside the household.¹ Widow-headed households may be in an especially disadvantaged position, and higher food prices will have particularly severe impacts on them (Drèze and Srinivasan 1997). Institutions that build solidarity among such women can lessen some of these impacts, as seen among certain indigenous ethnic groups in the Chittagong Hill Tracts in Bangladesh (Mallick and Rafi 2010).

Undernutrition and malnutrition of women affect the women concerned, of course. However, they also have grave repercussions for their families and households, and on the next generation. Poor nutrition of a mother during pregnancy and the child during its first 2 years of life has lifelong consequences for the child’s physical and mental development (Alderman, Hoddinott, and Kinsey 2006). A survey covering the period 1993–2005 found that 42% of pregnant women worldwide suffered from anemia—the result of iron deficiency, which can cause low birth weight (Kraemer and Zimmermann 2007). In 2008, maternal undernutrition (where a mother has a body mass index of less than 18.5 kg per square meter) affected more than one-fifth of women in south central and southeastern Asia, and more than two-fifths of women in India and Bangladesh. Maternal

¹ For the perspective in Brazil, see Barros, Fox, and Mendonça (1997, p. 232).

undernutrition is associated with intrauterine growth restriction, which can lead to the offspring's retarded mental and physical development—consequences that last a lifetime (Black et al. 2008).

The ongoing food price crisis and financial and economic crisis, could amplify such developments. The food price crisis in particular may have a negative impact on human development by

- increasing poverty and inequality;
- worsening nutrition as families shift to diets less diverse and with lower micronutrient content;
- reducing the utilization of education and health services; and
- depleting the productive assets of the poor.

Deterioration in any of these areas is difficult to reverse and may have ramifications lasting years, and in some cases, generations (Bhutta et al. 2009; Christian 2010).

Access to food can be achieved through:

- own production, for those who have access to land and can exploit it;
- employment and self-employment, generating income and thus allowing purchase of food; and
- social transfers—including food-for-work or cash-for-work programs, and cash transfers— or other forms of solidarity within households or communities.

Women can face discrimination in all these areas. Their greater vulnerability to food insecurity in times of crisis compounds the problems of food insecurity (Box 2).

Women are typically discriminated against as food producers, as waged workers, and as self-employed workers in off-farm activities. Discrimination is common even in the forms of solidarity organized by government programs or, informally, at household or community levels. Even when women produce food, the intra-household allocation of food may well disfavor them due to beliefs about the value of females as compared to males. In many regions of South Asia, women tend to eat the least, or to eat leftovers after other family members have eaten—often the result of gender-role internalization (United Nations Economic and Social Commission for Asia and the Pacific [UNESCAP] 2009; Mukherjee 2009, p. 16). The ability to access food depends on power—power to produce, power to purchase, and power to access food in intra-household allocation mechanisms. When women have less power than men, this translates directly into weaker access to food (Patel 2012).

Coping strategies adopted by families in the face of higher food prices and loss of income commonly impose a disproportionate burden on women. Zohir et al. (2010) asked people in urban slums in Bangladesh about their coping strategies after the food crisis. The most common strategies revealed by responses and a review of other studies were spending out of savings, borrowing from friends and relatives, and the sale of assets. Households also reduce expenditures by replacing market-bought goods with home-produced substitutes—such as prepared food or fuel wood. They also substitute family-provided services for services previously sourced from outside—such as child-care or elementary health care. Whenever possible, work time tends to increase, with household members who usually do not work—women, children, and the elderly—asked to work. Migrating to places with better employment opportunities is another strategy. Both the substitution of own production for purchased goods and increases in work time (including removal of children from school to work) typically fall disproportionately on women and girls. Evidence reveals that girls, particularly adolescent girls, are the first to be removed from school in times of crisis (Björkman 2006).

Box 2 Food Security Impacts of an Economic Crisis: The 1997–1999 Precedent

The effects on food security of an economic crisis have been well documented in Asia following the 1997–1999 financial crisis in that region. Reviewing the literature on its nutritional impacts, Bhutta et al. (2009) found that in Indonesia the financial crisis led to an increase in infant mortality of about 14 percentage points; a rise in childhood anemia of 50%–65%; and increased maternal anemia by 15%–19%. In the Philippines, the diarrhea rate among the elderly doubled while public health expenditures declined 6%. In Thailand, maternal anemia increased 22% and the prevalence of low birth-weight infants rose. In countries most affected, infant and under-5 mortality and undernourishment rates rose substantially.

A survey of households in rural Java, Indonesia revealed significant nutritional effects in 1997–1998. Mothers were found to buffer children’s caloric intake, resulting in increased maternal wasting. Reductions in consumption of high-quality food increased the prevalence of anemia in both mothers and children. The effects of maternal undernutrition were particularly severe for babies conceived and weaned during the crisis (Block et al. 2004).

These findings are confirmed, in part, by a study of Indonesia, the Lao People’s Democratic Republic, the Philippines, Thailand, and Viet Nam. It found that impacts could range from increased poverty, deteriorating public health services, food insecurity, and malnutrition, to threats to public health and education. However, there were strong variations from country to country. In both Thailand and Indonesia, food prices increased significantly in 1997–1999. In Thailand, no significant nutritional outcomes were detected except for a reported increase in the incidence of anaemia in pregnant women. Indonesia, however, evidenced increased prevalence of micronutrient deficiencies (especially vitamin A) in children and women of reproductive age, and increased wasting among poor women. In the Philippines, food price increases were moderate, and malnutrition among children under 5 years old was found to have decreased overall. However, serious problems were reported among vulnerable groups, especially in urban areas. The likelihood of malnutrition among the poor was forecast, with the risk of a decline in both protein and calorie availability greatest in the poorest quintile of the population.

In Viet Nam, the study found that prices remained relatively stable, and the malnutrition rate (height/age deficit) in under-5s declined. The Lao People’s Democratic Republic exhibited a chronic nutrition problem predating the crisis, and prices of basic food commodities increased five- to tenfold in 1997–1999. Inadequate food intake affected approximately one-third of households, and both acute and chronic malnutrition prevalence were high by regional standards. However, due to a lack of data, it was not possible to measure change resulting from the economic crisis (Australia Agency for International Development 2000).

It is striking that while there is evidence that the employment effects of the financial crisis disproportionately affected women (Mahmood et al. 2001), the studies on the nutritional impacts of the 1997–1999 crisis did not consider the specific effects on women and girls—probably due to a lack of sex-disaggregated data.

Source: Bhutta et al. (2009); Block et al. 2004; Australian Agency for International Development (2000); Mahmood and Aryah (2001).

Women and the Global Financial and Economic Crisis

The economic impacts of the current global financial and economic crisis are also strongly gendered (Praparpun 2010; Green et al. 2010; Asian Development Bank [ADB] and ILO 2011, chap. 3). As a result of the recent financial and economic crisis, women in East Asia “suffered disproportionately from industrial downsizing” as they are “overrepresented among low-skilled workers employed in manufacturing” and are “the first to get fired as companies engaged in a strategy to retain skilled employees, who were primarily men” (Heltberg, Hossain, and Reva 2012, p. 34). Some sectors have been more severely affected than others by the slump in demand. Included are textiles, garments, electronics and electrical goods, footwear and leather products, cars and auto parts, construction, and tourist hotels and restaurants. These sectors are characterized by a ratio of 2–5 female workers for each male worker. Consequently, women are disproportionately affected by falling exports.² The 1997–1999 crisis exhibited a similar effect: 53% of workers laid-off were women because of their stronger representation in the hard-hit export sector (Mahmood and Aryah 2001).

Women’s employment is generally a first “adjustment variable” for businesses. Women are more frequently employed with short-term (temporary) or part-time contracts. Additionally, gender norms lead to the perception of men as the more legitimate jobholders when work is scarce. A global survey in 2005 found that almost 40% of those interviewed agreed that when jobs are scarce, men have more right to a job (Seguino 2009).³ Thus, women were laid off at 7 times the rate of men in the Republic of Korea as a result of the 1997–1999 crisis (Seguino 2009). This pattern has been repeated in the current financial and economic crisis. A 2009 study of the Philippines, Thailand, and Viet Nam sought to identify the gender composition of industries most affected by the global economic crisis, and the respective positions of women and men in (i) access to formal versus informal employment, (ii) skill level, and (iii) pay level. The study revealed a high concentration of women in non-regular employment, unskilled and semi-skilled jobs, and low pay levels. These are all categories of workers that are likely to be the first to lose their job in times of crisis, and to suffer heavily from a decline in living standards (King-Dejardin and Owens 2009).

A global survey in 2005 found that almost 40% of those interviewed agreed that when jobs are scarce, men have more right to a job

While women tend to be the first to lose their jobs in an economic slowdown, heightened competition during such episodes may result in wage cuts and extended work hours for those remaining employed (Chhibber, Ghosh, and Palanivel 2009). Recent developments confirm this trend in the garment industry in Bangladesh and Sri Lanka, in electronics factories in Thailand and the Philippines, and in a range of exporting sectors in India (Ghosh 2009). This is not contradicted by findings in some regions that, compared to women, men’s self-esteem is more likely to be diminished by the loss of employment or reduced salary, resulting in higher incidence of male depression and/or alcoholism in times of crisis. Women, on the other hand, have generally not exhibited the same reactions when required to adjust to new conditions, even if it implies moving to lower-paying occupations, working longer hours, or accepting degraded working conditions. The burdens imposed on them in times of crisis have been especially significant, because of what is perceived to be their better “resilience”—an ability to cope that has often served, unfortunately, as a justification for inordinate impositions and sacrifices. Thus, it was reported from focus groups in Kazakhstan that:

men are concerned about their social status, and women are concerned about the well-being of their family and children. Women are seen as being more flexible and quick to adjust to new conditions, being ready to do any kind of work to feed their children. They are perceived as more willing to change their professional specialization and sector of employment and to look for jobs proactively. This flexibility in adjusting job expectations to changed economic circumstances was seen as a positive element of women’s responses to the crisis, allowing them greater resilience to labor market shocks (Heltberg, Hossain, and Reva 2012, p. 151).

² For a focus on the Philippines, Thailand, and Viet Nam, see King-Dejardin and Owens (2009).

³ See <http://www.worldvaluessurvey.org/>

Women and the Ecological Crisis

The current ecological crisis and, especially, climate change impacts, are foreseen affecting women disproportionately. The prevailing mechanisms of intra-household allocation are expected to result in increasing undernourishment of women and girls as food prices go up. Additionally, given their predominance as small-holder agricultural producers, women will be particularly hard-hit by climate change due to their lower bargaining power and discriminatory practices in the agriculture sector. Declining yields will diminish their ability to feed their families, or will result in loss of purchasing power, particularly for the poorest rural households who are net food buyers. Many of these households survive by combining food production for their own consumption with income-generating activities.

Another factor contributing to the marginalization of women and girls is their time poverty resulting from the triple burden of combining production responsibilities, household chores and care responsibilities, and community care work. Time poverty may increase with climate change, as it could well be more difficult for women to secure water, food, and fuel for cooking and heating (Parikh and Denton 2002; UN Women Watch 2009).⁴ Climate change will reduce food security, not only because of the reduced availability of productive resources and its affect on food supplies, but also because of expected reductions in time for caring practices (Tirado et al. 2011). The anticipated increase in burdens on women and girls implies a diminishing of their capacity to exploit opportunities for income-generating activities or education (Tirado et al. 2011; Masika 2002).

Another factor contributing to the marginalization of women and girls is their time poverty resulting from the triple burden of combining production responsibilities, household chores and care responsibilities, and community care work

Climate change will also disproportionately affect women and girls because of their greater vulnerability to extreme weather-related events—such as droughts and floods—due to gendered norms in society. Common restrictions on the mobility of women, for example, mean that women are less likely to get emergency information in time, and are less able to escape from affected areas (Climate Change Cell 2009, p. ii; del Ninno et al. 2001). Further, key decisions concerning preparedness and adaptation strategies are often left to men, with women excluded from decision making processes (Cronin et al. 2004). As noted in the 2010 *State of Food Insecurity in the World*, dedicated to food security in protracted crises:

Differences in gender roles and impacts result in part from unequal access by men and women to assets, economic opportunities, services, crisis aid and decision making. For example, in many societies women tend to be less educated, less involved in the formal economy, less experienced in dealing with authorities, endowed with fewer and poorer quality productive resources, and faced with more restrictions on their mobility than men. Men and women are often affected very differently in crisis situations...[Men] may migrate in search of alternative employment, while women take on a higher proportion of work previously handled by men. These differences influence what resources women and men can draw upon in crisis situations, and thus their ability to respond (FAO and WFP 2010, pp. 21–22).

Breaking the Cycle of Gender Discrimination

Gender-based discrimination is often difficult to disentangle from other types of economic and social marginalization, such as geographic location, community membership and social affiliations (i.e., caste, ethnicity, race), and (often stigmatized) occupation (e.g., individuals working in the meat or leather industry in India). These various types of marginalization intersect with gender in ways that are often correlated and self-reinforcing.

⁴ For illustration of the impacts of deforestation in Nepal, see Kumar and Hotchkiss (1988).

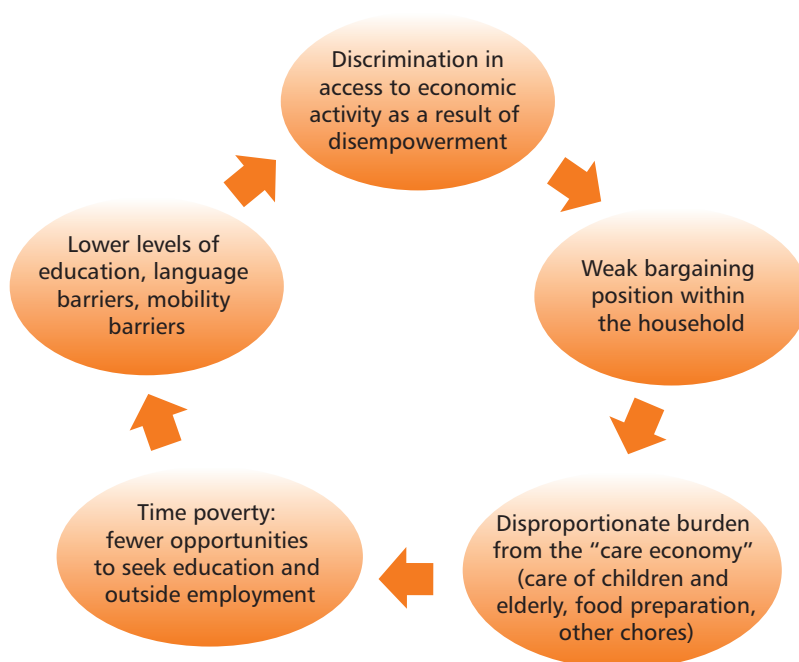
Gender thus deserves marked attention. Women face various forms of discrimination as economic actors, whether self-employed or waged workers, whether working on-farm or off-farm. Such discrimination diminishes their economic autonomy and contributes to their weak bargaining position within the household. In part because of this, their assumption of household responsibilities and care duties continues to be common. The care economy in particular aggravates women's time poverty because care responsibilities require additional time apart from work in production activities. They typically work more hours than men, but much of their work is in the informal sector, including in family or household production activities. This work is typically unremunerated, and generally undervalued and unrecognized. Because girls often have less time to invest in education, women commonly achieve lower levels of education than men and thus have fewer employment opportunities outside the home. The dearth of opportunities is often reinforced by discrimination in the labor market, with all these forces acting in concert to discourage women from improving their qualifications. These realities may further feed into negative prejudices about women's ability to perform as well as men. A lack of recognition of reproductive rights is part of this cycle. Marrying early means having children early and taking care of them. This may well interrupt the education of the mother, or make it impossible or difficult for her to seek employment. It is this cycle of gender discrimination that must be broken (Figure 3).

Worldwide, there are strong regional differences in the extent of discrimination against women and girls. Within Asia and the Pacific, South Asia lags in eliminating such discrimination and in ensuring that women can participate, on an equal footing with men, in decision making. One indicator of the obstacles women face in South Asia is that

while most South Asian countries have available food stocks and better health and education services in comparison to many other developing countries, even most countries of food-deficit Sub-Saharan Africa (SSA) score higher in terms of the nutrition levels of their women and children (Ramachandran 2006, p. 1).

Worldwide, there are strong regional differences in the extent of discrimination against women and girls. Within Asia and the Pacific, South Asia lags in eliminating such discrimination and in ensuring that women can participate, on an equal footing with men, in decision making

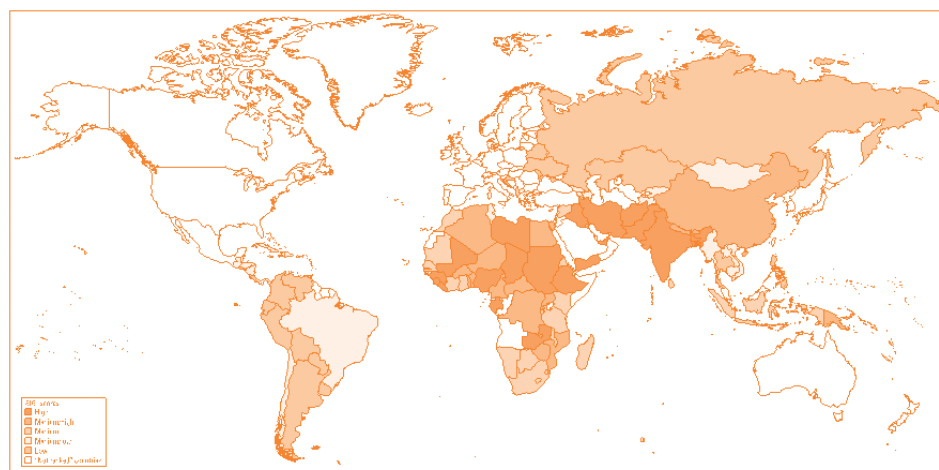
Figure 3 The Cycle of Gender Discrimination



Source: Author.

Indeed, while sub-Saharan African countries consistently rank lower than South Asian countries in Human Development Index (HDI) indicators, women- and child-specific nutrition indicators—such as infants born with low birth weights and the percentage of undernourished children below 5 years of age—are generally better in the sub-Saharan Africa region. Sri Lanka is the major exception to this pattern. The level of discrimination Asian women face in different spheres is illustrated by the OECD map (Figure 4). Using the composite Social Institutions and Gender Index (SIGI), countries are distinguished according to how they score on the index, with “high” corresponding to a high level of discrimination.

Figure 4 Ranking of Countries according to the Social Institutions and Gender Index, 2010



Notes: The Social Institutions and Gender Index Index ranks countries according to a composite of indicators related to family code (factors which influence the decision making power of women in the household with respect to early marriage, polygamy, parental authority, and inheritance); physical integrity (violence against women and the existence of female genital mutilation); son preference (reflecting the economic valuation of women, based on the variable “missing women”, which measures gender bias in mortality due to sex-selective abortions or insufficient care given to baby girls); civil liberties (measuring women’s freedom of social participation through freedom of movement and freedom of dress); and ownership rights (covering women’s rights and de facto access to several types of property, and including women’s access to land, to property and to credit) (www.genderindex.org).

Source: OECD (2010). Organisation for Economic Co-operation and Development (OECD) Development Centre. 2010. *Atlas of Gender and Development. How Social Norms Affect Gender Equality in Non-OECD Countries*. Paris: OECD.

Better Availability— Improving the Productivity of Women Food Producers



In their role as food producers, constraints to women's access to productive resources (e.g., land, credit, and inputs) and services (particularly extension services) results in lower levels of output, as documented in FAO's report on gender gaps in agriculture (FAO 2010). For rural women, access to land in conditions that ensure security of tenure is the single most important condition for economic empowerment. This is because access to most other productive resources is conditional on land ownership, and because land is often a condition for social inclusion.

Access to financial services, for instance, is largely dependent on security of land tenure. FAO notes that while all smallholders face constraints in their access to financial resources, "in most countries the share of female smallholders who can access credit is 5–10 percentage points lower than for male smallholders" (FAO 2010, p. 38). Lack of access to credit diminishes the amount of assets female smallholders can marshal, thereby perpetuating a gender asset gap in most regions. Within Asia, however, the PRC appears to be an exception (FAO 2010, p. 34). Where it does exist, the gap is one that is difficult to bridge. In Bangladesh, where microcredit programs are particularly strong, the change in the percentage of women receiving loans was minimal despite the emergence of programs specifically geared toward them (FAO 2010, p. 34).

Access to inputs and technology is decisive in explaining differences in yields between male and female smallholders. The greater capacity of men to command labor, both from (unremunerated) family members and from other members of the community, is a clear example. When researchers from the International Food Policy Research Institute (IFPRI) reviewed existing literature on use of fertilizer, seed varieties, tools, and pesticide, they found that 79% of the studies concluded that men have higher mean access to these inputs (Peterman, Behrman, and Quisumbing 2010, p. 6). One study in Burkina Faso found productivity on female-managed plots there to be 30% lower than on male-managed plots within the same household because labor and fertilizer were more intensively applied on men's plots (Udry 1996). Yet, the literature also shows that with equal access to inputs, yields for men and women are very similar (Udry et al. 2005). FAO concluded that

if women had the same access to productive resources as men, they could increase yields on their farms by 20–30 percent. This could raise total agricultural output in developing countries by 2.5–4 percent, which could in turn reduce the number of hungry people in the world by 12–17 percent (FAO 2010, p. 40).

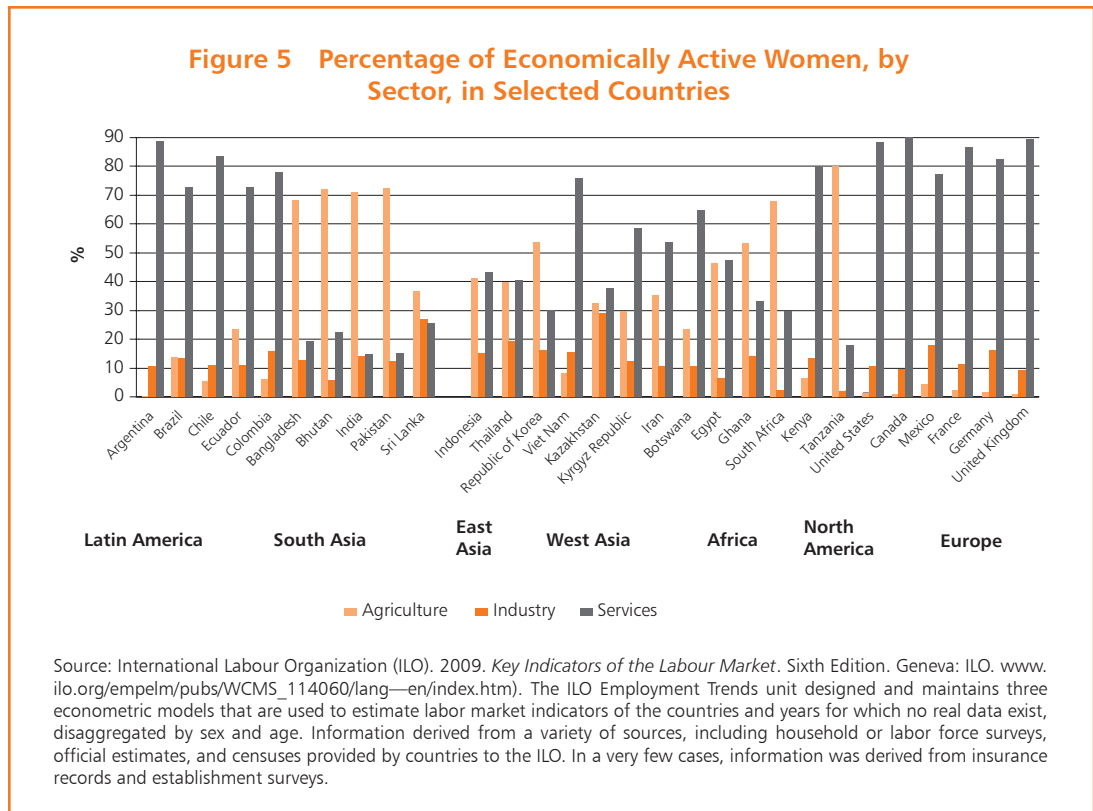
This is especially important today due to the gendered nature of the agrarian transition. During this transition, the importance of the agriculture sector gradually diminishes in terms of its relative

"If women had the same access to productive resources as men, they could increase yields on their farms by 20–30 percent. This could raise total agricultural output in developing countries by 2.5–4 percent, which could in turn reduce the number of hungry people in the world by 12–17 percent"

contribution to GDP and employment. The agrarian transition is gendered in two ways. First, men tend to exit first from agriculture, resulting in growing feminization of agriculture—as measured by the ratio of women and men working in the sector. In some Asian countries, the share of women in agriculture has remained stable in recent years at 40%–50% of the total agriculture workforce (30% in India). It has even declined in Malaysia and the Philippines. However, it has increased in the PRC (now at about 48%), and especially in Pakistan (now at 30%, triple the level of 30 years ago) and Bangladesh (above 50%) (FAO 2010, p. 9). These countries are following a trend seen elsewhere.⁵

Feminization is also occurring in the livestock subsector. Globally, women represent two-thirds of the 600 million poor livestock keepers in the world (FAO 2010). Their role is particularly important in a number of Asian intensive livestock systems, where it is estimated that more than three-quarters of livestock-related tasks—such as feeding, animal care, and milking—are performed by women (Tipilda and Kristjanson 2009). In India, women account for 55% of livestock farming labor, while their participation in work related to the care of animals is above 77%, and they represent 93% of people employed in the dairy subsector (RNCOS 2006).

A second indicator of the gendered nature of the agrarian transition is reflected in the high proportion of women whose main employment is in agriculture. South Asia stands out as the region with the highest proportion of women whose main occupation is in the agriculture sector (Figure 5 and Table 2).



⁵ For Latin America, see Deere (2005).

Table 2 Representation of Women, by Sector, in the Economies of Selected of Asian Countries

Country	Year	Age Group	Agriculture	Industry	Services
Bangladesh	2005	15+	68,1	12,5	19,4
Bhutan	2006	15+	72,1	5,6	22,4
India	2005	15+	71	14,4	14,6
Indonesia	2007	15+	41,4	15	43,5
Iran	2007	10+	33,1	29,1	37,8
Kazakhstan	2007	15+	29,7	12	58,3
Republic of Korea	2007	15+	8,5	15,3	76,2
Kyrgyz Republic	2006	15+	35,4	10,7	53,9
Pakistan	2007	10+	72,4	12,6	15
Sri Lanka	2007	10+	36,8	27,1	25,6
Thailand	2007	15+	40	19,2	40,7
Viet Nam	2006	15+	53,8	15,9	30,3

Notes: The graph and table represent the ratio of employed females to employed males. The overall ratio includes all employment sectors. Indicator calculations: Employed females divided by employed males.

Source: For both graph and table: International Labour Organization (ILO). 2009. *Key Indicators of the Labour Market*. Sixth Edition. Geneva: ILO. www.ilo.org/empelm/pubs/WCMS_114060/lang—en/index.htm. The ILO Employment Trends unit designed and maintains three econometric models that are used to estimate labor market indicators of the countries and years for which no real data exist, disaggregated by sex and age. Information derived from a variety of sources, including household or labor force surveys, official estimates, and censuses provided by countries to the ILO. In a very few cases, information was derived from insurance records and establishment surveys.

The feminization of agriculture forms a general trend across all countries, but is more pronounced in South Asia than in other regions of Asia and the Pacific

The feminization of agriculture forms a general trend across all countries, but is more pronounced in South Asia than in other regions of Asia and the Pacific (Table 3).

Table 3 Percentage of Women and Men Working in the Agriculture Sector in Asia and the Pacific in 2000 and 2011

Region	Women		Men	
	2011	2000	2011	2000
East Asia	39.3	55.8	32.2	41.0
Southeast Asia and the Pacific	43.9	51.2	42.5	48.6
South Asia	68.8	74.9	44.4	53.4

Source: International Labour Organization (2012).

There is a strong correlation between general indicators of gender inequality, such as the Social Institutions and Gender Index, and the indicators of feminization of agriculture reviewed here. In South Asia, the percentage of men employed in the services sector is double that of women (32.5% against 15.9%) according to the ILO.

Data concerning the feminization of agriculture should be treated with caution, however. Cross-country comparisons are difficult to make, not least because not all countries generate or analyze sex-disaggregated data regularly and consistently. Where comparisons can be made, data shows that there can be strong variations between countries within the same region. In South Asia in 2003–2005, for example, agricultural employment represented 46% of total female employment in India, 60% in Bangladesh, and about 40% in Sri Lanka (FAO, IFAD, and ILO 2010, p. 8). In addition, data concerning employment in agriculture are inadequate to provide a full understanding of women's work across the agriculture value chain because of different perceptions about what constitutes "work."

Moreover, the share of women’s employment in agriculture varies from crop to crop, and from animal to animal in livestock. In the PRC for instance, the traditional division of labor has women raising pigs and chickens, and men taking cattle, sheep, and goats to mountain grasslands for grazing (Shen and Qian 2009). In Nepal, women are responsible for forage collection, transportation, and feeding animals, whereas men do the milking and sale of milk (Paudel et al. 2009). It also varies from activity to activity, with planting, for instance, more frequently practiced by women, whereas plowing is generally performed by men. It also differs from age group to age group. The younger female cohorts usually join off-farm employment in greater numbers, whereas relatively older women (beyond the age of 35) tend to remain in rural communities even as rural-to-urban migratory patterns develop (Pang, de Brauw, and Rozelle 2004; Zhang, de Brauw, and Rozelle 2004).

Underreporting of women’s activity in agriculture is another major obstacle. The role of women in agriculture is often not well recognized, due partly to the fact that women’s work in subsistence agriculture is often part of the non-cash economy of the household (since little or none of the output gets marketed). Such work may thus not be classified as productive activity and is often not reported or recorded in official accounts, including agriculture or population censuses. This may explain, for instance, some disagreements among scholars as to the extent of the feminization of agriculture in the PRC (de Brauw et al. 2008; de Brauw et al. 2012; Chang, MacPhail, and Do 2011; and Mu and van de Walle 2011).

Despite methodological difficulties, available data clearly show that in many regions undergoing a rapid rise in industry and services as well as urbanization, both migratory patterns and agrarian transitions (the two often combined) are strongly gendered. Men more than women are likely to exit agricultural work at home and seek income in other sectors. Men migrate first, for longer periods and to more distant destinations, in part because of social norms concerning gender roles. Higher levels of education, on average, provide men more opportunities for off-farm employment.

Women who are left behind sometimes must shoulder debts incurred to support the migration of men, in addition to coping with and managing household production activities. This may cause women to abandon household production and take up waged labor in their vicinity, as has been seen in Nepal (personal communication, 2013). They must, in any case, shoulder the burden of production work on the family plot of land and meet the bulk of household food security needs in addition to their reproductive and care work. Remittances may offer support, enabling the purchase of inputs or the hiring of labor for more heavy tasks not generally seen as suitable for women. This appears to be quite common in Southeast Asia, where the productivity of land can be maintained in part thanks to remittances (Paris et al. 2009). Weak or nonexistent legal protection and rights to property ownership, as well as cultural and social norms, however, may severely limit women’s ability to improve productivity as much as they could in the absence of such barriers. Reconciling a role as small-scale food producers with their care responsibilities may also be difficult for women, an obstacle men agricultural producers typically do not face. This has raised concerns about the impact of feminization of agriculture on local food security if women are less productive than men (UNDP 2003).

There are exceptions to this pattern. In countries such as Malaysia and Sri Lanka, young women in particular out-migrate to urban centers to work at transnational production sites or free trade zones. Well-documented tensions are often created between the traditional values of the peasant society from which the women originate and the values at industrial sites where they work (Ong 1987).

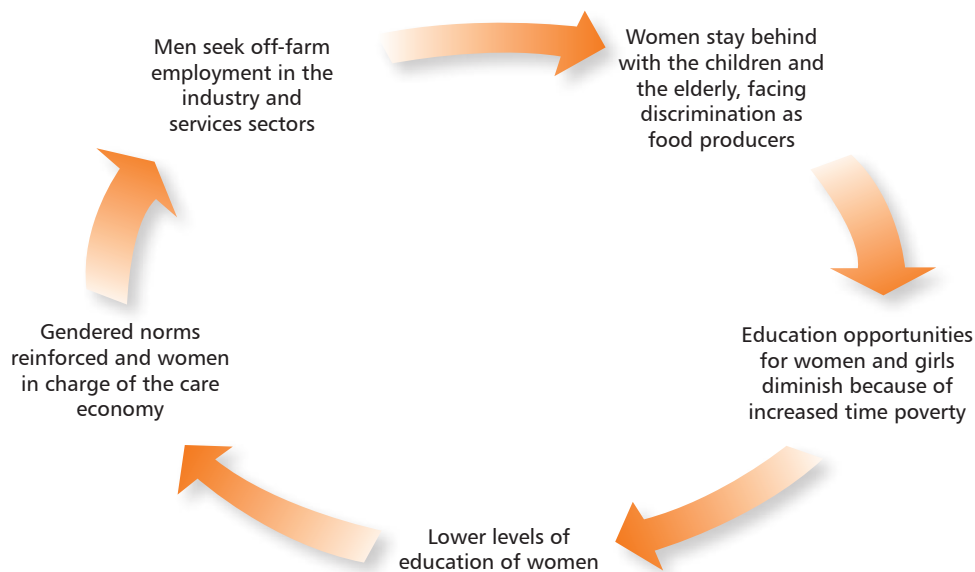
Young women from Cambodia, the PRC, the Philippines, and Sri Lanka, as well as other countries in Asia and the Pacific, increasingly migrate to other countries (particularly in the Middle East) to serve as domestic workers, or sometimes as sex workers (especially in Thailand and Malaysia) (Adams and Dickey 1999; Brochmann 1993; Henshall 1999; Mason 1999). Female migrants formed three-quarters of those migrating from Sri Lanka, and over half of those migrating from the Philippines

in recent years (United Nations Research Institute for Social Development [UNRISD] 2005). They often become part of heavily segmented employment markets (Salazar Parrenas 2001). While precise data are lacking, UNRISD estimates that by 2002 there were at least 1.3 million foreign women working in the major labor-importing countries in East and Southeast Asia, including Japan, the Republic of Korea, Malaysia, Singapore, and Thailand. These women constituted a high proportion of the total immigrant labor force in some of these countries (UNRISD 2005, p. 115). The illegal and often clandestine nature of prostitution and the associated trafficking and exploitation, severely limits data on these activities, but the phenomenon is known to expand in times of economic crisis (Lean 1998). Studies of the moral and social repercussions of outmigration for women show that even when women contribute income to meet household and family needs, it is not always directly correlated with an increase in their valuation (Gunewardena and Kingsolver 2007).

Expanding opportunities for women outside agriculture, particularly by raising the level of education of women and by delaying the age of marriage, is crucial to countering these trends. Challenging the existing segmentation of the labor markets is also required. Women are now often relegated to the lowest-paying jobs and to the informal sector, particularly in the care economy—one of the few sectors where, as domestic workers often migrating from their families, they are overrepresented (FAO, IFAD, and ILO 2010, p. 12). The creation of more opportunities for women requires that parents be provided incentives to invest in the education of girls. However, improved access of women to waged employment, especially off-farm, is only part of an appropriate response to the feminization of agriculture. Given the gendered nature of the agrarian transition and the large number of women that depend on agriculture, it is equally important today—and urgent—to improve women’s prospects as producers (Figure 6). Past practices of providing support to agricultural producers on a gender-blind basis has usually resulted in all intended beneficiaries being treated as if they were men. This has proven misguided. Inadequate attention to the specific needs of women commonly results in them being left out (World Bank 2007b).

Expanding opportunities for women outside agriculture, particularly by raising the level of education of women and by delaying the age of marriage, is crucial to countering these trends

Figure 6 The Gendered Nature of the Agrarian Transition



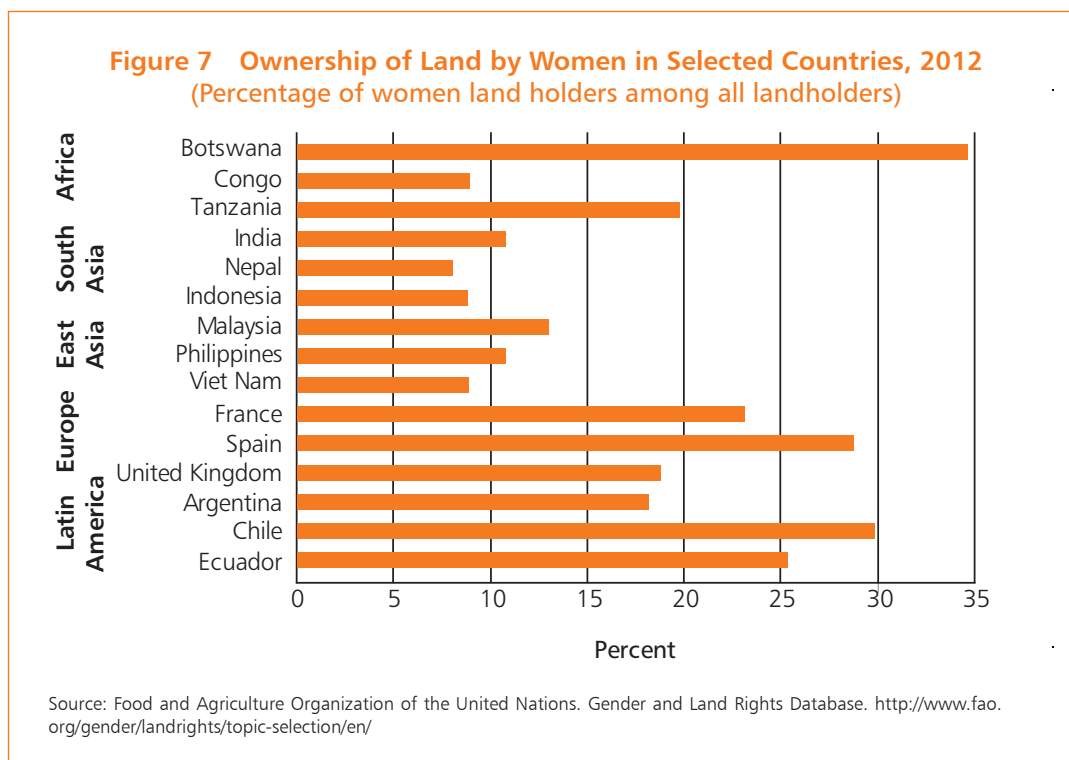
Source: Author.

The following sections explore the principal obstacles women face in Asia and the Pacific as food producers: inadequate access to land, extension services, financial services, and markets; and little benefit from agricultural research and development efforts. They assess the nature of these obstacles, and describe gender-sensitive approaches to their removal. They also draw attention to critical choices and dilemmas implicit in such policy decisions. The role of women in the fisheries and aquaculture sector is discussed in the final section.

Access to Land

A major source of discrimination women face is in access to land, particularly in South Asia (Agarwal 1994). Land is the most valued form of property and a source of livelihood security in rural areas. It acts as a buffer against economic shocks, providing “almost complete insurance against malnutrition” as it reduces the dependency of the household on market prices for food commodities (Carter 2003; Deininger and Binswanger 1999, p. 256). For women, land is a pivotal resource for meeting subsistence needs, and for accessing other goods and services, such as credit. Access to credit often depends on the ability to use land as collateral. This is why the issue of access to land is addressed in this discussion of women as food producers.

For women, land is a pivotal resource for meeting subsistence needs, and for accessing other goods and services, such as credit. Access to credit often depends on the ability to use land as collateral



Data on ownership of land and other property is collected only at the household level in most asset surveys and censuses. Where data are disaggregated by sex, the results speak for themselves. In Nepal, for example, the first census in 2001 to collect sex-disaggregated ownership data representative of the national level showed that in only 10% of male-headed households were women recognized with some ownership of land. In 22% of female-headed households women owned land, while in 14.9% of the total number of households women owned land (Dabadi 2009). The picture has improved slightly, in part thanks to reform in 2006 of the regulation of inheritance of land and land ownership. Introduction in 2006 of a tax rebate—rising from 10% in 2006 to 25% in 2009—if land is registered in a woman’s name also helped (Singh Shrestha 2010).

However, the overall pattern is disquieting. In the Indian southern state of Karnataka, a survey collected asset ownership information for all physical and financial assets at the individual level. It found that only 9% of women in rural areas own any land, as compared to 39% of men (Swaminathan, Suchitra, and Lahoti 2011, p. 21). Figure 7 compares women’s ownership of land in a sample of Asian countries to that in countries in other regions, using the percentage of deeds including the name of the woman as an indicator of ownership.

What are the obstacles to improved access to land for women? Women acquire land from their family—via inheritance from the natal family or, as a gift, upon marriage; through government land allocation programs; or by purchasing it. The following sections examine each of these modes of access separately.

Access and Women’s Rights of Inheritance and in Marriage

A common problem as regards acquisition of land through inheritance or in marriage is that social customs may be at odds with legal reforms that seek to achieve gender equality. Even when women inherit land, for example, the decision making power over such land may be assumed primarily by males in the family and by the husband upon marriage. Land registration practices in some countries record only the name of a male, based on the assumption that the male is head of the family, thereby limiting women’s rights to the land.

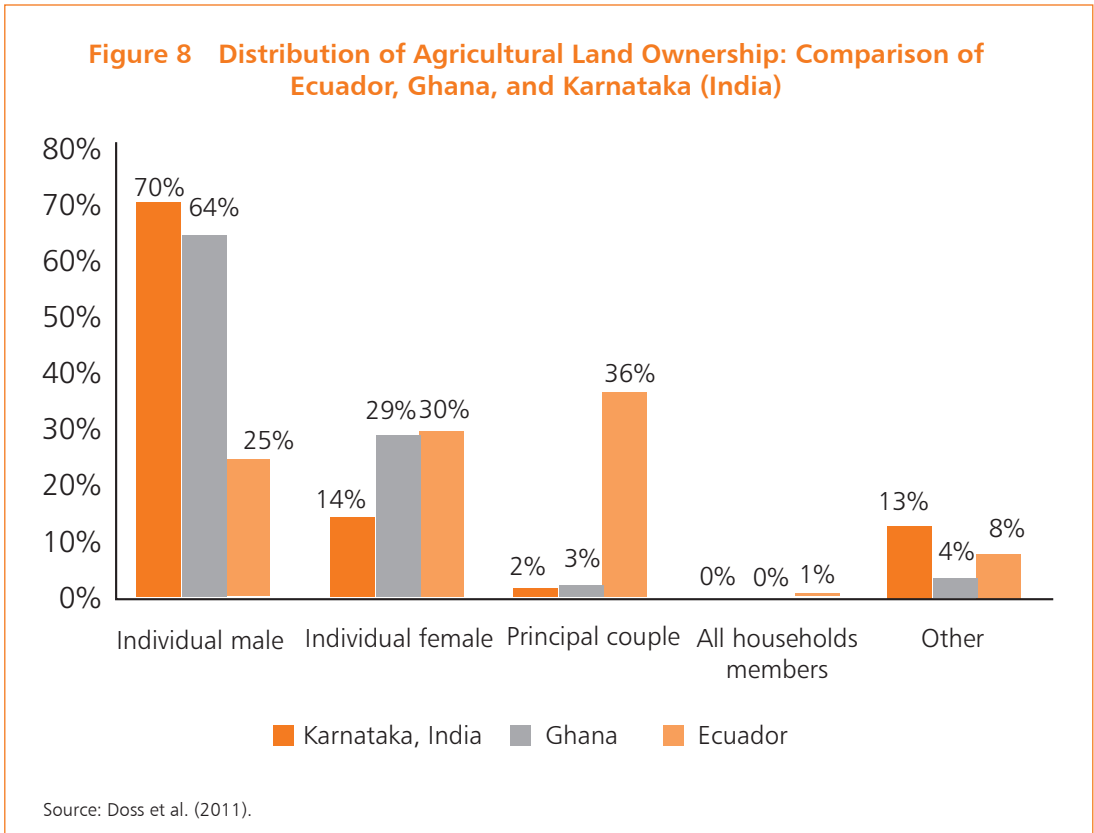
Women have been denied equal inheritance rights to property in several countries. A study of inheritance laws in six countries in South Asia found that women’s inheritance rights are severely restricted by laws and customs that govern family and social relations. Formal laws sometimes discriminate indirectly, by deferring to customary or religious laws. Discrimination is particularly notable in Pakistan and northwestern India, but these are by no means the only regions of concern. Bangladesh, for instance, follows Muslim religious laws for inheritance, which stipulate that a daughter inherits one-half the share of her brother, a wife can claim one-eighth of the property, while a mother gets one-sixth (Ramachandran 2006).

Traditional norms and the status of women in society may restrict women from inheriting land or other assets even if formal laws are gender neutral. In the PRC, women account for between 60% and 70% of all farm labor, in large part due to migratory patterns in which men, more frequently than women, seek employment outside agriculture (de Brauw et al. 2012). Though the Marriage Law gave women the right to land within the household unit and the Agrarian Reform Law granted men and women equal rights to land in general, in much of rural PRC customary practices prevail. Sons, rather than widows or daughters, continue to be considered the natural heirs of land (OECD 2010, p. 25). Further, women’s land rights are seldom reflected in land certificates issued to households. One study showed that only 7% of land certificates were in the name of a woman, while 5% were issued to a man and a woman jointly. The remaining land-use certificates were in the name of the husband, father, or father-in-law (Zongmin and Bruce 2005, p. 276). In India, even after amendments introduced in 2005 to the Hindu Succession Act giving women equal rights to their natal family assets, women’s inheritance of property is rare. (The first reform of the Hindu Succession Act in 1956 guaranteed equal inheritance rights for sons and daughters, but exempted agricultural land [Ramachandran 2006, p. 4].) Women tend to renounce their claim to their entitled natal property in order to maintain good social relations with their brothers. Additionally, women may accept a lump-sum payment in lieu of their property rights in order to preserve visitation rights to the parental home.

There are remarkable exceptions in Asia to this pattern. Bhutan is traditionally matrilineal with daughters inheriting land and other assets from their mothers, and children being treated equally in inheritance laws. Officially, Bhutan allows no discrimination against women socially, economically, politically, or legally. (There are, however, communities in the country where patriarchal norms still predominate [Ramachandran 2006, p. 5].) Where discriminatory social norms exist, they can be displaced only by the requirements of equal treatment imposed under legislation providing

A common problem as regards acquisition of land through inheritance or in marriage is that social customs may be at odds with legal reforms that seek to achieve gender equality

Notably, women’s significant traditional but non-monetary contributions in marriage are not recognized in a regime based on separation of property



women be fully informed about their rights and of the advantages of asserting them. Yet, the illiteracy of many poor rural women, their almost complete lack of legal literacy, and language barriers make achievement of these goals difficult.

Many countries in South Asia also adhere to a separation-of-property regime in marriage. Thus, property bought after marriage is owned not jointly by the couple, but by the person whose name is on registration records. Accordingly, marriage does not automatically confer any legal rights over property acquired by one’s spouse. Instead, assets brought into the marriage or acquired during marriage remain individual property. Where the practice of the bride’s family paying a dowry to the husband upon marriage persists despite legal prohibitions, the dowry would be included as part of the husband’s property. While couples may choose to own assets jointly and open joint savings accounts or put both names on a title deed, this is not a legal requirement. Notably, women’s significant traditional but non-monetary contributions in marriage are not recognized in a regime based on separation of property.

These practices contrast with those in most developed countries and in Latin America, where community of property (joint ownership) is the norm. Under this regime, any property acquired after marriage is generally the joint property of the married couple. A recent study in Ecuador found that due to its community property regime and equal inheritance practices, the gender gap in asset ownership is almost absent (Deere and Diaz 2011). Indeed, a comparison between Ecuador on the one hand, and India and Ghana, on the other, where the rule is the separation of property, shows the considerable differences in ownership of agricultural land (Figure 8). The study explains that while

in Ecuador, the most common form of ownership is by the principal couple, [in contrast], only 2% of land parcels in [the Indian state of] Karnataka and 3% in Ghana are reported as being owned by the principal couple. In Karnataka, 13% of the plots are reported as owned jointly by people other than the principal couple. These plots are often owned jointly by a parent and an adult child; this category also includes joint ownership with a non-household member. In Ecuador, more parcels are owned by individual females than by individual males. This is in stark contrast to Karnataka and Ghana where 70% and 64% of the parcels are owned by individual males respectively (Doss et al. 2011, p. 3).

Access through Government Programs and Use of Communal Land

Women often acquire land through government land allocation programs. Several countries have implemented land distribution schemes as part of land reform, land rehabilitation programs, or as part of anti-poverty programs. In most cases, however, women were not given equal rights under these schemes, with the male head of household given sole ownership of the land. That was the case, for instance, in the Mahaweli irrigation and resettlement scheme in Sri Lanka, as well in a major land reform initiative in the Indian state of West Bengal in the 1980s (Agarwal 2002). More recently, the Government of India has recognized the importance of giving preferential or at least equal status to women in such programs. Several land distribution programs now require joint registration of property in the names of the married couple, or allocation of property only in the names of women household members (Brown, Ananthpur, and Giovarelli 2002). The World Bank and other international agencies and groups recommend that land titling and distribution programs should assert women's equal rights in land and property, and that those rights should be independent of women's civil status (World Bank 2009, p. 155; De Schutter 2011).

Several land distribution programs now require joint registration of property in the names of the married couple, or allocation of property only in the names of women household members

Governments also allocate access user rights in state forests. Since women are the ones chiefly involved in collection of water, firewood, food, and medicinal plants, such access rights are particularly important to them (World Bank 2009, p. 137). In Nepal, the Hills Leasehold Forestry and Forest Development Project, now completed, took an innovative approach to ensure women's participation. User rights to forest land were leased to landless men and women. Households allocated land were responsible for rehabilitating the land and entitled to forest produce for 40 years. Recruitment of women group promoters was given special emphasis to mobilize women's groups for participation in leasehold groups. Training on gender, leadership, basic literacy, and legal rights were provided to women, boosting their participation in the programs. Women participants saved time in collecting forest resources, and saw their active participation as a source of empowerment (World Bank 2009, p. 160).

Communally-owned land (often called the "commons") is frequently used by poor rural families who are landless or land poor for grazing, to raise (most commonly) locally adapted breeds of livestock (FAO 2012a). This usually itinerant or semi-itinerant mode of herding may be seen as mitigating somewhat women's inability to access land. However, the current wave of investment in farmland (leading to large-scale acquisition or leases of land) is a threat for those, such as women herders, who depend on access to communal lands. This global enclosure movement is reducing such access in many developing countries, including a range of Asian countries.

Access through Market Acquisition

Women may typically acquire assets through the market, but low earnings and little collateral most commonly limit this opportunity. Women are not remunerated for the work they do in their traditional roles, and their earnings are typically low when they do have some source of income. They also typically have less knowledge about land markets and legal registration requirements. The combination of these factors may explain why in the Indian state of Karnataka, for instance, only 16% of women land owners acquired land through purchase (Swaminathan, Suchitra, and Lahoti 2011, p. 39).

Access and the Empowerment of Women

The importance of land ownership by women is recognized widely. The *Gender and Agriculture Sourcebook*, prepared jointly by the World Bank, IFAD, and FAO, recommends that land policy promote secure access to land and other natural resources for women, independent of men relatives and independent of their civil status (World Bank online 2009, p. 126). That was pledged in 2010 by the heads of state and government at the High-Level Plenary Meeting of the General Assembly on MDGs, where they committed to promote and protect women’s access to land, property, and productive resources (UNGA 2010, para. 72 [k] and [l]).

The question of access to land is thus not merely an economic issue, linked to improving the productivity of women farmers. It matters also as a source of women’s empowerment and autonomy within the household, and provides women fallback options outside marriage. A study of Indonesian women’s power relative to that of their husbands found that addressing power relationships within households—which can be most easily influenced by strengthening women’s ability to own assets—can have effects that go beyond the purely economic sphere. Women’s ownership of at least 25% of household assets was found to provide benefits in terms of decision making power within the household. Women’s ownership and share of household assets was found to be a significant factor in their capacity to make autonomous reproductive health decisions, limit the number of children, and use prenatal and delivery care (Beegle, Frankenberg, and Thomas 2001). Additionally, women’s ownership of land or other assets has been found to significantly reduce the level of domestic violence inflicted upon them (Agarwal and Panda 2007). This is in part because women who have property can flee marital violence (Friedemann-Sánchez 2006; International Center for Research on Women [ICRW] 2006, p. 12).

Additionally, women’s ownership of land or other assets has been found to significantly reduce the level of domestic violence inflicted upon them

The value of land is not reducible to its value as an economic asset, to be sold or mortgaged as a means of investment in the market economy. Land rights for women “are not primarily marketable assets but rather a secure foundation for sheltering and nurturing their families and making a living” (Lastarria-Cornhiel 2007, referring to Meinzen-Dick et al. 1997). Women’s property ownership has been shown to lead to improved children’s welfare (Doss 2005). The OECD’s Development Centre noted that countries where women lack any right to own land have, on average, 60% more malnourished children compared to countries where women have some or equal access to credit and land. There is clearly a relationship between women’s control of assets, their share in decision making power within the household, and nutritional outcomes (OECD 2010). Land ownership contributes to making a woman’s household more economically secure by enhancing her self-confidence and self-esteem, her role in decision making, and her ability to garner more social, familial, and community support (ICRW 2006, p. 100).

“In addition to tenure security for women,...property ownership increases a woman’s...status as a citizen in the community” (Lastarria-Cornhiel 2007, referring to Meinzen-Dick et al. 1997). Land ownership not only enhances women’s role in household decision making, but also their participation in rural institutions that can augment their decision making power and leverage more collective rights and resources. A recent study on the Indian state of Karnataka highlighted the central role that land ownership plays in facilitating the mobility of women (their capacity to travel alone), and their capacity to make autonomous choices, as a result of the improved bargaining power within the household (Swaminathan, Lahoti, and Suchitra 2012).

Access to Inputs, Technology, and Services

Land rights also serve as an anchor for greater economic and social bargaining power. To a large extent, constraints in access to land cannot be dissociated from access to other productive resources that can augment farmers’ productivity—i.e., credit, inputs such as high-quality varieties of seeds and inorganic fertilizers, farming equipment, and extension services. The mutually reinforcing

nature of the different forms of discrimination women face as well as the complementarities between different agricultural inputs make it difficult to disaggregate the various obstacles women encounter when seeking to improve their productivity as farmers.

Where women do not have a secure title to land, for example, they lack the collateral required for credit. Women's access to other key inputs and services also is affected, including extension services, since their ability to interact with extension workers depends also on their social status within the community. This is confirmed by a recent comprehensive literature review comparing the results of empirical studies published between 1999 and 2009 on gender differences in access to agricultural inputs other than land (Peterman, Behrman, and Quisumbing 2010), and by the synthesis provided by FAO's 2010 *State of Food and Agriculture Report* (FAO 2010). Paucity of data complicates assessment, however, particularly in Asia and the Pacific. Most literature and case studies providing gender-specific analyses of access to agricultural inputs and services focus on sub-Saharan Africa or, to a lesser extent, Latin America.

Despite the limitations, some preliminary conclusions can be drawn from available data. Women, on average, own less land than men, for the reasons already described. The plots managed by women are generally smaller than those managed by men. Women also are generally less well educated than men. While the educational gap between girls and boys is narrowing in many regions, progress is slower in rural areas than within urban populations. Additionally, women experience specific difficulties in bringing their produce to market. Women commonly suffer restrictions to their mobility as a result of social norms and household care responsibilities. Further, buyers tend to deal with men, acting on the presumption that it is men who own and manage the land.

All these obstacles matter. Although access to land is a key determinant, it is not the only factor reducing the productivity of female-managed plots. A number of other obstacles can constrain women's productivity. The following examination of women's access to extension services, financial services, and agricultural research and development efforts demonstrate that the specific needs of women tend to be ignored—in both services provision and the design of technological innovations. A major reason for this is the presumption that modes of support for farmers that are adequate for men will automatically benefit women. The discussion that follows shows how greater sensitivity to the specific needs of women would produce better results. Resources invested could be used more efficiently if the limits of such a presumption were better understood.

Where women do not have a secure title to land, for example, they lack the collateral required for credit

Gender-Responsive Extension Services

Extension services can be reformed to better serve women. A 1988–1989 survey covering 97 countries found that only 5% of extension services were addressed to rural women, and only 15% of extension advisors were female (FAO 1993; FAO 1996). More recently, 16 researchers from the World Bank and IFPRI identified large gender inequalities in access to extension services in surveys made in Ghana, Ethiopia, and the Indian state of Karnataka (World Bank and IFPRI 2010). In Karnataka, 27% of male-headed rural households reported having received visits of an agricultural advisor during the previous year. Only 20% of female-headed households reported such visits. The gap was smaller, however, for livestock-related extension services (advice to 78% of male-headed households versus 71% to female-headed households). Researchers attributed the difference to the importance of dairy cooperatives in the Indian context, as cooperatives tend to be more gender-neutral.

The failure of extension services to benefit women farmers as much as men seems to be attributable to four factors. One is a striking underrepresentation of women among extension services agents (De Schutter 2010b, para. 41). World Bank and IFPRI (2010) notes that in Karnataka, none of the 41 agriculture extension workers were female, only 1 of 41 junior engineers was female, and only 4 of 40 veterinary assistants were female. This matters because, in some contexts, religious, social, or cultural rules may prohibit contact between a woman farmer and a male agricultural

agent—especially when the woman is single, widowed, or abandoned. Female extension agents may also experience such constraining norms and rules affecting their ability to work in the field. Male agents, on the other hand, may have less understanding of the specific constraints faced by women, such as time poverty, limits on mobility, and the gendered division of tasks in agricultural work.

A second factor is the common presumption of extension services that knowledge transmitted to men automatically trickles down to women and benefit the latter equally. Extension workers often assume that men are the only producers in the household and the sole decision-makers regarding household farming activities. This virtually ensures that women will not receive at least some of the knowledge required to enhance their agricultural productivity, and that their participation will be severely limited in key production decisions: e.g., what to plant, whether to sell, to whom to sell and at what price, and whether to invest.

This presumption also reinforces preexisting imbalances in decision making within the household. Additionally, it neglects the fact that the needs and priorities of women may be different than those of men. The knowledge they demand will most likely correspond to the specific constraints they face—e.g., a very limited command over labor, fewer options for buying and transporting external inputs, and social or cultural norms that discourage use of certain machinery.

A third factor relates to women’s time poverty. Because of the many and conflicting demands on their time, attendance is difficult at meetings organized by agricultural advisors and held outside the home or during hours when women must attend to children and other inflexible duties. This difficulty also applies to the need for travel and lengthy periods of attendance. Training in Papua New Guinea by the United States Agency for International Development could not be attended by most women because of the required travel and 3 days away from family responsibilities (Cahn 2008).

A fourth factor is institutional participation by women within community organizations that is different from that of men. A 2010 survey by the World Bank and IFPRI and by an earlier study of 304 rural households in the Philippines found that women generally join women self-help groups or women’s groups, whereas men tend to socialize in cooperatives or other producers’ organizations. Godquin and Quisumbing summarized their main conclusions

Males are more likely to be members of production groups, while females are more likely to participate in civic groups. This may indicate a division of labour within the household or separate spheres of decision making. Men, who are more heavily involved in agricultural production, are indeed more involved in groups related to income generation whereas women, who tend to be engaged in non-agriculture and are largely responsible for maintaining social networks, are more involved in civic and religious groups (Godquin and Quisumbing 2008, p. 23).

Although this may be changing as the result of the feminization of agriculture, and although the view that men are more heavily involved in production than women underestimates the importance of women’s household responsibilities in active support of production, these findings usefully highlight that the channels through which men and women join community-based organizations may differ markedly in certain contexts. Consequently, if extension workers provide information through group sessions with local agricultural producers, women may well be underrepresented among the beneficiaries. A similar concern arises in the fisheries and aquaculture sector, where one of the obstacles to the greater role of women is that they frequently associate in less formal organizations (FAO 2012b, p. 110).

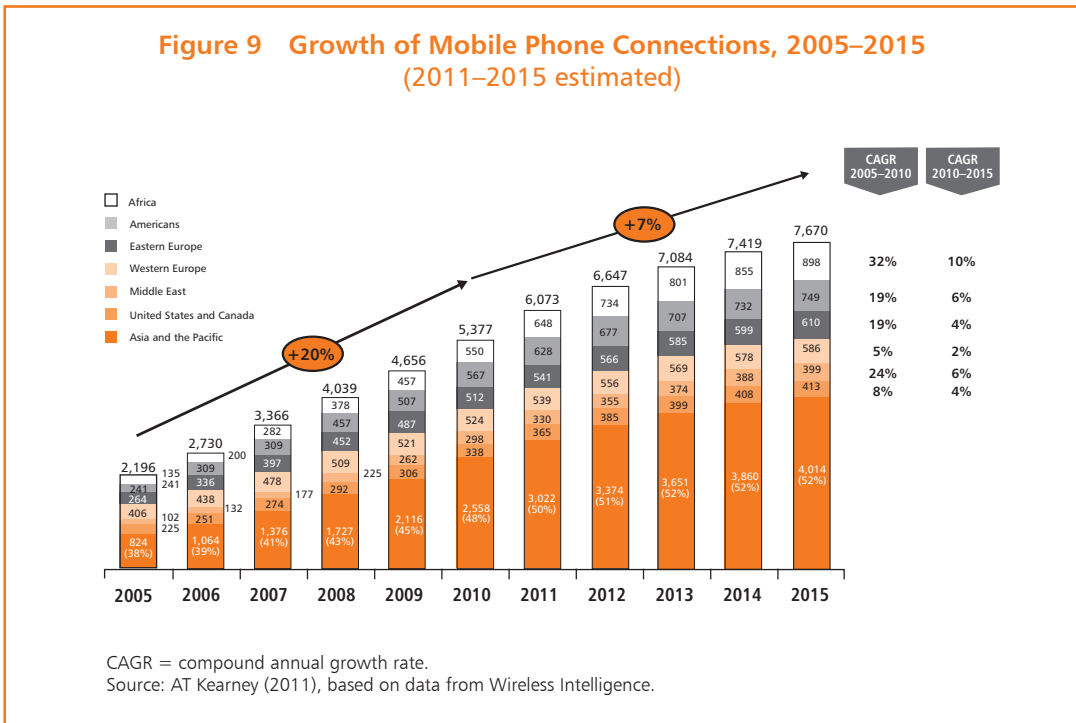
Of course, extension service workers are not the only means through which information can be communicated. Brochures are another possibility, as are the more modern information and communication technologies, including the internet and mobile phones. The rapid expansion of mobile phone networks may be particularly promising. In some countries such as Bangladesh,

Extension workers often assume that men are the only producers in the household and the sole decision-makers regarding household farming activities

farmers already can be informed via text messages of prices their crops will fetch on local urban markets before deciding to transport them to market. This can also strengthen farmers' bargaining position vis-à-vis brokers. Technical information—e.g., about when to sow and when to harvest, or how to combat a particular disease—can also be transmitted through such means. This may be of special interest to women farmers due to mobility constraints and, in some regions, cultural obstacles to them receiving advice from male extension workers. In addition, extension workers can avoid lengthy travel for field visits in appropriate circumstances and provide needed information through such devices. This aspect might encourage more women to occupy these technical positions.

These attractive options may not always constitute realistic alternatives for poor rural women. Those who are most in need of support are often the least educated, and include a significant proportion of illiterate or quasi-illiterate women. Brochures, in such cases, would have to use drawings in order to be effective. As to communication technologies, though the potential for growth is considerable (Figure 9), few poor women at present have access to them. A 2010 study in South Asia found that 37% less women than men owned a mobile phone (Groupe Speciale Mobile Association [GSMA] Development Fund 2010). Despite the attractiveness and reality of the potential of mobile phone technologies, rural women in particular are likely to require the support and guidance of extension workers for both the incentive to turn to such information and the capability to absorb it.

Moreover, information related to farming is highly context-specific. The use of fertilizer, or the choice of seeds or particular irrigation techniques, depend very much on the particular ecosystem in which the farm operates—e.g., the quality of the soil, the rainfall or proximity of water sources, and erosion risks. This reduces the possibilities of substituting distance learning for direct exchanges.



Gender-Responsive Financial Services

Poor farmers face very significant obstacles in obtaining crop insurance—particularly for compensation following a failed harvest, and in accessing credit. According to the 2003 Rural Finance Access Survey in India, 87% of marginal or landless farmers had no access to institutional credit at the time of the survey (Garikipati 2008). The obstacles are manifold. The infrastructure

for financial services in rural areas is most often weak or nonexistent. Large formal financial institutions have no network of branches in rural areas because the population is usually poor and spread too thin, creating almost insurmountable investment barriers. In addition, institutional investors are reluctant to provide credit because of the information asymmetries they face and resulting screening, monitoring, and enforcement problems. Insuring or financing a highly risky activity—agricultural production in the context of volatile prices and weather—does not conform with conservative financial practices (Binswanger and Rosenzweig 1986; Hoff and Stiglitz 1993; Ghosh, Mookherjee, and Ray 2001).

Furnishing collateral is another difficult hurdle for poor rural households to obtain loans. This is particularly true when farmers possess no legally recognized title or deed for the land they use, where markets for land rights are insufficiently liquid, and where the land that could be mortgaged is too small and not easily sold in case of loan default. These obstacles may be overcome by encouraging borrowers to form groups which guarantee one another’s loans. For the lending institution, group lending helps insure that loans will be repaid—none of the borrowers of a group will get a second loan unless all have paid their first loan. It also may reduce transaction costs by allowing a loan to be negotiated with a single representative of the group (Panjaitan-Drioadisuryo and Cloud 1999; Pitt and Khandker 1998). Where alternatives such as social collateral are not available, poor small-scale farmers often have no other choice but local moneylenders. These lenders typically charge high interest rates, creating the risk of an unsustainable cycle of debt.⁶ For women, these difficulties are of course magnified due to the obstacles they face in recognition of their rights to land, and cultural norms that make access to credit even more difficult (FAO 2010, pp. 33–34). Although some countries, such as India, now mandate that a third of all loans by state development banks must go to women, most commercial institutions lend to women in much smaller proportions than to men (Elavia 1994).

For women, these difficulties are of course magnified due to the obstacles they face in recognition of their rights to land, and cultural norms that make access to credit even more difficult

Microfinance

Microfinance is often touted as the key to overcoming these obstacles, particularly for women. It has been favored since the 1980s as a preferred substitute to top-down poverty-reduction plans by governments. Microfinance is seen as more cost-effective, as it deals with loans rather than grants. It is viewed as more bottom-up—meeting the demand for access to credit for investment in individual projects—and thus more effective in the long-term alleviation of rural poverty (Sharma 2003; Bali Swain 2007). An additional advantage is that microfinance programs can target women specifically, which other tools for poverty alleviation may not do in the same way. Microfinance programs are based on the assumption that household-level targeting may be insufficient. Household resources, it is supposed, may be used differently depending on whether the man or the woman is in charge of allocation decisions. The needs of women and men are also different: a survey of 210 households in rural Paraguay found that while 23% of the women surveyed declared they were credit constrained, in two-thirds of these cases the husbands asserted they had adequate access to credit (Fletschner 2009).

However, two major difficulties have emerged. One concerns the importance of not confusing improved access to loans for rural women with control over use of the loans, or the empowerment of women with their ability to improve their productivity as independent producers. Some microfinance programs directed at women have been assessed as successful in increasing the participation of women in decision making within the household, particularly as regards family planning and education of children. Other members of the household (especially girls and the elderly) may be recruited to undertake a greater part of the housework as women benefiting from a microcredit program spend more time on their businesses. This is illustrated by a survey of 121 women benefiting from the Small Farmers Development Program (SFDP)—launched by the Government of Indonesia in the early 1990s—when their answers were compared to those

⁶ See Ghate (1992) for a comparison of informal finance in Bangladesh, India, Indonesia, the Philippines, and Thailand. See also Holt and Ribe (1991).

of a control group of 94 women. The responses showed that the program, which targeted not only women in poor agricultural families but also those active in fishing, home industry, and trading, allowed women beneficiaries to command more contributions from other members of the household (Panjaitan-Drioadisuryo and Cloud 1999).

However, in addition to risking the perverse effect of increasing the constraints on the other female members of the family, the overall evidence available concerning the impact of microfinance on women's empowerment is mixed. Where women are not adequately supported in the use of loans granted for micro-enterprise development, or are not trained in management, the loans are of limited effect in the long term. This was one of the lessons drawn from the Sri Lanka Poverty Alleviation Project supported by the World Bank in 1991–1998. The project included the microcredit component in which a higher percentage of females (57%) than males benefited by allowing them to bypass money-lenders charging exorbitant rates. However, only about one-third of the beneficiaries successfully established and operated microenterprises over a period of 3 years. The World Bank evaluation report attributed low performance to insufficient preparation of the beneficiaries (World Bank 1998, p. 88). Another factor that appears to explain this paradox is the background social or cultural norms that result in women becoming, in effect, intermediaries for the benefit of their male relatives. The latter borrow through women for their own businesses (Box 3).

A second major difficulty emerging as microfinance programs increasingly target rural women results from the pressure on fieldworkers providing credit to disburse larger loans to more women. There is a risk that women who have the most assets already, or who have male relatives to work with, will benefit most from microfinance programs. There is anecdotal evidence that loans are more easily obtained by these women rather than, for instance, by female-headed households with no adult male, or by landless or land poor women who are considered less creditworthy (Goetz and Sen Gupta 1996, pp. 56–57). Indeed, microfinance programs often do not reach the poorest, who operate in a “mini-economy” of very small transactions. These transactions are so small that the transaction costs of dealing with them are too high even for microcredit institutions (Hulme and Mosley 1996; Sabates-Wheeler and Kabeer 2003, p. 40).

There appears to be an inherent tension between the hope that microfinance programs can function as a financially self-sustaining means of addressing rural poverty, and the objective of supporting the poorest and single women whose ability to improve their productivity is perhaps most questionable. The latter may be poorly qualified or illiterate, or unable to move beyond home-based activities because traveling—to market, for example—would be incompatible with their household responsibilities. Sabates-Wheeler and Kabeer acknowledge the reality of this tension, where they note:

The constraints posed by the high transaction costs of dealing with the extreme poor have been exacerbated by the increasing emphasis within the donor community on the ‘sustainable’ as opposed to the ‘subsidized’ transfer of resources to the poor. This has led to an increasing stress on loan repayment by various micro-finance organizations affecting their ability to be responsive to the fluctuating income flows of the very poor. The stress on weekly repayments generates additional pressures at group level to exclude the very poor who are likely to have difficulties in meeting their repayment obligations and could hence jeopardize the group's future access to loans (Sabates-Wheeler and Kabeer 2003, p. 40).

Women's loans may still be controlled by their male relatives, and the poorest women may continue to face difficulties in building an asset base. These constraints suggest strongly that unless women are actively supported in improving their productivity with better access to markets, gender relations and the perception of the value of their work may not change simply through better access to credit. Important though as it is, access to credit is not a substitute for rural development policies and investment in women smallholders that help them build the capacity to climb out of poverty. Credit without real opportunities to use it effectively is of limited consequence.

Indeed, microfinance programs often do not reach the poorest, who operate in a “mini-economy” of very small transactions

Box 3 Do Women or Men Benefit Most from Microcredit Schemes Targeting Women?

Some evidence suggests that unless greater attention is paid to gender relationships in the allocation and reimbursement of loans, even microcredit schemes targeting women may end up favoring men. In Bangladesh in the 1980s, after access to microfinance was increased to benefit rural women, it appeared that in many cases the loans were in fact used by male relatives, even while the female borrowers were liable for repayment. In the early 1990s, 10 years after existing microfinance programs had shifted their focus to benefit women, a qualitative study was conducted of 275 loans across four organizations: BRAC’s rural development program (106 loans to women; 22 to men), Grameen Bank (53 loans to women), a program managed by a women’s nongovernment organization *Thangemaru M&b Sebuji Sengstha* (TMSS) (39 loans to women), and the government’s Rural Poor Programme RD-12 (55 loans to women). The study showed that while women retained full or significant control of loan use in 37% of the cases, in 43% of the cases they had no control of loan use, or only limited or partial control. In 22% of the cases, women borrowers were either unable to furnish details of loan use, or unaware of how their husbands or other male household members had used the loans (Goetz and Sen Gupta 1996).

Goetz and Sen Gupta (1996) offers some evidence that because of women’s higher (than men) loan repayment rates, women may be used by fieldworkers of lending institutions and by male household members as convenient means to extend and secure loans. This practice may increase tensions within the household when a woman fails to obtain a loan desired by a male relative, or when a woman does not obtain cash to repay her loan from her husband or concerned male relative (who is the actual beneficiary of the loan) (Rahman 1999). The justifications for this practice are understandable. The male may see it as justifiable to avoid the high interest rates charged by moneylenders. The woman may justify it as avoiding household conflict or averting divorce even if she risks having to repay the loan from her own resources (Balasubramanian 2012, p. 8). In a context such as rural Bangladesh, where strong sociocultural norms dictate that men control household assets, the practice of men controlling the use of loans obtained by women will likely remain common until men learn to accept the possibility of gain from a more equitable sharing of power over resources.

The same sociocultural obstacles explain why women benefiting from microcredit in rural Bangladesh seldom use loans to run their own businesses. Instead of becoming entrepreneurs themselves, women often use loans to support existing businesses, usually managed by male household members, or to support their husbands in launching micro-enterprises (Chowdhury 2008 and 2009). A study in Faridpur, Bangladesh found that only 31%–32% of women borrowers have primary decision making power over the use of profit generated thanks to their loans, compared to 79%–83% of male beneficiaries (Kabeer 2001b).

In Andhra Pradesh, India, it was found that 67% of women’s loans were invested in assets or businesses controlled by their husbands. In 82% to 88% of those cases, women ended up having to engage in wage labor to make repayments (Garikipati 2008). Research in India shows that women may end up being less empowered through microcredit, even as the household’s situation improves through diversification of livelihoods—a result Garikipati refers to as “impact paradox” (Garikipati 2008 and 2010). The potential for contravention of the intended benefits of improved access to credit need to be better understood and addressed.

Source: Goetz and Sen Gupta (1996); Rahman (1999); Balasubramanian (2012); Chowdhury (2008 and 2009); Kabeer (2001b); Garikipati (2008 and 2010).

The powerful incentive for microcredit borrowers to move toward production for the market rather than for self-consumption raises another issue. Investments made possible through borrowing can only be repaid with cash from market sales. Some have decried an approach that necessitates women engaging in more capitalized forms of agricultural production rather than in forms of production that may be in the best interest of household food security and improved nutritional outcomes (Kabeer 2001a). Of course, women are not forced to take loans. If they prefer to remain in subsistence agriculture and do not wish to increase their productivity and generate a surplus that can be sold, that choice should remain open to them. That is true, however, only to the extent that microcredit schemes do not crowd out other forms of support to small-scale food producers, ensuring the reality of choice. This dilemma presents itself in even starker form in the area of agricultural research and development.

Gender-Responsive Agricultural Research

One area where understanding of the need for heightened gender sensitivity is unfortunately weak is agricultural research and development—in the creation of new varieties of plants, livestock, and fish, and in the introduction of new technologies. Given the existence of gendered roles in agriculture, technology cannot be considered gender-neutral by definition. Instead, agricultural research and development may need to take into account the specific constraints faced by women and their preferences in order to contribute more effectively to poverty alleviation and women's empowerment.

Women may well prefer growing crops that are easily prepared for home consumption and require little or no processing, or varieties that taste better and can be easily preserved. Because of their time constraints, they may prefer varieties that can be more easily cultivated because they are less threatened by weeds or can be easily husked, for example. Animals that resist diseases and are easier to manage would probably be preferred to reduce workload—a reason why indigenous rather than improved breeds are commonly chosen (FAO 2012a). Given their difficulties in accessing credit, women may well prefer growing crops following agroecological, low-external input techniques. Such techniques have the additional advantages of not requiring such things as the transport of bags of fertilizer—a considerable difficulty in the absence of adequate means of transportation—or travel to acquire other inputs.⁷

The reorientation of agricultural research and development toward a better integration of the priorities and perspectives of women, incorporating their participation in the design of solutions, can also contribute to the transformation of social norms and social relations. Gender-sensitive participatory plant breeding (PPB) provides an example. PPB is generally considered to achieve better results than conventional breeding because involvement of the end users helps ensure that the results will better take into account their needs, increasing the likely rate of uptake (Ashby and Lilja 2004). However, past PPB has not necessarily pursued the explicit involvement of women. This may be an important missed opportunity:

Failure to include gender-differentiated production and consumption traits and focusing on the wrong attributes leads to biased and inappropriate varietal promotions. Evaluating new varieties only on yield-related characteristics (often gender-neutral) has led to 19 per cent of all varieties being miscategorized as superior, whereas incorporating gender-differentiated traits (labour-related, consumption, post-harvest) has reduced miscategorization and increases adoption potential (Paris et al. 2008, p. 98).

Paris et al. (2008) worked in submergence- and drought-prone villages in Uttar Pradesh, India to identify the impact on women's empowerment of PPB using a measure of women's empowerment,

⁷ For a series of illustrations, see Meinzen-Dick et al. (2010) and Meinzen-Dick et al. (2011a); see also FAO, IFAD, and ILO (2010, p. 13).

Given the existence of gendered roles in agriculture, technology cannot be considered gender-neutral by definition. Instead, agricultural research and development may need to take into account the specific constraints faced by women and their preferences in order to contribute more effectively to poverty alleviation and women's empowerment

the Women’s Empowerment Index (WEI). This index is determined by who the decision-maker is within the household (husband or wife), and by the activities decided by women—e.g., which rice to grow, and whether to sell or exchange the seeds with neighbors. PPB was found to have strong empowering effects, raising household productivity by helping ensure that varieties selected were the best for fragile environments, and freeing women for other income earning jobs. Meinzen-Dick et al. (2010, p. 50) provide this summary of what is at stake in this transformation:

Reorienting the agricultural research system to be more gender responsive requires being more aware of the different needs and preferences of male and female farmers; the different roles that men and women play in the production and marketing process; differential access to and control of productive resources; differential constraints that female farmers may face in adopting new technologies, including time constraints owing to domestic responsibilities and nonmarket production; the representation of male and female scientists and extension agents in the agricultural research and extension systems, among others.

Greater representation of women among scientists involved in agricultural research and development, and more participation of women farmers and consumers in the design of research, its implementation, and its evaluation, are the means through which this can be achieved. However, additional indicators would be required to allow measurement of the gender-responsiveness of agricultural research.⁸

Adoption of gender-sensitive methodologies can, in turn, significantly enrich understanding of what ends research should serve, and contribute to a better grasp of the many functional aspects of crop, livestock, and fish varietal improvement and the introduction of new technologies

Adoption of gender-sensitive methodologies can, in turn, significantly enrich understanding of what ends research should serve, and contribute to a better grasp of the many functional aspects of crop, livestock, and fish varietal improvement and the introduction of new technologies. It can also help move agricultural research and development into the broader web of social relations in which its effective contribution will be measured. Agricultural research that incorporates participation of women and is more responsive to their needs is expected to devote greater attention to preservation of the resource base and the ecosystems on which the beneficiaries depend. More than scientists, these beneficiaries care about the long-term ability of their resource base—trees, soil, water, and local agrobiodiversity, as well as wild plants—to support their agricultural production and domestic needs. In addition, the local community is better placed to enforce social norms that penalize the depletion of such resources, or use that exceeds their carrying capacity.

Scientists are also expected to direct more attention to fruits and vegetables and the most nutritious food crops with the adoption of more gender-sensitive methodologies—as opposed to their primary concern with staple crops, particularly cereal in assessing the respective merits of different plant varieties, it is likely that greater attention will be devoted to the post-harvest phase, not simply to prospects for selling the produce on high-value markets. More attention may be given to the preservation of food from losses, the nutritional value of food produced for household consumption, and the effects of varietal choices on the time constraints of women. Even in the development of cash crops, greater women’s participation is expected to heighten concern about their effects on the allocation of income between women and men, and about the use of any increases in income (Meinzen-Dick et al. 2010, pp. 51–52).

Access to Markets

Limitations on their mobility as well as other social and cultural norms present difficulties for women interested in shifting from subsistence agriculture to producing surpluses that could be marketed. These difficulties may persist even when productivity gains support such a shift, and even in circumstances where rural markets work relatively well and are supported by adequate transport infrastructure. Three options, which may be used in combination, may contribute to redressing such difficulties.

⁸ See Meinzen-Dick et al. (2011a, pp. 100–102) for a proposed list of indicators to that effect in Table 9.1.

Contract Farming

One means through which small-scale farmers can move from subsistence agriculture to production for markets is contract farming. Implied in such arrangements is a long-term relationship with a buyer, who typically provides technical advice and access to credit and inputs in exchange for a stable and reliable source of supply (Singh 2000). A shift to contract farming often has been found to have gendered effects because women typically have less access than men to this option.

A study in Kenya found that in the horticulture export industry, women comprised fewer than 10% of contracted farmers. In a sample of 59 contract farmers for French beans exported from Senegal, only one was a woman (FAO, IFAD, and WFP 2011, p. 13, based on Maertens and Swinnen 2009). Women's capacity to benefit from contract farming is usually determined by their rights over land and by power relationships within households. Power relationships are also critical when contracts are negotiated through representatives of the community or a farmers' organization. Even when most contracted work is performed by the wife and other family members, it is not unusual for the contract to be signed by the husband, as head of household. This is seen in sugar contract farming in South Africa, vegetable contract farming in the Indian Punjab, and in some cases in the PRC (FAO, IFAD, and WFP 2011, p. 13; Behrman et al. 2011, p. 11; Kumar 2006; Meinzen-Dick 2011b). While women often decide on how household food production is used, men usually decide how cash is spent. Consequently, unless the framework for contract farming is gender sensitive, it can contribute to weakening the position of women (Chan 2010; Schneider and Gugerty 2010).

Women may commonly be deceived in the benefits from the so-called livestock revolution. Thus, the switch from indigenous breeds (which require less care) to improved and exotic breeds for commercial livestock raising not only means that more labor is needed, but that women may be disproportionately burdened by this transformation as their workload increases. Further, they may be denied the benefits since it is the husband who typically negotiates with the trader and decides how the income is to be allocated (FAO 2012a, p. 37; Richter 1997).

For all these reasons, it has been recommended that contracts be in the woman's name when she does most or all of the work, or in the name of both the woman and the man. It should not be in the man's name only, even when he is considered head of the household or when the land title is in his name only (De Schutter 2011, p. 13). Ideally, contract payments should go directly to the woman, both to enhance her bargaining position within the household and to ensure that the additional income leads to better nutritional and health outcomes. Limitations on mobility have often been an obstacle to women receiving such payments because they are unable to fetch the money, a common result of the pressure of household chores and other social norms.

Payment of women has become easier thanks to new methods using mobile phones, and because more women have bank accounts in their own name as members of a microfinance or producer group. Direct payment to women may not be sufficient to ensure they control such income, however, especially if men feel threatened by the improvement of their stature. Appropriate measures must ensure that men are an integral part of transitional changes (Meinzen-Dick et al. 2011b).

Group Farming

Contract farming is not the only means to switch to higher-value crops for sale at remunerative prices on markets. Another option is the organization of farmers into collectives, which may be achieved by the forming of cooperatives—although the choice of that particular legal form is by no means required. In principle, the organization of agricultural producers into collectives presents a number of advantages (Braverman et al. 1991; World Bank 2007a, p. 88; Markelova and Meinzen-Dick 2009; WFP 2009b, p. 133). It can allow for economies of scale in crop storage, acquisition of tools, and even farm mechanization. All these advantages may lead to improved

A shift to contract farming often has been found to have gendered effects because women typically have less access than men to this option

productivity. Research across 17 Indian states during 1999–2008 showed that the consolidation of very small productive units into larger units could significantly improve profits per surface, thanks to cost savings allowed by consolidation (Foster and Rosenzweig 2010).

Economies of scale can be important for the packaging, transport, and marketing. By combining their efforts, farmers may also climb up the value chain to processing and marketing, instead of remaining confined to production of raw commodities. The formation of collectives allows farmers to spread risks across the collective membership, encouraging experimentation with new technologies and higher-value crops. Collectivization may allow improved access to credit and insurance. Microlenders and microinsurers may well favor contracts with collectives over those with individual farmers because the risk of default or loss is significantly smaller. Through collectives, farmers can pool resources and improve their capacity to access additional land via purchase or lease. Organized farmers have a better bargaining position vis-à-vis both input providers and buyers, leading to reduced production costs and higher revenues.

Collectives facilitate other important aspects of cooperation and the interchange of knowledge among farmers. This is particularly important for agriculture relying on the principles of agroecology and low external inputs. This type of agriculture is knowledge-intensive and context-sensitive, requiring establishment of adequate institutions for the sharing of good practices, as is done through farmer-field schools (Van Den Berg and Jiggins 2007; Warner and Kirschenmann 2007). Collectives are better positioned to preserve certain collective goods, such as water, forests, and soil quality. Measures can be imposed on members to limit negative externalities and manage common resources in ways that take into account long-term considerations—avoiding what has been referred to as the “tragedy of the commons” (Hardin 1968). Critically, the organization of farmers into collectives, cooperatives, unions, or other forms strengthens their voice in decision making processes, and in participation in the formulation and evaluation of policies that affect them.

Women can benefit greatly from forms of organization that allow the sharing of labor among a number of individuals, and that economize on labor-intensive activities through economies of scale

The advantages of collectives outlined above are of particular importance for women farmers because they attend to areas where women are disadvantaged by discrimination. Women can benefit greatly from forms of organization that allow the sharing of labor among a number of individuals, and that economize on labor-intensive activities through economies of scale. However, unless gender differences in participation are taken into account in a collective or organization, many of the potential benefits will be lost for women. All too often, cooperatives or other farmers’ organizations are dominated by men, with women excluded from effective participation and decision making. In such cases, organization contributes little to empowering women and improving their capacity to move and interact within the community. All-women cooperatives are one option. If these are too difficult to organize, then strong rules on decision making within existing or broad-based cooperatives need to be promoted to help ensure that women are effectively represented and take part in decisions.

Group farming could bring about important benefits for women. Under this variant of collective organization, land that is owned individually is pooled, or land is leased jointly by a number of individuals (Agarwal 2010 and 2011). Agarwal highlights work done in Andhra Pradesh in south India by the nongovernment organization (NGO) Deccan Development Society. Groups of 5–15 poor, low-caste women in a drought-prone region were able to lease or purchase land with the support of government schemes (Agarwal 2003). The women typically would not have been able to buy or cultivate land on an individual basis. Group farming allowed planting of a wide range of diverse crops, which not only helps mitigate the risks of crop failure, but also provides for a more balanced subsistence diet. In addition:

[W]orking together has enhanced women’s ability to survey land, hire tractors, share labour, meet government officials, buy inputs and market the produce. Collective cultivation allows them flexibility in labour time, cost sharing, and the pooling of their differential skills in farming, accounting, and public dealing. The groups are voluntary in nature, socioeconomically homogenous, constituted of women who know each other, small sized in both membership

and production units, participatory in decision making, and equitable in the distribution of the produce. Group members report improvement in family diets, healthcare and children’s education; a reduction in spousal desertion and violence; and enhanced social status in the community (Agarwal 2011, pp. 19–20).

In contrast to the organization of farmers into collectives that are male-dominated, women’s collectives as illustrated in this example have potential to challenge prevailing social norms in ways that matter for the empowerment of women.

Gender-Sensitive Rural Infrastructure

Rural markets can be made to work for women if the relevant constraints are identified and acted upon with effective involvement of women in the design of corrective measures. The Rural Infrastructure Improvement Projects (RIIPs) implemented in Bangladesh by the Local Government Engineering Department (LGED) may serve as an illustration of such an approach. Women are specifically targeted in participatory processes aimed at identifying the impact of infrastructure investments—especially the construction of roads. Women are also involved in the formulation of projects to help ensure their concerns are taken into account. The ultimate aim is to maximize the benefits for women in the development of rural markets.

Support for women’s economic empowerment has also included construction of rural markets with spaces reserved for women vendors, employment opportunities for destitute women in road construction and maintenance, and helping women farmers diversify into cash crops that yield higher incomes (Box 4).

Two Models for Support of Women Farmers

Because women assume the bulk of responsibilities in household responsibilities and the care economy, it has sometimes been assumed that, even with equal access to land and other productive inputs, they will perform less well as agriculture producers than men. This presumption is not borne out by the available studies. In the PRC, a recent study found that women could seize the

Box 4 Bangladesh Crop Diversification Project

The Crop Diversification project achieved the following results:

- 150,000 women farmers were provided extension services, new technologies, skills training, and microcredit;
- 40% of demonstration plots were allocated to women;
- 25,000 women farmers were trained on value addition options, market opportunities, and pricing;
- 6,300 women Small Farmer Groups were formed;
- 10,000 women were trained in post-harvest techniques, marketing, and bargaining and negotiation skills;
- women farmers were supported for supply contracts with large farmers, traders, seed merchants, and processors;
- roads were built to improve the connectivity of rural areas, and new markets were constructed with facilities and selling spaces for women vendors; and
- 167,811 women received loans.

Source: ADB (2010a).

opportunities markets offered as well as men thanks to important investments in the infrastructure markets need to operate well, in particular:

...roads, communications, and accessible wholesale marketing facilities, open to all and lightly taxed. In this environment, literally thousands of traders seek out agricultural producers who are willing to sell their goods—no matter if they are rich or poor, no matter if they are young or old, and no matter if they are male or female. Too many traders exist for any one trader to have enough market power to discriminate (de Brauw et al. 2012, p. 19).

This is an example of public policies aiming at reduction of the difficulties women face due to the gendered division of roles (UNGA 2010, para. 72). Despite women’s more limited mobility due to household and care responsibilities, markets can be made more hospitable to them by facilitating the access of producers to traders and reducing the distances and time required for the former to bring their produce to market.

Such benefits to women as a result of market infrastructure development are by no means automatic, however. Where food systems develop so as to reward mostly middle-size and large production units, small farms may lose out. The former often can be more competitive because of the economies of scale they can achieve, their ability to replace labor with machinery, and the lower transaction costs they usually offer buyers.

Small farms are less well positioned to reap the benefits of expanded trade opportunities. They may also lose out against larger farms in the competition for resources (particularly land and water, but also capital), for infrastructure (such as storage facilities and roads), and for other forms of public support, such as extension services. Such developments may result from the expansion of export-led agriculture, the consequence of trade liberalization, lower transportation costs, and logistical improvements. The effects of the growth of export-led agriculture are gendered, notably the marginalization of small farms. Women are disproportionately represented among smallholders, while men are overrepresented in larger production units (FAO, IFAD, and ILO 2010, pp. 22–23).

These negative effects are not inevitable, when efforts are made to develop local markets as well as expand global value chains and export opportunities. Negative effects can be compensated by increased employment opportunities on large farms, particularly for women (Maertens and Swinnen 2009). Nevertheless, it is vital that governments be aware of the gender effects of the modernization of supply chains, and that they take all necessary measures to ensure that the situation of women does not worsen as a result of modernization.

As food systems are modernized under competitive pressures, governments encounter a dilemma that is of great importance yet usually held implicit. On the one hand, governments are expected to reshape support services provided to producers, and to upgrade markets in ways that allow women farmers to succeed as entrepreneurs. A range of such remedial measures that could be adopted have been discussed. On the other hand, the specific role of family farming practiced on small plots of land, and for which women are becoming chiefly responsible, points to an alternative model of farming that does not aim at profit maximization through market sales. Instead, it aims to feed the family and protect it from price volatility by producing food for the household. It is based on the values of resilience, autonomy, and stability. This is not an ideological dilemma, it is a practical one. How it is addressed may have considerable influence on public action, investments, and how services are delivered.

Which of these two approaches should be prioritized can only be decided based on context. Women farmers may well not choose profit maximization as their main objective if that implies switching to high-value cash crops, more time for produce marketing, growing less food for the family, and worsening their time poverty. Women may prefer farming home-based that is easier to

reconcile with household responsibilities, and protects the family from shocks. Such a choice may be a means of preserving power. Women tend to have more say about the use of food produced for home consumption, while they are commonly excluded from decisions on expenditures of monetary income (Chan 2010; Schneider and Gugerty 2010). A low-cash farming system using few purchased inputs with production for the household or community may be attractive. In such a system, seeds are obtained from the previous year's harvest or from exchange with other farmers; inputs are produced locally by recycling of agricultural waste, manure, or compost; and pests are kept at bay by intercropping techniques or other modes of biological control. This type of farming is less costly and knowledge-intensive, requiring training or the sharing of knowledge about farming techniques (Jewitt 2000; Warner and Kirschenmann 2007; Altieri 1995; Gliessman 2007; De Schutter 2010b). Agroecological techniques are used that better sustain the ecosystem, which women may see as advantageous because of an appreciation of their dependence on their environment. On the other hand, in increasingly monetized economies in which solidarity networks are breaking down and a larger set of services are commoditized, the choice to produce for own-consumption, rather than for the market, may encourage new forms of exclusion.

Although, in practice, these two ways of supporting women farmers may be less easy to distinguish than they are in theory, a stylized framework is proposed in Table 4.

Table 4 Gender-Sensitive Support to Farmers and Alternative Farming Models

	Dominant Model	Gender-Sensitive Remedial Measures	Alternative Model
Knowledge	Extension services populated by men, with men as main beneficiaries (as heads of households or members of producers' organizations).	Increased representation of women among advisors; Targeting women through women's organizations; Training taking into account women's time poverty and mobility constraints.	Prioritizing farmer-to-farmer (horizontal) transmission of knowledge through farmer field schools or farmers' organizations, particularly women's organizations.
Financial Services	Weak access to credit for small-scale food producers; Microfinance, even targeted at women, may lead to loans being controlled by men, and may not reach the poorest women.	Access to credit by women through social collateral (group lending), e.g. through women's cooperatives, or through contract farming schemes designed to benefit women.	Low-cash agriculture (limited use of external inputs) to reduce need for credit.
Agricultural Research and Development	Focus on high-yielding and high-value crops, in monocropping schemes.	Focus on crops easier for women to cultivate (e.g., requiring less labor), but that also fetch high prices on the market.	Focus on food crops that are easiest to prepare and preserve, and that are the most nutritious and taste better; multicropping schemes.
Markets	Markets insufficiently hospitable to women; buyers turn to men; and time and mobility constraints limit women's ability to sell.	Improved infrastructure and information about prices, and sales through cooperatives, with access facilitated for women farmers.	Production primarily geared toward consumption for family and community needs; surplus sold on local markets.

Source: Author.

Should priority be given to encouraging women farmers to succeed as entrepreneurs, producing high-value crops for the market and selling them through channels that allow them to capture remunerative prices? Or should the focus be instead on encouraging an alternative model, in which food crops are prioritized to ensure household and community needs are satisfied with less investment and low levels of external inputs? Choices will depend on local conditions, on which model is most likely to contribute to food security, and on the preferences of women.

The participation of women is indispensable for food security strategies to appropriately reflect their needs and preferences. The Food Security and Sustainable Livelihood Programme for the Pacific launched in 2008 across 14 Pacific countries illustrates how such participation can be designed in practice (Appendix 3). However, for women to make an informed choice about the type of support they desire, they must fully understand their options. It would be unacceptable for women farmers to be relegated to subsistence or low-external input farming because of a lack of access to markets or inputs. By the same token, it would not be acceptable for women farmers to be denied support because they prefer to cultivate crops primarily for household and community consumption, reducing their dependency on markets with potentially volatile food prices.

Women in the Fisheries and Aquaculture Sectors

Globally, 54.8 million people are engaged in capture fisheries and aquaculture, with the vast majority of them (48 million) in Asian countries. Women account for about half of the global fisheries workforce. Though they are typically concentrated in upstream and downstream activities, their role in the sector is broad-based

Women play an important role in this sector, especially upstream and downstream of fishing and fish farming activities. Sector growth, notably in aquaculture in Asia, deserves special attention, as do the important changes with profound gender impacts that the sector is experiencing.

Globally, 54.8 million people are engaged in capture fisheries and aquaculture, with the vast majority of them (48 million) in Asian countries. Many more, at least 135 million people, are involved in upstream and downstream activities—e.g., net-making, boat-building, and fish processing and marketing (FAO 2012b, p. 41). Women account for about half of the global fisheries workforce. Though they are typically concentrated in upstream and downstream activities, their role in the sector is broad-based (Mills et al. 2011). In the PRC and in India, women accounted for 21% and 24%, respectively, of all fishers and fish farmers in 2008 (FAO 2012b, p. 108). They account for about 10% of the total aquaculture workforce in Malaysia, and in Sri Lanka they constitute 5% of the workforce in shrimp aquaculture and 30% of those engaged in the production and breeding of ornamental fish (FAO 2012c).

The sector is growing rapidly, although employment is stagnating in wild capture fisheries in most regions. Employment is increasing in aquaculture, however, especially in Asia, where it went from less than 3.7 million people in 1990 to 16 million people by 2010, dwarfing such employment in other regions (FAO 2012b, p. 41). Though comprehensive data disaggregated by sex are not available, women employed in the fisheries sector in Asia are thought to number between 45 million and 50 million (FAO 2012b, p. 108). The continuing growth of aquaculture is expected to translate into an increasing role for women.

There is an important gendered aspect of roles in the sector (Weeratunge and Snyder 2009). Because of social norms and their responsibilities in the care economy, women are rarely involved in commercial offshore and long-distance capture fishing, although historically women in the Pacific assumed such roles. Today, women fishers tend to be active primarily in artisanal fishing, sometimes using small boats and canoes to fish in coastal waters. Women also gather shells, sea cucumbers, and aquatic plants in the intertidal zone. More often, they are active in net-making and net-mending, auxiliary services for boats, securing licenses and in other administrative procedures, processing operations (e.g., drying, salting, and canning), and fish marketing (FAO 2012b, p. 108). Women are active entrepreneurs in all aspects of the sector (Williams et al. 2012).

The fishing industry is characterized by a high level of globalization and progressive industrialization. In 1976, 8 million tons of fish were traded internationally with a total value of \$8 billion. By 2010, trade volume had increased to 57 million tons valued at \$102 billion. About 40% of total fish production is exported, a proportion much higher than for almost all crops. Only 5%–7% of rice production, and 20% of wheat output are exported (FAO 2012b, pp. 14–5).

Industrialization of the sector presents some opportunities for small-scale fishers. Fishers targeting high-value species for overseas markets—such as tuna, shrimp, and lobster—earn higher incomes than those fishing to supply small local markets (Kurien 2004). Small-scale, traditional fishing and aquaculture activities are generally at a disadvantage due to difficulties in complying with hygiene and sanitation standards, and their weak bargaining power vis-à-vis buyers and large operations (FAO 2009). The continued development of national economies and the growth of export activities may well displace more women from traditional occupations in artisanal fishing and in coastal fishing communities in developing countries. The marketing of shrimp in India, for example, which was largely in the hands of women in the early 1980s, shifted to male traders arriving on bicycles and later motorized transport as shrimp became a high-priced commodity (FAO 2012b, p. 110). While the growth of export-led segments of the sector may create some employment in fishing and processing operations that are increasingly industrialized, many of these jobs are likely to be on boats and in facilities where the wages are low and working conditions are poor, with few opportunities for women. The concentration of processing facilities based on economies of scale, infrastructure availability, and other economic considerations is increasingly limiting opportunities in coastal communities that cannot provide these advantages. Even as opportunities do arise, women face specific obstacles, such as the absence of appropriate sanitation facilities (De Schutter 2012).

Women account for about half of the global fisheries workforce

Women's wages in the sector are typically lower than those of the men performing the same job. A 2006 study of the shrimp industry in Bangladesh found that women's wages for catching and sorting fry (postlarval stage shrimp) were 64% of those of men; 82% for repairing ponds and casual labor; 72% for processing and packaging; and 60% for cooking and breeding activities (Development & Training Services 2006).

IV

Better Access to Food through Decent Rural Employment

An increasing proportion of women have moved to waged employment on large farms. In many cases they have replaced men who have moved to employment outside the agriculture sector as part of the agrarian transition

The constraints women face in accessing land has repercussions not only on their ability to improve their productivity as farmers, but also on their ability to access other livelihood options. Without the ability to own, control, and mortgage land, obtaining credit to launch off-farm businesses is difficult. Thus, studies show that women with land generated much higher rural non-farm earnings from self-employment than landless women (Chadha 1992). These women can also more easily work on a seasonal basis as waged agricultural workers if they have land for subsistence farming to fall back on in times of crisis.

Women's economic access to food, as described earlier, comes through one or more of three means. They may rely on their own production when they have access to land, livestock, or other productive assets. This may contribute to their autonomy and empowerment as well as help insulate their households from high food prices and malnutrition. They may also purchase food with income from waged employment—either on- or off-farm—or self-employment. Finally, they may access food through redistributive mechanisms in the form of government- and NGO-supported social protection measures, or through informal forms of solidarity within households or communities.

The preceding section of this report examined ways of supporting increased production and food availability of women farmers in the face of a range of obstacles they confront. This section looks at how women's access to income-generating activities could be improved, and impediments that should be removed, allowing them to purchase adequate food. Approaches and challenges to gaining employment on farms are first assessed, followed by an evaluation of women's access to off-farm employment outside the agriculture sector.

Waged Employment on Farms

An increasing proportion of women have moved to waged employment on large farms. In many cases they have replaced men who have moved to employment outside the agriculture sector as part of the agrarian transition discussed previously. Worldwide, an estimated 450 million people are employed as farmworkers. Of these, at least 20%–30% are women, although the proportion is higher, at around 40%, in Latin America and the Caribbean.⁹ These figures should be treated with caution, however, since much employment in the agriculture sector is informal and undeclared, and official statistics are often unreliable.

The importance of waged employment in agriculture to South Asian women is remarkable. Though data are scarce because of the limitations of ILO statistics on waged employment, women whose main incomes come from agriculture appear to be overrepresented—compared to men—among

⁹ See ILO, FAO, and International Union of Food, Agricultural, Hotel, Restaurant, Catering, Tobacco and Allied Workers' Associations [IUF] 2007, p. 32.

waged workers in the sector, and underrepresented among self-employed farmers. Only 13% of adult women are self-employed agricultural producers (compared with 33% of men), but women and men are represented in roughly equal proportions among waged agricultural workers. The importance to South Asian women of waged agricultural work may be indicative of the fact that, statistically, self-employment in subsistence farming and meeting household needs is not considered an economic activity at all. Such work is viewed as a form of homestead gardening, sometimes unconnected to the cash economy. However, it may also be indicative, as some researchers have postulated, of “women’s weaker property rights in land and other assets as compared to other regions, coupled with increasing landlessness” (FAO, IFAD, and ILO 2010, p. 6). In other terms, waged employment on farms is of particular importance to South Asian women because of obstacles to moving beyond subsistence agriculture as independent food producers. In practice, however, the two sources of income are often combined: waged employment on large farms is typically seasonal, with women otherwise cultivating the family plot on a subsistence basis.

Growth in the proportion of women employed as agricultural workers occurs at a time when nontraditional agricultural exports are rising, especially for horticultural products. New jobs are being created in cut flowers and in vegetable growing and packing. These are high-value products that require special handling or some processing, adding substantive value beyond the farm (Regmi and Gehlar 2001). The employment of women in these relatively labor-intensive types of production presents a number of advantages for employers. Women are considered more docile than men, and more reliable. The tasks in emerging export sectors—in fruits and vegetables, in particular—are generally less demanding physically and do not require use of heavy machinery, and are thus considered suitable for women. In addition, women’s wages are generally lower than those of men. Employers sometimes justify this by maintaining that women are not, typically, the main wage-earners in the family. The fact that the tasks performed by women are less physically strenuous is also cited. For the same reasons, women are considered a highly flexible workforce, which can be hired on a weekly or seasonal basis. Women also tend to be placed in lower occupational categories, with little opportunity for mobility and training.

The rights of agricultural workers are routinely violated in many developing countries. Failure to pay even the minimum wage applicable, let alone the living wage required for the employment to provide decent work (as defined by the United Nations), is a common violation (De Schutter 2009, para. 14–17; FAO, IFAD, and ILO 2010, p. 20). Bonded labor practices, in which workers are totally dependent on the employer, and which are perpetuated from one generation to the next, are another common violation. Since much waged employment is in the informal sector, national labor legislation is unable to ensure the right to a minimum wage or protect women from discrimination. In addition, labor legislation frequently treats the agriculture sector differently from other sectors with regard to issues such as working time, overtime pay, and leave time (ILO 2008, para. 295). The ILO Committee of Experts on the Application of Conventions and Recommendations has repeatedly denounced this (FAO, IFAD, and ILO 2010, p. 14). National labor inspectorates are often severely understaffed and lack the capacity to monitor the agriculture sector. This is due, in part, to the cost of dealing with a large number of farms dispersed over large areas, and transportation that is inadequate or non-existent. Many of these findings were confirmed by the author during visits to Brazil (2009), Mexico (2011), South Africa (2011), Madagascar (2011), and Cameroon (2012) (De Schutter 2009, para. 18–20).

In principle, greater recognition of collective bargaining should provide an approach to tackling these difficulties. A relatively high number of countries have ratified the Right of Association (Agriculture) Convention, 1921 (No. 11). Additionally, the ILO Bureau for Workers’ Activities (ACTRAV) published a training package to assist workers’ organizations in collective bargaining on gender equality issues (Olney et al. 2002). Problems remain, however. Some concern both women and men. Unionization on farms is discouraged by employers, and sometimes actively repressed. Unionization is also made difficult when a proportion—often significant—of the workers are migrant and temporary. Such workers have little incentive to organize, and their position is often too fragile to dare protest:

When workers know that their positions are temporary, they are much more likely to tolerate exploitative conditions, either because they view their situation as short-term or fear that they will lose the little work they have if they complain. This arrangement also militates against worker organization and collective bargaining. Furthermore, casual workers are more prone to dismissal, because employers are not legally required to award compensation when terminating temporary employees (Dolan and Sorby 2003, p. 32).

Subcontractors are used by employers in some cases to recruit workers. Workers are thus not employed formally by the owner of the production unit, which can make it impossible for workers to rely on any collective agreement that may have been concluded. However, claiming and enforcement of workers’ rights is particularly difficult in circumstances where much of the workforce is migrant and temporary, possess a low level of literacy (including legal literacy), and is generally very poorly informed about their rights or the means to claim them (De Schutter 2009).

Employment in commercial agricultural operations represents an opportunity for income for many women, but the benefits are not unalloyed. Though most available studies indicate that women have a considerable say in how their wages are spent, this is not necessarily the case (Kabeer 2005). Tamil women on tea plantations in Sri Lanka, who are the majority of tea pickers, evidence high rates of illiteracy and lack of numeracy skills. Customarily, the husband or a male kin collects their daily payment at weighing time, with little of it accessed by the woman worker (Nandini Gunewardena, personal communication).

Employment in commercial agricultural operations represents an opportunity for income for many women, but the benefits are not unalloyed

Moreover, the common abuses of farmworkers are magnified for women farmworkers. This results, in part, from the position of women in the segmentation of many high-value agriculture operations. In these operations, one relatively stable and qualified segment of the workforce coexists with the segment of unskilled workers. The latter are often recruited only at certain times of the year, and typically as casual workers, without a formal contract of employment (Dolan and Sorby 2003, p. 29). The pressure to maintain such a dualized system, even as technological advances have made production less seasonal, can be explained by globalization and the need to rationalize (i.e., make more profitable) workforce management (Standing 1999). Globalization also helps explain why jobs in this so-called “periphery” of the workforce are classified as seasonal or temporary even when their employment is in fact continuous (ILO, FAO, and IUF 2007, p. 24).

This segmentation of the waged workforce in agriculture is gendered. Women are typically overrepresented in this periphery segment of the workforce compared to the core segment of permanently employed workers (Human Rights Watch 2011, p. 26; du Toit and Ally 2003). Contrary to what has sometimes been asserted (Hakim 1996), this is not because women prefer flexible working arrangements in order to reconcile their employment with traditional household and care duties. It is because women are easier to exploit and have fewer options than men. The overwhelming majority of women employed as farmworkers possess very low levels of education, are typically land-poor or landless, and lack alternative opportunities (Dolan and Sorby 2003, p. 28).

There is also ample evidence of discrimination against women in the waged agriculture sector. Such discrimination takes a variety of forms beyond overrepresentation of women among workers under temporary contracts or hired without formal contracts. Included are different forms of negligence, such as exposure to harmful agricultural chemicals (fertilizers, pesticides, and herbicides) and failure to provide women with protective gear or information about the need for such safeguards. Employers may refuse to hire women who are pregnant, leading pregnant seasonal workers to sometimes hide their pregnancy. Women are also exposed to domestic violence because of their inability to move away from their place of work (Human Rights Watch 2011, p. 29).

Wages may be determined in ways that result in de facto discrimination against women. In the periphery segment of the workforce, it is not unusual for remuneration to be calculated on a piece-rate basis, and determined by how much of a task is accomplished. This approach is advantageous to the employer because it generally means that no benefits additional to the wage earned, including social security, need be provided. It also requires much less supervision. Those

who work less, or less efficiently, are simply paid less. Sometimes payment is made to a group of workers for a task, in which case the workers themselves collectively monitor each other. Research in four villages in a the semi-arid Telengana region of Andhra Pradesh, India, conducted during 1984–1997, described the shift from daily wages to piece-rate wages in cotton picking or weeding, while at the same time, women more frequently worked in groups (*gumpu*). The combination of these changes resulted in a transformation of relationships between employers and laborers:

Both piece work and *gumpu* work require little or no supervision because unlike daily wage work, output and labor intensity are readily measurable. Thus, these labor arrangements also change the relationship between workers and work as discipline is internalized: workers themselves lengthen the workday, magnify the pace and intensity of work, and monitor each other's performance. As a result, the relationship between 'efficient' workers (those who can do a lot of piece work or *gumpu* work) and those who cannot, is also changing by creating a hierarchy of workers. Even as individual wage earnings become more unequal, these labor relationships decrease average wage costs for producers (Ramamurthy 2000, p. 566).

While it does result in a form of hierarchy of workers, this mode of wage payment may benefit highly performing workers. Indeed, women sometimes benefit when they can work harder or when they are particularly well suited to the tasks to be performed (du Toit and Ally 2003). In general, however, payment on a piece-rate basis disfavors women, since pay standards are usually calculated on the basis of male productivity. Another consequence of this system is that it encourages workers, especially women, to have their children work with them to raise performance and payments. This is one of the reasons why so many children are employed in agriculture:

In order to make a living wage, it is common for the family of a migrant worker—including the children—to work on the farm or plantation. These 'helpers' [...] do not figure on the payroll and their existence is not officially recognized by government agencies. Child labour remains a blight on the industry. (ILO–FAO–IUF 2007, p. 89).

About 70% of child labor in the world is in agriculture, representing approximately 132 million girls and boys aged 5–14 years.

Women commonly face difficulties in reconciling responsibilities in the care economy—particularly the minding and educating of children of pre-school age—and employment on farms. In addition to modes of remuneration, the unavailability of public child-care services combined with poor transportation services may lead women to bring children with them to work on plantations. This has been documented in the horticultural sector in Punjab (Gill 2001), and in informal settlements established near plantations during the working season in South Africa (Barrientos, Dolan, and Tallontire 2003).

A number of issues of particular concern to women could be addressed in principle through collective bargaining. Included are equal opportunity (for placement and promotion), equal pay for work of equal value, maternity leave and benefits, child-care, and reproductive health services. Apart from the general problems of unionization on farms, it is unclear whether male-dominated unions pay sufficient attention to issues that matter to women. The gender implications of issues commonly viewed as neutral in collective bargaining—e.g., how wages are determined, leave, overtime, and bonus systems—are not adequately understood by male union representatives. These issues often impact women and men differently (ILO, FAO, and IUF 2007, p. 46; Olney et al. 2002).

Moreover, women are generally underrepresented in social dialogue institutions. In South Asia, only 11% of the participants in such institutions were found to be women (Breneman-Pennas and Rueda Catry, 2008). Some unions are now trying to address this gap. The International Union of Food, Agricultural, Hotel, Restaurant, Catering, Tobacco and Allied Workers' Associations (IUF), for example, has produced a gender-equality guide and aims at 40% representation of women on all its committees (FAO, IFAD, and ILO 2010, p. 15).

About 70% of child labor in the world is in agriculture, representing approximately 132 million girls and boys aged 5–14 years

Off-Farm Employment

Women are overrepresented in the large informal sector of the economy in most Asian countries, and they face an employment market that is highly segmented both vertically and horizontally. The result is their relegation to the lowest-paying, least decent forms of employment concentrated in certain occupations. A range of factors contribute to this situation (ILO 2010; ADB and ILO 2011). The focus of this report, however, is on measures that are integral to food security strategies, and that could at the same time improve the ability of women to exit the agriculture sector and successfully access decent jobs in the industry and services sectors. Among such measures are school-feeding programs and conditional cash transfer programs linked to school attendance by girls. They contribute to food security both directly (with food for low-income students) and indirectly (by improving educational opportunities for girls).

Low levels of education are a significant obstacle women face in obtaining off-farm employment in many parts of Asia. Programs that improve girls’ access to school are therefore essential for poverty reduction as well as improved nutritional outcomes. In rural areas, however, many poor households are unable or unwilling to send girls to school. The reasons include school costs, both direct and indirect (e.g., school fees and the cost of uniforms and books); opportunity costs (girls in school are not available for household work); and lengthy commutes to school. While the fewer employment opportunities for women can in part be explained by their lower levels of education, discrimination in turn is a cause of underinvestment by parents in girls’ education. Parents have little incentive to educate girls if their prospects for employment show little promise (the “human capital” effect). Only after they benefit from improved employment opportunities will women’s role in decision making and autonomy within households increase, leading to better educational outcomes for children, especially girls (the “empowerment-through-income” effect) (Quisumbing and Maluccio 2003).

Women are overrepresented in the large informal sector of the economy in most Asian countries, and they face an employment market that is highly segmented both vertically and horizontally

At the same time, it would be simplistic to assume a direct or immediate causal relationship between tackling discrimination in women’s employment and strengthening incentives for parents to invest in the education of their daughters. Some research shows that where daughters can effectively substitute for the mother in household work, improved opportunities for women may increase the opportunity cost of sending girls to school, at least in the short term. Thus, sending girls to school may make it more difficult and costly for women to seize available opportunities.¹⁰ This suggests the need for programs aimed specifically at increasing female school enrollment and completion rates, rather than counting on increases resulting from the human capital effect and empowerment-through-income effect. Such effects may be nullified in part or in whole by the substitution effect.

Such programs exist. In Bangladesh, the Female Secondary School Assistance Project (FSSAP) was launched in 1993 with the support of the International Development Association (IDA), ADB, and the governments of Bangladesh and Norway in order to overcome these obstacles. The second phase commenced in 2002, covering one-quarter of rural Bangladesh and now benefiting almost 1 million girls across the country in more than 6,000 schools (Ambler et al. 2007). FSSAP provides a stipend to girls who agree to delay marriage until they complete secondary education, at a total cost to the program of about \$121 per year per girl. The results have been very impressive (Schurmann 2009). The number of girls attending secondary education increased from 1.1 million in 1991 to 3.9 million in 2005, exceeding the number of boys. Girls living in the poorest households or in the most remote areas have gradually benefited more from the program. From 2000 to 2005 the proportion of beneficiaries from the two poorest quintiles of the population increased from 30% to 35%. Such progress should not obfuscate other worrying

¹⁰ On this “substitution” effect, see Skoufias (1993) for the example of rural India, Grootaert and Patrinos (1999) for a cross-country perspective, and Filmer (2005) for a review of available evidence.

trends, however. While the female-to-male ratio is 1.13 for secondary education (50% of girls attend secondary education compared to 45% of boys), the *World Economic Forum Gender Gap Report 2012* notes a significant decrease in recent years of the girl-to-boy enrollment ratio in primary education. The latter stood at 0.85—67% of girls attending primary education compared to 78% of boys (Hausmann, Tyson, and Zahidi 2012, pp. 27 and 110).

Beyond rates of school enrollment, greater attention may have to be devoted to the kind of knowledge transmitted to children—boys and girls—through the formal education system and within households. While knowledge of agricultural tasks may be passed on by male and female farmers to their children, managerial knowledge may be gender-specific and the skills associated with such activities may be passed on only to male children. (This is a generalization on which further information is required.) Future education programs may have to recognize the gendered nature of the agrarian transition in the kind of training provided adolescent girls.

In recent years, greater attention has been devoted to the support of formal education of girls. In the outcome document of the 2010 Millennium Development Goals review summit, heads of state and government pledged to ensure access to education and successful schooling of girls “by removing barriers and expanding support for girls’ education through measures such as providing free primary education, a safe environment for schooling and financial assistance such as scholarships and cash transfer programmes” (UNGA 2010, para. 72 [b]). However, an obstacle commonly faced in girls’ school enrollment is the absence of adequate sanitation facilities in schools. In Bangladesh, due to concerns that the absence of separate facilities for girls might be an obstacle to the success of the FSSAP mentioned earlier—particularly for adolescent girls who may prefer to avoid school attendance during menstruation—about 5,000 latrines and tubewells were built in schools taking part in the program. This appears to have been a major factor in attracting and retaining girls’ attendance. Another approach, equally successful, was the distribution of menstrual “cups” to adolescent girls in Nepal under the Menstruation and Education in Nepal Project. Such cups—small reusable silicone receptacles that can be inserted in the vaginal canal to collect menstrual blood and emptied after a period of 12 hours—are discreet. They facilitate the mobility of young women and allow school attendance during menstruation (Oster and Thornton 2009).

Future education programs may have to recognize the gendered nature of the agrarian transition in the kind of training provided adolescent girls

The FSSAP enabled Bangladesh to achieve MDG 3 (gender parity in education) ahead of schedule, one of 83 countries to achieve this—out the 106 which committed to this goal (World Bank 2007c). Among the indirect benefits of this impressive achievement are delays in the age of marriage, lower numbers of children, more women employed with higher incomes, and greater involvement of mothers in their children’s education and adequate feeding and care practices. With low levels of education and early marriage, a vicious cycle is in motion. Women have many children and thus reduced opportunities for improving their education and seeking employment outside the home. Higher levels of education mean fewer children and improved opportunities for girls and women (Galor and Weil 1996).

Some commentators have seen the FSSAP as almost too successful, since it may have led to household underinvestment in male secondary schooling (Chaudhury and Parajuli 2006; Asadullah and Chaudhury 2006). Asadullah and Chaudhury report findings based on school-level data and on longitudinal data on households during the period 1992–1996 that suggest:

adolescent boys were less likely to remain in school and more likely to do wage work following the introduction of the stipend scheme. The authors conjecture that parents may have decided to send adolescent girls to school and adolescent boys to work in response to the incentives. These two pieces of evidence—relative fall in enrollment of boys in co-educational schools and within household sex inequality—suggest that the program aided the process of closing gender gap not solely by raising female enrollment but also in an unintended way: cutting back participation of boys in secondary school (Asadullah and Chaudhury 2006, p. 2).

Governments are expected to adopt active labor policies that gradually expand representation of women in all sectors and break down vertical and horizontal segmentation of the labor market where it exists

Due to the methodological limitations of these studies and because women’s literacy in Bangladesh remains low compared to that of men, the researchers do not see these findings as questioning the FSSAP program’s core content. What is needed is better understanding of households’ responses to female incentive schemes. “Policy priority should be to promote female education minimizing any perverse effect on boys within the household. Furthermore, given the achievement of parity in participation, the focus should shift to closing the gender gap in learning outcomes in school” (Asadullah and Chaudhury 2006, p. 11).

Increasing women’s access to off-farm employment is not only a matter of improving accessibility to education. Governments are expected to adopt active labor policies that gradually expand representation of women in all sectors and break down vertical and horizontal segmentation of the labor market where it exists. They are expected to employ the tool of positive action as recommended by article 4(1) of the International Convention on the Elimination of All Forms of Discrimination against Women. Governments are also obliged to facilitate reconciliation of family and professional life, and access to employment for workers with family responsibilities, as stipulated under the 1981 ILO Convention (No. 156) on Workers with Family Responsibilities. ILO Recommendation No. 165 provides concrete guidance in fulfillment of these expectations. These tools should be combined with efforts to break down gender stereotypes, not only regarding the types of employment suitable for women, but also the allocation of responsibilities between women and men in discharging family responsibilities.¹¹

¹¹ See more on the requirement of non-discrimination against women in Appendix A, and Appendix B on the protection of the rights of women at work.

Better Access to Food through Social Protection



Social protection plays an essential role in assuring food security. Such protection can be provided on an informal basis by family and community networks, by NGOs, or formally organized by government and local collectives. It is vital, of course, for individuals and households that cannot produce food for themselves, or who have no income to purchase food. Even for those who have productive assets and income, social protection can be essential for improvements in productive capacity, to complement income when it drops below minimum levels, and as insurance against temporary shocks from severe and sudden weather events and price increases for essential goods such as food, fuel, and electricity.

Under international human rights law, the right to social security is guaranteed under Article 9 of the International Covenant on Economic, Social and Cultural Rights. Included are nine elements described in General Comment No. 19 of the UN Committee on Economic, Social and Cultural Rights, adopted in 2007. These are: adequate access to health care for all; cash transfers “to those incapable of working due to ill-health”; non-contributory pensions for all older persons who have no other means of support; unemployment benefits; compensation for employment-related injury; family and child benefits sufficient to cover food, clothing, housing, water, and sanitation; paid maternity leave; disability benefits; and survivor and orphan benefits (UN Committee on Economic, Social and Cultural Rights 2007).

The need to establish social protection floors is now supported by strong international consensus, building on obligations imposed under the International Covenant on Economic, Social and Cultural Rights; the ILO Social Security (Minimum Standards) Convention, 1952 (No. 102); and other ILO social security conventions and recommendations that set out more advanced standards. The International Labour Conference (ILC) adopted Recommendation 202 at its 101st session on 30 May 2012, which concerns national floors of social protection. The right to social security as a human right is reaffirmed, and it is recommended that states

...should, in accordance with national circumstances, establish as quickly as possible and maintain their social protection floors comprising basic social security guarantees [ensuring] at a minimum that, over the life cycle, all in need have access to essential health care and to basic income security which together secure effective access to goods and services defined as necessary at the national level (ILC 2012, para. 4).

In the aftermath of the Asian financial crisis, in 2001 ADB adopted a Social Protection Strategy. Although social protection programs remain modest in ADB’s lending portfolio, in 2010 significant support was provided to the Philippines’ *Pantawid Pamilya Pilipino Program*—a conditional cash transfer program—alongside support from the World Bank and the Australian Agency for International Development (ADB 2012, p. 89). In Pakistan, support was provided in 2009 to the Benazir Income Support Program (now called the National Income Support Program [NISIP]), a targeted cash transfer program for female heads of households and adult females of eligible poor

Social protection plays an essential role in assuring food security. Such protection can be provided on an informal basis by family and community networks, by nongovernment organizations, or formally organized by government and local collectives

households. By 2011, 9 million women had received identity cards and 4.6 million adult females had received cash payments (ADB 2011a). NISP beneficiary families currently number 5.5 million. Additional support of the NISP is proposed, which would broaden its provisions and significantly increase the number of beneficiary families. In Mongolia, 28,107 women beneficiaries were supported with food stamps for 1 year to cushion the impact of the food and fuel crises (ADB 2011d).

The specific impacts on women and on gender equality of the different programs through which governments discharge their obligation to guarantee the right to social security remain largely unexplored. Because such impacts may not be recognized and understood, women and girls may not benefit as much as they should from programs being implemented. In addition, the opportunities that such programs offer for gender empowerment may be missed. This section examines various components of social protection using a gender lens, including cash transfers, public works programs, asset transfers, school feeding programs, and the role of voluntary insurance associations. Social protection and its link with empowering women and challenging existing gender roles are then assessed.

The specific impacts on women and on gender equality of the different programs through which governments discharge their obligation to guarantee the right to social security remain largely unexplored

Cash Transfer Programs

Cash transfer programs can be conditional or non-conditional. Conditional cash transfers (CCTs) generally target poor regions and poor households within those regions. They typically provide cash or (at times) nutritional supplements, usually to mothers and primary caregivers. Beneficiaries must comply with certain conditions, linked most often to children’s enrollment and attendance in school. Conditions sometimes include prenatal and postnatal health care for mothers, appropriate children’s vaccinations, and the regular checking of growth of children. The objective of CCTs is to improve poor families’ access to basic necessities, and to enrich the prospects of children by building their human capital (de Janvry and Sadoulet 2006).

Well-known CCT programs have been launched in Mexico (*PROGRESA*, renamed *Oportunidades* when it was extended to rural households in 2007) and Brazil (*Bolsa Familia*). A good example, described later, is the Philippines’ *Pantawid Pamilyang Pilipino Program*, a national CCT scheme conditional on investments in child education and health and regular prenatal and postnatal checkups for women.

Launched in 1993, the Bangladesh Female Secondary School Assistance Project (FSSAP), discussed above, provides a successful early example of a CCT-type program. FSSAP was complemented in July 2002 by the Primary Education Stipend Project (PESP). The PESP aims to increase the educational participation (enrollment, continued attendance, and educational performance) of primary school-aged children from poor families throughout Bangladesh (initially estimated at more than 5 million pupils) by providing cash payments to targeted households. While it suffered from serious targeting problems in its initial phase—one 2004 study found that almost 47% of PESP beneficiaries were not poor and incorrectly included in the program—the program is credited with improving educational attainment (Ahmed 2004; World Bank 2006, p. 21).

The Pakistan province of Punjab, the largest and wealthiest province of the country, introduced a female school stipend program in 2004. This was part of a broader program inaugurated in 2003, the Punjab Education Sector Reform Program (PESRP), which seeks to (i) channel expenditures at provincial and district levels toward education and other pro-poor expenditures; (ii) reform public sector management, notably through increased devolution; and (iii) improve the quality of education. Distribution of free textbooks, improvement of school infrastructure, and recruitment of more qualified teachers are some of the approaches used to upgrade education quality. The female stipend component was launched in 15 of the 34 provincial districts, chosen on the basis of their low literacy rate. Benefiting girls receive a stipend amounting to slightly more than the average cost of schooling. Receipt of benefits is conditional on a girl’s enrollment in grade 6, 7,

or 8 in a government girls school in a target district, and on her maintenance of class attendance on at least 80% of school days. An early study of the impacts of this stipend found a modest but statistically significant effect on girls' school attendance. From 2003 to 2005, increases in girls' attendance in the 15 target districts averaged 6% per school, or 9% in relative terms (Chaudhury and Parajuli 2006).

CCT programs seek to ensure that poverty is not perpetuated inter-generationally by increasing the human capital of children. However, imposition of conditionalities may present certain difficulties. In some cases, public services (e.g., schools and health care centers) needed for compliance with conditionalities may not be available. In countries with weak administrative capacities, implementation of conditionalities may not be possible. Even where they can be implemented, administrative costs may be significant. A comparison across three Latin American countries concluded that they represented 18% of program administrative costs and 2% of total program costs (Caldes, Coady, and Maluccio 2006).

Exclusion of deserving potential beneficiaries from these programs is a significant problem, especially where a large part of the workforce is employed in the informal sector, or where many of those falling under the poverty line are self-employed as small-scale farmers. The poorest households, who most need support, commonly but unknowingly exclude themselves because of low literacy or administrative hurdles that are difficult to fulfill, such as simply providing evidence of low income.

From the gender perspective, the impacts of CCT programs are ambiguous. The conditionalities may significantly improve the educational attainments of girls. Since the benefits are generally provided to women as care givers (following the examples of Mexico and Brazil), this strengthens their role within the family. In Brazil, 94% of the recipients of the *Bolsa Familia* transfers are women (Holmes and Jones 2010, p. 15). However, assessments of CCT programs where the transfers were provided to women showed limited impact on power relations within the family (Molyneux 2006, p. 437). This result is consistent with studies documenting widespread appropriation of women's wages by men. Moreover, the approach adopted by CCT programs may reinforce gender roles and stereotypes. Women are prioritized as mothers and caregivers, rather than empowered as equal to men. The reliance on women to ensure that households invest in children has led some authors to claim that such child-centered policies tend to sideline "the equality claims of adult women and attention to their needs [...] in favor of those of children, including girls" (Jenson 2009).

Another major concern is that conditionalities may be designed in ways that do not sufficiently take into account the time constraints women face. It is women, generally, who are expected to ensure that conditionalities are complied with, especially regular visits to health care centers. Addressing this issue, however, can only be done in a way that is sensitive to context. On the one hand, conditionalities may furnish opportunities to provide women with information about their rights and practices that can improve household nutritional outcomes. They may also allow women to participate in meetings and broaden their social network. On the other hand, the cultural norms and time poverty that reduce the mobility of women must be addressed directly. These constraints could otherwise result in making their participation in CCT programs impossible. The National Income Support Programme in Pakistan, discussed earlier, delivers its money orders to female recipients through the post office, rather than obliging women to collect the money from a central disbursement point (Holmes and Jones 2010, p. 17).

In the Philippines' *Pantawid Pamilyang Pilipino Program (Pantawid Pamilya)*, municipal local government or NGOs sometimes collaborate as part of the counterparting for the program by providing transport arrangements to beneficiaries who have to travel long distances to receive grants or attend training sessions. The program was launched by the Government of the Philippines in 2008 with support from the World Bank and the Australian Agency for International Development, and supported by ADB since 2010 through a \$400 million loan and technical assistance. It currently covers 3.9 million households that have been identified through the National Household Targeting System for Poverty Reduction, with plans for expansion (ADB 2012, p. 35). It includes an important

Conditional cash transfer programs seek to ensure that poverty is not perpetuated inter-generationally by increasing the human capital of children

Box 5 The Gender Action Plan in the Pantawid Pamilyang Pilipino Program (Pantawid Pamilya)

The conditional cash transfer program, *Pantawid Pamilyang Pilipino Program (Pantawid Pamilya)*, was launched in the Philippines in 2008. It has been supported by the Asian Development Bank (ADB) since 2010 with a \$400 million loan. *Pantawid Pamilya* illustrates how strong gender features can be designed into such programs to maximize their effectiveness. The program was designed, in part, to address poor women’s lack of income, low use of health care—especially obstetric and maternal care—as well as the insufficient allocation of resources to the health and education of children. The program (i) ensures that bank accounts are opened in women’s names; (ii) supports training of women on citizenship and rights, domestic violence, leadership, child-care, and nutrition; (iii) targets 70% attendance of fathers in specially designed modules on gender-responsive family practices and the role of fathers as caregivers; (iv) encourages linkages with nongovernment organizations and other service providers to support access to complementary services; (v) includes conduct of participatory gender audits of the implementation process and impacts; (vi) develops staff capacity on gender issues; and (vii) ensures integration of gender equality indicators in the monitoring and evaluation system (ADB 2010c, p. 9).

These measures are designed to maximize support of social equity and women’s empowerment. Women also are informed about the program and about their rights through the local media. This approach sets a benchmark for gender inclusive design of conditional cash transfer programs. A grievance redress system is also included as a check against misappropriation of resources (ADB 2010c, p. 10).

The program’s gender elements are seen as an opportunity to encourage the reallocation of roles within the family and household by including fathers in family development sessions on their role as caregivers. This effort is hoped to not only relieve mothers from part of the burden of child caring, but to help fathers acknowledge the importance and value of adequate child-care. Sex-related indicators are integral to the evaluation and monitoring of the program to facilitate future program adjustments if needed.

Source: ADB (2010c).

Unconditional cash transfer programs are sometimes preferred to conditional cash transfers because they reinforce the idea that social protection is a human right that should benefit all in need of such support, and because they may be easier to administer where administrative capacities are weak

Gender Action Plan to tackle some of the gender-related ambiguities of CCT programs (Box 5). Compliance with conditionalities includes not only education and health, but also attendance at family development sessions, which include modules on health and nutrition instruction for mothers.

This program in many ways demonstrates the opportunities CCT programs can offer. They can contribute not only to improving poor women’s access to cash resources, but also to empowering them, relieving some of their household burdens, and to redistributing household tasks.

Unconditional cash transfer programs are sometimes preferred to CCTs because they reinforce the idea that social protection is a human right that should benefit all in need of such support, and because they may be easier to administer where administrative capacities are weak. Such cash transfers to families falling below a certain poverty line can constitute an essential safety net against hunger or malnutrition, at least in the presence of well-functioning markets. They also can help reduce the poverty gap. The National Income Support Programme in Bangladesh provides an example. The program, which is being implemented nationwide, relies on a “poverty scorecard” (based on proxy means testing) to determine which families are underprivileged and should be supported.

Public Works Programs

Public works programs are designed to provide employment to families that have no other source of income, against payment of a wage (cash-for-work) or food (food-for-work), or a combination of both. One reason these programs are popular is their self-targeting quality. Because the work is demanding and the wages are low (or payment is made in the form of food items), only the truly destitute who have exhausted other options usually seek to enter such programs. These programs also may serve to create physical infrastructure—e.g., irrigation, wells, and rural roads—or deliver environmental services—e.g., hillside terracing and tree planting—that contribute to long-term development aims. One well-known example of such programs is the Indian Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) (Box 6).

Box 6 India's National Rural Employment Guarantee Act

The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) was adopted in 2005 and launched in a phased manner in 2006–2008. The act guarantees 100 days of employment to poor rural households, paid at the minimum wage. There are no eligibility criteria or prerequisite skills. Any rural household willing to do unskilled manual work under the program may apply for registration in the local *panchayat* (village council), specifying the time period work is sought. In principle, the program officer has 15 days to provide employment within 5 kilometers of the applicant's residence—if located further, transport and a supplementary fee must be paid. Payment for work completed should be made within 15 days. Where no employment is available, the applicant has a right to payment of an unemployment allowance instead. The program covers all 619 districts of the country, and benefited 52.5 million households in 2009–2010 for a total of 2.83 billion persons-days (International Labour Organization [ILO] and United Nations Development Programme [UNDP] 2011, p. 276). The program focus is on works that builds productive assets, provides environmental services, and facilitates adaptation to climate change—e.g., water harvesting and conservation, afforestation and tree planting, digging of irrigation canals, and flood control and flood protection works. However, the MGNREGA also provides for the possibility of developing land owned by households belonging to scheduled castes and tribes, by families below the poverty line, and by beneficiaries of land reform.

As in other similar public works schemes, a quota has been set aside for women because rural unemployment is higher for women than for men (on average, 141 days per year for women versus 76 days for men). The act thus provides that one-third of the employment must be allocated to women. The participation rate of women exceeded that minimum every year, reaching 48% in 2009–2010 at the national level (ILO and UNDP 2011, p. 276). One assessment concluded that the economic opportunities created through MGNREGA favored the empowerment of women:

This is evident in the emergence of women's identity; their growing contribution to their household's livelihood and decisions on its expenditure, especially on food, consumer goods, children's education, and health care; and the offsetting of debts. Women have also started to appear more actively in the rural public sphere as they take up their work and responsibilities. Factors motivating women's work participation include local work availability, reduction in risks associated with migration, flexibility in work choice and participation, notified wage rates and wage parity with men, easy working conditions vis-à-vis other hazardous options, and regularity and predictability of working hours. The abolition of contractors eliminates chances of exploitation and discrimination based on caste and community and so restores dignity and self-esteem (ILO and UNDP 2011, pp. 276–277).

Source: ILO–UNDP 2011.

Public works programs are designed to provide employment to families that have no other source of income, against payment of a wage (cash-for-work) or food (food-for-work), or a combination of both. One reason these programs are popular is their self-targeting quality

In Cambodia, since October 2008, ADB has supported the Emergency Food Assistance Program. It relies principally on cash-for-work and food-for-work components to improve incomes and support access to food for women from poor rural households, and to construct infrastructure that can benefit them (Box 7).

There are limits, however, to what public works programs can achieve (High-Level Panel of Experts 2012, pp. 35–36). Some critiques speak to aspects that are not directly related to gender. They include the nutritional impact of the cash and food payments, where the work is physically demanding and requires significant expenditure of energy, or the long-term maintenance of assets created. These aspects are not explored here, but rather the professed relationship between public works programs and women’s empowerment. The most common critique is that women are often excluded from such programs because of their heavy demands and the difficulties women may

The most common critique is that women are often excluded from such programs because of their heavy demands and the difficulties women may have in reconciling the work with their responsibilities in the care economy (resulting in their self-exclusion from the programs)

Box 7 Investing in Women to Build Resilience in Times of Crisis: The Cambodia Emergency Food Assistance Program

The Cambodia Emergency Food Assistance Program was launched in October 2008 with support from the Asian Development Bank (ADB) in the form of a \$17.5 million Asian Development Fund grant and \$11.6 million loan. The aim is to help the Government of Cambodia meet unexpectedly high costs for safety net programs for the poor and vulnerable affected by rising prices for food, fuel, and agricultural inputs in selected rural areas of seven provinces in the Tonle Sap Basin and in selected urban slums of Phnom Penh. At the time of the program’s launch, the domestic price of rice and fertilizer had doubled over the previous few years, while meat and fish prices had increased 30%–60%. These price rises were a severe problem for most of the population despite measures undertaken by the government. Some 300 tons of rice had been released onto the open market in order to bring down rice prices, and 4,000 tons of rice was contributed to the World Food Programme feeding program for, among other things, school feeding. In spite of these measures, cross-border migration had increased and children were removed from schools, particularly where school-feeding programs were suspended due to cost increases.

The objectives of the program are to (i) increase the availability of food to vulnerable households; (ii) support the input needs of smallholders and marginal farmers; and (iii) institute an operational national food security response system, including establishment of the Cambodia Food Reserve System. The latter objective comprises part of government efforts to develop a long-term mechanism to build resilience at country and household levels in order to minimize food insecurity, avoid negative coping strategies, and maintain farm production. The program was revised in June 2009 to address increased vulnerability due to the global economic crisis. In September 2012, the program was further expanded to cover a larger number of geographical areas.

In its initial phase, the program aimed to benefit a total of 500,000 people (89,000 households). Strong emphasis was placed on supporting women’s access to productive resources and on the education of girls. The food-for-work and cash-for-work programs, for example, were designed to benefit women and to support the creation of infrastructure that would allow small-scale farmers—among which are many women—to increase their productivity and incomes. Infrastructure includes small irrigation canals, covering over 7,750 hectares, and over 540 kilometers of village roads.

According to a recent assessment of the program, 22,756 female headed households benefited from free rice distribution (around 12,000 tons of rice was distributed during the food lean period of late Oct/early Nov 2008); 31,555 girls benefited from a school feeding program; 5,510 girls were awarded scholarships; 6,453 female-headed households had access to a food-for-work program; 127 female volunteer teachers for the early childhood learning centers had access to a monthly rice grant; and 47,150 women (including 8,937 female-headed households) earned an income through a cash-for-work program. Further, a total of 13,841 female headed households benefited from the distribution of quality seeds and subsidized sale of fertilizers.

Sources: ADB (2011b and 2013).

have in reconciling the work with their responsibilities in the care economy (resulting in their self-exclusion from the programs). This limitation is usually addressed by a system of quotas to ensure adequate representation of women, or even by establishing all-women programs. In Bangladesh, the Rural Maintenance Program successfully employed 50,000 women to maintain 60,000 miles of eastern roads in 2006 against payment in cash (Devereux and Solomon 2006). Together with the Food for Asset Creation (FFA) program, a public works program that pays participants with a combination of food and cash, 1.5 million people have been involved in these programs that provide incomes to poor families and support rural infrastructure maintenance (High-Level Panel of Experts 2012, p. 36).

The assignment of quotas in favor of women, however, should not limit deployment of affirmative efforts for recruitment of women using channels through which they can be reached effectively, such as health care centers (Devereux and Solomon 2006, p. 31). Nor should quotas lead to underestimating the difficulties women face in benefiting from public works programs when their responsibilities in the care economy are neither fully recognized nor effectively accommodated with appropriate measures. Of the MGNREGA, it has been reported that despite incorporation of a provision which “in the event that there are at least five children under the age of 6 at the worksite, one of the female workers should be deputed to look after them and she should be paid the same wage as other NREGA workers,” most women joining the program are discouraged from bringing children to work. A social audit on the implementation of the MGNREGA revealed that 70% of the women interviewed had no access to child-care services at the worksite, and 65% of them were unaware of this guaranteed right (Nayaranan 2008, referred to by FAO, IFAD, and ILO 2010, p. 37).

It has been found in some public works programs that women contributed disproportionately with unpaid labor, with most economic benefits going to the men employed

It has been found in some public works programs that women contributed disproportionately with unpaid labor, with most economic benefits going to the men employed. In the Rural Works component of the Sri Lanka Poverty Alleviation Programme financed in 1991–1998 by the World Bank, it appeared that twice as many women as men participated in unpaid labor (World Bank 1998, p. 89).

A gender-sensitive approach to the design of public works programs should therefore encourage investigation of a range of difficult issues that require context- and culturally-sensitive information. Investigation should include determination of whether:

- wages paid to employed women will be controlled by them or appropriated by their husbands;
- employed women will worsen their time poverty if they are expected to continue discharging their household chores;
- the division of tasks on the program takes into account the specific abilities and constraints of women without at the same time reinforcing gender stereotypes; and
- the assets created through the program will benefit women in particular (Devereux and Solomon 2006, p. 40).

Public works programs should be seen as more than an opportunity to ensure a minimum income to poor rural households and access to cash for rural women. They can also be a means to empower women. Program design could be sensitive to the physiological demands of heavy work, considering its impact on pregnancy outcomes, and identifying tasks based on individual skills and capacities rather than designating gender-specific task categories. Work could be designated as light, moderate, or heavy, with men assigned to the heaviest tasks. Tasks traditionally performed by women could be included in programs—e.g., preparing food in community kitchens or maintaining community vegetable gardens. Schedules could be organized in ways that accommodate specific time constraints of women. Task allocations could also be sensitive to cultural and religious norms. Institutionalized child-care could be established under the responsibility of women who are labor-constrained because of age or disability. This could reduce pressure on women to bring to work an older child to act as caregiver for babies and children too young to attend school. Importantly, every effort should be made to ensure that women receive equal pay for equal work.

Women should be involved in the design and evaluation of public works programs

In order to reduce the risk that gender stereotypes are reinforced, a dynamic approach could be adopted in which women gain proficiency in highly-skilled work that tends to be better remunerated. Devereux and Solomon report employment creation programs where “women have started undertaking semi-skilled tasks (e.g. brick-making) that were previously reserved for men, which also positively affects their subsequent income-earning potential” (Devereux and Solomon 2006, p. 40). In the Rural Infrastructure Improvement Project in Bangladesh supported by ADB, women are rewarded financially—partly in cash and partly by transfers to their bank accounts—for maintaining designated segments of rural roads. The program includes training and is linked to income-generating activities, allowing women to graduate from the program after 4 years (ADB 2012, p. 31). Thus, public works programs are an opportunity to teach women new skills, allowing them in time to graduate out of the program and enter other income-raising activities outside the home. This is one of the interesting features of another ADB-funded rural road maintenance project, part of the Yunnan Integrated Road Network Development Project (YIRNDP) in Yunnan Province in the southwest of the PRC (Box 8).

Women should be involved in the design and evaluation of public works programs. They can help ensure the right balance between the need for a gender-sensitive approach and the risk of gender stereotyping. Their involvement would also help assure that assets created under public works programs contribute, to the extent possible, to easing the burdens of rural women (Antonopoulos 2007). Assets such as boreholes and strategically planted trees that serve as wind breaks and provide fuel and fodder, for example, can reduce the time women spend fetching water or fuelwood. Agricultural work on the land of female-headed households, which generally suffer from chronic shortage of labor, is supported by Ethiopia’s cash-for-work Productive Safety Net Programme (Holmes and Jones 2010, p. 14). Assets could be created that upgrade physical infrastructure in rural areas and introduce more efficient food processing technologies, thereby reducing the drudgery of cooking and laundry (FAO, IFAD, and ILO 2010, p. 35). Moving beyond

Box 8 Rural Road Maintenance by Women’s Groups in Yunnan Province of the People’s Republic of China

The southwestern province of Yunnan in the People’s Republic of China is poor relative to the national average. Poor women members of ethnic minorities suffer most, with almost no income opportunities outside of agriculture. In 2009, a pilot project for community-based rural road maintenance by groups of ethnic minority women was launched in western Yunnan Province, with a \$200,000 grant from the Asian Development Bank’s Gender and Development Cooperation Fund. The women’s groups numbered 21 and comprised 163 women. Some 55% of the women were members of ethnic minorities, and 92% were from families living below the poverty line. These women were organized for maintenance of 165 kilometers (km) of rural roads. One woman, on a part-time basis, was required for every 1–2 kilometers of road for adequate road maintenance. The pilot project resulted in successful maintenance of 165 km of rural roads with improved road surfaces that facilitated year-round access to markets, schools, and health facilities.

Some 85% of the cost of the project went to salaries for the women, with each woman paid on average \$686 for 110 workdays. The program enabled many participating women to move their families above the poverty line for the first time. The flexible nature of the output-based payment system enabled women to reconcile participation with other household and farm responsibilities, including income-generating activities (e.g., pig raising and selling vegetables). The program also included a skills development and entrepreneurship training component. Women were trained in both classrooms and in field visits in traditional as well as new activities. The latter involved new technologies, such as buffalo dairy farming, winter agriculture, and new cash crops. The program thus empowered women, raising their social status within the community and allowing them to graduate to other income-generating activities.

Source: ADB (2011c).

these traditional examples, public works programs could tackle health extension work, adult literacy, and AIDS/HIV prevention, all of which could be particularly attractive for women.

The participation of women should be considered essential in determining the best mode of payment for public works programs, especially whether payment should be in the form of food or cash. While cash payments are generally more flexible for beneficiaries, they may also facilitate appropriation of women's wages by men, especially where payment is not made electronically to women's bank accounts. Payment in the form of food rations, not cash, may be favored where purchasing food is time-consuming, markets are unreliable, supplies lack stability, or prices are volatile (King-Dejardin 1996, p. 14). Women may favor payments on a daily basis rather than on a monthly basis where their priority concern is their family's daily subsistence. Such issues can only be dealt with adequately in context, with women helping shape program benefits. Their participation can not only contribute significantly to the effectiveness of programs and the degree to which they benefit women, but is an end in itself—a source of empowerment of women.

Asset Transfer Programs

Asset transfers are another important tool for social protection. Under such schemes, productive assets—such as livestock—are transferred to poor households in support of income-generation activities. Bangladesh's Challenging the Frontiers of Poverty Reduction—Targeting the Ultra-poor, launched in 2002 by the NGO BRAC, is a prime example of such a program. During its first phase (2002–2006), 100,000 ultra-poor women and their households living in 15 of the most food insecure districts of the country's 64 districts were supported. The second phase (2007–2011), expanded the program's reach threefold.

The program is of particular interest because of its gender-sensitive design. The constraints of female-headed households, for example, are a key consideration. The availability of labor is often limited in such households because of the care responsibilities of women, and because of the households' often low ratio of income earners to dependents. Thus assets that require less labor and can quickly become a source of income, such as poultry, are provided to beneficiaries (Holmes and Jones 2010, p. 16). Extensive training and support in managing the assets transferred are also made available, as are subsidized health and legal services, social development training, water, and sanitation facilities. Additionally, supportive community networks are developed through village poverty reduction committees (Box 9).

Perhaps equally important, the “pushing down” of poverty through various types of support goes hand in hand with a “pushing out” strategy that explicitly addresses the structural causes of the marginalization of the ultra-poor—particularly their disempowerment. Thus, the ultra-poor are not simply people without economic assets. They are also people without socio-political assets, typically “voiceless, unrepresented, and unheard.” Consequently, advocacy efforts and improved representation in decision making are seen as a key part of the strategy (Matin, Sulaiman, and Rabbani 2008, p. 12; BRAC 2001).

Gender empowerment is central to the success of the Challenging the Frontiers of Poverty Reduction program. BRAC developed an explicit gender policy since 1997 (updated in 2007) that cuts across its programs, and that is based on recognition that gender equality is key to sustainable development. The first of the five principles on which this gender policy is based is the view that:

[p]overty and gender inequality are interrelated—one exacerbates the other. Due to gender discrimination within all levels of the social system, women are especially vulnerable to and the worst affected by poverty. On the other hand, women's poverty enhances the poverty of the whole family and affects the sustainability of the family, as women play a vital role in their family's education and health (BRAC 2007, p. 12).

Asset transfers are another important tool for social protection. Under such schemes, productive assets—such as livestock—are transferred to poor households in support of income-generation activities

Box 9 Innovations in Challenging the Frontiers of Poverty Reduction in Bangladesh

Two major innovations are of particular interest in Challenging the Frontiers of Poverty Reduction (CFPR), the program of BRAC under which productive assets are transferred to beneficiaries. These innovations were initiated during the later phases of the program. One was the introduction of a daily stipend that continues until the transferred assets start generating sufficient income for the household. Findings during an initial phase of the program showed that many of the ultra-poor women, even after having received some productive assets, continued to work for others as maids against payment in kind. This made it difficult for them to focus their work on the assets transferred under the program, as these were not providing immediate returns. While this strategy certainly made sense to the women concerned, it also

...meant that the long term return from the asset transferred would be low and fail to generate enough surplus for the them to accumulate enough during the ‘grant phase’ of the programme to sustain their household economy in the later period. Thus, the trap of chronic poverty would not be broken: defeating the whole idea behind the programme (Matin, Sulaiman, and Rabbani 2008, p. 21).

A second innovation was to gradually include local elites in the implementation of the program, rather than working against them. *Gram Daridro Bimochon Committees* (GDBC, or village poverty alleviation committees) were thus established. These seven-member committees included representatives of BRAC and the beneficiaries, as well as respected individuals drawn from the landed and wealthy elites of the local community. In earlier approaches, breaking the power of local elites was part of the priorities of poverty-reduction interventions. Instead, active involvement of the elites is now sought in order to ensure a more holistic approach to moving CFPR beneficiaries out of extreme poverty:

GDBC formation involved the transmission of messages about the traditional responsibilities of village elites with respect to the poor, through village-level discussions organised by BRAC staff. GDBCs are mandated to protect CFPR participants in crisis; help them to resolve their problems; to ensure provision of health services, food, advice, and protection; provide them with sanitary latrines, clean water, and housing repairs; and ensure that school-age children of CFPR participants are enrolled in school (Matin, Sulaiman, and Rabbani 2008, p. 24).

Source: Matin, Sulaiman, and Rabbani (2008).

Based on the need to focus on women, Challenging the Frontiers of Poverty Reduction explicitly aims at the ultra-poor—those who have an asset base too weak even to access existing microfinance programs. Households where an active male is present are excluded from the program.

School Feeding Programs

School feeding programs take various forms, including meals prepared in-school or provision of food from outside the school. They may provide breakfasts, mid-morning snacks, or lunches, and may or may not include fortified foods, such as biscuits. Sometimes they comprise take-home rations of grains, pulses, or cooking oil. In addition to the variety of forms, generalizations about school feeding programs are difficult because of the different objectives they pursue. Commonly pursued objectives include:

- improving the nutrition of students and thus learning outcomes;
- encouraging school attendance, particularly for girls;

- ensuring poor households receive foodstuff by sending their children to school, and thus reducing incentives to send children to work at a young age; and
- supporting local food producers through food purchased for schools.

The WFP offers a number of conclusions about school feeding programs, drawing on 134 evaluations of such programs and its considerable experience in their design and implementation. The programs were found to work best when placed under the framework of national policies, and designed in a way that builds on experience. They clearly benefit from multiyear planning strategies with predictable and secured funding. This institutional and policy framework matters because it avoids an ad hoc approach to program development, and favors investment in the skills required for their implementation—such as cooking skills that must be mobilized within schools or community kitchens serving schools.

Wherever possible, local procurement of food and local processing should be encouraged. This helps create multiplier effects within the local economy, and improves incomes of local food producers and service providers as well as the organization of public works programs. In Brazil, more than 49 million children benefit from the national school feeding program (PNAE). Food is sourced from 325,000 family farms through the Ministry of Agriculture's *Programa de Aquisição de Alimentos* (Food Procurement Program), reflecting a legislative requirement (Act No. 11,947 of 16 June 2009) that PNAE source 30% of its food from family farms (WFP 2012, p. 35).

Regular monitoring and evaluation of programs by the beneficiaries themselves—the teachers, the parents, and the students—is key to success in order to ensure that a program meets local conditions and requirements and maximizes its effectiveness. The WFP concludes that eight quality benchmarks should guide the design of school feeding programs. They include (i) sustainability; (ii) sound alignment with the national policy framework; (iii) stable funding and budgeting; (iv) needs-based, cost-effective quality program design; (v) strong institutional arrangements for implementation, monitoring, and accountability; (vi) a strategy for local production and sourcing; (vii) strong partnerships and inter-sector coordination; and (viii) strong community participation and ownership (WFP 2012).

The effectiveness of school feeding programs in reducing hunger as well as micronutrient deficiencies among children is generally significant (Drèze and Kingdon 2001; Chittchang 2005; Kristjansson et al. 2007). As a result, and taking into account the improved productivity of the beneficiaries in later life, the multiplier effects of such programs are considerable. A study of a school feeding program in Bangladesh that reached 770,000 children who received biscuits (350 calories per day) found impressive benefits. Benefits outweighed costs by 4:1, and the program generated returns of over 300% on investment as well as \$520–\$540 of value per beneficiary from a lifetime productivity gains and from additional productivity from increased life-expectancy (WFP 2010).

From the point of view of gender, the main impact of school feeding programs is to boost girls' school attendance, with the rise in girls' enrollment ranging from 19% to 38% according to a number of studies (Khera 2006). Indeed, a major reason why girls' enrollment in schools is generally lower than that of boys is because of the incentives parents face. Girls who remain at home spend a significant amount of their time at work, particularly on domestic chores, care of siblings, and agricultural labor. Girls are thus seen as more valuable at home than boys, and the opportunity costs of sending girls to schools are higher. This was confirmed by a survey in northern India (The PROBE Team 1999), and by a UNESCO study of girls' and women's education in South Asia (UNESCO 1998). In addition, "direct educational costs are higher for girls than for boys, for example because girls need safe transport to school or better school clothing to 'look decent'" (Ahmed et al. 2007, p. 2, citing Herz and Sperling 2004). Other factors also contribute to lower school attendance for girls than for boys, including safety considerations, lack of separate facilities in schools, social and cultural norms undervaluing the education of girls, and early marriage.

The effectiveness of school feeding programs in reducing hunger as well as micronutrient deficiencies among children is generally significant

Take-home rations for pupils can be particularly effective in improving girls’ school enrollment. This strategy was used in Afghanistan, where the gender parity index (the enrollment of girls in schools as compared to boys) remains very low, at 0.35 in 2008 (WFP 2012, p. 32). There has been significant improvement since the overthrow of the Taliban in 2001, but cultural and religious norms, lack of separate sanitation facilities, and security concerns continue to have strong effects. To bridge this gap, the WFP distributes a monthly ration of 3.7 liters of vegetable oil to girls, conditional upon a minimum school attendance of 22 days per month. Take-home rations may be an effective option, particularly where markets are unreliable, prices of essential food commodities are volatile, or where the capacity of the schools to provide meals is limited. However, take-home rations may not be enough in some circumstances to ensure adequate school attendance by girls if not combined with other measures. These must speak to the more structural obstacles, such as the unwillingness of parents to have their daughters taught by men, unless he is a respected religious leader (*Mullah*), and the shortage of female teachers. The latter problem has led the WFP and others to develop targeted food incentives to attract such teachers.

Other experiences illustrate the effectiveness of take-home rations, particularly for improvement in girls’ school attendance. In Malawi, the introduction of take-home rations of 12.5 kg of maize per month for girls and orphans attending at least 80% of school days led to a 37.7% rise of girls’ enrollment (WFP 2012, p. 52). In the Lao People’s Democratic Republic—where girls’ enrollment can be very low, particularly in rural areas and within some ethnic groups—pupils receive a take-home family ration of canned fish, rice, and iodized salt as an incentive for parents to send them to school. Though both girls and boys benefit, the effect on girls’ attendance has been most significant because of girls’ lower enrollment rate. From 2002 to 2008, enrollment rates in primary schools benefiting from the program increased from 60% to 88% for boys and from 53% to 84% for girls (WFP 2012, p. 49). In Pakistan, the provision of take-home rations to girls attending school for at least 20 days a month boosted overall enrollment by 135% from fiscal year 1999 to fiscal year 2004 (WFP 2012, p. 53).

In the Lao People’s Democratic Republic—where girls’ enrollment can be very low, particularly in rural areas and within some ethnic groups—pupils receive a take-home family ration of canned fish, rice, and iodized salt as an incentive for parents to send them to school

Private initiatives have sometimes supported take-home rations programs. A cooperative based in the United States, Land O’Lakes, working with funding by the United States Department of Agriculture, launched such a program in March 2010 in the province of Jacobabad, Pakistan. Enrollment rates of girls there were very low at the start of the program, at 36%, and half the girls’ primary schools were reportedly closed due to lack of participation of teachers and pupils. A take-home ration of 4 liters of soybean oil was provided each month to students and teaching staff who met the program’s attendance requirements. By December 2011, the number of students attending 80% of school days was reported to have almost quadrupled and 60 schools had reopened. More than 25,000 students, 700 teachers, and 2,500 adult women, as well as an incremental 141,000 family members benefited from the soybean oil brought home by the direct beneficiaries.

School feeding programs, including take-home rations, can avoid the diversion of education time to the preparation or consumption of meals in schools. Mid-day school lunches also may save time, since children otherwise may have to go home for meals, and mid-day school lunch schemes can have important gender impacts. A study was conducted of 81 schools in the Indian states of Chhattisgarh, Rajasthan, and Karnataka, where mid-day meal schemes were introduced in 2002 following an order by the Indian Supreme Court. In addition to boosting female school attendance more than male attendance, mid-day meals were found to contribute to gender equity by creating employment opportunities for poor women. More than two-thirds of the cooks were women, often from underprivileged backgrounds, in keeping with guidelines that priority should be given to disadvantaged persons in the appointments. The program was also found to free mothers from the burden of feeding children at home at mid-day, a benefit especially to widowed mothers who often work outside the home without any domestic support (Drèze and Goyal 2003, p. 4676).

Voluntary Insurance Associations

The vast majority of the poor in developing countries—and an even greater majority of women—work in the informal sector (Subrahmanya and Jhabvala 2000; ILO Subregional Office for South Asia 2008). Yet, statutory social insurance schemes that ensure such things as basic income security in case of illness or accident, old age pension, unemployment, or maternity leave, are typically limited to the formal labor force. Most people working informally cannot afford contributions to social insurance schemes, and the irregularity of their income makes it difficult to participate in such schemes. Consequently, the poor working the informal sector are not covered against the risks of a sudden loss of income due to life-cycle events or economic downturns.

Bringing the informal workforce into standing social protection schemes established for those in the formal sector is imperative. The recommendation concerning national floors of social protection, adopted in 2012 at the International Labour Conference, recalls that “social inclusion, including of persons in the informal economy,” should be part of the principles guiding states in the establishment of social protection floors (ILO 2012, para 3 [e]). The recommendation also provides that “Social security extension strategies should apply to persons both in the formal and informal economy and support the growth of formal employment and the reduction of informality...” (ILO 2012, para. 15).

Until significant progress is made in reducing informality, however, near-term solutions should be encouraged to better protect those working in the informal sector. Voluntary insurance associations may play a promising role in this regard. The Self Employed Women’s Association (SEWA) was established in India in 1972 and is registered since 2006 as a union. In practice, it functions as an NGO providing various services to its women members, numbering 1 million across India—including home-based workers, street vendors, manual laborers, service providers, and small producers, with two-thirds of them poor women in rural areas (Mishra Panda 2007, p. 4). Since 1985, SEWA includes an insurance scheme, VimoSEWA, open to all women operating in the informal economy. It covers certain health benefits (hospitalization and births), life insurance in case of accidental death, and insurance against loss of assets. VimoSEWA is managed as a separate component of SEWA, much like a cooperative. Women wishing to participate deposit a sum, the interest on which serves as their premium payments (the savings remain intact). The scheme is self-financed thanks to these deposits, although subsidies and donor contributions helped in its launch and supported its promotion and administrative costs until a critical mass of contributors was reached. It is linked to two insurance companies (one private and one public), with which VimoSEWA is able to negotiate on good terms thanks to the breadth of its membership.¹²

Social protection programs have typically sought to address economic risks—such as income and consumption shocks—rather than social risks, such as discrimination and disempowerment

From Social Protection to Empowerment

Social protection programs have typically sought to address economic risks—such as income and consumption shocks—rather than social risks, such as discrimination and disempowerment. The two sets of risks are deeply intertwined, however, and they should be addressed together in order to provide a sustainable strategy for exiting poverty. Four instruments are available through which social protection can be transformative for women—not simply addressing the symptoms, but challenging the structural causes of poverty and vulnerability that result from social injustice and disempowerment.¹³

¹² For more details, see ILO Subregional Office for South Asia (2008).

¹³ For a discussion of “transformative social protection” thus conceived, see Devereux and Sabates-Wheeler (2004) and Devereux, McGregor, and Sabates-Wheeler (2011).

One important instrument is to empower the beneficiaries of social programs by defining them as rights-holders who have claims against the administrations in charge of program delivery. The International Labour Conference 2012 recommendation concerning national floors of social protection states:

Basic social security guarantees should be established by law. National laws and regulations should specify the range, qualifying conditions and levels of the benefits giving effect to these guarantees. Impartial, transparent, effective, simple, rapid, accessible and inexpensive complaint and appeal procedures should also be specified. Access to complaint and appeal procedures should be free of charge to the applicant. Systems should be in place that enhance compliance with national legal frameworks (ILC 2012, para. 7).

The institutionalization of social programs, through legislation defining their benefits and establishing independent claims mechanisms for individuals asserting improper exclusion, is valuable in itself. It recognizes the right to social security as an enforceable human right that cannot be seen as being left to the discretion of government officials. Such institutionalization is also of instrumental value. As a means to ensure decentralized monitoring of the implementation of social programs, it is a safeguard against corruption, political clientelism, and discrimination. It has the potential of empowering beneficiaries, especially women, who are generally treated as passive recipients of programs that are meant to help them without including them as active participants. To be effective in achieving this, a number of conditions must be fulfilled. Beneficiaries must be informed about their rights under a program. Claims mechanisms must be accessible, have the capacity to process claims and the power to prescribe remedies, and must act in ways that are independent and impartial. Additionally, claimants should not be exposed to retaliation for exercising their rights.

Claims mechanisms—especially courts—may be too distant, inaccessible, or expensive to use. They may be corrupt or not perceived as independent and trustworthy by potential claimants. Other forms of accountability in the implementation of social protection measures may thus be encouraged. Social audits have proven to be particularly useful to the poor and illiterate. They may take different forms. Government officials may report publicly on the use of funds allocated to certain programs, or on allocations received by beneficiaries. Reports may be made in village assemblies, or on the internet with publication of revenues and disbursements, allowing NGOs to track instances of misuse or diversion of funds. Citizen report cards may be used, as in India and the Philippines; community score cards as in Kenya and the Gambia; or budgetary audits as conducted by Javanese farmers in Indonesia (Cleaver 1999; UNESCO 2007; Peisakhin and Pinto 2010). Social audits can be an effective means of empowering women within the community if their views are sought expressly, and if a community auditing exercise is considered valid only after women are adequately represented.

A second instrument is to combine accommodation of the specific needs of women with measures that effectively subvert traditional gendered role divisions—such a combination characterizes “transformative” social programs. The two objectives may not be easy to reconcile, and which should be prioritized in the design and implementation of a program will require careful, context-sensitive consideration. Where conditionalities are imposed in cash transfer programs, for example, specific measures could accommodate the time poverty and mobility constraints of women, in favor of their compliance. However, it may also be required that, when a child has two parents, the father ensures compliance with at least some of the conditionalities, such as bringing the child to certain health consultations. Similarly, in a public works program, where a gender-blind approach may lead to the virtual exclusion of women because of its implicit basis on dominant male norms, the specific contributions and needs of women could be acknowledged to allow them to take part in the program. Such acknowledgment might mean access to nurseries or adapted schedules, instead of imposition of a quota to ensure women’s representation. Principles of participation and programmatic transformation are put forward in the conclusion of this report to provide guidance through such dilemmas.

A third instrument is use of the delivery of benefits as an opportunity for social development measures—such as sessions to raise awareness and provide women information about their rights. This has been done in Bangladesh with some success by BRAC under the Challenging the Frontiers of Poverty Reduction program, as discussed (Holmes and Jones 2010, p. 18). The principle of participation is not only an instrument for transformative social protection. It is also an end in itself, as it builds self-confidence for women, resulting in their empowerment and ensuring their public role is recognized and valued.

Finally, social protection programs should be seen as one component of a larger set of interventions that should in time permit the exit of households, when appropriate, from dependence on public support. In its Recommendation 202 on national floors of social protection, the ILC insists that social security should be complemented with “active labour market policies, including vocational training or other measures, as appropriate” (ILC 2012, para 14, [d]). Just as programs like microfinance should pair capacity-building measures with measures that provide relief, support measures should conversely lead in time to self-support and the gradual removal of obstacles facing women as they seek to seize economic opportunities.

VI

Adequacy and Utilization: The Nutrition Dimension

Four important conceptual shifts in the understanding of undernutrition and malnutrition have occurred over the past 20 years. These shifts have led to the emergence of the concept of “food and nutrition security,” and to renewed emphasis not on calorie intake alone, but also on the adequacy of diets and care. A first shift occurred in the mid-1990s, when organizations working with children, particularly the United Nations Children’s Fund (UNICEF), highlighted the importance of adequate caring and feeding practices for the utilization of food consumed (its absorption by the body). Health and nutritional outcomes depend as much on child caring—including breast-feeding, adequate storage and preparation of food, and hygiene practices—as on food intake. Consequently, a decisive factor in adequate nutrition is “the provision in the household and the community of time, attention and support to meet the physical, mental and social needs of the growing child and other family members.”¹⁴

Health and nutritional outcomes depend as much on child caring—including breast-feeding, adequate storage and preparation of food, and hygiene practices—as on food intake

A second shift occurred with the emergence of the notion of “hidden hunger.” In addition to undernutrition (hunger caused by insufficient calorie intake), a large number of people suffer from micronutrient deficiencies, with children and women disproportionately affected. Worldwide, vitamin A deficiency affects at least 100 million children, limiting their growth, weakening their immunity, and in cases of acute deficiency leading to blindness and increased mortality. Between 4 billion and 5 billion people suffer from iron deficiency, with an estimated 2 billion anemic and, in developing countries, half of the pregnant women and half of children under 5 iron-deficient. Iron deficiency impairs growth, cognitive development, and immune function, and leads children to perform less well in school and adults to be less productive. Iodine and zinc deficiencies also have adverse impacts on health and reduce the chances of survival of children. Some 30% of households in the developing world are still not consumers of iodized salt, and children born to highly iodine-deficient mothers are likely to experience learning disabilities or cretinism. Overall, the lack of certain vitamins and minerals may affect physical and mental development and the immune system. As discussed previously, South Asia is particularly affected.

The third shift occurred more recently. Researchers have demonstrated the considerable importance of focusing on the nutrition of the child during pregnancy and until the second birthday—during what is called the “1,000 days” window of opportunity. Maternal and child undernutrition—as measured by maternal height, birth weight, and intrauterine growth restriction; and weight, height, and body mass index (BMI) at 2 years of age (following WHO growth standards)—have been shown to be directly related to outcomes in life. The learning performance of children (and thus their incomes as adults) and the height of children (and adults) all depend on the quality of their nutrition as young infants during the 1,000-day window. The disadvantages of poor nutrition during pregnancy or early childhood cross generations. A girl who has been poorly fed as an infant will have an offspring with a lower birth weight (Ashworth 1998; Victora et al. 2008). Researchers conducting these studies found that “height-for-age at 2 years was the best predictor of human capital and that undernutrition is associated with lower human capital.” They concluded that

¹⁴ Gillespie and Mason (1990). See also Longhurst and Tomkins (1995) and Haddad and Oshaug (1999).

...damage suffered in early life leads to permanent impairment, and might also affect future generations. Its prevention will probably bring about important health, educational, and economic benefits. Chronic diseases are especially common in undernourished children who experience rapid weight gain after infancy (Victora et al. 2008).

A fourth shift has seen greater attention over the past few years to the “nutrition transition” occurring in developing countries as they rise to the status of middle-income countries. This transition is combined with a growth of non-communicable diseases (such as type 2 diabetes, cardio-vascular diseases, and certain types of cancers) that result from over consumption or diets too rich in salt, sugar, and certain fats. More than 1 billion people worldwide are overweight (with a BMI exceeding 25), and at least 300 million are obese (with a BMI exceeding 30). This development is such that overweight and obesity cause today, worldwide, more deaths than underweight (WHO 2009, p. 16). Developing countries, particularly emerging economies, are increasingly concerned by this development. By 2030, 5.1 million people will die annually before the age of 60 from non-communicable diseases in poor countries, up from 3.8 million today (Beaglehole et al. 2011). Within each country, the impacts vary across population groups. As a country transitions toward higher levels of income, the burden of overweight and obesity shifts. The poorest segment of the population is not at risk of obesity in poor countries (Levy-Costa et al. 2005, p. 6). However, in upper-middle income developing economies (with a GDP per capita over \$2,500) and in high-income countries, it is the poorest segment that is most negatively affected. Because the poor bear a disproportionate burden of overweight or obesity linked to the nutrition transition, women are particularly at risk. Their incomes are on average lower than those of men, and men in the low-income group often are employed in tasks that are physically demanding and require large expenses of energy. Overweight or obese women tend to give birth to children who themselves tend to be overweight or obese, resulting in lower productivity and discrimination. Socioeconomic disadvantages are thus perpetuated across generations, by the channel of overweight or obese women (Sassi 2010, pp. 83–84).

The nutrition transition that fast-growing developing countries experience—characterized by a shift toward foods more heavily processed and richer in salt, sugar, and saturated fats—may have particularly severe effects. Health care systems in developing countries are less well equipped to deal with the impacts of overweight and obesity. WHO reports that in Southeast Asia, 41% of deaths caused by high BMI index occur under age 60, compared with 18% in high-income countries (WHO 2009, pp. 16–18).

Families affected in developing countries may find it more difficult to cope. In India, for example, treatment for diabetes costs an affected person on average 15%–25% of household earnings (Ramachandran et al. 2007). Cardiovascular disease leads to catastrophic expenditures amounting to 25% of average Indian household earnings and drives 10% of affected families into poverty (Mahal et al. 2010). In addition, people who are affected may not be able to work, necessitating family members’ care for them and losses in income.

Although there is a sizeable time lag between the onset of obesity and the increase in health-care costs, growing obesity may have significant economic consequences in the next few years in the fast-growing economies of Asia and the Pacific. One scholar estimates that as overweight and obesity are predicted to double in the PRC over the next 2 decades, the indirect economic effects—estimated at 3.58% of GDP in 2000—could reach 8.73% of GDP in 2025 (Popkin 2008).

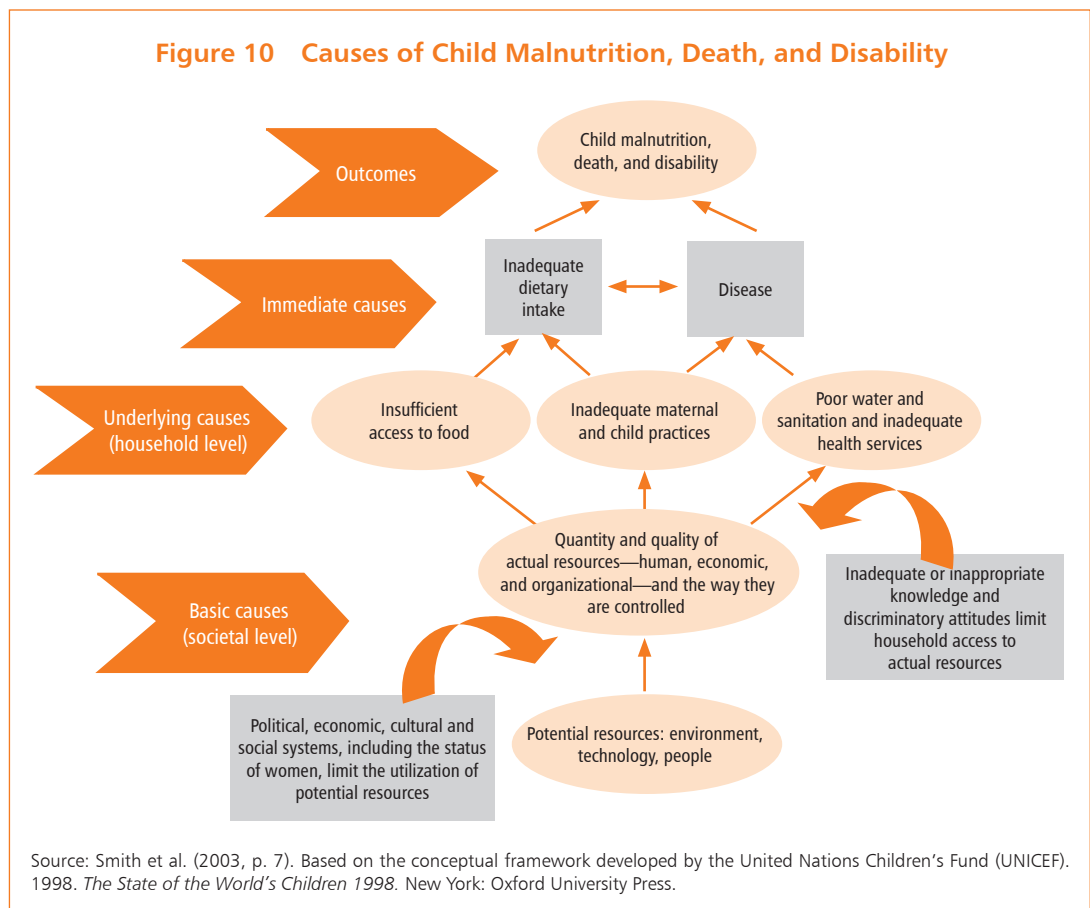
The increase in the numbers of overweight and obese people has been documented over the past 15 years in parts of Asia and the Pacific (Drewnowski and Popkin 1997; Popkin 2001; Griffiths and Bentley 2001). The most heavily affected are emerging economies that rely heavily on imported foods high in salt, sugar, and fat. Such dependency marks people living in the Pacific as having the highest obesity rates in the world, as high as 40% in most countries in that region. The problem is compounded by certain micronutrient deficiencies (iron deficiency in particular) and low consumption of fruits and vegetables (Cokanasiga, Keil, and Sisifa 2011, p. 61).

Gender equality and women’s empowerment also matter in light of these conceptual shifts. Adequate nutrition has been placed at the center of food security strategies in recent years. Improvements in the status of women—both within and outside the household—are thus of vital importance to ensure better nutritional outcomes in general, and to reduce child malnutrition in particular (Meinzen-Dick et al. 2011b). This should be obvious for the reason that adequate nutrition for pregnant and lactating women—or indeed, for all women of child-bearing age—must be treated as a priority in all food and nutrition security programs. It is also important, however, because the ability of women to provide adequate care depends on the support they receive and on their ability to make choices within the household. This is true not only for child-feeding practices, but also for employment outside the home or, in rural households, for agricultural production. Some of these links are described below.

Women’s Empowerment and the Adequacy of Care

The care given children during the early months of their lives is vital, and if they are girls, to their offspring. This is another crucial reason why providing services that improve the care they receive (particularly health care services, but also water and sanitation) should constitute an important element of public policies aiming to achieve food and nutrition security. Redistribution of power within the household is equally important, both so that women can make the choices that matter for infants and provide them with the care they require, and to ensure that men contribute to providing such care—and that this activity is valued as it should be. Inadequate caring practices and discriminatory attitudes that discourage or impede the provision of such care are among the “underlying causes” and the “basic causes,” respectively, identified in the well-known conceptualization proposed by UNICEF as the causes of malnutrition (Figure 10) :

Improvements in the status of women—both within and outside the household—are thus of vital importance to ensure better nutritional outcomes in general, and to reduce child malnutrition in particular



Breast-feeding provides another example of the relationship between the status of women and adequate nutrition. Exclusive breast-feeding for the first 6 months and continued breast-feeding up to 2 years of age or beyond, combined with complementary foods, is recognized as the optimal way of feeding infants and reducing the risk of non-communicable diseases later in life (Horwood and Fergusson 1998; UNGA 2011, para. 43 [ii]). Breast-feeding also protects young infants from diseases, such as diarrhea and respiratory infections, much better than when breast-milk substitutes or supplements are used during the first 6 months (Huffman, Zehner, and Victora 2001; Victora et al. 1987). Learning abilities and incomes in later life are enhanced (Horwood and Fergusson 1998). In sum,

...for the vast majority of infants and young children throughout the world, breastfeeding saves lives, prevents morbidity, promotes optimal physical and cognitive development, and reduces the risk of some chronic diseases. Evidence of the benefits of breastfeeding for mothers is growing as well (León-Cava et al. 2002, p. 1).

However, many countries still find it difficult to achieve targets in exclusive breast-feeding for the first 6 months and continued breast-feeding until the second birthday. Among the major obstacles are the promotion of commercial breast-milk substitutes (i.e., formula milk), the lack of information accessible to women countering this promotion, and information instead publicizing the benefits of breast-feeding. Employment practices often discourage women from continuing to breast-feed after returning to work. Public education campaigns, more knowledge to women, and adaptation of employment legislation aimed at enhancing supportive practices by employers are key to removing these obstacles. In this respect also, strategies that enhance the valuation of women go hand in hand with improved nutritional outcomes.

It would be a mistake to underestimate the importance of the responsibilities associated with the care economy—still predominantly assumed by women—in labor policies that seek to improve women’s integration into formal employment

Care or Income: A False Dilemma

The importance of caring practices in early childhood and the specific role of women in this regard also leads to an examination of how this relates to improved access to employment for women. This report has underlined the importance of creating economic opportunities for women outside agriculture. Some studies, however, have noted that while such opportunities and the associated increase in women’s incomes are in principle beneficial, from the point of view of nutritional outcomes, the effects may be ambiguous when the important role of care in improving nutritional outcomes is acknowledged. Unless greater attention is devoted to this issue, it may be asserted, the positive effects of increased household income associated with mothers’ paid work may be annulled by negative effects resulting from a decline in the time devoted to housework and child-care.

Studies in Thailand and Iran found that children whose mothers worked in the formal sector (Thailand) or spend more than 3 hours per day outside the home (Iran) could experience worsened nutritional or health outcomes because of the reduced time allocated to care by the mother. These studies conclude that “reduced maternal care effects” predominate over “income effects” when the mother takes up employment outside the home (Chutikul 1986; Rabiee and Giessler 1992). Most studies, however, including a major study using household-level data in the Philippines in 1985 and in 2003–2004, conclude instead that income effects predominate. Although time dedicated to care may in some cases decline, the welfare of children generally is increased when mothers augment their income with employment outside the home (Salazar and Quisumbing 2009).

Nevertheless, it would be a mistake to underestimate the importance of the responsibilities associated with the care economy—still predominantly assumed by women—in labor policies that seek to improve women’s integration into formal employment. To maximize beneficial health and nutritional outcomes for children, such policies should also aim at reducing and constructively accommodating household responsibilities. Time devoted to these responsibilities can be reduced

through appropriate investments in child-care services, public transportation, and development of cleaner and safer sources of energy for household needs (WHO 2012)). Recognition of the responsibilities involved in the unpaid care economy will contribute to reducing the burden of these responsibilities through such means as accommodating work schedules, and ensuring that workers assuming such responsibilities do not suffer wage discrimination or other penalties. Redistribution of roles between women and men for the discharge of care responsibilities is essential to reducing such burdens on women. The gradual redistribution of household responsibilities must be a central component of any gender-sensitive employment policy.

Similar considerations should guide policy makers in their efforts to mitigate negative impacts on health outcomes in countries undergoing a nutrition transition from traditional diets to diets relying more heavily on processed foods and food prepared outside the home. A central explanation for the rise in overweight and obesity in emerging countries is the less time spent by women cooking fresh food for family meals as a result of employment outside the home. The opportunity cost of women’s time rises due to their employment, affecting food consumption patterns and causing a shift to time-saving foods—especially commercially baked breads, as documented in Sri Lanka (Senauer, Sahn, and Alderman 1986). To counterbalance these developments, appropriate policies and investments could emphasize better organization of food retail systems to ensure easy access to fresh and nutritious food at affordable prices. Improvements in public transportation systems could receive emphasis to reduce commuting times between home and work. Additionally, better information must be available to help ensure wider knowledge of the benefits of a balanced diet and the redistribution of tasks within households, and to promote a higher value to cooking.

Policies should gradually shift from facilitating women’s access to employment outside the home by recognizing the specific constraints they face, to favoring redistribution of roles with measures that reward men for doing more

The balance between recognition and redistribution needs to be appropriate, and a phased approach may be preferred. A multiyear framework could define a country’s food and nutritional security strategies. Policies should gradually shift from facilitating women’s access to employment outside the home by recognizing the specific constraints they face, to favoring redistribution of roles with measures that reward men for doing more. A critical principle that should underlie such policies is the importance of women’s access to employment that constitutes decent work, that allows them to obtain enough income without having to sacrifice their family life.

The same reasoning may be applied to the various forms of support that go to women as agricultural producers. The effects of agricultural interventions on nutrition also may be assessed taking into account the role of women in providing adequate care. In certain cases, trade-offs may be required between advances in farming techniques or the shift to higher-value crops, on one hand, and the care given children, on the other.

The objectives of increasing food available to households and providing adequate care to infants are complementary in principle. Where agricultural interventions lead to increased demands on the time of women, however, it may be important to ensure that the care functions they fulfill do not suffer and result in less satisfactory nutritional outcomes. Time reallocations resulting from Nepal’s joining the Vegetable and Fruit Cash Crop Programme (VFC) were investigated in 1991–1993. The VFC aimed to encourage commercialization of fruits and vegetables by quality and productivity improvements, for the benefit of families who had hitherto produced fruits and vegetable for their own consumption. Using various methodologies to observe 264 households, researchers found that VFC participation increased the time dedicated by women (and even moderately by men) to children under 5 years of age in families with more than one preschooler. In contrast, in households with only one preschooler, parents tended to spend more time on cultivation, especially for the cash crops, at the expense of time allocated to care of the child. Such a trade-off is not inevitable. Whether the outcome is positive or not in such cases may depend on whether women were empowered by the program:

Although the incomes earned from the local sale of VFC products are quite small, they represent the first opportunities women have had to earn and retain income without leaving the community. This may have far-reaching impacts on the ability of women to exert their own preferences in

a wide range of activities—including an increased allocation of resources to children (Paolisso et al. 2002).

While additional research is required, available results indicate that only when higher incomes for the household go hand in hand with greater empowerment of women are health and nutrition benefits felt.

The Agriculture–Food–Health Nexus

The link between gender-sensitive public policies and improved nutritional outcomes is also important for agricultural investment and rural development. It is now better understood that investments in agriculture aimed at improving productivity and access to markets, while an essential component of food security strategies, do not necessarily translate into improved health or nutritional outcomes. To adequately address nutritional requirements, food and nutrition security strategies should not only ensure adequate calorie intake, but also achieve two complementary aims. They need to reduce micronutrient deficiency by promoting sufficiently diverse and balanced diets. Furthermore, by taking into account the income effects of various paths of agricultural development, they need to contribute to increased incomes for the rural poor.

The direction of agricultural development is a major factor in eliminating micronutrient deficiency. Most efforts over the past 50 years have been geared toward expanding the production of major cereals and soybeans. A conveniently cheap input is thus provided the food processing industry and the industrial livestock sector, and calorie availability per capita has increased. Too little attention has been devoted to encouraging the production of pulses such as lentils or pigeon peas, or fruits and vegetables. While progress has been achieved in improving the micronutrient content of diets by fortification of flour and ionization of salt, too little has been done to fortify the staple foods that many rural populations rely on—e.g., subsistence corn, rice, and millet. Biofortification programs, or programs designed to ensure that these foods are enriched with adequate micronutrient during the milling phase, could go a long way toward reducing “hidden hunger”.

The gender dimension is relevant to consideration of the links between agricultural production, adequacy of diets, and health and nutritional outcomes. Support of agriculture shall be especially effective in improving nutritional outcomes if it increases incomes of the poorest households and benefits women within these households. If it is women who benefit from the increased opportunities and incomes that productivity gains allow, the incomes they control will be used for the health, education, and nutrition of children, more than if household incomes are controlled by men. This is confirmed by a number of studies, which converge in demonstrating the benefits—for the health, educational, and nutritional outcomes of children—of women increasing their control over the use of incomes and assets within the household (Dwyer and Bruce 1988; Hobcraft 1993; Bicego and Boerma 1991; Buvinic and Valenzuela 1996; Pitt et al. 2003; Haddad, Hoddinott, and Alderman 1997; Quisumbing and Maluccio 2003).

Moreover, where rural women control assets and decide what to produce, they tend to favor the production of food crops that ensure food security for the family. Men will more frequently show a preference for cash crops sold on markets (FAO, IFAD, and ILO 2010, p. 13). Where households are relatively food insecure and price volatility on markets is high, the availability of food from own production can be essential. Various initiatives have thus sought to promote homestead food production—particularly of fruits, vegetables, and livestock—by women who can combine such production on gardens with household chores and the care of children, with encouraging results in dietary diversity.

An oft-cited example is the work by the international NGO Helen Keller International, launched initially in Bangladesh in the 1980s, and expanded later to Cambodia, Nepal, and the Philippines (Ianotti, Cunningham, and Ruel 2009; Meinzen-Dick et al. 2011b). Working together with local

The link between gender-sensitive public policies and improved nutritional outcomes is also important for agricultural investment and rural development

partners, Helen Keller International supports women’s production of nutritious food on family plots, with significant reductions in micronutrient deficiencies (vitamin A, iron, and zinc) in the households concerned. In addition to increasing dietary diversity, such strategies may allow women to build economic assets (with the raising of poultry, for example), and improve their role in decision making within the family while fulfilling their domestic and child-care responsibilities. Women’s constraints in access to agricultural land and credit could be tackled in this manner. Although there is a risk that homestead food production may strengthen norms favoring women’s social seclusion, the opposite may be the case when a woman’s asset base develops enough to allow sales on the market and market access is not constrained.

Greater autonomy will allow women to choose the most efficient and economical use of their time:

[T]he more control a woman has over her own time and household income, the more likely she is to make a timely decision to treat her sick child after discovering an illness. She is more likely to make use of health services and follow through with treatment recommendations, or to have the child immunized. She may be more likely to obtain a special food for a child, prepare it, and feed it to the child at an appropriate frequency and with the degree of patience required. She may also be more likely to make use of health services for her own care during illness, for ongoing gynecological care, and for prenatal and birthing care (Smith et al. 2003, p. 10).

In contrast, restrictions to autonomous decision making or to the mobility of women simply do not allow for such decisions. (The customary *purdah* is an extreme example of the imposition of seclusiveness still common in some South Asian societies.) This suggests the need to move beyond increasing household income toward improving the bargaining position of women within households.

There is a link between the betterment of girls’ and women’s education and nutritional outcomes. Agricultural interventions aimed at increasing productivity in order to augment household food availability shall translate into improved health and nutritional outcomes only if combined with good practices for child-care and feeding. Such practices are crucial to optimizing the benefits of better calorie intake. The training of women in such practices must be encouraged as an essential complement to agricultural interventions.

Conclusions and Recommendations

VII

Women in Asia and the Pacific region face obstacles in all their roles—as food producers; as waged workers both on and off farms; as beneficiaries of social protection measures; and as primary caregivers, particularly during the early years of a child’s life. By removing these obstacles, not only will women and girls gain, but also all society will benefit, and food security will improve significantly.

As a first step, existing laws and regulations should be assessed to identify those that discriminate against women. Particular attention should be given to laws concerning property and inheritance. Land ownership is a major determinant of the ability of rural women to improve the productivity of the land they use, to rebalance decision making power within the household, and to raise their status in the household, the community, and as citizens. However, elimination of existing discriminatory legal provisions, will not be sufficient. The other obstacles women face should also be gradually removed through appropriate strategies at the country level. Systematic inclusion of the gender dimension should be incorporated in all national rural development projects and other support schemes.

Country-Level Strategies

The synergy between gender equality and food security should be maximized through adoption of multisectoral and multiyear strategies at the country level. Such strategies should be developed in a participatory fashion, set out clear targets, and define time frames to ensure that action is taken without undue delay. The strategies should allocate responsibilities across the appropriate departments—in particular education, health, employment, social affairs, agriculture, and rural development, but also departments in charge of various infrastructure (water and sanitation, energy, and transport). The aim of these strategies should be rapid progress toward food and nutrition security in a way that improves the situation of women and maximizes their contribution to society-wide eradication of hunger and malnutrition. Appropriate, effective gender-sensitive food and nutrition security strategies should incorporate the following characteristics.

Multisectorality. Measures in different sectors must be combined and complement each another. Some of the most promising practices identified were successful because of such complementarities. For instance, school feeding programs that source local raw materials that are cooked by poor local women in school mid-day meal schemes at the same time improve girls’ school enrollment, support access to markets by small-scale farmers, and employ local women with few other sources of income. These programs, however, require coordination between the sectors of education, employment, and agriculture, and could involve social affairs (if that department is in charge of public works programs that include cooking in participating schools). Public works programs can both provide employment for poor women and improve infrastructure and services that relieve women of some of the burden of their household responsibilities. Improvements needed

Land ownership is a major determinant of the ability of rural women to improve the productivity of the land they use, to rebalance decision making power within the household, and to raise their status in the household, the community, and as citizens

include energy and water services, afforestation projects that reduce time spent fetching water and fuelwood, and child-care services that allow women to work outside the home. Improvements in access to markets by women farmers are also vital, and a good example of the need for complementarities. Infrastructure development is required for improved roads and transportation facilities to reduce travel time to and from markets. The training of women in marketing skills and provision of price information is needed. Investments in productivity improvements should take place. Little progress can be made on any particular front by one department without complementary and coordinated efforts by the other departments involved.

Women’s organizations. Gender-sensitive food and nutrition security strategies should identify how the emergence of women’s organizations can be facilitated and encouraged, whether in the form of unions, cooperatives, or NGOs. It is not by accident that under the 1979 UN Convention on the Elimination of All Forms of Discrimination against Women (Article 14[2][e]), states are enjoined to “eliminate discrimination against women in rural areas [and] to ensure, on a basis of equality of men and women, that they participate in and benefit from rural development,” and to guarantee the right of rural women “to organize self-help groups and cooperatives in order to obtain equal access to economic opportunities through employment or self employment.” Getting organized is of great importance to women who are small-scale food producers. With effective organization, women can improve their access to land and credit using social collateral. They can more readily retain control over use of loans they obtain if it is the collective of women that decides their use. They can more readily experiment with new crop varieties, hedging risks across a number of plots. They can achieve economies of scale in the storage, packaging, transportation, and marketing of their produce. When organized, their bargaining position vis-à-vis input suppliers and buyers is much stronger. They can also access extension services and exchange information much more effectively.

A shift from top–down, technocratically driven strategies and programs to bottom–up, participatory ones is urgently required. The arguments for such a shift go beyond the question of gender equality and women’s empowerment

The organization of women is not only advantageous for women farmers. It can also serve in the development of insurance schemes and thus improve income security, as done in Gujarat and other parts of India by the Self Employed Women’s Association, whose pooling of the resources of many women allow negotiation of advantageous rates with public and private insurance companies. The organization of women can help maximize the effectiveness of social auditing, as women’s organizations can competently assess the gender impacts of social programs. Critically, organized women have a much more effective and influential voice in the political decision making process, helping ensure that the formulation, implementation, and assessment of policies devote appropriate attention to the circumstances and needs of women.

Inclusive decision making. A shift from top–down, technocratically driven strategies and programs to bottom–up, participatory ones is urgently required. The arguments for such a shift go beyond the question of gender equality and women’s empowerment. The poor understand the obstacles they face and are generally hugely inventive in identifying solutions. Policy-makers that involve them in design and decision making will make choices that are better informed, better understood, and ultimately more effective (Banerjee and Duflo 2011). Thus gender-sensitive food and nutrition security strategies should be formulated through participatory means, and should encourage participation at all levels—from the individual project at the village level to the country-level shaping of national strategies.

There are strong arguments for such participation by both men and women in gender-sensitive food and nutrition security strategies, but the reasons for participation may be different for each. Men should be involved in identifying the means that are to improve equality between women and men and favor women’s empowerment. This will reduce the risk of their resistance to change—e.g., agreeing to women’s greater mobility only if women continue to perform all traditional household chores, or by appropriating the loans women obtain in microfinance schemes. At village level, the men and local elites should be co-opted into projects that seek to improve the status of women. This approach may increase the cost of interventions and require additional time, but it increases their chances for acceptance, success, and lasting positive effects.

Participation of women is equally essential for reasons that go beyond the obvious—that as primary beneficiaries they should be involved in project, program, and strategy formulation as a matter of principle. Their participation is needed to ensure that strategies and programs are effective, as confirmed by the Convention on the Elimination of All Forms of Discrimination against Women (Article 14[2][a]). Additionally, women’s participation in the search for solutions that can best support them is essential because of the often very thin line between accommodating their specific needs, particularly those within prevailing cultural norms, and reinforcing gender role stereotypes. Determining the most appropriate balance between accommodation and the risk of sacrificing the long-term objective of disrupting those stereotypes can only be done in specific contexts, based on the views of the women concerned.

It cannot be assumed that the concerns driving men are also those that drive women. A gender-sensitive food and nutrition security strategy is not one that simply allows women to succeed in doing what men have traditionally sought to do. The priorities of women may well be different. As noted, they may prioritize the ability of the family to feed itself from homestead food production. This implies cultivation of a range of plants with nutritional diversity for family consumption. It may also imply sacrificing opportunities to switch to the production of high-value crops for the market and earning higher income in cash. Women may thus opt for types of farming that are less costly but also less risky, and that require less access to credit. Partly for that reason, but also because of women’s generally greater concern for surrounding ecosystems, women may in some instances prefer to practice a low-external-input type of agriculture not oriented toward profit. As livestock keepers, women may prefer poultry or pigs to cows, goats, and sheep, and locally adapted breeds to improved exotic species. Such choices may reflect a concern to minimize workload. There is no reason not to respect these choices, and no reason not to support women as farmers even if their objectives differ from those of men entrepreneurs. Strategies and programs may need to support access to inputs, credit, and markets as well as assistance to women who wish to pursue homestead production of food to feed their families.

It cannot be assumed that the concerns driving men are also those that drive women. A gender-sensitive food and nutrition security strategy is not one that simply allows women to succeed in doing what men have traditionally sought to do

Phased approach. Gender-sensitive food and nutrition strategies should be phased, multiyear strategies, reflecting the reality that not all changes can be implemented at the same time. Required transformations should be launched at the earliest possible time, with clear time frames established to avoid delays. Phasing is not simply dictated by political realism. It may be seen as an opportunity in light of the need to combine the objectives of reduction (of women’s burdens, restrictions, and time poverty), recognition (of their contributions to household and care responsibilities), and redistribution (of their responsibilities within the household and the care economy). Though women’s burdens may be reduced by infrastructural investments and provision of important services, the existing division of household roles and associated gender stereotypes will remain in place if they are simply recognized and accommodated (by adapting modes of payment or work schedules, for example). The redistribution of roles and the challenging of gender stereotypes require a transformative approach, in which reduction (with appropriate support) and recognition (of specific needs) are used as opportunities to question existing social and cultural norms. It is only across time that movement from mere reduction and recognition, to reduction and recognition combined with redistribution can be effectively pursued. This later phase must be programmed into earlier phases, however, for effectual transformative social protection measures to emerge successfully.

Rights-based strategy. Two characteristics distinguish a gender-sensitive food and nutrition security strategy that is rights-based. Such a strategy goes beyond a policy commitment by government authorities to implement certain plans. It is enforceable, and progress is monitored by use of indicators that are aligned with the normative components of the right to food and the rights of women. Such monitoring is performed by an independent body that can receive information from civil society about implementation gaps, and that is tasked with ensuring that the different levels of government deliver on their promises. Permanent feedback is thus organized during strategy design to be carried out during implementation. Participation is not limited to a one-time consultation during the design phase.

The content of such a strategy should be guided by the need to realize the rights of women and girls, as specified in particular by the Convention on the Elimination of All Forms of Discrimination against Women. The principles of accountability, participation, non-discrimination, transparency in the use of resources, empowerment, and the rule of law—principles that cut across all human rights—should guide the formulation of strategies, programs, and projects as well as their implementation.

Project-Level Gender Components

A number of examples of policies, strategies, and programs that include a gender component were described in this report—e.g., for agricultural research and development, improvement of rural infrastructure, and the provision of extension services and microfinance. Though generalization about these examples is difficult due to their diversity, two key lessons emerge.

One is that the participation of women in setting priorities and formulating policies and programs requires broad and inclusive consultation that goes beyond community meetings. Methods such as focus groups and household surveys must be relied upon to be sure that women are able to express their preferences. Opportunities outside the pressure of the group are needed for them to make their views adequately known. In addition, women involved in participatory design must be made fully aware of their entitlements and the full range of alternatives that could be explored in any particular scheme in order to ensure that their views are informed and do not simply reflect baseline expectations and existing patterns of discrimination and exclusion.

A second lesson is that the perceptions, expectations, and preferences of women will vary not only from region to region within a country, but also from group to group. There may be ethnic groups, for example, with forms of solidarity or social norms that assign women a very different position than those exhibited by other ethnic groups or by the majority. Such cultural differences cannot be ignored. They call for context-sensitive approaches that place the participation of women first, and that refrain from the top-down imposition of values from the outside. At the same time, effort must be made to avoid women simply parroting views and preferences based on inherited cultural values. Such views may well place them in a subordinate role or discourage any redefinition of existing gender roles. It may be advisable to present women with alternatives, preferably illustrated by concrete examples of experiences that have empowered women in other contexts that are not too far removed from their own. Empowerment also means being informed about such alternatives, and seeking inspiration from what has succeeded elsewhere.

Women's Rights as Human Rights

Women's rights are protected under a range of human rights instruments. The International Covenant on Economic, Social and Cultural Rights provides that the right to an adequate standard of living, including the right to food, should be guaranteed without discrimination.¹ A non-discrimination requirement is also imposed under the International Covenant on Civil and Political Rights, also adopted in 1966. This requirement goes beyond the rights listed in the Covenant, extending to all spheres of life.² The International Convention on the Elimination of All Forms of Discrimination against Women, adopted in 1979,³ guarantees the right of women to equal treatment in land and agrarian reform as well as in land resettlement schemes,⁴ as well as adequate nutrition during pregnancy and lactation (Article 12). The 1989 Convention on the Rights of the Child,⁵ which sets out rights that should be guaranteed without discrimination (Article 2, paragraph 1), also refers to a duty of states to protect the right to health of the child by ensuring that "all segments of society, in particular parents and children, are informed, have access to education and are supported in the use of basic knowledge of child health and nutrition, the advantages of breastfeeding..." (Article 24, paragraph 2[e]), thus emphasizing the link between rights of women and the rights of the child.

A number of human rights guarantees deserve particular emphasis. In human rights law, discrimination against women constitutes any distinction, exclusion, restriction or preference, or other differential treatment that is based on sex, which has the purpose or effect of nullifying or impairing the recognition, enjoyment or exercise by all persons, on an equal footing, of all rights and freedoms. It also includes any action or omission that, whether intended or not, disproportionately affects members of a particular group, in the absence of a reasonable and objective justification, thus constituting *de facto* discrimination.

With regard specifically to workers with family responsibilities, the vast majority of which are women, the Convention (No. 156) concerning Equal Opportunities and Equal Treatment for Men and Women Workers: Workers with Family Responsibilities, adopted in 1981 by the General Conference of the International Labour Organization and entered into force in 1983, seeks to protect "men and women workers with responsibilities in relation to their dependent children, where such responsibilities restrict their possibilities of preparing for, entering, participating in or advancing in economic activity," by prohibiting any discrimination on grounds of such responsibilities being exercised, and by protecting the right of persons with family responsibilities to engage in employment "to the extent possible, without conflict between their employment and family responsibilities"

¹ Art. 2(2), (A/RES/21/2200A, 16 December 1966; 993 UNTS 3.

² Arts. 2(1) and 26, GA res. 2200A (XXI), 21 UN GAOR Supp. (No. 16) at 52, UN Doc. A/6316 (1966); 999 UNTS 171.

³ A/RES/34/180, 18 December 1979; 1249 UNTS 13.

⁴ Art. 14, paragraph 2(g).

⁵ A/RES/44/25, 20 November 1989; 1577 UNTS 3.

(Article 1[2] and 3). The Convention on the Elimination of All Forms of Discrimination against Women (CEDAW Convention) dedicates as specific provision to access of employment for women and the conciliation with family responsibilities, encouraging states in particular to provide “the necessary supporting social services to enable parents to combine family obligations with work responsibilities and participation in public life, in particular through promoting the establishment and development of a network of child-care facilities” (Article 14[2][c]).

In order to eliminate de facto discrimination, states may be under an obligation to adopt special measures to attenuate or suppress conditions that perpetuate discrimination. In human rights law, such measures are legitimate to the extent that they represent reasonable, objective, and proportionate means to redress de facto discrimination and are discontinued when substantive equality has been sustainably achieved.⁶ Indeed, article 4, paragraph 1, of the CEDAW Convention explicitly provides for the adoption of temporary special measures for the advancement of women, a goal which the Committee on the Elimination of Discrimination against Women (CEDAW Committee) has specified in its general recommendation no. 25. The CEDAW Committee expects states parties to numerical goals with timetables or quotas in respect of women’s access in the labor market, including non-traditional jobs, and the promotion of women into the upper levels of the public and private sectors. Positive action measures must be adopted in order to combat vertical and horizontal segregation in employment.⁷

The fourteenth preambular paragraph of the CEDAW Convention recognizes that “a change in the traditional role of men as well as the role of women in society and in the family is needed to achieve full equality between men and women.” Consistent with this finding, article 5 of the CEDAW Convention provides that States Parties shall seek to:

[a] modify the social and cultural patterns of conduct of men and women, with a view to achieving the elimination of prejudices and customary and all other practices which are based on the idea of the inferiority or the superiority of either of the sexes or on stereotyped roles for men and women[; and]

[b] ensure that family education includes a proper understanding of maternity as a social function and the recognition of the common responsibility of men and women in the upbringing and development of their children, it being understood that the interest of the children is the primordial consideration in all cases[.]

Relying on this provision, the CEDAW Committee has urged Singapore to combat the “persistence of patriarchal attitudes and deep-rooted stereotypes regarding the roles and responsibilities of women and men within the family and society at large,” and expressed its concern that, “despite the legal equality accorded to spouses, discriminatory traditional cultural attitudes that continue to utilize “the head of the household” concept, assigning this role to men, persist” within that state. Singapore was urged to:

...put in place, without delay, a comprehensive strategy to modify or eliminate patriarchal attitudes and stereotypes that discriminate against women, including those based on sexual orientation and gender identity, in conformity with the provisions of the Convention. Such measures should include efforts, in collaboration with civil society, to educate and raise awareness of this subject, targeting women and men at all levels of society (Concluding Observations on Singapore).⁸

⁶ Human Rights Committee, *General Comment No. 18: Non-discrimination*, UN Doc. HRI/GEN/1/Rev.7, May 12, 2004, at 146; Committee on Economic, Social and Cultural Rights, *General Comment No. 20: Non-Discrimination in Economic, Social and Cultural Rights* (Article 2, para. 2), (Forty-second session, 2009), UN Doc. E/C.12/GC/20.

⁷ See, for instance, the Concluding Observations adopted on Tunisia (CEDAW/C/TUN/CO/6, 5 November 2010, paras. 42–43); the Concluding Observations adopted on Lesotho (CEDAW/C/LSO/CO/1-4, 8 November 2011, paras. 30–31); or the Concluding Observations adopted on Brazil (CEDAW/C/BRA/CO/7, 23 March 2012, paras. 26–27).

⁸ Concluding Observations on Singapore (CEDAW/C/SGP/CO/4, July 2011), paras. 21–22.

Under the same provision of the CEDAW Convention, the CEDAW Committee expressed its concern about the “emphasis on the role of women as mothers and caregivers” in the Russian Federation, noting that “a shift from a focus on women primarily as wives and mothers to individuals and actors equal to men in society is required for the full implementation of the Convention and the achievement of equality of women and men.” It recommended that the Russian Federation immediately put in place “a comprehensive strategy, including the review and formulation of legislation and the establishment of goals and timetables, to modify or eliminate traditional practices and stereotypes that discriminate against women.”⁹ Similarly, while welcoming the adoption in Mauritius of the 2008 National Gender Policy Framework, the Committee recorded its concern about:

...the persistence of discriminatory cultural norms and practices as well as patriarchal attitudes and deep-rooted stereotypes concerning the roles and responsibilities of women and men in family and society whereby men are largely still considered the main breadwinners and women are considered as having the primary responsibility for child-rearing and domestic tasks.¹⁰

It also deserves notice that the CEDAW Convention has a specific provision on women in rural areas.¹¹ Article 14(1) provides that “States Parties shall take into account the particular problems faced by rural women and the significant roles which rural women play in the economic survival of their families, including their work in the non-monetized sectors of the economy, and shall take all appropriate measures to ensure the application of the provisions of the present Convention to women in rural areas.” Article 14(2) then sets out the implications:

States Parties shall take all appropriate measures to eliminate discrimination against women in rural areas in order to ensure, on a basis of equality of men and women, that they participate in and benefit from rural development and, in particular, shall ensure to such women the right: (a) To participate in the elaboration and implementation of development planning at all levels; (b) To have access to adequate health care facilities, including information, counselling and services in family planning; (c) To benefit directly from social security programmes; (d) To obtain all types of training and education, formal and non-formal, including that relating to functional literacy, as well as, inter alia, the benefit of all community and extension services, in order to increase their technical proficiency; (e) To organize self-help groups and co-operatives in order to obtain equal access to economic opportunities through employment or self employment; (f) To participate in all community activities; (g) To have access to agricultural credit and loans, marketing facilities, appropriate technology and equal treatment in land and agrarian reform as well as in land resettlement schemes; (h) To enjoy adequate living conditions, particularly in relation to housing, sanitation, electricity and water supply, transport and communications.

The CEDAW Committee also adopted a General Statement on Rural Women.¹²

⁹ CEDAW/C/USR/CO/7, 16 August 2010, paras. 20–21.

¹⁰ CEDAW/C/MUS/CO/6-7, November 2011, para. 18.

¹¹ See also FAO (2013) for practical guidance on the implementation of the CEDAW convention in rural areas.

¹² Decision 50/VI, adopted on 19 October 2011 at the fiftieth session of the Committee (A/67/38, Annex II).

Women's Rights in Employment

The 1948 Universal Declaration of Human Rights (UDHR),¹ the founding instrument of international human rights law, recognizes the right to work without discrimination in articles 2 and 23. This right was reaffirmed in the International Covenant on Economic, Social and Cultural Rights (ICESCR)² and in the Convention on the Elimination of Discrimination against Women (CEDAW), Article 2.³ It includes the right to freely choose an occupation, to enjoy a just and favorable remuneration, to work in safe and healthy conditions, and to form and join trade unions. Women have a right to employment opportunities and treatment equal to men, including equal remuneration for work of equal value.⁴ Women also have the right to enjoy special protection during pregnancy and paid maternity leave, and the right not to be dismissed on grounds of pregnancy or maternity leave (CEDAW, Article 11[2]). The principle of non-discrimination enshrined in CEDAW is not limited to state action. Article 2(e) explicitly envisages the elimination of discrimination against women “by any person, organization or enterprise.” Every woman, as well as every man, has a right to social security in cases of retirement, unemployment, sickness, invalidity, and old age.⁵

Detailed provisions on women’s labor rights are contained in several International Labour Organization (ILO) conventions. The Discrimination (Employment and Occupation) Convention (No. 111) of 1958 prohibits sex discrimination in both opportunity and treatment, and provides for affirmative action. The Equal Remuneration Convention (No. 100) of 1951 states the principle of equal remuneration for men and women not only for “equal work,” but also for “work of equal value,” ensuring that women can benefit from equal treatment even where they do not hold exactly the same position as men due to cultural stereotypes and unequal access to education. Reference to the economic value of the work allows comparisons across occupational categories and industries. The Termination of Employment Convention (No. 158) of 1982 prohibits dismissal on grounds of sex, marital status, and absence during maternity leave.

The Maternity Protection (Revised) Convention (No. 103) of 1952 entitles pregnant workers to a maternity leave of at least 12 weeks (with no less than 6 weeks after childbirth). It allows additional leave in case of late delivery or pregnancy-related illness. It prohibits dismissal while on maternity leave. It entitles women to medical and cash benefits, provided through either compulsory social insurance or public funds. Finally, it allows work interruptions for nursing purposes. While this convention applies to both industrial and non-industrial occupations, states may exempt work in agricultural undertakings other than plantations. The Workers with Family Responsibility Convention (No. 156) of 1981 prohibits discrimination against men and women workers with family responsibilities (e.g., family responsibilities are not a valid reason for termination of employment).

¹ GA Res. 217 A (III), UN Doc. A/810, at 71 (1948).

² Article 2(2) (A/RES/21/2200A, 16 December 1966) (993 UNTS 3) (arts. 2[2] and 6-8).

³ (A/RES/34/180, 18 December 1979) (1249 UNTS 13) (CEDAW) (Art. 11).

⁴ UDHR, Article 23(2), ICESCR, art. 7(a) (i) and CEDAW, Article 11.

⁵ UDHR, Article 22, ICESCR, Article 9 and CEDAW, arts. 11(1)(e) and 14(2)(c).

The Plantations Convention (No. 110) of 1958 and its 1982 Protocol protect the labor rights of plantation workers, without discrimination on the basis of sex. The term plantation is defined as:

...any agricultural undertaking regularly employing hired workers which is situated in the tropical or subtropical regions and which is mainly concerned with the cultivation or production for commercial purposes of coffee, tea, sugarcane, rubber, bananas, cocoa, coconuts, groundnuts, cotton, tobacco, fibres (sisal, jute and hemp), citrus, palm oil, cinchona or pineapple; it does not include family or small-scale holdings producing for local consumption and not regularly employing hired workers.⁶

State parties may exclude or add categories of agricultural undertakings from the application of the convention. The convention contains guarantees as to the recruitment (e.g., the recruitment of the household head does not involve the recruitment of household members), employment contracts, wages (e.g., wages are to be paid directly to the worker), annual paid leave and weekly rest, compensation for injury, trade unions (e.g., workers' freedom of association "without distinction whatsoever"), and maternity protection (maternity leave of at least 12 weeks, at least 6 of which after childbirth, with additional leave for late delivery or pregnancy-related illness; cash and medical benefits; protection from dismissal during maternity leave; breaks for nursing purposes; prohibition for a pregnant woman to "undertake any type of work harmful to her in the period prior to her maternity leave").

The Migration for Employment (Revised) Convention (No. 97) of 1949 provides guarantees for lawfully migrant workers, without discrimination on the basis of sex.

The principle of non-discrimination is also stated in the 1998 ILO Declaration on the Fundamental Principles and Rights at Work. This declaration reaffirms some fundamental principles and rights to which all ILO member states must adhere by the very fact of their ILO membership, regardless of their ratification of the relevant conventions.

⁶ Article 1(1) of the Convention, as amended by the Protocol.

Mainstreaming Gender in the Food Security and Sustainable Livelihood Programme for the Pacific

The Food Security and Sustainable Livelihood Programme for the Pacific (FSSLP), the successor to the Food and Agriculture Organization's (FAO) Regional Programme for Food Security in the Pacific, was launched in 2010 for the Cook Islands, Fiji, Kiribati, Marshall Islands, the Federated States of Micronesia, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu. It is supported by technical cooperation from FAO and is conducted in cooperation with the International Fund for Agricultural Development (IFAD) and relevant members of the Council of Regional Organizations in the Pacific (CROP). The FSSLP aims to:

- increase food production in an ecologically sustainable way;
- create livelihood activities for vulnerable and poor households;
- strengthen the links of remote vulnerable households and women to sustainable agricultural inputs, services, and markets by the provision of adequate services to the communities; and
- strengthen the policy framework at country and regional levels to address immediate and long-term food security challenges.

The gender dimension is integrated in a number of ways. FAO's technical cooperation includes the recruitment of a gender and participation specialist, whose primary task is to create awareness among stakeholders of the rationale for integration of gender equity issues in the program, and the benefits of integrating this dimension. The specialist is also to help ensure locally appropriate targeting and participatory processes to engage primary and key stakeholders throughout the program. The FSSLP includes a gender strategy to ensure rural women are a key target group, because they play a key role in local and traditional food production as well as in consumption and production choices made at household level.

Gender equity in all program activities will be promoted. For that purpose, a gender advisor will be posted in the program management unit. An essential project design criterion for national and local projects will be the extent to which a project meets priorities expressed by women and the extent to which women are involved in its design, implementation, and evaluation. Where the program will support the acquisition or creation of individual assets, these will be registered in the name of the woman in case of a woman-headed household, and in the names of both spouses in case of other households. The program will ensure that women will represent at least 60% of the beneficiaries involved in program initiatives. The interests of women will be properly represented in the respective steering committees. Preference will be given to female candidates in the recruitment of program management staff at the regional, subregional, and national levels, given equal qualifications and experience (Cokanasiga, Keil, and Sisifa 2011, p. 64–65).

References

- Abu-Ghaida, D., and S. Klasen. 2004. The Costs of Missing the Millennium Development Goals on Gender Equity. *World Development* 32(7):1075–1107.
- Adams, K. M., and S. Dickey, eds. 1999. *Home and Hegemony: Domestic Service and Identity Politics in South and Southeast Asia*. Ann Arbor: University of Michigan Press.
- Agarwal, B. 1994. *A Field of One's Own: Gender and Land Rights in South Asia*. Cambridge, UK: Cambridge University Press
- . 2002. Are We Not Peasants Too? Land Rights and Women's Claims in India? SEEDS 21. New York: SEEDS / The Population Council, Inc.
- . 2003. Gender and Land Rights Revisited: Exploring New Prospects via the State, Family and Market. *Journal of Agrarian Change* 3(1–2):184–224.
- . 2010. Rethinking Agricultural Production Collectivities. *Economic and Political Weekly*. 27 February 55(9):64–78.
- . 2011. Food Crises and Gender Inequality. Department of Economic and Social Affairs (DESA) *Working Paper* No. 107. June. New Delhi: Institute of Economic Growth.
- Agarwal, B., and P. Panda. 2007. Toward Freedom from Domestic Violence: the Neglected Obvious. *Journal of Human Development* 8(3):359–388.
- Ahmed, A. U. 2004. Assessing the Performance of Conditional Cash Transfer Programs for Girls and Boys in Primary and Secondary Schools in Bangladesh. *Working Paper*. Washington, DC: International Food Policy Research Institute (IFPRI).
- Ahmed, T., R. Amir, F. Espejo, A. Gelli, and U. Meir. 2007. *Food for Education Improves Girls' Education: The Pakistan Girls' Education Programme*. Pakistan: World Food Programme.
- Alderman, H., J. Hoddinott, and B. Kinsey. 2006. Long Term Consequences of Early Childhood Malnutrition. *Oxford Economic Papers* 58(3):450–474.
- Altieri, M. 1995. *Agroecology: The Science of Sustainable Agriculture*. 2nd edition. Boulder, CO: Westview Press.
- Ambler, J., Lauren Pandolfelli, Anna Kramer, and Ruth Meinzen-Dick 2007. Strengthening Women's Assets and Status: Programs Improving Poor Women's Lives. 2020 Focus Brief on the World's Poor and Hungry People. Washington, DC: IFPRI.
- Antonopoulos, R. 2007. The Right to a Job, the Right Types of Projects: Employment Guarantee Policies from a Gender Perspective. *Working Paper* 516. New York: The Levy Economics Institute of Bard College.
- Asadullah, M. N., and N. Chaudhury. 2006. *Conditional Cash Transfer and Educational Gender Gaps: Insights from Bangladeshi Households*. Washington, DC: World Bank. <http://paa2007.princeton.edu/papers/70330>

- Ashby, J., and N. Lilja. 2004. Participatory Research: Does It Work? Evidence from Participatory Plant Breeding. Paper presented at the 4th International Crop Congress: New Directions for a Diverse Planet. Brisbane, Australia. 26 September–1 October.
- Ashworth, A. 1998. Effects of Intrauterine Growth Retardation on Mortality and Morbidity in Infants and Young Children. *European Journal of Clinical Nutrition* 52 Suppl 1, S34–41; discussion S41–2. <http://www.ncbi.nlm.nih.gov/pubmed/9511018>
- Asian Development Bank (ADB). 2001. *Women in Bangladesh: Country Briefing Paper*. Manila.
- . 2010a. *Completion Report: Crop Diversification Project in Bangladesh*. Manila.
- . 2010b. Kyrgyz Republic Emergency Assistance for Recovery and Reconstruction. Progress reports. Unpublished.
- . 2010c. *Report and Recommendation of the President to the Board of Directors: Proposed Loan, Technical Assistance Grant, and Administration of Technical Assistance Grant to the Republic of the Philippines for the Social Protection Support Project*. Manila.
- . 2011a. *Benazir Income Support Program*. Staff Briefing Note. Unpublished.
- . 2011b. *Cambodia Emergency Food Assistance Program*. Progress report. Manila.
- . 2011c. *Empowering Women through Rural Infrastructure*. Mainstreaming Gender in Transport. Manila.
- . 2011d. Mongolia Food and Nutrition Social Welfare Program. ADB staff data. Unpublished.
- . 2012. *Social Protection Strategy 2001: Special Evaluation Study*. Manila.
- . 2013. *Gender Equality and Women's Empowerment Operational Plan, 2013–2020: Moving the Agenda Forward*. Manila.
- Asian Development Bank and International Labour Organization (ILO). 2011. *Women and Labour Markets in Asia. Rebalancing for Gender Equality*. Bangkok: ILO.
- AT Kearney. 2011. *The Mobile Ecosystem in Asia Pacific. Steering Economic and Social Impact through Mobile Broadband*. http://www.atkearney.com/paper/-/asset_publisher/dVxv4Hz2h8bS/content/the-mobile-ecosystem-in-asia-pacific/10192
- Australian Agency for International Development. 2000. *Impact of the Asian Financial Crisis on Health*. http://www.usaid.gov/Publications/Documents/health_thailand.pdf
- Balasubramanian, S. 2012. Why Micro-Credit May Leave Women Worse Off: Non-Cooperative Bargaining and the Marriage Game in South Asia. *The Journal of Development Studies*. DOI: 10.1080/00220388.2012.709618
- Bali Swain, R. 2007. Can Microfinance Empower Women? Self-help Groups in India. ADA Dialogue. 37. May. http://schant.socialdev.net/data/docs/37_swain_an.pdf
- Banerjee, A. V., and E. Duflo. 2011. *Poor Economics. A Radical Rethinking of the Way to Fight Global Poverty*. New York: Public Affairs.
- Barrientos, S., C. Dolan, and A. Tallontire. 2003. A Gendered Value Chain Approach to Codes of Conduct in African Horticulture. *World Development* 31(9): 1511–1526.
- Barros, R., L. Fox, and R. Mendonça. 1997. Female-headed Households, Poverty, and Welfare of Children in Urban Brazil. *Economic Development and Cultural Change* 45(2):231–257.
- Beaglehole, R., R. Bonita, R. Horton, C. Adams, G. Alleyne, P. Asaria, V. Baugh, H. Bekedam, N. Billo, S. Casswell, M. Cecchini, R. Colagiuri, S. Colagiuri, T. Collins, S. Ebrahim, M. Engelgau, G. Galea, T. Gaziano, R. Geneau, A. Haines, J. Hospedales, P. Jha, A. Keeling, S. Leeder, P. Lincoln, M. McKee, J. Mackay, R. Magnusson, R. Moodie, M. Mwatsama, S. Nishtar, B. Norrving, D. Patterson, P. Piot, J. Ralston, M. Rani, K. S. Reddy, F. Sassi, N. Sheron, D. Stuckler, I. Suh, J. Torode, C. Varghese, J. Watt, Lancet NCD Action Group, and NCD Alliance. 2011. Priority Actions for the Non-communicable Disease Crisis. *The Lancet* 377 (9775):1438–1447.

- Beegle, K., E. Frankenberg, and D. Thomas. 2001. Bargaining Power within Couples and Use of Prenatal and Delivery Care in Indonesia. *Studies in Family Planning* 32(2):130–146. <http://www.ncbi.nlm.nih.gov/pubmed/11449862>
- Behrman, J., Meinzen-Dick, R., Quisumbing, A. 2011. The Gender Implications of Large-Scale Land Deals. *International Food Policy Research Institute Discussion Paper* No. 01056. <http://www.ifpri.org/publication/gender-implications-large-scale-land-deals>
- Bhutta, Z. A., F. A. Bawany, A. Feroze, A. Rizvi. 2009. The Impact of the Food and Economic Crisis on Child Health. Draft Working Paper prepared for UNICEF Conference, East Asia and the Pacific Islands. Singapore. 6–7 January.
- Bicego, G. T., and J. T. Boerma. 1991. Maternal Education and Child Survival: a Comparative Analysis of DHS Data. In *Proceedings of the Demographic and Health Surveys World Conference*, Washington D.C., 1991, Vol. I. Columbia, Maryland: IRD/Macro International Inc.
- Binswanger, H. P., and M. R. Rosenzweig. 1986. Behavioural and Material Determinants of Production Relations in Agriculture. *The Journal of Development Studies* 22(3):503–539.
- Björkman, M. 2006. *Income Shocks and Gender Gaps in Education: Evidence from Uganda*. Stockholm: Institute for International Economic Studies, Stockholm University.
- Black, R. E., L. H. Allen, Z. A. Bhutta, L. E. Caulfield, M. de Onis, M. Ezzati, C. Mathers, J. Rivera, for the Maternal and Child Undernutrition Study Group. 2008. Maternal and Child Undernutrition: Global and Regional Exposures and Health Consequences. *The Lancet* 371(9608):243–260.
- Block, S., L. Keiss, P. Webb, S. Kosen, R. M.-Pfanner, M. W. Bloem, C. P. Timmer. 2004. Macro Shocks and Micro Outcomes: Child Nutrition during Indonesia's Crisis. *Economics and Human Biology* 2(1):21–44. Digital Object Identifier (DOI): 10.1016/j.ehb.2003.12.007
- BRAC. 2001. *Challenging the Frontiers of Poverty Reduction: Targeting the Ultra-poor, Targeting Social Constraints*. Proposal. Dhaka.
- . 2007. *Gender Policy. Towards Gender Equality*. Gender Justice and Diversity Section, Human Resource Development. Dhaka: BRAC.
- Braverman, A., J. L. Guasch, M. Huppi and L. Pohlmeier. 1991. Promoting Rural Cooperatives in Developing Countries. *Discussion Paper* No. 121. Washington, DC: World Bank.
- Bread for the World Institute. 1995. *Causes of Hunger 1995: Fifth Annual Report on the State of World Hunger*. Washington, DC: Bread for the World Institute.
- Breneman-Pennas, T., and M. Rueda Catry. 2008. Women's Participation in Social Dialogue Institutions at the National Level. *ILO Social Dialogue, Labour Law and Labour Administration Division Paper* 16. Geneva.
- Brinkman, H.-J., Saskia de Pee, Issa Sanogo, Ludovic Subran, and Martin W. Bloem. 2010. High Food Prices and the Global Financial Crisis have Reduced Access to Nutritious Food and Worsened Nutritional Status and Health. *The Journal of Nutrition* 140 (1):153S–161S. DOI:10.3945/jn.109.110767
- Brochmann, G. 1993. *Middle East Avenue: Female Migration from Sri Lanka to the Gulf*. Boulder, CO: Westview Press.
- Brown, J., K. Ananthpur, and R. Giovarelli. 2002. Women's Access and Rights to Land in Karnataka. *Rural Development Institute Reports on Foreign Aid and Development* No. 114. http://www.landesa.org/wp-content/uploads/2011/01/RDI_114.pdf
- Bruno, J., and E. Selig. 2007. Regional Decline of Coral Cover in the Indo-Pacific: Timing, Extent, and Subregional Comparisons. *PLoS ONE* 2(8). <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0000711>
- Budlender, D. 2010. What do Time Use Studies tell us about Unpaid Care Work? In D. Budlender, ed. *Time Use Studies and Unpaid Care Work*. London: Routledge.

- Buvinic, M., and J. P. Valenzuela. 1996. Investing in Women. International Center for Research on Women. *Policy Series 1992*. Washington, DC: International Center for Research on Women.
- Cahn, M. 2008. Women and Rural Livelihood Training: A Case Study from Papua New Guinea. *Gender & Development* 16(1):133–146.
- Caldes, N., D. Coady, and J. Maluccio. 2006. The Cost of Poverty Alleviation Transfer Programs: A Comparative Analysis of Three Programs in Latin America. *World Development* 34(5): 818–837.
- Carter, M. R. 2003. Designing Land and Property Rights Reform for Poverty Alleviation and Food Security. Land Reform, Land Settlement and Cooperatives, Land Reform 2003/2. Food and Agriculture Organization (FAO) of the United Nations (UN). <http://www.fao.org/sd/LTdirect/landrf.htm>
- Chadha, G. K. 1992. Non-Farm Sector in India's Rural Economy: Policy, Performance and Growth Prospects. Center for Regional Development, Jawaharlal Nehru University. Delhi. Mimeo.
- Chang, H. F., F. MacPhail, and X. Dong. 2011. The Feminization of Labor and the Time-Use Gender Gap in Rural [People's Republic of] China. *Feminist Economics* 17(4):93–124.
- Chaudhury, N., and D. Parajuli. 2006. Conditional Cash Transfers and Female Schooling: The Impact of the Female School Stipend Program on Public School Enrollments in Punjab, Pakistan. *World Bank Policy Research Working Paper 4102*. Washington, DC: World Bank.
- Cheung, W., V. W.Y. Lam, J. L. Sarmiento, K. Kearney, R. Watson and D. Pauly. 2009. Projecting Global Marine Biodiversity Impacts Under Climate Change Scenarios. *Fish and Fisheries* 10(3):235–251.
- Chibber, A., J. Ghosh, and T. Palanivel. 2009. *The Global Financial Crisis and the Asia-Pacific Region: A Synthesis Study Incorporating Evidence from Country Case Studies*. Colombo: United Nations Development Programme (UNDP) Regional Centre for Asia and the Pacific.
- Chittchang, U. 2005. National School Lunch Programme in Thailand. Presented at Consumers' International Regional Workshop on Children and Food Security: Nutrition in Schools. Kuala Lumpur. 22 June.
- Chowdhury, M. J. A. 2008. Does the Participation in the Microcredit Programs Contribute to the Development of Women Entrepreneurship at the Household Level? Experience from Bangladesh. Presented at UNU-WIDER Workshop on Entrepreneurship and Economic Development. World Institute of Development Economics Research (WIDER), United Nations University. Helsinki.
- . 2009. Microcredit, Micro-enterprises, and Self-employment of Women: Experience from the Grameen Bank in Bangladesh. Presented at the FAO–International Fund for Agricultural Development (IFAD)–ILO Workshop on Gaps, Trends and Current Research in Gender Dimensions of Agricultural and Rural Employment: Differentiated Pathways out of Poverty. Rome. 31 March–2 April.
- Christian, P. 2010. Impact of the Economic Crisis and Increase in Food Prices on Child Mortality: Exploring Nutritional Pathways. *The Journal of Nutrition* 140(1):177S–181S. DOI:10.3945/jn.109.111708
- Cleaver, F. 1999. Paradoxes of Participation: Questioning Participatory Approaches to Development. *Journal of International Development* 11(4):597–612.
- Climate Change Cell. 2009. *Climate Change, Gender and Vulnerable Groups in Bangladesh*. Dhaka: Department of Environment, Ministry of Environment and Forest.
- Cokanasiga, J., H. J. Keil, and A. Sisifa. 2011. Pacific Subregion: Building Healthy Islands through Partnership. In *Food for All. Investing in Food Security in Asia and the Pacific—Issues, Innovations, and Practices*. Manila: ADB.

- Cronin, S. J., D. R. Gaylord, D. Charley, B. V. Alloway, S. Wallez, and J. W. Esau. 2004. Participatory Methods of Incorporating Scientific with Traditional Knowledge for Volcanic Hazard Management on Ambae Island, Vanuatu. *Bulletin of Volcanology* 66(7): 652–668.
- Dabadi, G. D. 2009. Assessing Female Ownership of Fixed Assets in Nepal: A new Feature of the Population Census 2001. *Global Forum on Gender Statistics*, (January). http://unstats.un.org/unsd/gender/Ghana_Jan2009/Doc26.pdf
- de Brauw, A. Q., L. Zhang, S. Rozelle, C. Liu, S. Olivia, and Q. Li. 2008. Feminization of Agriculture in [the People's Republic of] China? Debunking Myths Surrounding Women's Participation in Farming. *China Quarterly* 194(June): 327–334
- de Brauw, A. Q., J. Huang, L. Zhang, and S. Rozelle. 2012. The Feminization of Agriculture with Chinese Characteristics. *IFPRI Discussion Paper* 01189. Washington, DC: IFPRI.
- Deere, C. D. 2005. The Feminisation of Agriculture? Economic Restructuring in Rural Latin America. *Occasional Paper* 1. Geneva: United Nations Research Institute for Social Development
- Deere, C. and J. Diaz. 2011. Asset Accumulation: The Challenge for Equity. Quito, Ecuador: FLASCO.
- Deininger, K., and H. Binswanger. 1999. The Evolution of the World Bank's Land Policy: Principles, Experience and Future Challenges. *World Bank Research Observer* 14(2):247–276.
- de Janvry, A., and E. Sadoule. 2006. Making Conditional Cash Transfer Programs More Efficient: Designing for Maximum Effect of the Conditionality. *World Bank Economic Review* 20(1): 1–29.
- del Ninno, C., P. A. Dorosh, L. C. Smith, D. K. Roy. 2001. The 1998 Floods in Bangladesh: Disaster Impacts, Household Coping Strategies, and Responses. Research Report 122. Washington, DC: IFPRI. <http://www.ifpri.org/sites/default/files/publications/rr122.pdf>
- De Schutter, O. 2009. *Agribusiness and the Right to Food. Report of the Special Rapporteur on the Right to Food to the Thirteenth Session of the Human Rights Council*. UN doc. A/HRC/13/33. New York: United Nations (UN).
- . 2010b. *Agroecology and the Right to Food. Report of the Special Rapporteur on the Right to Food to the Sixteenth Session of the Human Rights Council*. UN doc. A/HRC/16/49. New York: UN.
- . 2011. *Contract Farming and the Right to Food. Report of the Special Rapporteur on the Right to Food to the Sixty-sixth Session of the General Assembly*. UN doc. A/66/262. New York: UN.
- . 2012. *The Fisheries Sector and the Right to Food. Report of the Special Rapporteur on the Right to Food to the Sixty-seventh Session of the General Assembly*. UN doc. A/67/268. New York: UN.
- Development & Training Services, Inc. 2006. *A Pro-poor Analysis of the Shrimp Sector in Bangladesh*. Bangladesh: United States Agency for International Development (USAID).
- Devereux, S., and R. Sabates-Wheeler. 2004. Transformative Social Protection. Institute of Development Studies (IDS) *Working Paper* 232. Brighton: IDS.
- Devereux, S., and C. Solomon. 2006. Employment Creation Programmes: The International Experience. Issues in Employment and Poverty. *Discussion Paper* 24. Geneva: ILO.
- Devereux, S., A. McGregor, and R. Sabates-Wheeler. 2011. Introduction: Social Protection for Social Justice. *IDS Bulletin* 42(6):1–9.
- Dolan, C. S., and K. Sorby. 2003. Gender and Employment in High-value Agriculture Industries. *Agriculture and Rural Development Working Paper* 7. Washington, DC: World Bank.
- Doss, C. 2005. The Effects of Intrahousehold Property Ownership on Expenditure Patterns in Ghana. *Journal of African Economies* 15(1):149–180. DOI:10.1093/jae/eji025.

- Doss, C., C. D. Deere, A. Oduro, H. Swaminathan, J.Y. Suchitra, R. Lahoti, W. Baah-Boateng, L. B.-Yiadom, J. Contreras, J. Twyman, Z. Catanzarite, C. Grown and M. Hillesland 2011. *The Gender Asset and Wealth Gaps: Evidence from Ecuador, Ghana and Karnataka, India*. Bangalore: Indian Institute of Management.
- Drewnowski, A., and B. M. Popkin. 1997. The Nutrition Transition: New Trends in Global Diet. *Nutrition Reviews* 55(2):31–43.
- Drèze, J., and A. Goyal. 2003. The Future of Mid-day Meals. *Economic and Political Weekly* 38(44): 4673–4683.
- Drèze, J., and G. Kingdon. 2001. School Participation in Rural India. *Review of Development Economics* 5(1):1–24.
- Drèze, J., and P. V. Srinivasan. 1997. Widowhood and Poverty in Rural India: Some Inferences from Household Survey Data. *Journal of Development Economics* 54(2):217–234.
- Duflo, E. 2005. *Gender Equality in Development*. Department of Economics. Cambridge: Massachusetts Institute of Technology.
- du Toit, A., and F. Ally. 2003. The Externalization and Casualisation of Farm Labour in Western Cape Horticulture. *Programme for Land and Agrarian Studies Research Report No. 16*. Belville, South Africa: Centre for Rural Legal Studies.
- Dwyer, D., and J. Bruce. 1988. *A Home Divided: Women and Income in the Third World*. Stanford: Stanford University Press.
- Elavia, B. 1994. Women and Rural Credit. In Romy Borooh et al., eds. *Capturing Complexity: Women, Households and Development*. New Delhi / Thousand Oaks, CA: Sage.
- Elson, D. 2010. Gender and the Global Economic Crisis in Developing Countries: A Framework for Analysis. *Gender and Development* 18(2). DOI: 10.1080/13552074.2010.491321
- Eyben, R., and M. Fontana. 2011. *Caring for Wellbeing*. The Bellagio Initiative (Institute for Development Studies, The Resource Alliance, and the Rockefeller Foundation). <http://www.bellagioinitiative.org/>
- Fälth, A., and M. Blackden. 2009. Unpaid Care Work. *United Nations Development Programme Policy Brief 1*. New York: UNDP.
- Filmer, D. 2005. Gender and Wealth Disparities in Schooling: Evidence from 44 Countries. *International Journal of Educational Research* 43(2005):351–369.
- Fleming, S. 2012. The Brics' Growth Story Start to Lose its Way. *The Times*. 2 January.
- Fletschner, D. 2009. Rural Women's Access to Credit: Market Imperfections and Intrahousehold Dynamics. *World Development* 37(3):618–631.
- Food and Agriculture Organization (FAO) of the UN. 1993. *Agricultural Extension and Women Farm Workers in the 1980s*. Rome.
- . 1996. *FAO Focus: Women and Food Security: Women Hold the Key to Food Security*. Rome.
- . 2009. Securing Sustainable Small-Scale Fisheries: Bringing Together Responsible Fisheries and Social Development. In *Report of the Global Conference on Small-scale Fisheries*. Bangkok. 13–17 October.
- . 2010. *The State of Food and Agriculture 2010—Women in Agriculture*. Rome.
- . 2012a. *Invisible Guardians. Women Manage Livestock Diversity*. Rome.
- . 2012b. *State of World Fisheries and Aquaculture*. Rome.

- . 2012c. *National Aquaculture Sector Overview*. NASO Fact Sheets. Fisheries and Aquaculture Department. Rome.
- . 2013. CEDAW - Convention on the Elimination of All Forms of Discrimination against Women. A Tool for Gender-Sensitive Agriculture and Rural Development Policy and Programme Formulation. Guidelines for Ministries of Agriculture and FAO. Rome.
- FAO, IFAD, and ILO. 2010. *Gender Dimensions of Agricultural and Rural Employment: Differentiated Pathways out of Poverty*. Rome: FAO / IFAD / Geneva: ILO.
- FAO, IFAD, and World Food Programme (WFP). 2011. *State of Food Insecurity in the World 2011: How Does International Price Volatility Affect Domestic Economies and Food Security?* Rome: FAO/IFAD/WFP.
- FAO and WFP. 2010. *State of Food Insecurity in the World 2010: Addressing Food Insecurity in Protracted Crises*. Rome: FAO/WFP.
- Foster, A. D., and M. R. Rosenzweig. 2010. Is There Surplus Labour in Rural India. *Discussion Paper No. 991*. New Haven: Economic Growth Centre, Yale University.
- Friedemann-Sánchez, G. 2006. Assets in Intrahousehold Bargaining Among Women Workers in Colombia's Cut-Flower Industry. *Feminist Economics* 12(1–2):247–269. DOI:10.1080/13545700500508551
- Galor, O., and D. N. Weil. 1996. The Gender Gap, Fertility and Growth. *The American Economic Review* 86(3):374–387. Garcia, M., A. Pence, and J. Evans. 2008. eds. *Africa's Future, Africa's Challenge: Early Childhood Care and Development in Sub-Saharan Africa*. Washington, DC: World Bank.
- Garikipati, S. 2008. The Impact of Lending to Women on Household Vulnerability and Women's Empowerment: Evidence from India. *World Development* 36(12):2620–2642.
- . 2010. Microcredit and Women's Empowerment: Understanding the 'Impact Paradox' with particular Reference to South India. In S. Chant, ed. *The International Handbook of Gender and Poverty: Concepts, Research, Policy*. Cheltenham, Northampton: Edward Elgar.
- Ghate, P. 1992. *Informal Finance: Some Findings from Asia*. Manila: Oxford University Press for ADB.
- Ghosh, J. 2009. The Impact of the Crisis on Women in Developing Asia. Monthly Review Online. 9 December. <http://mrzine.monthlyreview.org/2009/ghosh091209.html>
- Ghosh, P., D. Mookherjee, and D. Ray. 2001. Credit Rationing in Developing Countries: An Overview of the Theory. In D. Mookherjee and D. Ray, eds. *Readings in the Theory of Economic Development*. Malden, MA: Blackwell.
- Gill, K. K. 2001. Diversification of Agriculture and Women's Employment in Punjab. *Indian Journal of Labour Economics* 44(2):259–267.
- Gillepsie, S., and J. Mason. 1990. *Nutrition-relevant Actions: Some Experiences from the Eighties and Lessons for the Nineties*. Geneva: UN Administrative Committee on Coordination.
- Gliessman, S. 2007. *Agroecology: the Ecology of Sustainable Food Systems*. Boca Raton, Florida: CRC Press.
- Godquin, M., and A. R. Quisumbing. 2008. Separate But Equal? The Gendered Nature of Social Capital in Rural Philippine Communities. *Journal of International Development* 20(1):13–33.
- Goetz, A. M., and R. Sen Gupta. 1996. Who Takes Credit? Gender, Power, and Control Over Loan Use in Rural Credit Programs in Bangladesh. *World Development* 24(1):45–63.
- Green, D., R. King, and M. M.-Dawkins. 2010. *The Global Economic Crisis and Developing Countries*. *Oxfam Research Report*. Oxford, UK: Oxfam.

- Griffiths, P. L., and M. E. Bentley. 2001. The Nutrition Transition Is Underway in India. *Journal of Nutrition* 131(10):2692–2700.
- Grootaert, C., and H. Patrinos. 1999. *The Policy Analysis of Child Labor: A Comparative Study*. New York: St. Martin's Press.
- GSMA (Global System Mobile Association) Development Fund. 2010. *Women and Mobile. A Global Opportunity: A Study on the Mobile Phone Gender Gap in Low and Middle Income Countries*. http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2013/01/GSMA_Women_and_Mobile-A_Global_Opportunity.pdf
- Gunewardena, N., and A. Kingsolver, eds. 2007. *The Gender of Globalization: Women Navigating Cultural and Economic Marginalities. School for Advanced Research Seminar Series*. Santa Fe, NM: School for Advanced Research Press/Oxford, UK: James Currey.
- Haddad, L., J. Hoddinott, and H. Alderman. 1997. *Intrahousehold Resource Allocation: Policy Issues and Research Methods*. Baltimore: Johns Hopkins University Press for IFPRI.
- Haddad, L., and A. Oshaug. 1999. How Does the Human Rights Perspective Help to Shape the Food and Nutrition Policy Agenda? *Food Policy* 23(5):329–345.
- Hakim, C. 1996. *Key Issues in Women's Work: Female Heterogeneity and the Polarisation of Women's Employment*. London: Althone.
- Hardin, G. 1968. The Tragedy of the Commons. *Science* 162(1243):1243–1248.
- Hausmann, R., L. D. Tyson, and S. Zahidi. 2012. *The Global Gender Gap Report 2012*. Geneva: World Economic Forum.
- Heltberg, R., N. Hossain, and A. Reva. 2012. *Living through Crises: How the Food, Fuel, and Financial Shocks Affect the Poor*. Washington, DC: World Bank.
- Henshall, M. J., ed. 1999. *Gender, Migration and Domestic Service*. London: Routledge.
- Herz, B., and G. Sperling. 2004. *What Works in Girls' Education: Evidence and Policies from the Developing World*. New York: Council on Foreign Relations.
- High-Level Panel of Experts. 2012. *Social Protection for Food Security*. Rome: FAO Committee on World Food Security. Rome: FAO.
- Hobcraft, J. 1993. Women's Education, Child Welfare and Child Survival: A Review of the Evidence. *Health Transition Review* 3(2):159–173.
- Hoff, K., and J. E. Stiglitz. 1993. Imperfect Information and Rural Credit Markets: Puzzles and Policy Perspectives. In K. Hoff, A. Braverman, and J. E. Stiglitz, eds. *The Economics of Rural Organization. Theory, Practice, and Policy*. Oxford: Oxford University Press.
- Holmes, R., and N. Jones. 2010. Rethinking Social Protection Using a Gender Lens. *Working Paper* 320. London: Overseas Development Institute.
- Holt, S., and H. Ribe. 1991. *Developing Financial Institutions for the Poor and Reducing Barriers to Access for Women*. World Bank Discussion Papers. Washington, DC: World Bank.
- Horwood, L. J., and D. M. Fergusson. 1998. Breastfeeding and Later Cognitive and Academic Outcomes. *Pediatrics* 101(1):e9.
- Huffman, S. L., E. R. Zehner, and C. Victora. 2001. Can Improvements in Breast-feeding Practices Reduce Neonatal Mortality in Developing Countries? *Midwifery* 17(2):80–92.
- Hulme, D., and P. Mosley. 1996. *Finance against Poverty*. London: Routledge.
- Human Rights Watch. 2011. *Ripe with Abuse. Human Rights Conditions in South Africa's Fruit and Wine Industries*. New York: Human Rights Watch.

- Ianotti, L., K. Cunningham, and M. Ruel. 2009. Improving Diet Quality and Micronutrient Nutrition: Homestead Food Production in Bangladesh. IFPRI Discussion Paper 00928. Prepared for *Millions Fed: Proven Successes in Agriculture*. Washington, DC: IFPRI.
- International Center for Research on Women (ICRW). 2006. *Property Ownership & Inheritance Rights of Women for Social Protection—The South Asia Experience Synthesis*. Washington, DC: ICRW.
- International Labour Conference (ILC). 2012. Recommendation (No. 202) Concerning National Floors of Social Protection. Adopted at the 101st Session. 30 May. Geneva: ILO.
- International Labour Organization (ILO). 1999. *Direct Request made by the Committee of Experts on the Application of Conventions and Recommendations (CEARC) to Guatemala concerning Workers with Family Responsibilities Convention, 1981* (No. 156). Geneva: ILO.
- . 2008. *Promotion of Rural Employment for Poverty Reduction. Report IV. International Labour Conference, 97th Session*. Geneva: ILO.
- . 2010. *Women in Labour Markets: Measuring Progress and Identifying Challenges*. Geneva: ILO.
- . 2012. *Global Employment Trends 2012*. Geneva: ILO.
- ILO, FAO, and International Union of Food, Agricultural, Hotel, Restaurant, Catering, Tobacco and Allied Workers' Associations (IUF). 2007. *Agricultural Workers and their Contribution to Sustainable Agriculture and Rural Development*. Geneva: ILO.
- ILO Subregional Office for South Asia. 2008. *India: Self-Employed Workers' Association Insurance Scheme (Gujarat)*. New Delhi: ILO Subregional Office for South Asia.
- ILO and UNDP. 2011. *Successful Social Protection Floor Experiences. Global South-South Development Academy. Sharing Innovative Experiences series*. UNDP Special Unit for South-South Cooperation. New York: UNDP.
- Jenson, J. 2009. Lost in Translation: The Social Investment Perspective and Gender Equality. *Social Politics* 16(4):446–483.
- Jewitt, S. 2000. Unequal Knowledges in Jharkhand, India: De-Romanticizing Women's Agroecological Expertise. *Development and Change* 31(5):961–985.
- Kabeer, N. 2001a. *Safety Nets and Opportunity Ladders: Addressing Vulnerability and Enhancing Productivity in South Asia*. Brighton, UK: Institute of Development Studies.
- . 2001b. Conflicts over Credit. *World Development* 29(1):63–84.
- . 2005. Gender Equality and Women's Empowerment: A Critical Analysis of the Third Millennium Development Goal. *Gender and Development* 13(1):13–24.
- Karshenas, M. 2009. *The Impact of the Global Financial and Economic Crisis on the Least Developed Countries*. New York: United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing Countries (UN-OHRLS).
- Khera, R. 2006. Mid-day Meals in Primary Schools: Achievements and Challenges. *Economic and Political Weekly* 41(46):4742–4750
- King-Dejardin, A. 1996. Public Works Programmes, a Strategy for Poverty Alleviation: The Gender Dimension. *Issues in Development. Discussion Paper 10*. Geneva: ILO.
- King-Dejardin, A., and J. Owens. 2009. Asia in the Global Economic Crisis: Impacts and Responses from a Gender Perspective. ILO Technical Note for Responding to the Economic Crisis—Coherent Policies for Growth, Employment and Decent Work in Asia and Pacific. Manila. 18–20 February.

- Kraemer, K., and M. B. Zimmermann, eds. 2007. *Nutritional Anemia*. Basel, Switzerland: Sight and Life.
- Kristjansson, E. A., B. Kristjansson, M. Petticrew, B. MacDonald, J. Krasevec, L. Janzen, T. Greenhalgh, G.A. Wells, J. MacGowan, A. P. Farmer, B. Shea, A. Mayhew, P. Tugwell, and V. Welch. 2006. School Feeding for Improving the Physical and Psychosocial Health of Disadvantaged Elementary School Children. *Campbell Systematic Reviews* 2006(14): 1–135.
- Kristjansson, E. A., B. Kristjansson, M. Petticrew, B. MacDonald, J. Krasevec, L. Janzen, T. Greenhalgh, G.A. Wells, J. MacGowan, A. P. Farmer, B. Shea, A. Mayhew, P. Tugwell, and V. Welch. 2007. School Feeding for Improving the Physical and Psychological Health of Disadvantaged Elementary School Children. *Cochrane Database Syst. Rev.* 24(1): CD004676.
- Kumar, S. K., and D. Hotchkiss. 1988. Consequences of Deforestation for Women's Time Allocation, Agricultural Production, and Nutrition in Hill Areas of Nepal. *Research Report* No. 69. Washington, DC: IFPRI.
- Kumar, P. 2006. Contract Farming in India: Options and Implications for Small and Large Farmers. *Institute of Economic Growth Working Paper* No. E/267/2006. New Delhi: Institute of Economic Growth.
- Kurien, J. 2004. *Responsible Fish Trade and Food Security: Toward Understanding the Relationship between International Fish Trade and Food Security*. Rome: FAO.
- Lastarria-Cornhiel, S. 2007. Who Benefits from Land Titling? Lessons from Bolivia and Laos. *International Institute for Environment and Development Gatekeeper Series* 132. London: International Institute for Environment and Development.
- Lean L. L., ed. 1998. *The Sex Sector: The Economic and Social Bases of Prostitution in Southeast Asia*. Geneva: ILO.
- Lee, S., D. McCann, and J. C. Messenger. 2007. *Working Time Around the World: Trends in Working Hours, Laws and Policies in a Global Comparative Perspective*. London: Routledge/ Geneva: ILO.
- León-Cava, N., C. Lutter, J. Ross, Ph.D., L. Martin, M.A. 2002. *Quantifying the Benefits of Breastfeeding: A Summary of the Evidence*. USAID. <http://www.paho.org/English/AD/FCH/BOBcontents.pdf>
- Levy-Costa, B. R. Sichieri, S. Pontes Ndos, C. A. Monteiro. 2005. Household Food Availability in Brazil: Distribution and Trends (1974–2003). *Revista de Saúde Pública* 39:530–540.
- Longhurst, R., and A. Tomkins. 1995. The Role of Care in Nutrition: A Neglected Essential Ingredient. *Standing Committee on Nutrition News* 12:1–5.
- Lucas, H., A. Barnett, H. Standing, L. Yuelai, and S. Jolly. 2003. *Energy, Poverty and Gender: A Review of the Evidence and Case Studies in Rural [People's Republic of] China*. Report for the World Bank. Brighton, UK: Institute of Development Studies.
- Maertens, M., and J. Swinnen. 2009. Are Modern Supply Chains Bearers of Gender Tnequality? ILO– FAO Workshop, Gender Dimension of Rural Employment. Rome. 30 March–3 April.
- Mahal, A., A. Karan and M. Engelgau. 2010. *The Economic Implications of Non-communicable Disease for India*. Washington, DC: World Bank.
- Mahmood, M., and G. Aryah. 2001. The Labor Market and Labor Policy in a Macroeconomic Context: Growth, Crisis, and Competitiveness in Thailand. In G. Betcherman and R. Islam, eds. *East Asian Labor Market and the Economic Crisis: Impacts, Responses, and Lessons*. Washington, DC: World Bank.
- Mallick, D., and M. Rafi. 2010. Are Female-Headed Households More Food Insecure? Evidence from Bangladesh. *World Development* 38(4):593–605.

- Man-Kwun Chan. 2010. *Improving Opportunities for Women in Smallholder-based Supply Chains*. Seattle: Bill & Melinda Gates Foundation.
- Markelova, H., and R. Meinzen-Dick. 2009. Collective Action for Smallholder Market Access. *Food Policy* 34(1):1–7.
- Maros, I., and M. M. Will. 2008. Implications of Higher Global Food Prices for Poverty in Low-Income Countries. *World Bank Policy Research Working Paper*. Washington, DC: World Bank.
- Masika, R. 2002. Editorial: Gender and Climate Change. *Gender and Development*. 10 (2).
- Mason, A. 1999. Tourism and the Sex Trade Industry in Southeast Asia. *Totem: The University of Western Ontario Journal of Anthropology* 7(1):Article 7.
- Matin, I., M. Sulaiman, and M. Rabbani. 2008. Crafting a Graduation Pathway for the Ultra-poor: Lessons and Evidence from a BRAC Programme. *Chronic Poverty Research Centre. Working Paper*. No. 109. Dhaka: BRAC.
- Meinzen-Dick, R., L. R. Brown, H. S. Feldstein, and A. R. Quisumbing. 1997. Gender, Property Rights, and Natural Resources. *World Development* 25(8):1303–1315.
- Meinzen-Dick, R., A. Quisumbing, J. Behrman, P. B.-Jenzano, V. Wilde, M. Noordeloos, C. Ragasa, and N. Beintema. 2010. Engendering Agricultural Research. *IFPRI Discussion Paper* 00973. Washington, DC: IFPRI.
- Meinzen-Dick, R., A. Quisumbing, J. Behrman, P. B.-Jenzano, V. Wilde, M. Noordeloos, C. Ragasa, and N. Beintema. 2011a. *Engendering Agricultural Research, Development and Extension*. Washington, DC: IFPRI.
- Meinzen-Dick, R., J. Behrman, P. Menon, and A. Quisumbing. 2011b. Gender: A Key Dimension Linking Agricultural Programs to Improved Nutrition and Health. In S. Fan and R. Pandya-Lorch, eds. *Reshaping Agriculture for Nutrition and Health*. Washington, DC: IFPRI.
- Mills, D. J., L. Westlund, G. de Graaf, Y. Kura, R. Willman and K. Kelleher. 2011. Underreported and Undervalued: Small-scale Fisheries in the Developing World. In R. Pomeroy and N. L. Andrew, eds. *Managing Small Scale Fisheries: Frameworks and Approaches*. UK: CABI
- Mishra Panda, S. 2007. Women’s Collective Action and Sustainable Water Management: Case of SEWA’s Water Campaign in Gujarat, India. Paper presented at the International Research Workshop on Gender and Collective Action. Chiang Mai, Thailand. 17–21 October.
- Mitchell, D. 2008. A Note on Rising Food Prices. *World Bank Policy Research Working Paper* No. 4682. Washington, DC: World Bank.
- Molyneux, M. 2006. Mothers at the Service of the New Poverty Agenda: Progres/Oportunidades, Mexico’s Conditional Transfer Programme. *Social Politics and Administration* 40(4): 429–440.
- Mu, R., and D. van de Walle. 2011. Left Behind to Farm? Women’s Labor Re-allocation in Rural [People’s Republic of] China. *Labor Economics* 18(S1):S83–S97.
- Mukherjee, A. 2009. Eight Food Insecurities Faced by Women and Girl Children: Four Steps that could Make a Difference, with Special Reference to South Asia. Paper presented at the Regional Conference on Child Poverty and Disparities at the invitation of UNICEF Regional Office for South Asia. Katmandu. 6–8 May.
- Nellemann, C., E. Corcoran, C. M. Duarte, L. Valdés, C. De Young, L. Fonseca, G. Grimsditch (Eds). 2009. *Blue Carbon: A Rapid Response Assessment*. Geneva: UN Environment Programme.
- Nelson, G. C., M. W. Rosegrant, J. Koo, R. Robertson, T. Sulser, T. Zhu, C. Ringler, S. Msangi, A. Palazzo, M. Batka, M. Magalhaes, R. V.-Santos, M. Ewing, D. Lee. 2009. *Climate Change: Impact on Agriculture and Costs of Adaptation*. Washington, DC: IFPRI.

- Olney, S., E. Goodson, K. M.-Caines, F. O'Neill. 2002. *Gender Equality: A Guide to Collective Bargaining*. ILO IFP Social Dialogue and Bureau for Workers' Activities. Geneva: ILO.
- Ong, A. 1987. *Spirits of Resistance and Capitalist Discipline*. Factory Women in Malaysia. Albany: State University of New York Press.
- Organisation for Economic Co-operation and Development (OECD). 2008. *Rising Food Prices. Causes and Consequences*. Paris: OECD.
- . 2010. World Overview. In *Atlas of Gender and Development: How Social Norms Affect Gender Equality in non-OECD Countries*. http://www.oecd-ilibrary.org/development/atlas-of-gender-and-development_9789264077478-en
- Oster, E., and R. Thornton. 2009. Determinants of Technology Adoption: Private Value and Peer Effects in Menstrual Cup Take-up. *National Bureau of Economic Research (NBER) Working Paper* No. 14828. Chicago: University of Chicago/Ann Arbor: University of Michigan.
- Pang, L., A. de Brauw, and S. Rozelle. 2004. Working Until You Drop: The Elderly of Rural [People's Republic of] China. *The China Journal* 52:73–94
- Panjaitan-Drioadisuryo, R. D. M., and K. Cloud. 1999. Gender, Self-Employment, and Microcredit Programs: An Indonesian Case Study. *The Quarterly Review of Economics and Finance* 39(5):769–779.
- Paolisso, M., K. Hallman, L. Haddad and S. Regmi. 2002. Does Cash Crop Adoption Detract from Child-care Provision? Evidence from Rural Nepal. *Economic Development and Cultural Change* 50(2):313–337.
- Parikh, J. K., and F. Denton. 2002. Gender and Climate Change at COP8: A Forgotten Element. In *Is the Gender Dimension of the Climate Debate Forgotten? Report of the Engendering the Climate Debate Side Event, Eighth UN Conference of the Parties (COP8)*. New Delhi. 29 October.
- Paris, T. R., A. Singh, A. D. Cueno, and V. N. Singh. 2008. Assessing the Impact of Participatory Research in Rice Breeding on Women Farmers: A Case Study from Eastern Uttar Pradesh, India. *Experimental Agriculture* 44(1): 97–112.
- Paris, T. R., J. Luis and D. Villanueva, M. F. R.-Rubzen, T. T. Ngoc Chi, C. Wongsanum. 2009. The Impact of Labor Out Migration on Rice Farming Households and Gender Roles: Synthesis of Findings in Thailand, Philippines and Vietnam. Paper for the FAO–IFAD–ILO Workshop on Gaps, Trends and Current Research in Gender Dimensions of Agricultural and Rural Employment: Differentiated Pathways out of Poverty. Rome. 31 March–2 April.
- Patel, R. C. 2012. Food Sovereignty: Power, Gender, and the Right to Food. *PLOS Medicine* 9(6): e1001223. DOI:10.1371/journal.pmed.1001223
- Paudel, L. N., U. ter Meulen, C. Wollny, H. Dahal and M. Gauly. 2009. Gender Aspects in Livestock Farming: Pertinent Issues for Sustainable *Livestock Development in Nepal*. *Livestock Research for Rural Development* 21(3). <http://www.lrrd.org/lrrd21/3/paud21040.htm>
- Peisakhin, L., and P. Pinto. 2010. Is Transparency an Effective Anti-corruption Strategy? Evidence from a Field Experiment in India. *Regulation & Governance* 4(3):261–280.
- Peterman, A., J. Behrman, and A. Quisumbing. 2010). *A Review of Empirical Evidence on Gender Differences in Nonland Agricultural Inputs, Technology, and Services in Developing Countries*. Washington DC: IFPRI.
- Pitt, M., and S. Khandker. 1998. The Impact of Group-based Credit Programs on Poor Households in Bangladesh: Does the Gender of Participants Matter? *The Journal of Political Economy* 106(5):958–997.

- Pitt, M., S. R. Khandker, O. H. Chowdhury and D. Millimet. 2003. Credit Programs for the Poor and the Health Status of Children in Rural Bangladesh. *International Economic Review* 44(1):87–118.
- Popkin, B. M. 2001. Nutrition in Transition: The Changing Global Nutrition Challenge. *Asia Pacific Journal of Clinical Nutrition* 10(Suppl.):S13–S18.
- . 2008. Will [the People's Republic of] China's Nutrition Transition Overwhelm Its Health Care System and Slow Economic Growth? *Health Affairs* 27(4):1064–1076.
- Praparapun, Y. 2010. Women Paying the Price: The Impact of the Global Financial Crisis on Women in Southeast Asia. *Oxfam Research Report*. Oxford: Oxfam
- Quisumbing, A., and J. Maluccio. 2003. Resources at Marriage and Intrahousehold Allocation: Evidence from Bangladesh, Ethiopia, Indonesia, and South Africa. *Oxford Bulletin of Economics and Statistics* 65(3):283–328.
- Rabiee, F., and C. Giessler. 1992. The Impact of Maternal Workload on Child Nutrition in Rural Iran. *Food and Nutrition Bulletin* 14(1): 43–48.
- Rahman, A. 1999. Micro-credit Initiatives for Equitable and Sustainable Development: Who Pays? *World Development* 27(1):67–82.
- Ramachandran, N. 2006. *Women and Food Security in South Asia: Current Issues and Emerging Concerns*. United Nations University UNU-Wider World Institute for Development Economics Research. 2006/131. http://www.wider.unu.edu/publications/working-papers/research-papers/2006/en_GB/rp2006-131/
- Ramachandran, A., S. Ramachandran, C. Snehalatha, C. Augustine, N. Murugesan, V. Viswanathan, and A. Kapur, R. Williams. 2007. Increasing Expenditure on Health Care Incurred By Diabetic Subjects in a Developing Country: A Study from India. *Diabetes Care* 30(2):252–256.
- Ramamurthy, P. 2000. The Cotton Commodity Chain, Women, Work and Agency in India and Japan: The Case for Feminist Agro-Food Systems Research. *World Development* 28(3): 551–578.
- Razavi, S. 2007. *The Return to Social Policy and the Persistent Neglect of Unpaid Care*. Geneva: United Nations Research Institute for Social Development. Regmi, A., and M. Gehlar. 2001. Consumer Preferences and Concerns Shape Global Food Trade. *Food Review* 24(3):2–8.
- Richter, M. 1997. Who Milks the Cow? Gender-and-development in Livestock Farming. *Schriftenreihe der GTZ*. No. 261. Eschborn, Germany: German Agency for Technical Cooperation (GTZ).
- RNCOS. 2006. *Indian Livestock Industry—An Industry Analysis*. RNCOS Research. Noida, India: RNCOS.
- Sabates-Wheeler, R., and N. Kabeer. 2003. Gender Equality and the Extension of Social Protection. *ESS (Extension of Social Security) Paper* No. 16. Geneva: ILO.
- Salazar, L., and A. Quisumbing. 2009. Assessing the Impact of Gendered Labor Markets in the Rural Philippines. Paper for the FAO, IFAD, and ILO Workshop on Gaps, Trends and Current Research in Gender Dimensions of Agricultural and Rural Employment: Differentiated Pathways out of Poverty. Rome. 31 March–2 April.
- Salazar Parrenas, R. 2001. *Servants of Globalization. Women, Migration and Domestic Work*. Palo Alto, CA: Stanford University Press.
- Sassi, F., ed. 2010. *Obesity and the Economics of Prevention*. Cheltenham: Edward Elgar.
- Schneider, K., and M. K. Gugerty. 2010. *Gender and Contract Farming in Sub-Saharan Africa: Literature Review*. Seattle: Evans School of Public Affairs, University of Washington.

- Schurmann, A. T. 2009. Review of the Bangladesh Female Secondary School Stipend Project Using a Social Exclusion Framework. *Journal of Health, Population and Nutrition* 27(4): 505–517.
- Seguino, S. 2009. *The Gender Perspective of the Financial Crisis*. Written submission to the Commission on the Status of Women, 53rd session, New York: UN WOMEN.
- Senauer, B., D. E. Sahn, and H. Alderman. 1986. The Effect of the Value of Time on Food Consumption Patterns in Developing Countries: Evidence from Sri Lanka. *American Journal of Agricultural Economics* 68(4):920–927.
- Sharma, M. 2003. Microfinance. In A. R. Quisumbing, ed. *Household Decisions, Gender, and Development: A Synthesis of Recent Research*. Washington, DC: IFPRI.
- Shen Shicai and Qian Jie. 2009. Livestock Projects in Southwest [People’s Republic of] China. Women Participate, Everybody Benefits. *LEISA India* 11(3):18–20.
- Singh, S. 2000. Theory and Practice of Contract Farming: A Review. *Journal of Social and Economic Development* 3(2):228–246.
- Singh Shresta, S. 2010. *Land Entitlement and Women’s Empowerment*. Kathmandu: Consortium for Land Research and Policy Dialogue (COLARP)..
- Skoufias, E. 1993. Labor Market Opportunities and Intrafamily Time Allocation in Rural Households in South Asia. *Journal of Development Economics* 40(2):277–310.
- Smith, L. C., and L. Haddad. 2000. Explaining Child Malnutrition in Developing Countries: A Cross-country Analysis. IFPRI Research Report 111. Washington, DC: IFPRI.
- Smith, L., U. Ramakrishnan, A. Ndiaye, L. Haddad, and R. Martorell. 2003. The Importance of Women’s Status for Child Nutrition in Developing Countries. *IFPRI Research Report* 131. Washington, DC: IFPRI.
- Standing, G. 1999. Global Feminization through Flexible Labour: A Theme Revisited. *World Development* 27(3):583–602.
- Subrahmanya, R., and R. Jhabvala. 2000. Meeting Basic Needs: The Unorganized Sector and Social Security. In R. Jhabvala and R. Subrahmanya, eds. *The Unorganized Sector: Work Security and Social Protection*. New Delhi: Sage Publications.
- Swaminathan, H., R. Lahoti, and J.Y. Suchitra. 2012. Women’s Property, Mobility, and Decisionmaking. Evidence from Rural Karnataka, India. *IFPRI Discussion Paper* 01188. Washington, DC: IFPRI.
- Swaminathan, H., J. Y. Suchitra, and R. Lahoti. 2011. *Karnataka Household Asset Survey*. http://inhername.mapservices.in/site/uploads/File/Technical_Reports/129_KHAS_MeasuringGenderAssetGap.2011.pdf
- The PROBE Team. 1999 *Public Report on Basic Education in India*. New Delhi: Oxford University Press.
- Tipilda, A., and P. Kristjanson. 2009. Women and Livestock Development: A Review of the Literature. *International Livestock Research Institute (ILRI) Innovation Works Discussion Paper* 01–09. Nairobi: ILRI.
- Tirado, M. C. 2012. Gender-sensitive Strategies to Address the Challenges of Climate Change on Health and Nutrition Security. In *Powerful Synergies: Gender Equality, Economic Development and Environmental Sustainability*. New York: United Nations Development Programme.
- Tirado, M. C. 2011. Enhancing Women’s Leadership to Address the Challenges of Climate Change on Nutrition Security and Health. Center for Public Health and Climate Change at the Public Health Institute, World Food Programme (WFP), UN Standing Committee on Nutrition and Action Against Hunger (ACF). New York. United Nations.
- Turner, J. 2012. Gender Equality and the MDGs in Asia and the Pacific. *Gender Network News* 6(2). Manila: ADB.

- Udry, C. 1996. Gender, Agricultural Production, and the Theory of the Household. *Journal of Political Economy* 104(5):1010–1046.
- Udry, C., H. Alderman, J. Hoddinott, and L. Haddad. 2005. Gender Differentials in Farm Productivity: Implications for Household Efficiency and Agricultural Policy. *Food Policy* 20(5):407–423.
- UN Committee on Economic, Social and Cultural Rights. 2007. General Comment no. 19: The Right to Social Security (article 9). United Nations (UN) doc. E/C.12/GC/19. New York: Office of the United Nations High Commissioner for Human Rights.
- UN Conference on Trade and Development (UNCTAD). 2012. *World Investment Report. Towards a New Generation of Investment Policies*. Geneva: UNCTAD.
- . UNCTADSTAT. <http://unctadstat.unctad.org/Tableviewer/tableView.aspx?ReportID=88> (accessed 21 June 2013).
- UN Department of Public Information (UNDPI). 2010. Fact Sheet on Millennium Development Goal 3. DPI/2650 C. High-Level Plenary Meeting of the General Assembly. New York. 20–22 September.
- United Nations Development Programme (UNDP). 2003. [People's Republic of] *China's Accession to WTO: Challenges for Women in the Agricultural and Industrial Sector—Overall Report*. Collaborative Research Report by UNDP, United Nations Development Fund for Women (UNIFEM), All-China Women's Federation (ACWF), National Development and Reform Commission (NDRC), and Center for Chinese Agricultural Policy (CCAP). Beijing: UNDP.
- . 2006. *Evaluation of Gender Mainstreaming 2006*. New York: UNDP.
- UN Economic Commission for Asia and the Pacific (UNESCAP). 2009. *Sustainable Agriculture and Food Security in Asia and the Pacific*. Bangkok: UNESCAP.
- UN Economic and Social Council (ECOSOC). 2007. *Strengthening Efforts to Eradicate Poverty and Hunger, Including through the Global Partnership for Development. Report of the Secretary-General*. UN doc. E/2007/71. New York: ECOSOC.
- UN Educational Scientific and Cultural Organisation (UNESCO). 1998. *Bridging the Gap between Intention and Action: Girls' and Women's Education in South-Asia*. Bangkok: UNESCO Regional Office for Asia and the Pacific.
- . 2007. Social Audits for Strengthening Accountability: Building Blocks for Human Rights-based programming—Practice Note. Bangkok. UNESCO. <http://unesdoc.unesco.org/images/0015/001570/157021e.pdf>
- United Nations General Assembly (UNGA). 2010. Resolution 65/1. Keeping the Promise: United to Achieve the Millennium Development Goals. In *Outcome Document of the High-Level Plenary Meeting of the General Assembly on the Millennium Development Goals at its Sixty-fifth Session*. New York: UNGA.
- . 2011. Political Declaration adopted at the High-Level Meeting of the General Assembly on the Prevention and Control of Non-communicable Diseases. New York. 19–20 September.
- United Nations Research Institute for Social Development (UNRISD). 2005. *Gender Equality: Striving for Justice in an Unequal World*. Geneva: UNRISD/UN Publications.
- UN WomenWatch. 2009. *Women, Gender Equality and Climate Change*. http://www.un.org/womenwatch/feature/climate_change/
- Van den Berg, H., and J. Jiggins. 2007. Investing in Farmers. The Impacts of Farmer Field Schools in Relation to Integrated Pest Management. *World Development* 35(4):663–686.
- Victora, C., P. G. Smith, J. P. Vaughan, L. C. Nobre, C. Lombardi, A. M. Teixeira, S. M. Fuchs, L. B. Moreira, L. P. Gigante, F. C. Barros. 1987. Evidence for Protection by Breast-feeding against Infant Deaths from Infectious Diseases in Brazil. *The Lancet* 330(8554):319–322.

- Victora, C., L. Adair, C. Fall, P. C. Hallal, R. Martorell, L. Richter, H. S. Sachdev, and for the Maternal and Child Undernutrition Study Group. 2008. Maternal and Child Undernutrition: Consequences for Adult Health and Human Capital. *The Lancet* 371: 340–357.
- von Braun, J. 2008. Rising Food Prices: What should be done? *Eurochoices* 7(2):30–35.
- von Grebmer, K., B. Nestorova, A. Quisumbing, R. Fertziger, H. Fritschel, R. P-Lorch, Y. Yohannes. 2009. *Global Hunger Index: The Challenge of Hunger: Focus on Financial Crisis and Gender Inequality*. Bonn, Germany/Washington, DC/Dublin, UK: Deutsche Welthungerhilfe/IFPRI/Concern Worldwide.
- Warner, K. D., and F. Kirschenmann F. 2007. *Agroecology in Action: Extending Alternative Agriculture through Social Networks*. Cambridge: MIT Press.
- Weeratunge, N., and K. Snyder. 2009. Gleaner, Fisher, Trader, Processor: Understanding Gendered Employment in the Fisheries and Aquaculture Sector. Paper presented at the FAO, IFAD, and ILO Workshop on Gaps, Trends and Current Research in Gender Dimensions of Agricultural and Rural Employment: Differentiated Pathways out of Poverty. Rome. 31 March–2 April.
- Williams, M. J., R. Agbayani, R. Bhujel, M. G. B.-Reantaso, C. Brugère, P. S. Choo, J. Dhont, A. G.-Tejeda, A ; Ghulam, K ; Kusakabe, K ; Little, D ; Nandeesha, M.C ; Sorgeloos, P ; Weeratunge, N ; Williams, S ; Xu. P 2012. Sustaining Aquaculture by Developing Human Capacity and Enhancing Opportunities for Women. In R. P. Subasinghe et al, eds. *Farming the Waters for People and Food. Proceedings of the Global Conference on Aquaculture 2010*. Phuket, Thailand. 22–25 September.
- World Bank. 1998. *Sri Lanka Poverty Alleviation Project*. Washington, DC: World Bank.
- . 2006. Social Safety Nets in Bangladesh: An Assessment. *The World Bank Bangladesh Development Series. Paper No. 9*. Washington, DC: World Bank.
- . 2007a. *World Development Report 2008: Agriculture for Development*. Washington, DC: World Bank.
- . 2007b. *Agriculture for Development: The Gender Dimensions. Agriculture for Development Policy Brief*. Washington, DC: World Bank.
- . 2007c. Promoting Gender Equality and Women’s Empowerment. In *Global Monitoring Report 2007: Millennium Development Goals: Confronting the Challenges of Gender Equality and Fragile States*. Washington, DC: World Bank.
- . 2009. *Gender in Agriculture Sourcebook*. Washington, DC: World Bank.
- . 2012. *World Development Report 2012: Gender Equality and Development*. Washington, DC: World Bank.
- World Bank, IFAD, and FAO. *Gender and Agriculture Sourcebook*. <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/XTARD/EXTGENAGRLIVSOUBOOK/0,,contentMDK:21923715~pagePK:64168445~piPK:64168309~theSitePK:3817359,00.html>
- World Bank and IFPRI. 2010. *Gender and Governance in Rural Services: Insights from India, Ghana, and Ethiopia*. Washington, DC: World Bank/IFPRI.
- World Food Programme (WFP). 2009. *WFP Gender Policy and Strategy: Promoting Gender Equality and the Empowerment of Women in Addressing Food and Nutrition Challenges*. Rome: WFP.
- . 2009b. Hunger and Markets. *World Hunger Series*. London: Earthscan Publications.
- . 2010. *School Feeding Cost Benefit Analysis*. Geneva: WFP. <http://home.wfp.org/stellent/groups/public/documents/newsroom/wfp208643.pdf>
- . 2012. *Learning from Experience. Good Practices from 45 years of School Feeding*. Geneva: WFP.

- World Food Summit. 1996. *World Food Summit Plan of Action*. Adopted at the World Food Summit. Rome. 13–17 November 1996.
- World Health Organization (WHO). 2009. *Global Health Risks. Mortality and Burden of Disease Attributable to Selected Major Risks*. Geneva: WHO.
- . 2012. *Gender, Climate Change and Health*. Geneva: WHO.
- Zhang, L., A. de Brauw, and S. Rozelle. 2004. [People's Republic of] China's Rural Labor Market Development and Its Gender Implications. *China Economic Review* 15:230–247.
- Zohir, S., B. A. Mallik, S. Zabeen, and G. Ahsan. 2010. *Strengthening Social Safety Nets for Mitigating Adverse Impacts of Food Crisis in Bangladesh*. Dhaka: Economic Research Group. http://www.ergonline.org/documents/sajjad_safetynet_28Oct10.pdf
- Zongmin, L., and J. Bruce. 2005. Gender, Landlessness and Equity in Rural [People's Republic of] China. In P. Ho, ed. *Development Dilemmas: Land Reform and Institutional Change in [People's Republic of] China*. London and New York: Routledge.

Gender Equality and Food Security

Women's Empowerment as a Tool against Hunger

There is a strong relationship between gender-based discrimination and the different channels through which households and individuals access food—through own-production, access to waged employment, or social protection. The report shows that while equality of treatment between women and men and food security are mutually supportive, gender equality remains an elusive goal in many parts of Asia and the Pacific. A transformation of traditional gender roles is urgently needed. Such a transformation should build on improved information about the range of inequalities and specific constraints facing women. In addition, in order for gender equality strategies and food security strategies to complement each other and for their synergies to be maximized, a combination should be found between the *recognition* of the constraints women face, the adoption of measures that help *relieve* women of their burdens, and the *redistribution* of gender roles in the discharging of family responsibilities. The report explores how this combination can be achieved, identifying the best practices that have emerged both in the Asian and Pacific region and in other parts of the world.

About the Asian Development Bank

ADB's vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries reduce poverty and improve the quality of life of their people. Despite the region's many successes, it remains home to two-thirds of the world's poor: 1.7 billion people live on less than \$2 a day, with 828 million on less than \$1.25 a day. ADB is committed to reducing poverty through inclusive economic growth, environmentally sustainable growth, and regional integration.

Based in Manila, ADB is owned by 67 members, including 48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.

Asian Development Bank
6 ADB Avenue, Mandaluyong City
1550 Metro Manila, Philippines
www.adb.org