

2. Women's work

Women make essential contributions to agriculture and rural economic activities in all developing country regions.¹ Their roles vary considerably among and within regions and are changing rapidly in many parts of the world where economic and social forces are transforming the agriculture sector. The emergence of contract farming and modern supply chains for high-value agricultural products, for example, present different opportunities and challenges for women than they do for men. These differences derive from the different roles and responsibilities of women and the constraints that they face.

Rural women often manage complex households and pursue multiple livelihood strategies. Their activities typically include producing agricultural crops, tending animals, processing and preparing food, working for wages in agricultural or other rural enterprises, collecting fuel and water, engaging in trade and marketing, caring for family members and maintaining their homes (see Box 2 for some of the frequently asked questions on the roles and status of women in agriculture). Many of these activities are not defined as "economically active employment" in national accounts but they are all essential to the well-being of rural households (see Box 3, page 14, for a discussion of women's household responsibilities).

Women often face gender-specific challenges to full participation in the labour force, which may require policy interventions beyond those aimed at promoting economic growth and the efficiency of rural labour markets. Policies can influence the economic incentives and social norms that determine whether women work, the types of work they perform and whether it is considered an economic activity, the stock of human capital they accumulate and the levels of pay they receive. Increasing female

participation in the labour force has a positive impact on economic growth (Klasen and Lamanna, 2009).

Women in agriculture

Women work in agriculture as farmers on their own account, as unpaid workers on family farms and as paid or unpaid labourers on other farms and agricultural enterprises. They are involved in both crop and livestock production at subsistence and commercial levels. They produce food and cash crops and manage mixed agricultural operations often involving crops, livestock and fish farming. All of these women are considered part of the agricultural labour force.²

Based on the latest internationally comparable data, women comprise an average of 43 percent of the agricultural labour force of developing countries. The female share of the agricultural labour force ranges from about 20 percent in Latin America to almost 50 percent in Eastern and Southeastern Asia and sub-Saharan Africa (Figure 1). The regional averages in Figure 1 mask wide variations within and among countries (see Annex tables A3 and A4).

Women in sub-Saharan Africa have relatively high overall labour-force participation rates and the highest average agricultural labour-force participation rates in the world. Cultural norms in the region have long encouraged women to be economically self-reliant and traditionally give women substantial responsibility for agricultural production in their own right. Regional data for sub-Saharan Africa conceal wide differences among countries. The share of women in the agricultural labour force

² The agricultural labour force includes people who are working or looking for work in formal or informal jobs and in paid or unpaid employment in agriculture. That includes self-employed women as well as women working on family farms. It does not include domestic chores such as fetching water and firewood, preparing food and caring for children and other family members.

¹ The material in this chapter is based on FAO (2010a).

BOX 2

Frequently asked questions about women in agriculture

Question 1: How much of the agricultural labour in the developing world is performed by women?

Answer: Women comprise 43 percent of the agricultural labour force, on average, in developing countries; this figure ranges from around 20 percent in Latin America to 50 percent in parts of Africa and Asia, but it exceeds 60 percent in only a few countries (FAO, 2010a). Critics argue that labour force statistics underestimate the contribution of women to agricultural work because women are less likely to declare themselves as employed in agriculture and they work longer hours than men (Beneria, 1981), but evidence from time-use surveys does not suggest that women perform most of the agricultural labour in the developing world (see Chapter 2).

Question 2: What share of the world's food is produced by women?

Answer: This question cannot be answered in any empirically rigorous way because of conceptual ambiguities and data limitations. Different definitions of "food" and "production" would yield different answers to the question and, more importantly, food production requires many resources – land, labour, capital – controlled by men and women who work cooperatively in most developing countries, so separating food production by gender is not very meaningful (Doss, 2010).

Question 3: Do women have less access than men to agricultural resources and inputs?

Answer: Yes, this is one generalization about women in agriculture that holds true across countries and contexts: compared with their male counterparts, female farmers in all regions control less land and livestock, make far less use of improved seed varieties and purchased inputs such as fertilizers, are much less likely to use credit or insurance, have lower education levels and are less likely to have access to extension services (see Chapter 3).

Question 4: Do women and girls comprise the majority of the world's poor people?

Answer: Poverty is normally measured in terms of income or consumption at the household level, not for individuals, so separate poverty rates for men and women cannot be calculated. Females could be overrepresented among the poor if female-headed households are poorer than male-headed households (see Question 6) or if significant anti-female bias exists within households (see Question 7). Females may be poorer than males if broader measures of poverty are considered, such as access to productive resources (see Question 3).

Question 5: Do women face discrimination in rural labour markets?

ranges from 36 percent in Côte d'Ivoire and the Niger to over 60 percent in Lesotho, Mozambique and Sierra Leone. A number of countries have seen substantial increases in the female share of the agricultural labour force in recent decades due to a number of reasons, including conflict, HIV/AIDS and migration.

Women in Eastern and Southeastern Asia also make very substantial contributions to the agricultural labour force, almost as high on average as in sub-Saharan Africa. The regional average is dominated by China,

where the female share of the agricultural labour force has increased slightly since 1980 to almost 48 percent. The share of women in the agricultural labour force in most other countries in the region has remained fairly steady at between 40 and 50 percent, although it is substantially lower and declining in some countries such as Malaysia and the Philippines.

The Southern Asian average is dominated by India, where the share of women in the agricultural labour force has remained steady at just over 30 percent. This masks changes

Answer: In most countries and in keeping with global figures, women in rural areas who work for wages are more likely than men to hold seasonal, part-time and low-wage jobs and (controlling for education, age and industry) women receive lower wages for the same work (see Chapter 2).

Question 6: Are female-headed households the poorest of the poor?

Answer: Data from 35 nationally representative surveys for 20 countries analysed by FAO show that female-headed households are more likely to be poor than male-headed households in some countries but the opposite is true in other countries – so it is not possible to generalize. Data limitations also make it impossible to distinguish systematically between households headed by women who are single, widowed or divorced (*de jure* female heads) and those who are associated with an adult male who supports the family through remittances and social networks (*de facto* female heads). It is likely that the former are more likely to be poor than the latter (Anríquez, 2010). There is also evidence to suggest that rural female-headed households were more vulnerable than males during the food price shock of 2008 because they spend a larger proportion of household income on food and because they were less able to respond by increasing food production (Zezza *et al.*, 2008). Again, these results vary by country.

Question 7: Are women and girls more likely than men and boys to be undernourished?

Answer: A positive answer to this statement is not supported by available evidence, and generalizations are difficult to make. The limited evidence available suggests that this may be true in Asia, while it is not true in Africa. More sex-disaggregated data of better quality on anthropometric and other indicators of malnutrition are needed to arrive at clear conclusions. There is, however, evidence that girls are much more vulnerable to transitory income shocks than boys (Baird, Friedman and Schady, 2007).

Question 8: Are women more likely than men to spend additional income on their children?

Answer: A very large body of research from many countries around the world confirms that putting more income in the hands of women yields beneficial results for child nutrition, health and education. Other measures – such as improving education – that increase women's influence within the household are also associated with better outcomes for children. Exceptions exist, of course, but empowering women is a well-proven strategy for improving children's well-being (see Chapter 4).

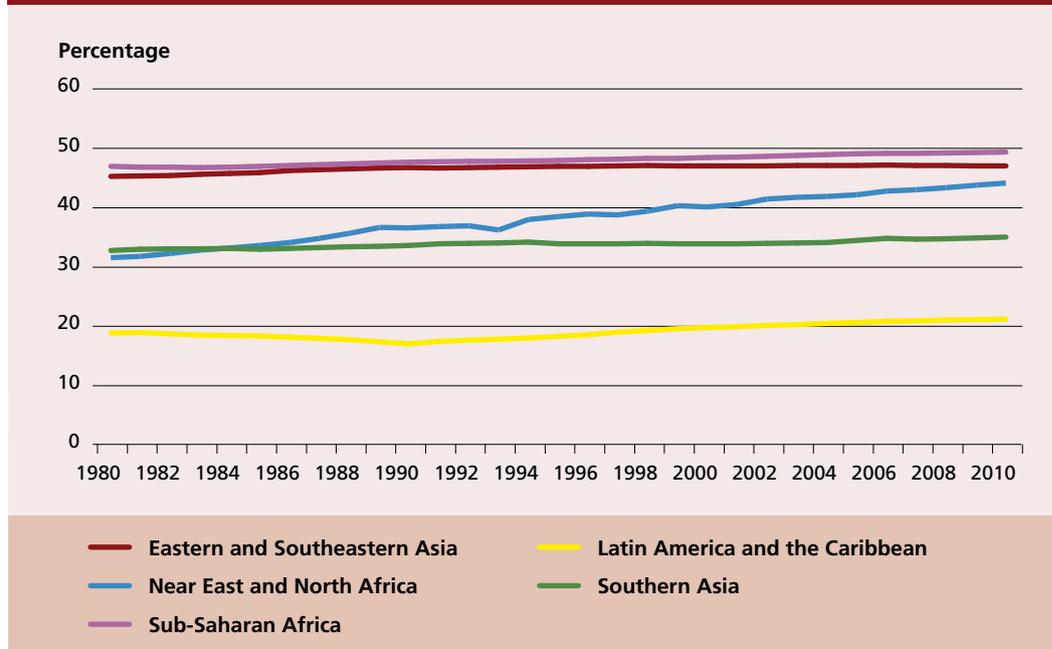
in other countries where the female share of the agricultural labour force appears to have increased dramatically, such as Pakistan where it has almost tripled since 1980, to 30 percent, and Bangladesh where women now exceed 50 percent of the agricultural labour force.

The female share of the agricultural labour force in the Near East and North Africa appears to have risen substantially, from 30 percent in 1980 to almost 45 percent. Some of the highest and fastest-growing rates of female agricultural labour force

participation in the region are found in Jordan, the Libyan Arab Jamahiriya and the Syrian Arab Republic.

The countries of Latin America have high overall female labour-force participation rates, but much lower participation in agriculture than those in other developing country regions. This pattern reflects relatively high female education levels (see Chapter 4), economic growth and diversification, and cultural norms that support female migration to service jobs in urban areas. Just over 20 percent of the

FIGURE 1
Female share of the agricultural labour force



Note: The female share of the agricultural labour force is calculated as the total number of women economically active in agriculture divided by the total population economically active in agriculture. Regional averages are weighted by population.

Source: FAO, 2010b. See Annex table A4.

agricultural labour force in Latin America was female in 2010, slightly higher than in 1980. The South American countries of the Plurinational State of Bolivia, Brazil, Colombia, Ecuador and Peru dominate both the average and the rising trend, while many countries in Central America and the Caribbean have seen declining shares of women in the agricultural labour force.

Although in some countries sex-disaggregated data collection has improved over recent decades, some researchers have raised concerns as to the validity of agricultural labour-force statistics as a measure of women's work in agriculture (Beneria, 1981; Deere, 2005). Women's participation in the agricultural labour force may underestimate the amount of work women do because women are less likely than men to define their activities as work, they are less likely to report themselves as being engaged in agriculture and they work, on average, longer hours than men – so even if fewer women are involved they may contribute more total time to the sector.

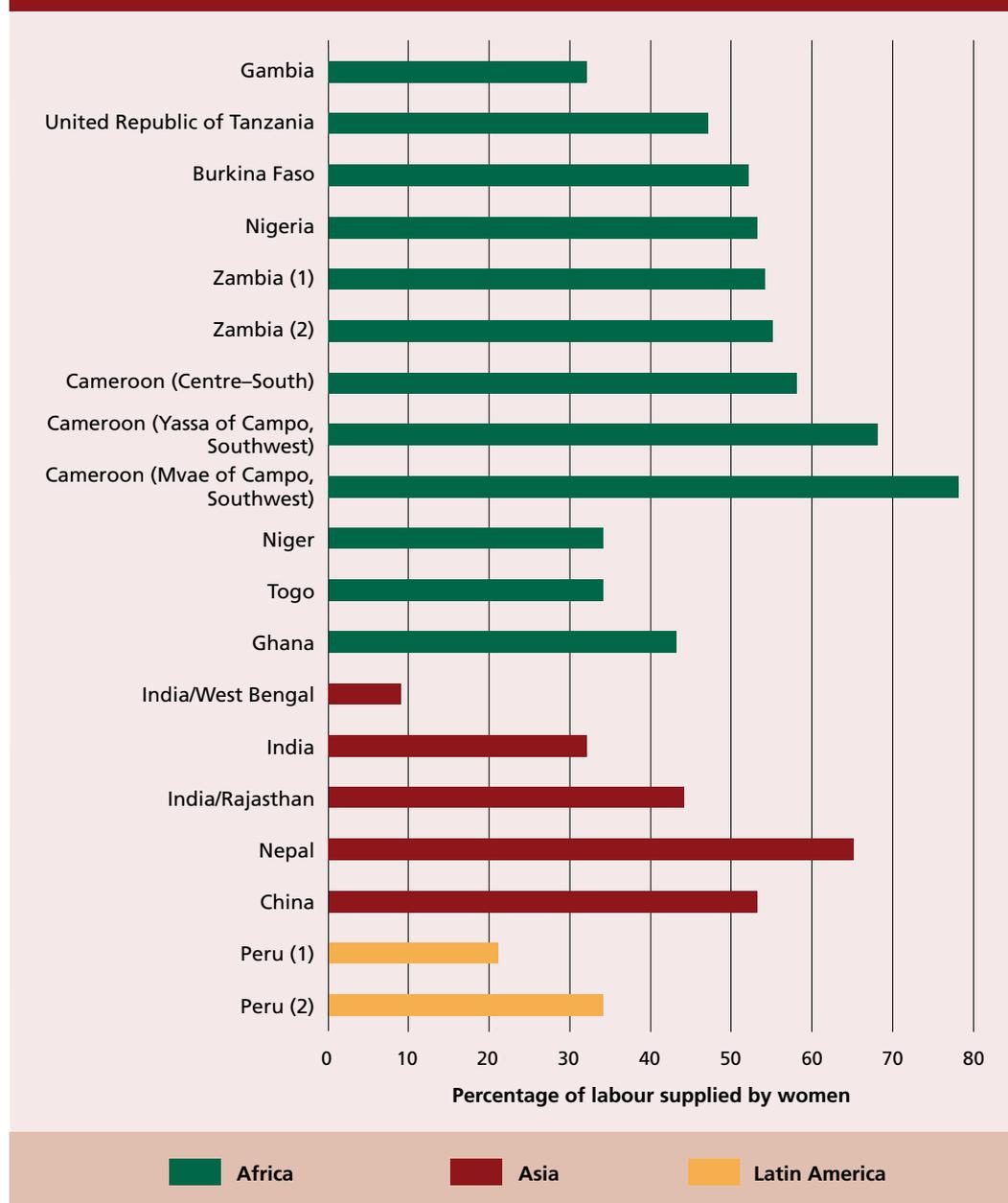
Time-use surveys attempt to provide a complete account of how men and women allocate their time.³ Such studies generally are not nationally representative and are not directly comparable because they usually cover small samples, report on different types of activities (that are not always clearly specified) and use different methodologies. Despite these caveats, a summary of the evidence from studies that specify time use by agricultural activity suggests interesting patterns.

Time-use surveys that cover all agricultural activities (Figure 2) reveal considerable variation across countries, and sometimes within countries, but the data are broadly similar to the labour force statistics discussed above. In Africa, estimates of the time contribution of women to agricultural

³ It is commonly claimed that women perform 60–80 percent of the agricultural labour in developing countries (UNECA, 1972; World Bank, FAO and IFAD, 2009). The evidence from time-use surveys and agricultural labour-force statistics does not support this general statement, although women do comprise over 60 percent of the agricultural labour force in some countries.

FIGURE 2

Proportion of labour in all agricultural activities that is supplied by women



Note: Only the survey for India is nationally representative.

Sources (from top to bottom): Gambia: von Braun and Webb, 1989; United Republic of Tanzania: Fontana and Natali, 2008; Burkina Faso: Saito, Mekonnen and Spurling, 1994; Nigeria: Rahji and Falusi, 2005; Zambia (1): Saito, Mekonnen and Spurling, 1994; Zambia (2): Kumar, 1994; Cameroon, Centre-South: Leplaideur, 1978, cited by Charmes, 2006; Cameroon (Yassa of Campo, Southwest): Charmes, 2006, based on Pasquet and Koppert, 1993 and 1996; Cameroon (Mvae of Campo, Southwest): Charmes, 2006, based on Pasquet and Koppert, 1993 and 1996; Niger: Baanante, Thompson and Acheampong, 1999; Togo: Baanante, Thompson and Acheampong, 1999; Ghana: Baanante, Thompson and Acheampong, 1999; India (West Bengal): Jain, 1996; India: Singh and Sengupta, 2009; India (Rajasthan): Jain, 1996; Nepal: Joshi, 2000; China: de Brauw *et al.*, 2008; Peru (1): Deere, 1982; Peru (2): Jacoby, 1992.

activities ranges from about 30 percent in the Gambia to 60–80 percent in different parts of Cameroon. In Asia, estimates range from 32 percent in India to over 50 percent in China. The range is lower in Latin America, but exceeds 30 percent in some parts of Peru. A striking degree of within-country variation is shown by the study for India. While this nationally representative study indicates that the national average for women's share of total time-use in agriculture is 32 percent, the share ranges from less than 10 percent in West Bengal to more than 40 percent in Rajasthan.

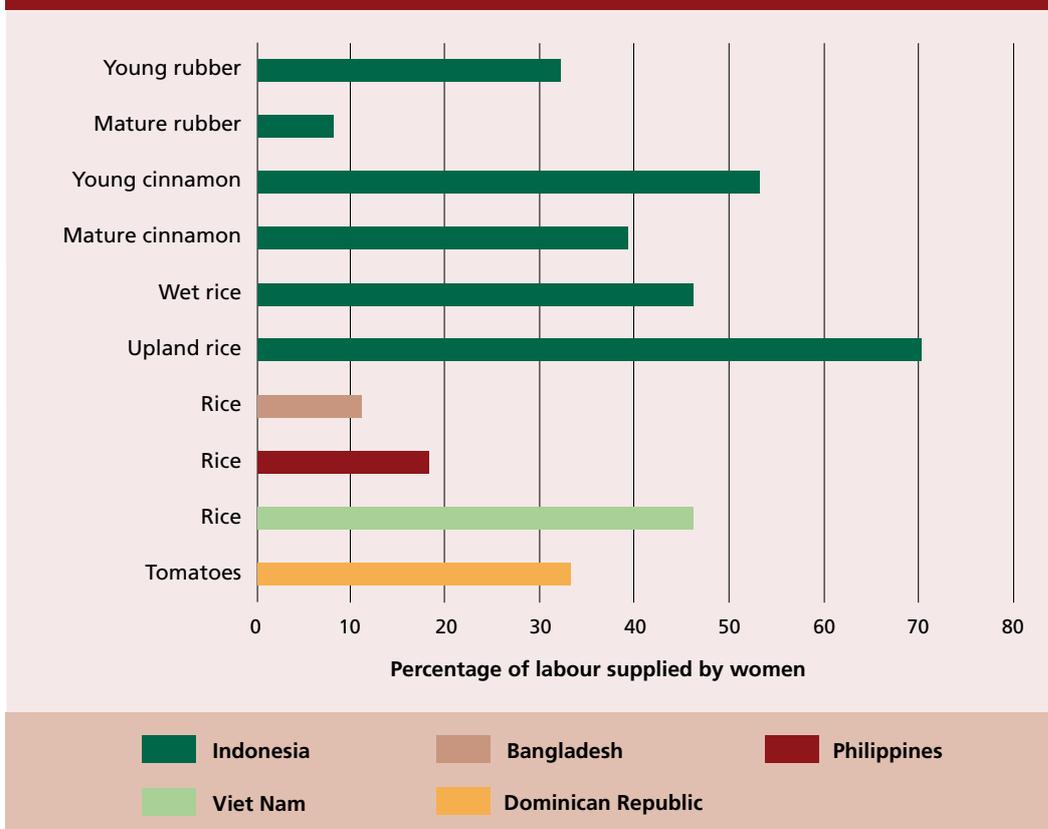
These studies also reveal that female time-use in agriculture varies widely depending on the crop and the phase of the production cycle, the age and ethnic group of the women in question, the type of activity and a number of other factors (Figure 3). Planting

is a predominantly female activity, but women are typically involved to some extent in all activities except ploughing.

Studies from Indonesia reveal greater involvement of women in upland rice production than that of wet rice and in the management of young plantation crops such as cinnamon and rubber rather than the same crops at maturity. As noted above, the data for India hide wide variations between West Bengal and Rajasthan, but in both areas, younger women contribute a higher share of the total time provided in agriculture by their age group than older women do in theirs. In Rajasthan, for example, girls aged between 14 and 19 contribute up to 60 percent of the total time spent on agriculture by their age group (Jain, 1996). Two separate studies are reported each for Peru and Zambia, and differences

FIGURE 3

Proportion of labour for selected crops that is supplied by women



Sources (from top to bottom): Indonesia (young rubber): Quisumbing and Otsuka, 2001a; Indonesia (mature rubber): Quisumbing and Otsuka, 2001a; Indonesia (young cinnamon): Quisumbing and Otsuka, 2001a; Indonesia (mature cinnamon): Quisumbing and Otsuka, 2001a; Indonesia (wet rice): Quisumbing and Otsuka, 2001a; Indonesia (upland rice): Quisumbing and Otsuka, 2001a; Bangladesh: Thompson and Sanabria, 2010; Philippines: Estudillo, Quisumbing and Otsuka, 2001; Viet Nam: Paris and Chi, 2005; Dominican Republic: Raynolds, 2002.

reflect different time periods and locations within the countries.

Time-use studies permit a rich analysis of what men and women do in agriculture and how their roles may differ by crop, location, management structure, age and ethnic group. They offer policy-relevant information about where, when and how to target interventions aimed at women and how to bring men into the process constructively. Given the variation in gender roles in agriculture, generalizations about time use from one region to another are not appropriate. Studies that consider the gender roles within their specific geographic and cultural context can provide practical guidance for policy-makers and practitioners involved in technology investments, extension services, post-harvest activities and marketing interventions.

One generalization that does hold is that women usually allocate time to food preparation, child care and other household responsibilities in addition to the time they spend in agriculture (see Box 3). In most societies, household responsibilities are divided along gender lines, although these norms differ by culture and over time. Depending on the household structure and size, these tasks may be extremely time-intensive. Across regions, time allocation studies have shown that women work significantly more than men if care-giving is included in the calculations (Ilahi, 2000). The combination of commitments often means that women are more time-constrained than men (Blackden and Wodon, 2006).

Women in modern contract-farming⁴

One noteworthy feature of modern agricultural value chains is the growth of contract farming or out-grower schemes for high-value produce through which large-scale agroprocessing firms seek to ensure a steady supply of quality produce. Such schemes can help small-scale farmers and livestock producers overcome the technical barriers and transaction costs involved in meeting the increasingly stringent demands of urban consumers in domestic and international markets.

Evidence shows, however, that female farmers are largely excluded from modern contract-farming arrangements because they lack secure control over land, family labour and other resources required to guarantee delivery of a reliable flow of produce. For example, women comprise fewer than 10 percent of the farmers involved in smallholder contract-farming schemes in the Kenyan fresh fruit and vegetable export sector (Dolan, 2001), and only 1 of a sample of 59 farmers contracted in Senegal to produce French beans for the export sector was a woman (Maertens and Swinnen, 2009).

While men control the contracts, however, much of the farm work done on contracted plots is performed by women as family labourers. For example, in 70 percent of the cases of sugar contract-farming in South Africa, the principal farmer on the sugarcane plots is a woman (Porter and Philips-Horward, 1997). Women work longer hours than men in vegetable contract-farming schemes controlled by male farmers in the Indian Punjab (Singh, 2003). In a large contract-farming scheme involving thousands of farmers in China, women – while excluded from signing contracts themselves – perform the bulk of the work related to contract farming (Eaton and Shepherd, 2001). Women may not be well compensated as unpaid family labour in contract-farming schemes (Maertens and Swinnen, 2009).

Evidence is mixed regarding whether contract farming increases overall household incomes or creates conflicts between the production of cash crops and food crops. For example, Dolan (2001) argues that the growth of high-value horticulture supply chains has been detrimental for rural women in Kenya because land and labour resources that were traditionally used by women to cultivate vegetables for home consumption and sale in local markets have been appropriated by men for export vegetable production under contract. On the other hand, although their results are not gender-specific, Minten, Randrianarison and Swinnen (2009), find that high-value vegetable contract-farming in Madagascar leads to improved productivity for food (rice) production through technology spillovers, thereby improving the availability of food in the household and shortening the lean

⁴ The material in this section is based on Maertens and Swinnen (2009).

BOX 3

Women and unpaid household responsibilities

Women have primary responsibilities for household and child-rearing activities in most societies, although norms differ by culture and are changing over time. Time-use surveys across a wide range of countries estimate that women provide 85–90 percent of the time spent on household food preparation and that they are also usually responsible for child care and other household chores. The combined time burden of household chores and farm work is particularly severe for women in Africa (Ilahi, 2000).

Ghanaian women carry a much heavier burden for household chores despite working outside the home almost as much as men (Brown, 1994). In Uganda, women cite the time they spend looking after their families, working in their husbands' gardens and producing food for their households as reasons for their inability to expand production for the market (Ellis, Manuel and Blackden, 2006). Women and girls in Ghana, the United Republic of Tanzania and Zambia are responsible for about 65 percent of all transport activities in rural households, such as collecting firewood and water and carrying grain to the grinding mill (Malmberg-Calvo, 1994).

Because of the gender-specific assignment of tasks, any change affecting the family or the environment may have different implications for men and women. HIV/AIDS, for example, has caused a significant increase in the time needed to care for sick family members or the orphaned children of relatives (Addati and Cassirer, 2008). Deforestation leads women to travel increasing distances from the homestead to collect firewood (Kumar and Hotchkiss, 1988; Nankhuni, 2004).

Poor infrastructure and limited provision of public services require Tanzanian women in rural areas to spend long hours on water and fuel collection, food preparation and other domestic and child-care activities. Improving public infrastructure for water and fuel collection and food preparation (e.g. grain-milling facilities) could free women in the United Republic of Tanzania from a burden that represents 8 billion hours of unpaid work per year, which is equivalent to the hours required for 4.6 million full-time jobs. The same improvements would save time for men also, but less: the time-equivalent of 200 000 full-time jobs (Fontana and Natali, 2008).

period or "hunger season". Maertens and Swinnen (2009) do not find evidence of gender conflict over resources in the French bean export sector in Senegal because households only allocate part of their land and labour resources to bean production, which occurs during the off-season and does not coincide with the main rainy season when staple food crops and other subsistence crops are cultivated.

Women as livestock keepers⁵

Within pastoralist and mixed farming systems, livestock play an important role in supporting women and in improving their financial situation, and women are heavily

engaged in the sector. An estimated two-thirds of poor livestock keepers, totalling approximately 400 million people, are women (Thornton *et al.*, 2002). They share responsibility with men and children for the care of animals, and particular species and types of activity are more associated with women than men. For example, women often have a prominent role in managing poultry (FAO, 1998; Guèye, 2000; Tung, 2005) and dairy animals (Okali and Mims, 1998; Tangka, Jabbar and Shapiro, 2000) and in caring for other animals that are housed and fed within the homestead. When tasks are divided, men are more likely to be involved in constructing housing and the herding of grazing animals, and in marketing products if women's mobility is constrained. The influence of women is strong in the use of eggs, milk and poultry

⁵ The material in this section was prepared by FAO's Agriculture and Consumer Protection Department, Animal Production and Health Division.

meat for home consumption and they often have control over marketing these products and the income derived from them. Perhaps for this reason, poultry and small-scale dairy projects have been popular investments for development projects that aim to improve the lot of rural women. In some countries, small-scale pig production is also dominated by women. Female-headed households are as successful as male-headed households in generating income from their animals, although they tend to own smaller numbers of animals, probably because of labour constraints. Livestock ownership is particularly attractive to women in societies where access to land is restricted to men (Bravo-Baumann, 2000).

While the role of women in small-scale livestock production is well recognized, much less has been documented about women's engagement in intensive production and the market chains associated with large commercial enterprises. Demand for livestock products, fuelled by rising incomes, has grown much faster than the demand for crop staples during the past 40 years – particularly in Asia and Latin America – and this trend is expected to continue. While pastoralist and small-scale mixed-farming systems continue to be important in meeting the needs of rural consumers, the demands of growing urban populations are increasingly supplied with meat, milk and eggs from intensive commercial systems. This has implications for the engagement of women in the livestock sector because of the different roles, responsibilities and access to resources that are evident within different scales of production system and at different points on the production and marketing chain.

The available evidence suggests that the role of women in meeting these changing demands may diminish, for two reasons. The first is that when livestock enterprises scale up, the control over decisions and income, and sometimes the entire enterprise, often shifts to men. This is not a universal phenomenon – in Viet Nam, for example, many medium-sized duck-breeding enterprises are managed by women – but it is common and can be explained by women's limited access to land and credit. The second important factor is that all smallholders face challenges when the livestock sector intensifies and concentrates and many go

out of business. This is particularly evident for pig and poultry owners (Rola *et al.*, 2006) but is not confined to those species. Given the more limited ability of women to start their own businesses, this implies that they will tend to become employees rather than self-employed. In specialized activities such as the production of day-old chicks, and in slaughtering, processing and retail, women are visible wherever painstaking semi-skilled work is to be done, but very little research data are available about the extent of their involvement compared with that of men, or their control over resources.

Women in fisheries and aquaculture⁶

In 2008, nearly 45 million people worldwide were directly engaged, full time or part time, in the fishery primary sector.⁷ In addition, an estimated 135 million people are employed in the secondary sector, including post-harvest activities. While comprehensive data are not available on a sex-disaggregated basis, case studies suggest that women may comprise up to 30 percent of the total employment in fisheries, including primary and secondary activities.

Information provided to FAO from 86 countries indicates that in 2008, 5.4 million women worked as fishers and fish farmers in the primary sector. This represents 12 percent of the total. In two major producing countries, China and India, women represented a share of 21 percent and 24 percent, respectively, of all fishers and fish farmers.

Women have rarely engaged in commercial offshore and long-distance capture fisheries because of the vigorous work involved but also because of their domestic responsibilities and/or social norms. They are more commonly occupied in subsistence and commercial fishing from small boats and canoes in coastal or inland waters. Women also contribute as entrepreneurs and provide labour before, during and after the catch in both artisanal and commercial fisheries. For example, in West Africa, the so called "Fish Mamas" play a major role: they usually

⁶ The material in this section was prepared by FAO's Fisheries and Aquaculture Department.

⁷ FAO's Fisheries and Aquaculture Department regularly collects employment statistics in fisheries and aquaculture related to the primary sector only. The data therefore exclude post-harvest activities.

own capital and are directly and vigorously involved in the coordination of the fisheries chain, from production to the sale of fish.

Studies of women in aquaculture, especially in Asia where aquaculture has a long tradition, indicate that the contribution of women in labour is often greater than men's, although macro-level sex-disaggregated data on this topic is almost non-existent. Women are reported to constitute 33 percent of the rural aquaculture workforce in China, 42 percent in Indonesia and 80 percent in Viet Nam (Kusabe and Kelker, 2001).

The most significant role played by women in both artisanal and industrial fisheries is at the processing and marketing stages, where they are very active in all regions. In some countries, women have become significant entrepreneurs in fish processing; in fact, most fish processing is performed by women, either in their own household-level industries or as wage labourers in the large-scale processing industry.

Women in forestry

Women contribute to both the formal and informal forestry sectors in many significant ways. They play roles in agroforestry, watershed management, tree improvement, and forest protection and conservation. Forests also often represent an important source of employment for women, especially in rural areas. From nurseries to plantations, and from logging to wood processing, women make up a notable proportion of the labour force in forest industries throughout the world. However, although women contribute substantially to the forestry sector, their roles are not fully recognized and documented, their wages are not equal to those of men and their working conditions tend to be poor (World Bank, FAO and IFAD, 2009).

The Global Forest Resources Assessment 2010 reports that the forestry sector worldwide employed approximately 11 million people in 2005; however, sex-disaggregated data on the number of women employed by the sector are not available on a comprehensive basis (FAO, 2010c). Evidence from developing countries suggests that women are often employed in menial jobs in sawmills, plantation nurseries and logging camps (World Bank, FAO and

IFAD, 2009). Studies conducted by FAO in Africa and Europe indicate that women do not hold senior or policy-making positions in the sector. Rather, they are primarily employed in administrative and support roles, with professional women foresters tending to have specialist roles (e.g. research) or first-line junior management positions. There is limited information on the numbers and roles of women in contracting or self-employed forestry work (FAO, 2006a, 2007). The studies indicate that even though women are still underrepresented in the industry, examples of good practice are emerging, especially in Europe (FAO, 2006a). This shows that concerted and sustained commitment and planning at senior organizational levels can result in quantifiable improvements in the number of professional women foresters employed and the level of seniority they can attain.

Women in rural labour markets

About 70 percent of men and 40 percent of women in developing countries are employed (Figure 4A). Male employment rates range from more than 60 percent in the Near East and North Africa to almost 80 percent in sub-Saharan Africa. Female employment rates vary more widely across regions, from about 15 percent in the Near East and North Africa to over 60 percent in sub-Saharan Africa.

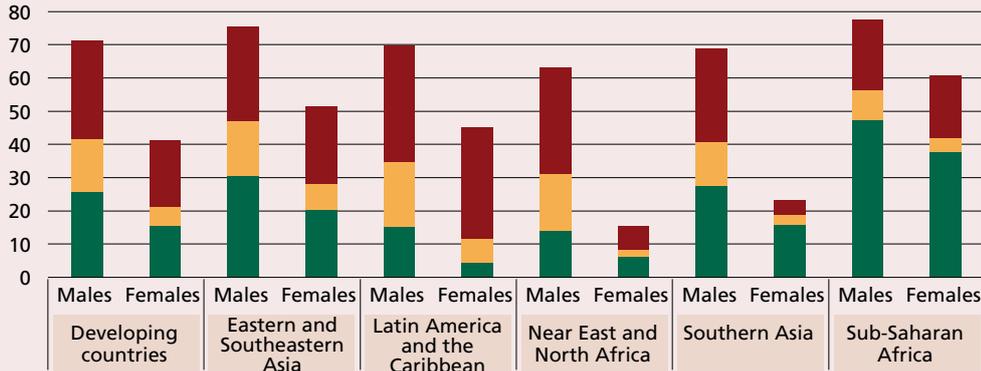
In Asia and in sub-Saharan Africa, women who are employed are more likely to be employed in agriculture than in other sectors (Figure 4B). Almost 70 percent of employed women in Southern Asia and more than 60 percent of employed women in sub-Saharan Africa work in agriculture. Furthermore, in most developing country regions, women who are employed are just as likely, or even more likely, than men to be in agriculture. The major exception is Latin America, where agriculture provides a relatively small source of female employment and women are less likely than men to work in the sector.

In most developing countries, a relatively small share of the population works for a wage, and women are less likely to do so than men (World Bank, 2007a). For rural areas, data collected by the Rural Income

FIGURE 4
Employment by sector

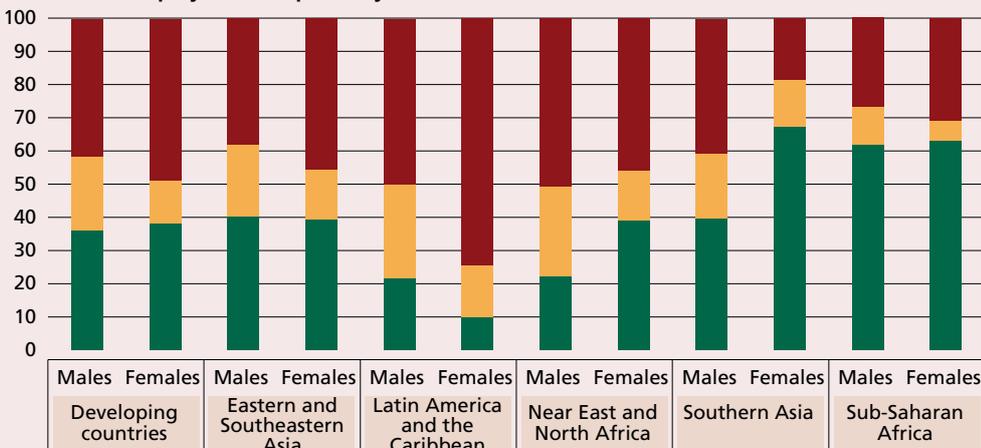
A - Employed population as a share of total adult population, by sex and sector

Percentage of total male and female population, respectively



B - Distribution of male and female employment, by sector

Percentage of male and female employment, respectively



Agriculture **Industry** **Services**

Note: The data cover only a subset of the countries in each region. Definitions of adult labour force differ by country, but usually refer to the population aged 15 and above.

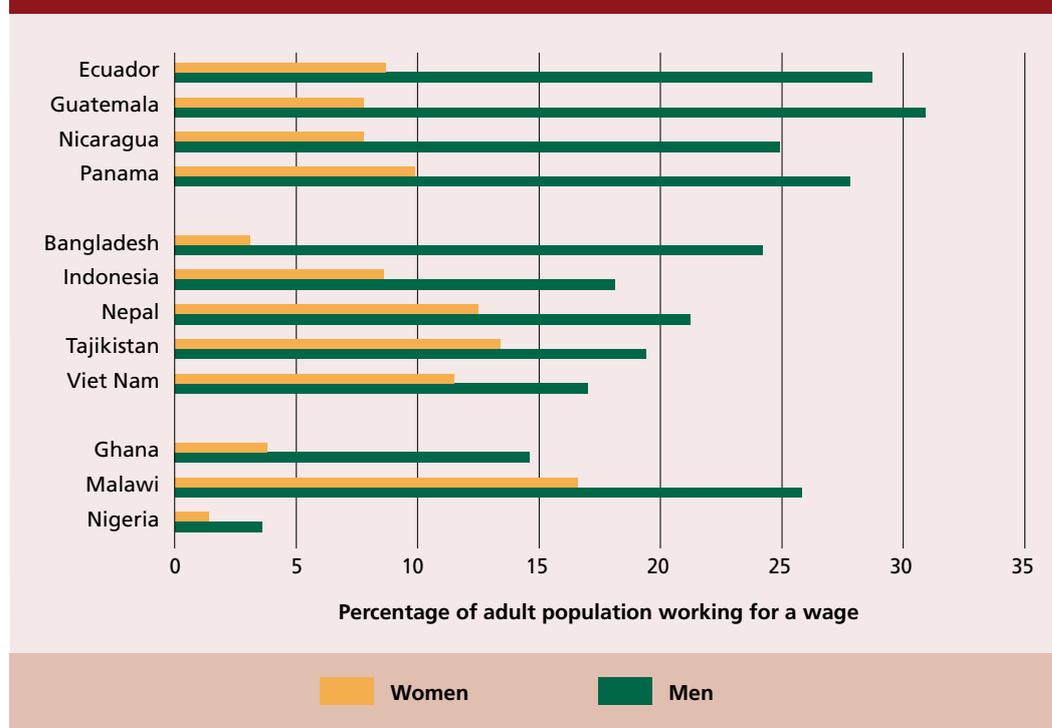
Source: ILO, 2009.

Generating Activities (RIGA) project show that the gender gap in formal and informal wage employment is large (Figure 5).⁸

⁸ Rural Income Generating Activities (RIGA) is a FAO project that has created an internationally comparable database of rural household income sources from existing household living standards surveys for more than 27 countries (FAO, 2010d). Most of the surveys used by the RIGA project were developed by national statistical offices in conjunction the World Bank as part of its Living Standards Measurement Study (LSMS).

For example, almost 15 percent of men but fewer than 4 percent of women are employed for wages in Ghana. The gap is even wider in some other countries, such as Bangladesh, where 24 percent of rural men and only 3 percent of rural women work in wage employment. A similar pattern holds in Latin America also; for example, in Ecuador almost 30 percent of rural men and only 9 percent of rural women receive a wage.

FIGURE 5
Participation in rural wage employment, by gender



Source: FAO, 2010d.

Even when rural women are in wage employment, they are more likely to be in part-time, seasonal and/or low-paying jobs. In Malawi, for example, 90 percent of women and 66 percent of men work part-time (Figure 6A). In Nepal, 70 percent of women and 45 percent of men work part-time. This pattern is less pronounced in Latin America than in other regions.

Rural wage employment is characterized by a high prevalence of seasonal jobs for both men and women, but in most countries women are more likely than men to be employed seasonally (Figure 6B). For example, in Ecuador, almost 50 percent of women but fewer than 40 percent of men hold seasonal jobs.

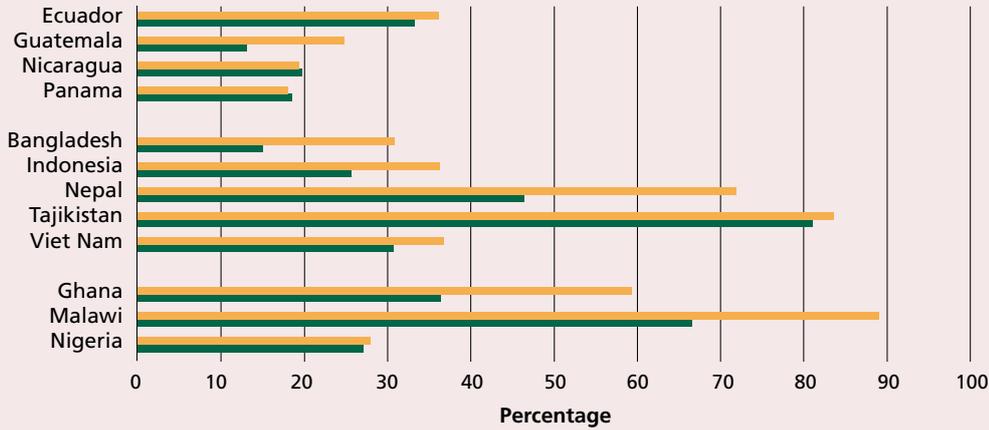
Similarly, rural wage-earning women are more likely than men to hold low-wage jobs (Figure 6C), defined as paying less than the median agricultural wage. In Malawi, more than 60 percent of women are in low-wage jobs compared with fewer than 40 percent of men. The gap is even wider in Bangladesh, where 80 percent of women and 40 percent of men have low-wage jobs. The only exception to this pattern was found in Panama.

Differences in male and female employment and wage patterns may have multiple causes. Because women in many countries have less education and work experience than men, they may earn a lower wage. Furthermore, having less education and experience reduces their bargaining power so they may be more likely to accept low wages and irregular working conditions (Kantor, 2008). Evidence from a number of studies confirms that women, on average, are paid less than men even for equivalent jobs and comparable levels of education and experience (Ahmed and Maitra, 2010; Fontana, 2009). At the same time, because women face significant time constraints because of family obligations, they may prefer part-time or seasonal jobs that are typically lower paid. Social norms that confine women to certain sectors or phases of the supply chain can further limit their opportunities for career growth and reinforce these sectors as low-pay and low-status occupations.

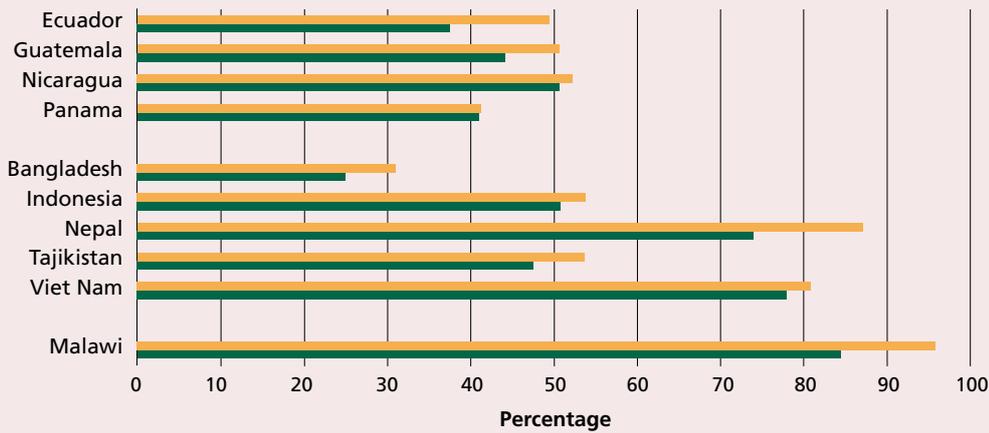
Average male wages are higher than average female wages in rural and urban areas of the countries covered by the RIGA dataset (Figure 7). For example, in

FIGURE 6
Conditions of employment in rural wage employment, by gender

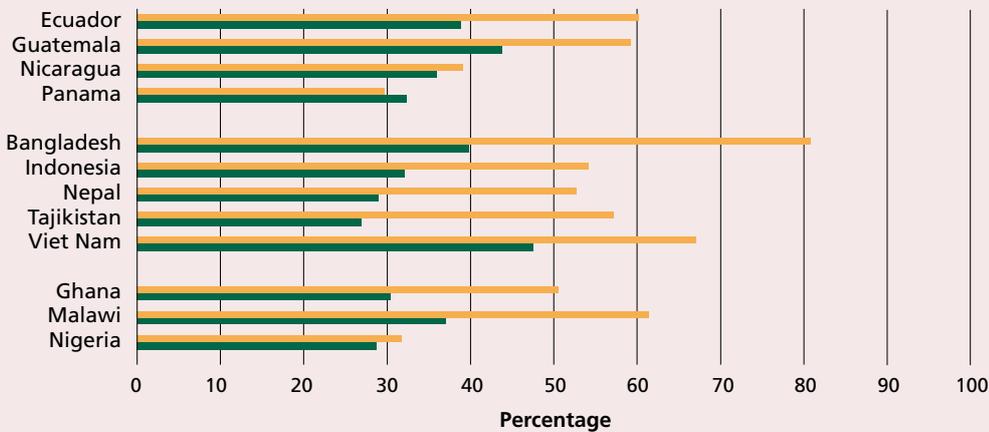
A - Prevalence of part-time work



B - Prevalence of seasonal work¹



C - Prevalence of low-wage work



Women Men

¹Data are not available for Ghana and Nigeria.

Source: FAO, 2010d.

Ghana, men's wages are 31 percent higher than women's wages in urban areas and 58 percent higher in rural areas. Women earn less than men everywhere except in rural areas of Panama. The gap between male and female wages is wider in rural areas in some countries, but not everywhere. Women in most RIGA countries typically earn less than men with the same qualifications, partly as a consequence of occupational segregation and discrimination (Hertz *et al.*, 2009).

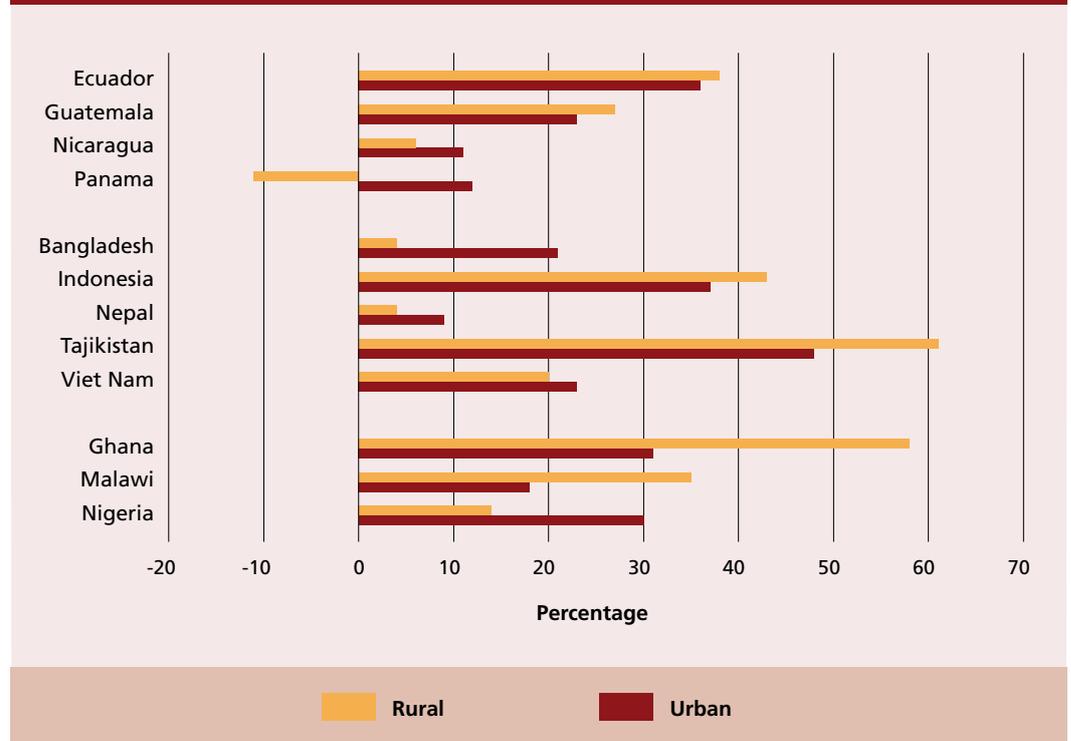
While women continue to face occupational segregation and discrimination in rural labour markets, new forms of organization in supply chains for export-oriented crops and agroprocessing have created better-paying employment opportunities for women than had existed before. Wages are typically higher and working conditions better than in traditional agricultural employment. The large-scale incorporation of women in the packing stage of non-traditional agro-export production may be one of the most important

developments for female employment over the past few decades (Deere, 2005).

Women are clearly an important part of the agricultural labour force, but agriculture and agricultural value chains are equally important to women as a source of employment. Commercial value chains for high-value products such as fresh fruit, vegetables, flowers and livestock products are growing rapidly to supply urban supermarkets and export markets. The growth of modern value chains and the broader structural transformation of the agriculture sector in many developing countries have major implications for women's employment, but the impact of these trends for women has received relatively little analytical attention (Maertens and Swinnen, 2009).

Women dominate employment in many of the high-value agricultural commodity chains in Africa and Latin America (Table 1). Although new jobs in export-oriented agro-industries may not employ men and women

FIGURE 7
Wage gap between men and women in urban and rural areas



Note: The wage gap is calculated as the difference between average daily male and female wages as a percentage of the average male wage. A positive wage gap means men are paid more than women. The rural wage gap includes farm and non-farm employment.

Source: Hertz *et al.* 2009.

TABLE 1
Employment in selected high-value agro-industries

COUNTRY	COMMODITY	YEAR OF SURVEY	NUMBER OF EMPLOYEES IN THE AGRO-INDUSTRY	SHARE OF FEMALE EMPLOYEES (%)
Cameroon	Banana	2003	10 000	..
Côte d'Ivoire	Banana and pineapple	2002	35 000	..
Kenya	Flowers	2002	40 000–70 000	75
Senegal	French beans	2005	12 000	90
	Cherry tomatoes	2006	3 000	60
Uganda	Flowers	1998	3 300	75
South Africa	Deciduous fruit	1994	283 000	53
Zambia	Vegetables	2002/3	7 500	65
	Flowers	2002/3	2 500	35
Chile	Fruits	1990s	300 000	circa 46
Colombia	Flowers	mid-90s	75 000	60–80
Dominican Republic	Fruits, vegetables, flowers, plants	1989–90	16 955	circa 41
Mexico	Vegetables	1990s	950 000	90

Sources: For Africa: Maertens and Swinnen, 2009, Table 1, based on several sources; for South America: Deere, 2005, Appendix II, based on several sources.

on equal terms, they often provide better opportunities for women than exist within the confines of traditional agriculture and can also be instruments of change with positive implications for women and rural development (Maertens and Swinnen, 2009; Deere, 2005).

The flower industry in Latin America provides an interesting case of contrasting points of view. In Colombia, for example, Friedemann-Sanchez (2006) finds that 64 percent of the workforce directly growing fresh-cut flowers for export are women and considers this type of agro-industrial work skilled, while others consider it unskilled (e.g. Meier, 1999). While women do have supervisory jobs among those directly involved in cultivation activities, they have a much lower share of managerial or professional jobs in other aspects of the sector (Friedemann-Sanchez, 2006). Similarly, Fontana (2003) finds that in sectors producing primarily for the export market, women tend to be replaced by males as profits increase.

The arrival of the flower industry in the Ecuadorian town of Cayambe in the late 1980s (in combination with other household and individual factors) affected time-use patterns

in some surprising ways (Newman, 2002). The total time spent by women in paid and unpaid work did not increase, contrary to a frequent criticism of agricultural export development that maintains that women are unduly burdened by work in the industry. Indeed, the most compelling evidence of the industry's impact was on men's increased participation in housework. In Cotacachi, Ecuador, in contrast, women were not prepared to move or even commute to work in the flower industry despite the higher wages offered there. The women did not view flower industry employment as an option, indicating either that their husbands would not allow them to work or that the work would be detrimental to family relations (Newman, 2002).

In Senegal, the growth of modern horticulture supply chains has been associated with direct beneficial effects for rural women and reduced gender inequalities in rural areas (Maertens and Swinnen, 2009). The study also finds that women benefit more from employment in large-scale estate production and agro-industrial processing than from high-value smallholder contract-farming in which they often provide unpaid family labour.



Key messages

- Women comprise 43 percent of the agricultural labour force in developing countries, on average, ranging from about 20 percent in Latin America to almost 50 percent in Eastern and Southeastern Asia and sub-Saharan Africa. The share is higher in some countries and is changing rapidly in some parts of the world.
- Agriculture is the most important source of employment for women in rural areas in most developing country regions, but this varies widely by region. Women are more likely than men to hold low-wage, part-time, seasonal employment and they tend to be paid less even when their qualifications are higher than men's, but new jobs in high-value, export-oriented agro-industries offer much better opportunities for women than traditional agricultural work.