

Chapter 12

Promoting Gender-Equitable Agricultural Value Chains: Issues, Opportunities, and Next Steps

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Abstract This chapter reviews the growing body of work on reducing gender-based barriers to value chain development. It highlights key questions that are emerging within the gender and value chain community related to methodologies for promoting both greater gender equity and efficiency. The authors lay out the rationale and evidence for promoting gender equitable value chains focusing on business, social justice, and development goals. The chapter then reviews the terms and assumptions used in value chain approaches and provides evidence and examples of different gender and value chain approaches. The authors also look at gender issues in value chain performance and gender issues benefitting from value chain production, including employment and income and social capital and networking. This is followed by a review of current debates in the field of gender and value chain studies. The concluding section identifies new questions and challenges facing researchers and practitioners, for example, on chain selection, targeting of women, and achieving food security and improved nutrition in value chain development.

Keywords Gender • Agriculture • Value chains • Markets • Employment

12.1 Introduction

Fears of new food crises have recently raised the profile and funding of agricultural activities for the developing world, from donor programs to foreign private investors seeking to stabilize food supplies at home (World Bank 2007; von Braun and Meinzen-Dick 2009). This has created a corresponding growth in efforts to

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understand how the globalizing food system is shaping (or thwarting) opportunities for women to participate more fully in agricultural value chains, the organizational links that structure how products move and are improved from the farm to the consumer. Globally, women—as unpaid family workers, as farm managers, processors, wage workers, managers, and entrepreneurs—contribute time, energy, creativity, and knowledge to the production, processing, and marketing of crops and livestock in amounts that are, on average, nearly equivalent and, in some instances, surmount the contributions of men (FAO 2011), but they typically remain small farmers and laborers, reaping low returns from production, packing, and processing jobs. Furthermore, only a small minority are entrepreneurs in transportation, marketing, and exporting, where more value is added and returns are higher (see Hill and Vigneri, Chap. 13). This imbalance reinforces the importance for continued attention to engendering the analyses that often determine which crops to commercialize and what form that commercialization should take.

Value chain approaches are popular because they clarify how market relationships are organized among different stakeholders, but there is little consensus on the most useful methodologies for either analysis or chain development. Most approaches do not clearly address how to organize markets in gender equitable ways, e.g., how to best increase women’s participation in agricultural enterprises or how to effectively reduce gender inequalities in accessing inputs or services. The gender and development community has been quick to point to the need to engender value chain approaches or risk exacerbating gender inequalities and marginalizing women. Only recently has the question of how to promote more gender-equitable agricultural development become an explicit component of value chain development efforts¹ (Chan 2010; Mayoux and Mackie 2007; Rubin et al. 2009).

This chapter looks at this growing body of work to highlight key questions that are emerging within the gender and value chain community. It reviews the terms and assumptions used and provides evidence and examples of different gender and value chain approaches. It concludes with noting some new questions and challenges facing researchers and practitioners. Because the gender and value chain literature is still limited in scope, this review also draws on a wider range of studies related to gender and agriculture, food security, and cash cropping.

12.2 Value Chains: Theory and Practice

A core element of pro-poor growth approaches in agriculture is the emphasis on a more diversified agricultural sector to generate employment and offer more inclusive participation of farmers and enterprises. A value chain charts the sequence of

¹Even the comprehensive *Gender in Agriculture Sourcebook* published jointly by the World Bank, IFAD, and FAO in 2009 (World Bank et al. 2009) did not include a chapter on gender and value chains as a separate reference topic, and other recent contributions to setting research priorities for value chains continue to downplay or ignore the gender dimensions of the topic (see Gómez et al. 2011).

actions and the organizational links that move a product or service from conception, through a series of steps, including production, processing, marketing, and delivery to final consumers, through to its consumption and disposal. The “farm to fork” connections are the subject of value chain analysis, a focused process of data collection and analysis that grows out of earlier studies of markets and their operations across different geographical and political terrains: national, regional, and international. With the intensification of globalization, scholars have recognized the emergence of new forms of connectivity between producers, buyers, and consumers. Sales operations have become better organized and more controlled, with procurement processes shifting from wholesale markets, where multiple sellers competed with each other to gain access to multiple buyers, to a well-coordinated “chain” of known suppliers selling to a single purchaser (Gereffi 1994; Kaplinsky and Morris 2000; Reardon and Berdegú 2002).

Value chain analysis involves collecting information about these market connections to help firms identify their strengths (or weaknesses) vis-à-vis other members of the chain. In this context, the firm can be a farming household, a business, or an association engaged in producing, processing, transporting, or marketing agricultural goods—or supporting those activities. When the results of the analysis are applied, firms should be able to become more competitive by reducing their costs or enhancing the distinctiveness of their products or services (or both), a process known as “upgrading.” At the same time, the analysis should also be able to point to ways that the chain as a whole can become more efficient. In a development context, value chain analysis is used to promote value chain development, a directed effort to build both the competencies of the firm and the improved functioning of the chain, often with a pro-poor focus (Mayoux and Mackie 2007). It may also involve a collaborative visioning to help the different chain actors assess their own roles in the chain (USAID MicroLinks Wiki n.d.). A value chain analysis oriented toward achieving the goal of poverty reduction should also assess how well the different options for chain development are able to both encourage broad-based growth and achieve greater gender equality.

Engendering value chain analysis involves consistently making explicit the different levels and categories of men’s and women’s participation in value chain activities. It requires the use of a gender-sensitive methodology for value chain selection. It includes seeking out women-owned and women-managed firms and analyzing in which subsectors of the economy they function. It considers how these firms choose suppliers, reach customers, and develop business plans, and whether aspects of these tasks are distinguishable from firms owned by men. Both women and men, as workers and entrepreneurs, should be represented when mapping the chain and convening stakeholders to discuss the results of the analysis (Gammage et al. 2009; Rubin et al. 2009).

Whether working with donors, community development organizations, or the private sector, the work of engendering agricultural value chains is based on the premise that it can be a win-win opportunity, where the results of developing a more inclusive work force and entrepreneurial base will benefit workers (both

employees and smallholders) and firm owners alike. This premise is based on three assumptions²:

- First, value chains are embedded in a social context that reflects the operation of gender relations from the household to the firm. This assumption is rooted in the concept of the *gendered economy*, that economic systems express the consequences of gender relations, for example, shaping which jobs are open to men or women (Elson 1999). Understanding the functions and operations of value chain actors cannot be isolated from an examination of how gender roles and relations shape and have an impact on particular behaviors within value chains;
- Second, value chain development affects gender roles and relations. A large body of qualitative research has documented shifts in allocation of responsibilities in the household, often increasing demands on women’s labor. There are examples of how increasing women’s participation in market-oriented production can either increase or decrease their access to and control over income, depending upon the character of their involvement and the specific characteristics of the chain (Hamilton et al. 2002; Dolan and Sorby 2003; Coles and Mitchell 2009).
- Third, gender equity and value chain competitiveness are mutually supportive goals. Large-scale comparative studies have demonstrated that greater gender equality and economic growth can go hand-in-hand and that gender inequalities are costly and inefficient (World Bank 2001; World Bank et al. 2009).

In practice, achieving both gender equality and efficient value chains is often elusive. A recent DANIDA review of gender and value chains finds few evaluations of value chain interventions that address gender dimensions (Riisgaard et al. 2010). Among the evaluation studies analyzed, the results of women’s participation in value chains are mixed, with the authors concluding that there is no automatic association between increasing women’s participation in value chains and increases in women’s decisionmaking power in the household. There is need for much more serious attention to careful measurement of the changes in women’s time allocation patterns, access to and control over income, and decisionmaking opportunities in the household and in the community resulting from increased participation in value chains.

Clearly, achieving this “win-win” of economic growth and increasing gender equality will require intentional efforts to create positive synergies between gender relations and value chain development. The reasons and methods for doing so are described in the next Section.

12.3 What Is the Rationale and Evidence for Promoting Gender-Equitable Value Chains?

The renewed focus on agriculture since the global food price crises of 2007–2008 has brought a growing recognition that past efforts failed to dynamize agricultural markets in sustainable, equitable, and commercially viable ways. Moreover, they

²These assumptions are discussed in greater detail in Rubin et al. (2009).

have not engaged the full range of actors, from smallholder farmers to multinational food corporations. Increasingly, arguments are being made that achieving an end to hunger and poverty will require addressing gender inequalities in agricultural value chain development, framed in terms of the business, social justice, or development cases.

12.3.1 The Business Case

Gender equality and women's economic empowerment outcomes have not always translated well into compelling arguments for engaging private-sector actors. Yet being able to articulate the business case for addressing gender inequalities and supporting women's economic empowerment is critical to winning the support of local, regional, and multinational firms and leveraging their power in the chain. The business case rests on the positive impact to firm-level and economy-wide performance that can be achieved by proactively promoting women's participation in value chains and removing gender-based impediments limiting their productivity.

- Ensure the flow of quality goods

Many women are involved in producing and handling crops. However, as low wage and unpaid workers, women have few incentives to invest their time and energy into improving production and processing practices. While women often have control over the small amounts of income they generate through local sale of food stuffs and other microenterprises, larger sums of money are often controlled or can be appropriated by men. Evidence from Kenya on the chili pepper value chain reveals that under these circumstances women may withdraw their labor, particularly if others, such as spouses, reap the economic benefits from their work, thus endangering the constant supply of materials necessary for a functioning value chain (Rubin et al. 2009). Addressing women's lack of incentives to participate in the value chain can go a long way toward ensuring the long-term supply of quality products to the value chain.

- Improve the efficiency of business

On the farm, men are still often assumed by business, government, and development representatives alike to be the "real" farmers and thus receive a greater proportion of available technical assistance and extension services, even for tasks and crops that women manage (see Ragasa, Chap. 17). As a result, information about new techniques and upgrading does not flow to the appropriate individuals, costing firms through decreased volume and quality of goods. Sex-segmentation and discrimination in hiring practices also create inefficiencies in human capital and productivity. Adopting business practices that reduce these inefficiencies, for example by hiring women extension officers and by targeting both men and women for technical assistance, will improve product quality, and create a more efficient chain by raising productivity and reducing waste.

- Take advantage of new market opportunities

Women are often invisible and underserved buyers and suppliers in agricultural value chains. Firms may be able to increase their client base by sweeping aside preconceived notions of who participates in agriculture, targeting women through the design and delivery of business development services (both financial and non-financial) and reaching out to them directly. In the mobile phone sector, it has been estimated that revenue opportunities of US\$13 billion could be achieved by closing the mobile gender gap through the addition of 300 million women subscribers in low and middle-income countries (GSMA 2010, 7).

- Target niche markets and corporate social responsibility opportunities

In industrialized countries, consumers increasingly ask where and how goods are produced and who produces them, creating opportunities for actors along specific value chains to market their socially responsible actions to discerning consumers. Examples include marketing products as fair trade and certified organic. Women-only coffee cooperatives like Café Femenino in Peru and Las Hermanas in Honduras are supplying large coffee retailers eager to meet consumer interest in social responsibility.

12.3.2 The Social Justice Case

Gender equality has a sound footing in international agreements and is widely accepted by the development community. As a basic human right, gender equality is recognized as an end in and of itself. This is affirmed in numerous global and regional agreements from the Convention on the Elimination of All Forms of Discrimination against Women or CEDAW (1979) to the Millennium Development Goals (2000). In value chain development, social justice principles support efforts to:

- Ensure the dignity of work and economic equity for all

Despite women's significant participation in agricultural value chains, the terms and conditions of their work are often unjust and unfavorable, with limited and unequal rewards for their inputs. Whether in the fields or in packing and processing plants, they are often hired as temporary workers and are not given benefits. Value chain development needs to uphold the principles of dignified work, and fair and equal pay (Raworth 2004; Dolan 2005).

- Remove discriminatory beliefs and practices

Gender inequalities often result from discriminatory beliefs and practices that restrict women's (or men's) full participation in value chains and the terms and conditions of their participation, inhibiting economic efficiency and social development (ILO 1999). Discrimination in hiring and firing based on age, pregnancy status, or union affiliation are illegal practices, for example, that continue to occur in garment-sector value chains (Maquila Solidarity Network n.d.). As humans, both men and women have a right to live free from discrimination that reduces their access to education, skills, and employment opportunities for which they are qualified.

12.3.3 The Development Case

The development case builds on the mutually supportive links between the business case argument for improving economic performance and the social justice argument for greater gender equality. Studies now exist to show that gender equality is positively correlated with economic growth. They establish a strong relationship between women's increased earnings and greater investments in children's health and education (see Quisumbing 2003). Gender inequalities exact a high cost on economic and human development in the long run and affect competitiveness by creating rigid labor markets and restraining productivity and growth. When roughly half of a country's potential labor force is not used efficiently, competitiveness with other countries is negatively affected (Lopez-Carlos and Zahidi 2005). Other evidence suggests that women's participation is good for firm performance (Catalyst 2007). Value chains that address gender inequalities can create the conditions for the greatest number of men and women to participate in and access the benefits from increased economic growth.

The goal of integrating gender into agricultural value chains should be to identify how actors with different capacities and interests can work together to build broad-based economic growth with poverty-reducing impacts. When different arguments are seen as complementary instead of competing, the benefits to the men and women involved in value chains can be maximized. Identifying the points of mutual interest, understanding where unavoidable trade-offs exist, and equipping all stakeholders with the tools to make sound judgments offers a greater likelihood of achieving both greater gender equality and increased competitiveness.

12.4 Identifying and Addressing Approaches to Integrating Gender Issues into Value Chain Development

The advent of value chain analysis in development programs has given rise to a proliferation of methodologies for correcting market failures and improving coordination and cooperation among actors bringing agricultural products from field to fork. In spite of its popularity—or perhaps as a result of it—scrutiny over the potential and ability of value chain development to address equity concerns and reduce poverty has emerged in recent years. This is understandable, given the importance of women to the agriculture sector and women's mixed experience in other global supply chains (e.g., garment and textiles). Attention is increasingly drawn to how the development of the agricultural value chains can be executed in equitable, sustainable, and commercially viable ways.

Two considerations are central to developing gender equitable agricultural value chains:

1. How gender relationships shape men's and women's participation in value chains; and,
2. How gender relationships influence access to the benefits of participation in value chains.

The gender issues that mediate participation in chains and access to benefits from them include differences in men's and women's access to and control over productive resources, agricultural practices and responsibilities, the beliefs and perceptions over appropriate types of work and division of responsibility, and the differential impact of laws, policies, and institutions.

12.4.1 Gender Issues in Value Chain Participation

The heterogeneity of women's participation in agricultural value chains already noted is the result of a number of factors, most important of which is access to and control over factors of production, which vary both by location, product (e.g., sweet potatoes or chickens), and over time. What is important for this discussion is how this interaction influences the way in which men and women enter agricultural value chains.

12.4.1.1 Wage Work

The last several decades have seen an expansion in wage work for women in export-oriented agriculture. Supermarket retailing, both in developed and developing countries, has induced these changes through the development of global agricultural supply chains that source food and exert control over agricultural production and processing in developing countries. Up to 80 % of food retailing in the United Kingdom is controlled by supermarkets; in South Africa, it is between 60 and 80 % (Barrientos 2001, 3).

This process has expanded wage employment opportunities for both men and women. Although women's participation in traditional agricultural exports varies by crop, the growth of high value agriculture (fruits, vegetables, and cut flowers) has paralleled a rise in women's employment in the sector. Women are employed in the production and processing functions of these agricultural value chains. In cut flowers, women make up 80 % of workers in Colombia. In Zimbabwe, they constitute 91 % of horticultural employees (cited in Randriamaro 2006, 22). In Chile, women's employment in the fruit sector quadrupled between 1982 and 1992 (Raworth 2004, 76).

Despite the rising numbers, women hold fewer permanent positions compared to men, with higher levels of temporary or seasonal work at lower wages and with few or no benefits. Women become "permanently temporary" in jobs that are short-term but which roll over for long periods (Raworth 2004, 19). In the South African fruit industry in the late 1990s, women formed 69 % of all temporary and seasonal workers, but only 26 % of long-term employees. The gap was even more pronounced in Chile, with the same categories at 52 % and 5 % women, respectively (Barrientos 2001; Dolan and Sorby 2003; Raworth 2004.)

12.4.1.2 Smallholder Farming

Smallholder farmers are increasingly drawn into agricultural value chains as a result of rising food demands and donor imperatives to ensure that agricultural development reaches the rural poor. Women's participation in smallholder agriculture is mediated by their access to productive assets, and their often lower access to land, credit, social networks, and information relative to men can limit their opportunities to enter higher value and more competitive value chains. As a result, women are less able than men to engage as independent farmers in more profitable chains. Porter and Philips-Howard (1997) observed few women contract farmers participating in barley and sugar value chains in South Africa. Dolan (2001) noted that only 10 % of contracts in tea and horticulture in Kenya were with women. Low participation of women farmers was observed in rice, sorghum, and sunflower schemes in Uganda (Elepu and Nalukenge 2009 cited in Schneider and Gugerty 2010), in a sugar authority scheme in Malawi (cited in Porter and Philips Howard 1997), and in French bean exports in Senegal (Maertens and Swinnen 2009).

Landownership in particular is a key criterion for participation in the chain for independent producers, for members in producer associations, or for outgrowers in contract farming schemes. Women's low landownership rates, their often less secure usufruct rights, and their typically smaller land parcels of lesser quality are all disadvantages when seeking to enter into independent agreements with buyers. Recruitment into these schemes is often biased toward men and their greater access to land. Von Bulow and Sorensen (1993) found that the Kenya Tea Development Authority contracted exclusively with men household heads because of their access to land titles.

Women can reduce these gender inequalities by participating in associations, groups, and horizontal organization. Small firms, whether led by men or women, collaborate to overcome constraints they face individually. Moreover, these small, often local businesses play an important role in facilitating change in the value chain. In Tanzania, for example, horizontal linkages among smallholder producers were consistently associated with upgrading (Bloom et al. 2008). Gender and value chain guides note that to successfully build horizontal linkages, associations need to have gender-equitable governance systems that promote inclusive membership criteria and leadership opportunities for both women and men in associations. In addition, access to value chain participation is enhanced when women as well as men are able to actively engage in group discussions and activities (Van Ingen et al. 2002). Analyzing sociocultural norms to determine the appropriateness of forming either mixed or single-sex associations is an important aspect of success.

12.4.1.3 Entrepreneurship

Value chain interventions can draw in local businesses, especially input suppliers (e.g., retailers, distributors, and wholesalers), and other specialized business service providers (e.g., pruning, grafting, or artificial inseminator specialists). This process

Box 12.1 Women and Men in Food Processing and Petty Trading in Africa

In Uganda, few women sell food or cash crops, approximately 30 % and 9 %, respectively.

Tanzanian men dominate as urban food traders and wholesalers, representing up to 75 % of traders in both activities at the national level. In Dar es Salaam, 60 % of women are mainly self-employed street vendors, selling fruits, vegetables, and cakes.

Around Lake Victoria in Kenya, women make up 75 % of the artisanal fishing sector, as processors and traders.

Nigerian women make up 68 % of urban and 78 % of rural informal-sector cowpea processors and vendors across 12 states. Men's involvement increases as the business grows.

Sources: S. White (1999); GATE (2008).

generates rural off-farm employment opportunities and supports backward and forward linkages with the local economy. The process of formalizing chain activities may also bypass or eliminate intermediary actors such as traders and middlemen. Unfortunately, often little consideration is paid to the gendered composition of these enterprises or whether men- and women-owned enterprises are equally well-placed to join the value chain.

The focus on women's roles as wage workers and household laborers comes at the expense of considering how women entrepreneurs participate in or are excluded from other parts of the agricultural value chain. Women operate a variety of businesses, most often in the services sector. Like men with few assets, they tend to concentrate in the informal sector, where they require little more than their labor to operate and where opportunities for accessing credit, technical assistance, and market opportunities are limited.

Although the number of studies on women's engagement with value chains through women's groups is growing, data on women's participation in the agriculture sector as independent, off-farm entrepreneurs are scant, except in small-scale food processing and trading activities where some data exist (Box 12.1). Informally, women-owned businesses support national and regional trade in raw and processed agricultural products. In parts of Sub-Saharan Africa, women play an important role in cross-border trading of foodstuffs. In the Southern African Development Community (SADC) region, where informal cross-border trade contributes between 30 and 40 % of intra-SADC trade, women make up 70 % of the traders. Estimates for Benin, Mali, and Chad calculate the contributions of women informal traders to national gross domestic product (GDP) at 64 %, 46 %, and 41 % respectively. Often these traders are bypassed or excluded as more formal value chain activities are developed around them (United Nations Economic Commission for Africa/African Union Commission/African Development Bank 2010; UN Women 2010).

12.4.2 *Gender Issues in Value Chain Performance*

For smallholders, the gender inequalities that lead to differences in productivity (see Peterman et al., Chap. 7) also shape men and women farmers' performance in value chains. Differences in access to labor, inputs, information, and training influence how well farmers are able to upgrade their practices and maintain their participation in value chains.

There are four types of economic upgrading involving efforts to gain productivity and to build in value-added aspects to the chain: making “better products ... more efficiently, or [moving] into more skilled activities” (Pietrobelli and Rabellotti 2006, 1). Each type might involve different sets of constraints and opportunities for women or men in different types of chains:

- *Process upgrading*, which aims to increase the efficiency of production processes, resulting in reduced unit costs. Process upgrading can involve improved organization of the production process or improved technology.
- *Product upgrading*, which improves the quality of a product or variety that increases its value to consumers.
- *Functional upgrading*, which refers to entry into a new, higher value-added function in the value chain that moves the value chain actors and/or the overall value chain closer to the final consumer and positions it to receive a higher unit price for the product.
- *Channel upgrading*, which refers to entry into a marketing channel that leads to a new end market in the value chain, for example, from the domestic to the export market for the same product (Humphrey and Schmitz 2001; Bolwig et al. 2008, 17).

In addition, there is an emerging literature on *social upgrading*, defined as improvements in living standards, not only as measurable by increases in wages and work conditions, but also in consideration of greater gender equality and resistance to shocks (see Milberg and Winkler 2010).

There have been specific and localized studies that have investigated some of the gender dimensions of upgrading, much of it related to the impact on women workers in different global value chains (see, for example, Barrientos 2001; Dolan 2005; Harilal et al. 2006). In women-owned enterprises, process and product upgrading can be partially addressed by training in new skills or by providing new avenues for accessing credit, allowing businesses to expand and prosper. The USAID Lulu Livelihoods Program, for example, supported the creation and development of the shea nut value chain in southern Sudan, providing women with technical skills, equipment, and assistance in forming marketing linkages to buyers in Sudan and the region (Armstrong et al. 2008). Functional upgrading or channel upgrading by women-owned firms can also be supported through training and credit, but successfully negotiating these more complex forms of upgrading may depend on more sophisticated business networking, higher levels of education, and/or technical capacity (or the ability to hire it) in the information technology and communications arena.

The degree to which women employees are benefitting as social upgrading occurs within the value chain is addressed in the next Section.

12.4.3 Gender Issues in Benefitting from Value Chain Participation

Gender relationships also mediate how participation translates into benefits for the individual, the household, and the community. The benefits of value chain participation include employment, wages or other income, and empowerment, all of which can accrue to an individual or a household. Additionally, participation can build skills and capacity, increase knowledge and bargaining power, and promote networking that allow actors—individuals, associations, and firms—to enhance their ability to improve the terms of their participation within the chain. Gender dynamics and power relations at multiple levels of the value chain determine who gains, and how these benefits are accessed and distributed. As Coles and Mitchell (2009) highlight, gendered patterns of benefit distribution are such that participation in the value chain does not always translate into gains, such as in the case in Kenya, where women provided 72 % of the labor but obtained only 38 % of the income from their work (Dolan 2001). At the same time, nonparticipation does not equate to a lack of benefit. What matters is not simply the level of income derived from value chain activities, but a combination of factors related to the perception of ownership or management of a particular commodity, the scheduling of payment, and the point of entry into the chain.

12.4.3.1 Employment and Incomes

The increase of women in export-oriented value chains has had mixed results. In conditions where low-skilled labor is needed, women have often been the preferred employee for export-oriented industries, both as a result of gender stereotypes, “a number of stylized assumptions that equate production imperatives of quality, consistency, and speed with ostensibly ‘feminine’ traits of dexterity and conscientiousness” (Dolan 2004, 107) and because of their typically lower cost. Coupled with women’s lack of access to on-the-job training opportunities to upgrade their skills, women are often locked into these low-wage and low-skilled occupations, unable to move into senior positions in the chain. This vertical segregation repeats women’s experiences in global value chains in other sectors, such as manufacturing, for example, where despite women’s high level of participation in Southeast Asian manufacturing, the last 20 years have seen a “defeminization” of the sector as it upgraded to maintain competitiveness and replaced jobs that women held with technology (IANGWE 2011, 5). These patterns appear to vary nationally and regionally, as well as by the type of commodity.

Concerns about discriminatory hiring practices, sexual harassment, and unequal wages exist in agricultural value chains as in other industries. Emerging research efforts address these inequalities by analyzing the impact of economic upgrading on social upgrading (Milberg and Winkler 2010). Other initiatives, like the Ethical Trade Initiative, focus on building multipartite alliances between companies, trade

unions, and voluntary organizations to improve working conditions through the adoption of codes of labor practices.³

Despite these concerns, access to employment and earnings has had a positive impact for many women and their families. Wages from off-farm employment are often higher than from other opportunities available. Research on women's participation in the garment sector shows that from Honduras to Bangladesh, access to paid employment has had an effect on women's autonomy, independence, and bargaining power within the household (Fontana et al. 1998; Ver Beek 2001; Raworth 2004).

There are very few studies, however, that are able to measure the trade-offs for women between working on their own or family farms linked to domestic, regional, or export markets and those who work in agricultural packhouses and processing plants. A study of Kenyan horticulture looked at the total income of households engaged in horticultural farming and compared them to households who had members, many of whom were women, working in horticultural packhouses (McCulloch and Ota 2002). The data conclusively found that households of packhouse workers had higher incomes than those relying on only smallholder production, but left open a number of questions about causality of the relationship as well as the specific impact on women and their control of those higher levels of household income. In an earlier study from Kenya comparing the control over income by women in sugarcane producing households with that of women in other agricultural households and nonagricultural households found that the degree of control by women was highest among other agricultural households, but that their levels of income were lower than among sugarcane producers (Kennedy and Cogill 1987). This research points to the need for other comparative studies across a wider number of locations and in different value chains, so that arguments about the benefits of women's participation in agricultural value chains can be properly assessed against other employment options, when they exist.

The benefits women derive are not always commensurate with their labor and participation in agricultural supply chains. In household farming enterprises, women's unpaid labor is harnessed for the production of cash crops but they do not reap the rewards, since gender norms often set expectations about who controls income and the decisionmaking over how it will be spent. While women often have control over the small amounts of income they generate through local sale of food stuffs and other microenterprises, larger sums of money are often controlled or can be appropriated by men (Kennedy and Cogill 1987, 58). On smallholder farms, married women and daughters work as unpaid family laborers with the expectation that income derived from the sale of crops will return to the household. In the Kenyan tea sector, women supplied the labor, but when the income did not return to the household, it gave rise to increased marital conflicts (Von Bulow and Sorensen 1993 cited in Schneider and Gugerty 2010). Some reports describe situations where

³ See Ethical Trade Initiative (ETI) at <http://www.ethicaltrade.org>. ETI works with both large- and small-scale sourcing operations in multiple sectors including horticulture. Their codes concentrate on wages, hours of work, health and safety, right to association, and rights of workers or small-scale suppliers.

women have lost control over the production and income from crops as their commercial value increases,⁴ but more research is needed on this issue. Women's lack of secure property rights means they are often vulnerable to displacement or encroachment by others, reducing their incentives to participate or improve their performance in value chains.

In another case, Koczberski (2007) found that the lack of an individual economic incentive for women in an oil palm project in Papua New Guinea reduced their participation and the potential income increases to the household. To address women's unremunerated labor, the processing company began to pay women directly into their own bank accounts and hired more women extension workers to provide technical assistance. Subsequently, 26 % of smallholder income was paid directly to women and overall household income increased by 5 %. The project also found a reduction in domestic violence and a shift in the perception of women from "household helpers" to producers.

12.4.3.2 Social Capital and Networking

Women's participation in value chains can bring them further benefits by expanding their networks and building social capital that allows them to advocate and challenge social norms and inequalities (see chapter on social capital by Meinzen-Dick et al., Chap. 5). Women's access to horizontal linkages can improve their performance in the value chain by facilitating their access to credit, information, and marketing opportunities. It can also facilitate their ability to improve social and economic conditions, for example, by joining trade unions to advocate for improved wages and labor conditions.

Value chain participation allows women to expand their sometimes limited business networks and increases their interaction with institutions and individuals from a diversity of backgrounds and with a range of skills, information, and attributes. Women are able to build both bonding and bridging social capital to strengthen their role in the value chain and beyond. *Bonding* social capital is present in many associations and is a strong feature of horizontal cooperation where individuals with common backgrounds or of similar socioeconomic groups link together for different purposes. For women, bonding capital has been shown to build confidence and leadership skills in single-sex groups in Mozambique (Gotschi et al. 2009). *Bridging* social capital fosters collaboration across and among smaller groups or networks of firms and individuals, such as through producers' associations and trade unions, thus broadening the base of resources to draw upon for information, inputs, services, and markets. *Linking* social capital connects unlike groups, such as between producers and market agents.

Women often mobilize high levels of bonding capital, developed through savings groups, church groups, and other networks close to home. However, their wealth of bonding capital may reinforce household roles, inhibiting their links to other actors

⁴See, for example, Wold (1997) and von Braun et al. (1994).

in the value chain. Social norms that restrict their interactions outside of socially acceptable networks limit their ability to gain access to information about inputs and markets, and constrain women's ability to develop bridging capital. In rural Uganda, for example, women are restricted from entering drinking clubs where men network and conduct business (Katungi et al. 2006); business women in Central Asia similarly reported that many business arrangements are made by men through connections established and maintained in social settings, such as bars and bath-houses, to which women have no access.

By comparison, men's networks often are larger and more extensive. Greater mobility allows them to interact with a broader range of individuals including buyers, input dealers, and public officials. Social norms place fewer restrictions on whom they may publicly interact with, facilitating their ability to seek out new relationships. This creates greater opportunities for men to develop linking capital. In a study of the ability of producer groups in Tanzania to improve their crop marketing, Barham and Chitemi (2009, 54) found that "groups with a greater ratio of male to female leaders are more likely to improve their market situation." In this situation, women-only groups often faced more challenges.

Research in Mozambique confirms that although mixed-sex groups present their own challenges for women to articulate their needs and become leaders, they may provide a more conducive environment for women to access benefits in the form of bridging and linking capital (Gotschi et al. 2009). Building bridging capital through access to men's networks offers women more opportunity to access inputs, networks, and information than they might on their own.

12.4.4 Approaches to Addressing Gender Issues in Agricultural Value Chains

The last several years have witnessed a proliferation in approaches to integrating gender into value chain development interventions. They include research methodologies, tool kits for practitioners, and reports monitoring or evaluating the impact of value chain interventions on men and women. Within these categories there are differences in both what constitutes value chain development and what the gender-related goals and outcomes should be. Some of these differences reflect donor priorities, the level of the intervention (e.g., production, processing, etc.), and the partners involved in the activity. In many ways the diversity of approaches is evidence of the infancy of the intersection of these two technical areas and the steep learning curve facing value chain and gender practitioners as they attempt to integrate their activities, goals, and objectives. It also reflects the evolving context as issues like climate change and food security emerge as key priorities on the development agenda.

The impetus for analyzing gender in value chains stems in part from the concept of the gendered economy (Elson 1999). This counters traditional economic theory that the economy is gender-neutral, and instead insists that labor markets and the

economy are gendered institutions revealing constructions of gender norms and inequalities. It integrates reproductive activities into the economy because these underpin productive, market-oriented activities. In value chain analysis, it refers to the sex-segmentation of men and women in different activities along the value chain, and within firms and production systems.

The first analytical studies on gender and value chain analysis were built on these concepts to understand the factors contributing to the intensity of women's employment and the flexibility (and informality) in buyer-driven export sectors (Barrientos 2001).⁵ These analyses highlight the sex-segmentation of men and women along the chain and across occupational categories, drawing attention to the concentration of women in low-wage, low-skilled positions. They link sex-segmentation to governance of the value chains, revealing how power in chains governs not only upgrading, but also the terms and conditions of participation in the chain. Evidence from South Africa, Chile, Egypt, and Kenya illustrates the clustering of women in labor-intensive, low-return activities such as weeding, pruning, grading, and sorting (Barrientos 2001; Dolan and Sorby 2003; El Messiri 2001). Moreover, these studies revealed how the perceptions about the femininity of particular jobs translated into vertical segregation and lower wages for women.

More recently, several tools and guides have emerged on addressing gender issues in projects using a value chain approach. These are attempts to translate the analytical approaches and learning into action-oriented interventions, providing field practitioners with more specific direction on how to address gender issues along the chain. Although some cast a wider net, a large proportion of these tools are oriented toward agriculture. The majority have been tailored to organizations, NGOs, and implementing agencies that play a coordinating or facilitating role in value chain programs (Rubin et al. 2009; Dulón 2009; RUTA n.d.; Mayoux and Mackie 2007). Their aim is to ensure that the organizations and their field staff increase their understanding of whether gender-based constraints are inhibiting the achievement of women's economic empowerment in their program activities. The guides build staff capacity to undertake more gender-sensitive programming. Many of these methods map a gender analysis process over the project cycle to illustrate how project staff can address gender issues at each stage of the process, providing tips and actions to practitioners at each step of the process (see Fig. 12.1). The number of guides and tools directed at this audience is proliferating rapidly.

A small number of guides address gender in value chain development at other levels of action. Mayoux and Mackie (2007, 33) emphasize the need for "push-up" approaches that involve men and women who are "near the bottom of the power hierarchies in the chain" and include a community-based methodology to empower these men and women. Building on the same idea, the Women's Empowerment Mainstreaming and Networking for Gender Justice in Economic Development

⁵For a methodological summary, see Gammage et al. (2009).

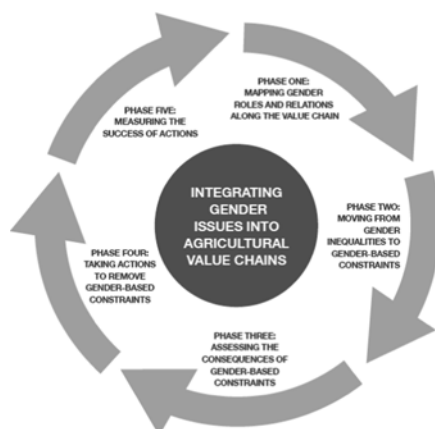


Fig. 12.1 Integrating gender into agricultural value chains (INGIA-VC)

Phase One helps researchers/practitioners/businesses collect data on the factors that shape outcomes for men and women in value chains, collect and organize the data on gender roles and responsibilities using the Gender Dimensions Framework, and understand the sex-segmented character of the value chain. Phase Two assists in identifying areas of gender inequalities as a guide to identifying gender-based constraints. Phase Three guides in thinking through the consequences of the constraint for value chain development. Phase Four develops appropriate actions to reduce or remove the most critical constraints. Phase Five develops indicators to measure success of actions to remove gender-based constraints and progress toward achieving gender equality outcomes (Source: Rubin et al. 2009, 61–62)

(WEMAN n.d.) developed the Gender Action Learning System (GALS), a participatory, community-driven approach aimed at empowering men and women as economic, social, and political actors (Oxfam NOVIB 2004). Currently being piloted in Uganda, the GALs approach works with men and women producers to identify household- and community-level constraints that may be reducing productivity. Household behaviors, such as alcoholism and domestic violence, are discussed alongside production constraints, with the hope that behavior change in the household will improve economic empowerment and well-being.

At the other end of the value chain, efforts are building on the early analytical work on gender and value chains by targeting the private sector, particularly the firms at the helm of buyer-driven chains. Directed at large food companies, these guides make the business case that women’s critical role in the production and processing of raw materials into different food items makes them important stakeholders in their supply chain (Chan 2010). Arguing that women’s access to services, inputs, and technology is less than men’s, this approach guides companies that wish to improve the quality and quantity of their raw materials by making greater efforts to target women when they engage with smallholders, and use their leadership in the chain to influence the business of other stakeholders in ways that can support women.

12.5 Current Debates in the Field of Gender and Value Chain Studies

- Does a focus on women-dominated value chains achieve gender equality?

The question of whether one can best address gender disparities by targeting the development of value chains where women are already active at the node of production or processing or by lowering barriers to women's participation in all types of value chains is highly contested. Proponents of the former argue that in this way, the activity supports women and will expand their income-earning opportunities. Often for this group, there is a lack of understanding of the larger social context that is segregating women into the targeted crop or enterprise. Others maintain that the goals of engendering value chains should be the reduction of gender disparities and enhancement of economic competitiveness. These goals can be met more effectively when the chain development not only includes, but is both profitable for and equalizes, opportunities between men and women.

A project in Senegal, for example, was promoting the development of a value chain for hibiscus flowers, a crop known to be cultivated by women on the perimeters of their spouses' fields. The initial economic projections for hibiscus production and marketing did not reflect the real-world environment in which women operate. The farm budgets assumed that land, labor, and equipment had no or little cost; in fact, the women in some groups had to pay for labor and could not access their husband's equipment in a timely manner, causing delays in cultivation that reduced the quality of the product and, as a result, the prices they received. In these situations, it is not uncommon to find that as these women become more successful producers and become more tightly linked to the market, their rights to the factors of production are contested and men seek to gain access or control of their land or profits. More sophisticated farm-level economic analyses of the crops cultivated by women is needed to determine whether it is economically feasible to encourage women to pursue expanded production in them, or to take up other activities at different points in the value chains of other crops, or even to choose nonagricultural options (Rubin 2010).

It can be rewarding over the short term to work with women in value chains where they are already active, and examples of women benefitting from increased participation are well-known, such as the case of the shea butter value chain in West Africa or women's production in the cut flower industry. Unless these efforts are able, however, to move women into positions of greater control along the chain, over the long term this tactic may be unable to sustainably reduce gender inequalities. The high levels of women's participation in these chains are often the result of gender biases in the economy that restrict their entry into other more profitable ventures or occupations. Failing to address differences in men's and women's capabilities may only exacerbate inequalities.

A more inclusive approach starts from a gendered analysis of a range of value chains and identifying how men and women participate in those chains, while

seeking to understand what factors channel men one way and women another. The resulting analysis should clarify steps that could be taken to bring more women into potentially profitable nodes in the chain where they have been underrepresented. In Mali, where sorghum production and marketing (although not processing) is dominated by men, discussions with sorghum researchers led to the suggestion that women's groups could become certified sorghum seed producers. In this way, the women could enter the chain as input suppliers, creating a new niche in an existing chain, with scope to expand as the chain expanded (Rubin with Me-Nsope 2010).

- Can value chain methodologies move us beyond a focus only on farm-level participation for women?

Until now, much of the work to improve women's participation in agricultural value chains has started from where women are: on the farm and in the packhouses and processing plants. While a reasonable initial strategy, this approach may be self-limiting over the longer term, as more smallholders' farms are consolidated and global value chains increasingly seek efficiencies of scale to minimize supply disruptions. It is also constrained by the very real problem of women's limited access to land in many countries, and the cultural sensitivities to making wholesale shifts in landownership. It is thus important to look forward to a range of possible agricultural scenarios, including consideration of climate change on smallholder systems and to identify alternative avenues for women's economic advancement.

The value chain focus on multiple actors allows for a parallel discussion of gender issues at different levels of the chain. It permits a discussion of the capabilities and opportunities for a range of different women and men beyond the farm and different entry points in the chain for addressing gender issues. Support and technical assistance can be channeled toward building horizontal and vertical connections between larger value chain actors and women's enterprises. For example, more creative approaches can be taken to support women's participation in business development and transportation services (see Box 12.2).

Successfully moving women into nodes of the value chain where they have been historically underrepresented will require dedicated resources, careful analysis, and support to change behavior. Gender-equitable opportunities can be enhanced in business development services, in processing, packaging, transport, exporting, and in financing. Support to women to enter and become leaders in agriculture, such as through training and mentoring fellowships provided by the African Women in Agricultural Research and Development (AWARD) program or the Borlaug Leadership Program, are exciting examples of what can be achieved in this arena. The 10,000-women initiative is another model for building the capacity of women entrepreneurs.⁶

⁶For more information about these programs, see AWARD (<http://awardfellowships.org/>), USDA Borlaug Fellowship Programs (<http://www.fas.usda.gov/programs/borlaug-fellowship-program>), the USAID Borlaug Leadership Enhancement in Agriculture Program (<http://borlaugleap.org/>), and 10,000 Women initiative (<http://www.goldmansachs.com/citizenship/10000women/index.html>).

Box 12.2 Innovative Opportunities for Expanding Women's Participation in Agricultural Value Chains

- The USAID-funded Kenya Dairy Sector Competitiveness Program implemented by Land O'Lakes links up providers of artificial insemination (AI) services to local farmers. One of them is a young mother who received a certificate in AI after completing secondary school. She finds that providing AI services is a good way to earn an income even part-time. Her biggest constraint is the travel to and from the farms, since she has to be ready to go whenever the farmer calls to report that his/her cows are ovulating, even late at night. Assistance to women like her could take the form of building up networks or associations of such service providers that could collectively purchase and share a vehicle or link members to credit options for individual vehicle purchases.
- Another innovative woman entrepreneur in Kenya, Mary Mwangi, started the Double M bus company, so that women could get to work comfortably and safely. Her bright purple buses now employ over 200 people, and are relied on by workers in Nairobi. She remains one of a select group of women in African transport, yet her success can be an inspiration to others. Interviews conducted in Kenya and Tanzania, suggested that safety concerns are a limiting factor for women in transport, whether real or perceived, but women's reluctance to become drivers or automotive mechanics should not hinder their involvement in other aspects of the work, from dispatchers to fleet owners.

Sources: Authors' interview notes.

- Value chains and food security: Are these mutually reinforcing or mutually exclusive?

The argument for supporting a value chain approach to address food security is that the potential increases in efficiency in the food chain, e.g., from higher productivity to decreased transportation costs, will lower food prices, benefitting both urban and rural consumers. It also has the advantage of providing a conceptual framework for linking producers to consumers, establishing the logic for the scope and direction of production.

Even if or when the development of agricultural value chains enhances food security at a local, national, or regional level, there is as yet little evidence to determine whether increasing the extent and scope of women's participation in such chains enhances food security in the household. Historically, rural producers' strategies to reduce risk and to maximize food security involved diversifying household production, growing a mix of varieties to cope with uncertain rainfall

patterns, and only selling surplus produce. This strategy initially appears to contradict value chain approaches that focus on the production of a single crop, often in isolation of broader household livelihood strategies. In aligning production more closely to market needs, new risk reduction methods are needed, many of which will rely on extra-household support services, such as crop insurance schemes.

At this time, there is not a wealth of evidence to support or refute the assertions that increasing women's participation in agricultural value chains will necessarily improve household food security, nor is there careful analysis of the pathways that this improvement could follow. In one of the few existing studies, Bolwig and Odeke (2007) look at the consequences of the conversion to organic export-oriented production of coffee and pineapples in Uganda. They found that, overall, the benefits of increased income to the household from the marketed production outweighed any decrease in on-farm food production. From a gendered perspective, the different crop and farm characteristics, however, did have different consequences for women: coffee production increased women's labor as the shift was on existing farmland; pineapple cultivation was expanded through acquisition of new farmlands and used hired labor, with limited impact on household labor. Although the women in these households did not gain control over the added household income, they reported their involvement in the cash crop production as beneficial to their households and worth their added labor input. In both the pineapple and coffee growing sites, increases in income added to food security (Bolwig and Odeke 2007). Earlier studies from Kenya discussed previously (Kennedy and Cogill 1987; McCulloch and Ota 2002) also report positive impacts at the household level. Hamilton et al. (2002) also found that household production of snowpeas and other horticultural crops appeared to increase women's ownership of land and other economic resources in Guatemala and highland Ecuador. A wider comparative study, however, could offer a more robust conclusion than these isolated cases, and provide a clearer description of the pathways that support women's likelihood of benefiting from market involvement. Such research could inform gender-equitable program design.

12.6 The Challenges Ahead

As the field of gender integration into value chain development matures, several topics emerge for further research and investment:

- Developing value chains in crops with added nutritional and health benefits

Attention to the role of nutrition in agricultural development, while long-standing, has recently received new attention in the programs of key donors. Much of the focus has been on improving the nutritional status of women and children through direct (supplementation) and indirect (income-related) interventions, building on findings that income controlled by women has positive outcomes for children's nutritional status (Quisumbing 2003). Until now, the emphasis for many

donor programs and commercial buyer-driven export chains has been on high value crops, but, more recently, there is growing interest in developing value chains for staple foods at national and regional levels, including grains such as millet and sorghum, roots and tubers such as orange-fleshed sweet potato, and indigenous vegetables, all of which have nutritional benefits. There are other ways to think about enhancing nutritional benefits alongside value chain development as well. In addition to looking for new crops, efforts can be taken to decrease the loss of nutrient value in the transport and processing nodes of the value chain and to build demand from consumers for more nutritious products (Hawkes and Ruel 2011).

- Improving the database on gender-related value chain impacts on women's income and food security

This brief review has identified a number of topics that could benefit from new research to test hypotheses about the benefits of women's participation in agricultural value chains in comparison to other employment options for their ability to enhance asset ownership, increase income, and boost food security. There is also a need for greater attention to the measurement of changes in women's time allocation patterns, access to and control over income, and decisionmaking opportunities in the household and in the community that result from market involvement and agriculturally-related employment. Findings from these studies could refine the design of donor- or government-led interventions that support value chain development and provide guidance to private investors.

A recent article (Gómez et al. 2011) articulated six research principles for developing value chains and strategies for a future research agenda. We would suggest an additional one that includes more explicit attention to the gender dimensions of value chain development (Box 12.3). They also noted that we need to recognize "how little we know about complex food value chains and their effects on poverty and the environment and [be] cautious in our policy prescriptions" (2011, 1155). They also proposed the development of "a transdisciplinary, multidimensional conceptual framework" (2011, 1155) for studying value chains. In our view, the work of the gender and value chain community⁷ has already been developing such frameworks.

- Developing gender-equitable, climate-smart value chains

Adaption to climate variability and climate change will be an increasingly critical aspect of smallholder farming. It will involve investments in agricultural research to test different crop varieties that are more resistant to drought or have increased tolerance of moisture or higher temperatures, depending on the location. Research that offers new crops or crop mixes and sequences with greater climate resilience that do not add to women's labor and time burdens should be

⁷One of the more active communities of practice on gender and value chains is that of the Agri Pro Focus Learning Network (<http://genderinvaluechains.ning.com/>), which links practitioners, researchers, and others in a global network. The website provides resources on many aspect of integrating better attention to gender into agricultural value chains.

Box 12.3 Engendering the Future Value Chain Development and Research Agenda

1. Focus on opportunities available in domestic markets.
2. Pay attention to indirect effects, not only to increased sales from smallholders, *including ways to enhance the equitable distribution of benefits to all participants in the household.*
3. Enhance marketing channel efficiency.
4. Pay attention to postharvest losses, both in volume and quality, *providing extension information on improved technologies and practices to men and women within the household, and supporting women's enterprises to address these losses.*
5. On-farm natural resources conservation can enable, and benefit from, smallholder food value chain participation.
6. Certification appears necessary but not sufficient.
7. *Conduct gender analyses of value chain options and activities that will contribute to interventions and investments designed to both achieve greater economic gain AND gender equality.*

Source: Gómez et al. (2011).

Note: Authors' additions on gender in italics.

the goal. Introducing new crops can be advantageous to women when they are either integrated into existing gendered responsibilities or create new opportunities (Olson et al. 2010). Expanding the value chain for more climate resistant crops, such as sweet potatoes and other tubers, which tolerate poorer soils and drought conditions, has the potential to increase the incomes of the women who are its primary producers, as well as the nutrition of their household members under conditions of climate variability.⁸

In sum, the value chain approach helps us to consider a wide range of alternatives for women's engagement with the global food system. It forces us both to look not only at increasing women's participation, but also to consider the quality and prospects of that participation. It makes us look beyond the farm to both acknowledge and build on the potential of off-farm agricultural employment (including urban employment) to contribute to total household income for the benefit of all household members. Finally, an engendered value chain model offers a way to compile a diverse set of strategies that encourage women to benefit from expanding economic opportunities.

⁸ See International Potato Center (n.d.), "Sweetpotato for profit and health initiative" <http://sweetpotatoknowledge.org/sweetpotato-introduction/overviewsweetpotato-for-profit-and-health-initiative>.

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