



CHAPTER 6

Building an Inclusive Agriculture: Strengthening Gender Equality in Agricultural Value Chains

Deborah Rubin, Brenda Boonabaana, and Cristina Manfre¹

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Much of the earliest work on “women in development” focused on agriculture. The baseline was set by the pioneering work of Ester Boserup in *Woman’s Role in Economic Development* (1970), who compiled then-current knowledge to make women’s contributions to rural economies visible. She used those data to argue for recognizing women’s work in agriculture. Research quickly followed that raised the profile of women’s work not only in production and processing for home consumption but also in growing, processing, and trading different market-oriented crops. In Africa south of the Sahara, the focus of this chapter, studies looked at women’s engagement in “agricultural commercialization” across different production and marketing pathways, among them contract farming (Carney 1994; Sørensen 1990; von Bulow and Sørensen 1993; Wilson 2000);² formal and informal wage labor (Mbilinyi and Semakafu 1995; Dolan and Sorby 2003); women traders (Clark 1994; Morris and Saul 2000; Saul 1981); and cash cropping by smallholder farmers (Guyer 1980, 1988; Sorensen 1996). While much of this work focused on intrahousehold gender relations, other studies explored how households and local markets were being shaped by larger forces, whether colonial or postcolonial policies, development interventions, international trade, or a combination thereof. Researchers increasingly sought to discover whether and how intrahousehold gender relations were affected by agricultural commercialization, and whether the engagement with markets expanded or inhibited women’s access to land, income, and other aspects of well-being (Spring 2000). This chapter reviews some of the now extensive and still-expanding body of research and practitioner materials on gender relations in African agriculture, with a focus on research and projects that use a value chain approach in their analysis. The literature is loosely bookended by work published between 2009 and 2019. The discussion builds on global value chain research and is situated in the broader context of current donor support for “inclusive agriculture,” which seeks to “include and substantially benefit large numbers of poor people...often smallholders, but also artisans or small-scale retailers or customers” (Harper, Belt, and Roy 2015, 1).

The chapter focuses on gender and value chain studies of crops that have been of significant interest to agricultural development programming, such as high-value fruits, vegetables, and flowers, in addition to livestock (dairying and small ruminants as well as poultry) and fish, as well as recent work on the staple crops (grains, roots, tubers, and bananas) that are a growing component of subnational value chains. It only briefly touches on the value chains of beverage crops (for example, cocoa, coffee, or tea) and does not address the commodity crops of sugarcane, cotton, or palm oil.

The emergence of value chain analyses (see Porter 1985, 2001) built on research about global commodity chains to understand subnational, regional, and international trade.³ Value chains can be defined as “the linked set of activities and enterprises that bring a product from conception to its consumers through to its disposal” (Kaplinsky and Morris 2000, 4). As globalization intensified, sales operations became better organized and more controlled, with procurement processes shifting from wholesale markets where multiple sellers competed to gain access to multiple buyers to a well-coordinated “chain” of known suppliers selling to a single purchaser. Scholars recognized that these new forms of connectivity between producers, buyers, and consumers called for new analytic tools (for example, see the history and application of value chain approaches to African economies [Gibbon and Ponte 2005]). Global value chain studies often focused on understanding how chains were organized, particularly the ability of lead firms to structure activities along a chain and their ability to control the distribution of labor and resources within it (Gereffi 2001).

A key focus of global agricultural value chain analysis initially was the growth of fruit, vegetable, and flower value chains, often directed by supermarket companies in Britain and Europe that invested in smallholder production and packing plants, increasingly defining production and quality standards for crops such as strawberries, green beans, snow peas, and cut flowers. Women were often producers of these high-value crops as laborers and smallholder farmers supplying rapidly expanding and globalizing markets (see, for example, Arizpe

2 A review by K. Schneider and M. K. Gugerty (2010) notes that while firms typically (though not always) established formal contracts with the heads of households who were men, women provided unpaid labor for production. Changes in the distribution of resources and in decision making among men and women within the household often resulted.

3 This work included a wide variety of approaches and labels developed by different scholars in different countries (for example, the initiating work of Immanuel Wallerstein [1974] and Hopkins and Wallerstein [1986]; the work on agricultural chains by French scholars investigating agricultural chains (*filière*) in French colonies and postcolonial nations; and many others). Kaplinsky and Morris note that the label of value chain can be used to describe both a method for learning or heuristic device and an analytical tool, and that, as a consequence, this has led to a proliferation of terms (2000, 25). (For a broader review, see Gibbon and Ponte 2005, 74–94, and Donovan, Stoian, and Lundy 2016.)

and Aranda 1981; Hamilton, Asturias de Barrios, and Tevalan 2001; Barrientos 1997; Dolan and Sorby 2003; Dolan and Sutherland 2006; Tallontire et al. 2005). This research provided important insights into how these value chains depended on but did not necessarily reward women's labor.

Value chain development (VCD) remains a key element in agricultural programming. It offers donors and partners a lens through which to understand the competitiveness of key sectors within a national economy:

“The [value chain] approach challenges governments and civil society to look beyond individual actors, such as smallholders or cooperatives, when considering how to achieve development goals. It is argued that by focusing on the value chain and the links between the actors spread along it, development interventions can better identify common problems among actors in the chain and solutions that generate win-win outcomes.” (Donovan et al. 2016, 47)

Ideally, VCD can be employed to enhance the operations of value chains for pro-poor, inclusive growth in its ability to analyze the positions of actors operating at a disadvantage at different nodes of the chain (Coles and Mitchell 2011). Individual firms seeking to understand how their businesses can improve their competitiveness in national and international commodity chains also use VCD. Finally, a participatory form of value chain analysis (for example, Mayoux and Mackie 2008; Mayanga et al. 2016) is sometimes carried out with smallholder farmers and other agri-entrepreneurs in developing countries, primarily those who provide the labor, in production and processing and sometimes marketing, to gain a better understanding of their roles in global market networks, with the goal of improving the benefits they gain from their participation in them.

The application of value chain analysis to understand gender inequalities and opportunities, however, emerged as a significant focus in the early 2000s and was accompanied by the publication of specific guidance on conducting gender analysis in VCD and operations, much of which was aimed at practitioners. Several manuals were published over the next few years (Chan 2010; KIT, Agri-ProFocus,

and IIRR 2012; Mayoux and Mackie 2008; Rubin, Manfre, and Nichols Barrett 2009) compiling findings from research studies and project examples from different countries into guidance materials for understanding both the barriers and opportunities women face in their various agricultural enterprises.

These first handbooks marked a starting point for what has become in the ensuing decade a strong body of new research and implementation strategies about women's participation in market-oriented agriculture. They have been joined by guides and other reviews on key agricultural subsectors and subtopics that encompass a broad understanding of contemporary food systems. New guides address the understanding of gender-sensitive value chains more broadly (FAO 2016; IFC 2016; IDH, n.d.; Mutua, Njuki, and Waithanji 2014). Many now focus on gender integration in specific types of value chains, such as livestock (Njuki et al. 2013) and fisheries (Biswas 2017); forest products (Nang'ole, Mithöfer, and Franzel 2011); and roots, tubers, and bananas (Terrillon et al. 2015). Also important is guidance on topics that helped to bring more depth to gender and value chain analysis, even if not specifically oriented toward such analysis—for example, the collection of sex-disaggregated data (Doss and Keiran 2013) and understanding gender and assets (Quisumbing et al. 2014). The work has shifted away from a narrow view of women's involvement in production, often depending on their own and other family members' unpaid labor, especially in high-value crops and livestock. It has now begun to encompass a much broader understanding of women's engagement relative to men at each node of the value chain for a wide diversity of agricultural products including staple food crops and in increasingly more formal enterprises.

The tools have helped researchers and practitioners to systematically analyze the relationships between gender roles, social norms, and value chain development and operations, each with slightly different emphases.⁴ The guides help to structure the collection of data on both men's and women's participation, performance, benefits, and empowerment from their engagement with agricultural value chains. Some of the earliest were written to help small producers, processors, and traders understand and better manage their engagement with other value chain actors, while others speak to researchers, implementers, or firms.

4 Selected guides to other gender-oriented value chain guides are KIT, Agri-ProFocus, and IIRR (2012); Mutua, Njuki, and Waithanji (2014); and Stoian et al. (2018). Donovan et al. (2016) is a broader review of VCD guides, but it includes a small section on gender issues.

Other topics of increasing interest that are relevant to VCD and value chain operations include addressing the gendered dimensions of seed systems, crop breeding and trait preferences, and agricultural extension and advisory services, nutrition, and the role of gender issues in digital financial services. These cannot all be covered in depth here but are recognized as critical aspects that can either support or impede women's engagement in and benefit from agricultural activities.

In the next section, we outline the benefits of building inclusive market systems, of which gender-equitable agricultural value chains (Box 6.1) are an important component. The characteristics of such agricultural value chains reflect the objectives of gender-equitable inclusive growth more broadly: “improving the quality of employment, supporting wage growth, and reducing occupational segregation” (Seth 2019, 14). We then provide a frame for thinking about the heterogeneity of gendered work along each node of a value chain, with attention to the current emphasis on entrepreneurship as a primary entry point for women in agricultural value chains. The chapter then reports on the evidence about the gender dynamics in different types of agricultural value chains, highlighting cases that appear to demonstrate promising intervention practices. The next section summarizes recommendations for the design of gender-equitable value chains drawn from contemporary studies. The chapter concludes with suggestions of topics for further research.

Supporting Inclusive Agriculture

Research on making the “business case” for gender equality has increasingly found that reducing inequality can improve competitiveness and that greater gender equity in economic participation boosts economic growth (Aguirre et al. 2012; Elborgh-Woytek et al. 2013; Kochhar et al. 2016). In the agricultural sector, women and youth provide both paid and unpaid labor but may not benefit accordingly.

Definitions used by different donors all focus on the importance of building an inclusive agricultural sector—that is, one that both includes participants that have been historically excluded from receiving full benefits from agriculturally oriented economic growth and ensures that their current or future participation will provide opportunities to do so (Markel and Jones 2015; Stoian et al. 2018). The Bill & Melinda Gates Foundation's inclusive agricultural strategy, for example, lists not only goals for gains in men and women smallholder farmers' productivity and

BOX 6.1—CHARACTERISTICS OF A GENDER-EQUITABLE AND COMPETITIVE AGRICULTURAL VALUE CHAIN

- Fosters equitable participation of men and women as youth and adults across all nodes of the chain
- Addresses specific needs of women to reduce barriers to their participation
- Supports women's economic advancement through, for example, upgrading and entrepreneurship
- Promotes gender-equitable market-driven solutions
- Includes equitable benefit-sharing mechanisms to ensure that women benefit financially and can control those benefits
- Includes both men and women in identifying gender-based constraints to productivity and efficiency and identifying new opportunities

Source: Rubin, Manfre, and Nichols Barrett (2009, 12, 115).

incomes but also goals for nutrition and women's empowerment.⁵ And USAID's current Global Food Security Strategy states, “Inclusive agricultural growth seeks to emphasize the benefits of investment and productivity gains in ways that target low-income people in particular, thus leading to gains in terms of reductions in poverty and undernutrition and gains in resilience” (2017, 1).

In Africa south of the Sahara, many governments have reprioritized investments in agriculture as an avenue of growth, joined by increased investment by the private sector in agricultural value chains. Yet high levels of rural poverty and high levels of gender inequality persist (AGRA 2016). As elsewhere in the world, women contribute significantly to the production, processing, and marketing of crops

⁵ <https://www.gatesfoundation.org/What-We-Do/Global-Growth-and-Opportunity/Agricultural-Development#OurStrategy>.

and livestock as farmers, traders, and wage workers, but they typically receive low returns and can sustain only small enterprises. Only a small minority are entrepreneurs in transportation, marketing, and exporting, where more value is added and returns are higher (Rubin and Manfre 2014).

Building a more inclusive market system must therefore engage women, both as adults and youth. The potential is high and particularly important for Africa, where in 2010 women made up 50 percent of the agricultural labor force, although that proportion varies across countries—for example, from more than 75 percent in Cameroon to less than 35 percent in Gambia, Niger, and Togo (FAO 2011). Women’s involvement in agriculture is strong despite facing discriminatory social beliefs and practices that inhibit access to productive resources, mobility, and education, as well as other legal barriers. In Africa south of the Sahara, South Africa is the only national economy that did not have at least one law that restricted economic opportunities for women, such as rights to property ownership (IFC 2016).

Agricultural value chains operate within social contexts and systems of gender relations that affect the distribution of resources, benefits, and opportunities (Rubin, Manfre, and Nichols Barrett 2009). As Stoian et al. have noted, “Due to deep-seated gender inequalities in informal and formal institutions, women and men commonly engage under different terms in value chains, with regard to different activities in the same value chain or across different value chains altogether” (2018, 496). For example, women may not be able to control the income that they earn when buyers pay in cash that can be stolen or deposit funds into joint accounts to which spouses or other relatives have access. Women growing chilies in Kenya withdrew from production for a time after their spouses appropriated their cash payments. The buyer responded by offering payments in household supplies that women wanted (Rubin and Manfre 2014). Value chain development and operations that are not intentionally designed to reduce gender-based constraints may reinforce existing inequalities and serve to exclude women.

Achieving Gender-Equitable and Women’s Empowerment Outcomes from Value Chain Development

Approaches that incorporate attention to gender issues over the past 10 years have broadened our knowledge about women’s participation in, performance in, and benefits derived from working in agriculture (Rubin and Manfre 2014) and to what extent that engagement helps strengthen women’s empowerment

(Johnson et al. 2018). Empowerment here is defined as “the process by which those who have been denied the ability to make strategic life choices acquire such an ability” (Kabeer 1999, 435) (Box 6.2).

Sex-disaggregated data collected (quantitative and qualitative) for a gender analysis of agricultural value chains clarify the type of participation by men and women (adult and youth) at each node, from production to consumption. Analysis of such data helps to differentiate between barriers or inequalities that many value chain actors may face at one time or another—such as lack of access to credit or availability of inputs or equipment—and barriers that are linked to gender difference. For example, a discriminatory law that requires a woman to get her husband’s signature to access credit is a gender-based constraint, while the general lack of microfinance institutions in a community limits both men’s

BOX 6.2—PARTICIPATION, PERFORMANCE, ACCESS TO BENEFITS, AND EMPOWERMENT IN AGRICULTURAL VALUE CHAINS

Gender analysis can be used to explore the gender-based constraints and opportunities that influence the following dimensions of women’s engagement in agricultural value chains:

- 1. Participation:** identification of barriers to entry and/or requirements for men’s and women’s active engagement at any node of the value chain
- 2. Performance:** understanding the disparities in men’s and women’s ability to maintain or improve their position in the value chain
- 3. Benefits:** exploring differences in men’s and women’s ability to access and control income, assets, or other facets of well-being derived from value chain participation
- 4. Empowerment:** the desired outcome when women can control the benefits of their participation in agricultural value chains to make and carry out strategic decisions about their own lives

Source: Adapted from Rubin, Manfre, and Nichols Barrett (2009), Johnson et al. (2018), and Theis and Meinen-Dick (2016).

and women's credit options. A further step in the analysis seeks to hypothesize or confirm the factors that contribute to those inequalities, whether they are social norms, restrictive practices, or formal laws.

Gender analysis of the value chain can also reflect gender disparities or gender equality in the outcomes achieved (Johnson et al. 2018). It is helpful to distinguish between stated objectives and actual results, given the still too prevalent experience of “evaporation” where strong initial plans to reduce gender equality simply “fade away” as implementation progresses, as a result of inadequate support from management, lack of skills among practitioners, insufficient funding, and poor accountability systems (see Pinto [2010] on this process in gender-mainstreaming policy work).

VCD projects and private-sector efforts both may explicitly strive to increase women's *participation*, ideally as actors at many different nodes of the chain. They often include activities that support women's attendance at various trainings, the formation of producer groups, and the formation of marketing associations. This also involves improving the quality of women's participation, such as, for example, taking steps to give women greater opportunities to hold leadership positions or to have a voice in meetings and business councils where critical decisions are made. Similarly, “reach” for private agribusinesses can involve recruiting and hiring women for a range of jobs in their firms or developing marketing strategies and designing products that better meet the needs of women consumers. All these efforts are critical first steps toward building a more inclusive agriculture, but without supplementary support, whether public or private, they are rarely enough to effect sustainable impacts in women's lives. Cooperatives without strong leadership, technical support, and stable market links often fail. The type of value chain participation that is available to women also matters: for example, increasing the number of women through seasonal employment in a strawberry packing house may provide short-term income but is itself a form of exploitation when the women are paid less than men and are kept out of higher-paying, more skilled work.⁶

The dimension of *performance* refers to upgrading women's positions in the chain. Social upgrading is understood as achieving greater well-being, not only with increases in wages or other income and work conditions but also with the reduction of gender disparities and the impact of shocks. Economic upgrading

involves improving productivity or adding value or differentiation through better, more efficient, or unique products (Barrientos 2014; Rubin and Manfre 2014). Barrientos (2014,20) clarifies that social and economic upgrading do not necessarily occur together, although social upgrading can be promoted “where economic upgrading is reinforced by gender-sensitive interventions.”

Translating the participation of women in value chain activities into real returns for them reflects their achievement of *benefits*. Such benefits might include increases in income and other assets, such as land or animals, and improved livelihood outcomes for themselves and their families in terms of nutrition, health, and education. In value chains, the ability to upgrade one's skills could also be considered a benefit—for example, when seasonal workers such as those described above are able to gain skills and join the permanent labor force, or when small-scale processors can hire their own workers and expand their product lines or enter new markets.

Empowerment is the desired result when women can control the benefits of their participation in agricultural value chains to make and carry out strategic decisions about their own lives. It is here that we see most clearly how strengthening women's capacities and their control over income and assets can lead to changes in the social norms around gender relations.

Entrepreneurship in the agriculture sector involves different characteristics than in other sectors: many businesses are not only family based but also tied to specific geographies; smallholder farming may operate on business principles but is also influenced by social and consumption needs; and women play key roles but are not necessarily recognized. As Table 6.1 shows, women agri-entrepreneurs span the agricultural value chain, from input and service providers to producers to processors, traders, transporters, and exporters. Women are also employed, formally and casually, at each node of the chain (IFC 2016).

Entrepreneurship is only one part of inclusive value chain development. Table 6.1 is a reminder of the many roles available as value chain actors, with attention to those often filled by women and youth. Reading from left to right, the chart columns describe positions of greater formalization and scope: informal or small-scale entrepreneurial efforts are listed in column 1; formal and larger-scale activities are listed in column 4. Wage work is shown in the last column to the right but can be associated with any cell in columns 1 through 4.

⁶ This was one of the first issues raised in the study of global agricultural value chains and the role of women. Arizpe and Arenda (1981) described this for strawberry workers in Mexico and El-Messiri (1999) noted the same situation among strawberry workers in Egypt.

Although women's entrepreneurship has in recent years become the primary pathway for supporting women's value chain participation and access to benefits, women's employment opportunities are an avenue for income earning for many others. Women's wage employment in agriculture was originally a strong focus of value chain studies (for example, Dolan and Sorby 2003), but it has become less so with the current focus on entrepreneurship.

Relatively few studies, however, have compared outcomes on women's empowerment or other benefits, such as children's nutrition, between women who are agri-entrepreneurs and agricultural workers. McCulloch and Ota (2002) studied incomes in households engaged in horticulture in Kenya and compared them to households of women working in horticultural packhouses. The data conclusively found that the workers' households had higher incomes but did not answer questions about the causality of the relationship or women's control of the income (Rubin and Manfre 2014). This is an area that needs additional research, as wage work is an important component of inclusive value chains:

The main benefits of VCD for the poorest rural groups—those with very small parcels or no land at all—come from expanded employment in

TABLE 6.1—TYPES OF VALUE CHAIN ACTORS

Value chain actors	Entrepreneurial activities carried out by individuals, cooperatives, and firms				Women's wage employment
	1	2	3	4	
Input suppliers	Service providers: artificial inseminators, veterinarians, extensionists, equipment and insurance providers	Input producers: seed and seedling producers, animal or fish feed producers, compost or inoculants preparers	Input retailers: general and specialized agro-input shops and distributors	Agro-dealers and wholesalers	Employees: laborers, technicians, packers, stockists, clerks, call center workers, private-sector extensionists
Producers: field and tree crops	Smallholder farmers of grains, fruits, and vegetables; roots, tubers, and bananas; fodder; selling to local markets	Smallholder farmers of commodity crops (for example, tea, coffee, specialty organic or niche market)	Contract farmers of commodity crops (for example, sugarcane)	Large farmers of grains, fruits, and vegetables selling to national, regional, and international markets	Casual labor on small farms to meet labor-intensive points in the crop cycle; seasonal labor for larger farms
Producers: livestock	Small-scale dairy, fish, and poultry producers; beekeeping	Calf- and goat-fattening; fishing boat ownership	Franchises	Ranchers; large-scale poultry producers	Casual labor for tending small flocks or herds; employees in larger-scale enterprises
Traders	Low-quantity sales at farmgate; local wet markets; processed food and beer brewing	Local buyers and marketers; petty traders	Cross-border traders: larger quantities and more diverse products	Wholesaler and retailers	Employees in product packaging, warehouses, storage, and clerical posts
Processors, manufacturers, and postharvest service providers	Small-scale primary and secondary processors of fruits and vegetables, nuts, honey, spices, cheese and yogurt Packaging	Grain, root, and tuber processors	Meat processing; Industrial production of inputs: animal feeds; fertilizer	Industrial food processing (bakeries, cereal production, large-scale milling plants; food packaging) Warehouse owners	Employees on assembly lines; managers; clerical work; sales; warehouse work Casual labor for threshing and transporting harvested crops
Transporters	Head-loading and hand-carrying: small loads on foot or by bus, auto, and train	Women-owned transport: bicycles, motorbikes, autos, and pickup trucks	Women-owned or managed transport firms		Employees (drivers, office workers)
Other	Providers of specialized agriculture-related support information and financial services, including women-owned banks				Government employees such as customs agents and researchers

Source: Compiled by authors.

Note: Columns 1 to 4 indicate increasing levels of formality and scale, with 1 being the smallest and least formal and 4 being the largest and most formal.

production, processing, and marketing activities and in reduced prices of agricultural products. (Horton et al. 2016)

Gender Issues in Diverse Value Chains

The gender and agricultural value chain literature is expanding beyond its earlier focus on participation in the production and sometimes marketing of high-value export crops. Increasingly, studies include both qualitative and quantitative approaches. In addition to covering different crops and animals, topics now include investigation of value chains for nutrition (for example, Hawkes and Ruel 2011; Gelli, Hawkes, and Donovan 2016) and for elements that might help in adaptation to or mitigation of climate change (Mwongera et al. 2018).

There remain limitations in the literature. First, most studies continue to focus on smallholder farmers and the barriers and opportunities they face in entering the value chain. Most do not investigate the wide variety of value chain actors listed in Table 6.1. The emphasis on women's entrepreneurship is a valuable addition to earlier research, but it should not crowd out other research on agricultural wage workers and other categories. Second, there are multiple streams within the value literature—by country, institution, and profession, among others—and cross-fertilization can be weak. In the subsections that follow, we draw from a range of studies, including both scholarly and practitioner literature, to encourage more links between the research and its application in the field. Third, some of the literature we cite in the paragraphs that follow refers to ongoing or recently started projects for which no formal evaluation (performance or impact) has been completed but that may reflect an innovative or promising approach.

High-Value Horticultural Crops

The participation of women in the export-oriented horticultural value chains in the late 1990s and early 2000s represents an iconic case of both the pros and cons of the gender dynamics of global value chains. In a global review, Dolan and Sorby found that women made up 75 to 85 percent of workers employed in the flower industry in Kenya, Uganda, and Zimbabwe (2003). They concluded that women supplied much of the temporary or seasonal labor, with little security and lower wages than men who obtained permanent or management-level positions. They observed that the sex-segregated labor patterns in the horticultural packhouses reflected broader social norms around appropriate tasks for men and

women and established a central principle of agricultural value chain studies: value chains are embedded in a social context as well as an economic one.

Export-oriented vegetable production had by contrast started as the domain of smallholder farmers, many of whom were women in the 1980s; however, by the late 1990s the number of smallholder farmers in Kenya growing vegetables for export had dropped significantly and by 2002 was only about 2 percent of all smallholders (Dolan and Sorby 2003). Dolan's earlier research in Kenya found that although men were the recognized signers for these contracts women in the household performed the labor, receiving only 38 percent of the income generated (2003).

In recent years, export-oriented horticultural production from Africa has remained a significant income earner for women, both as wage laborers (for example, Senegal) and as smallholder farmers (for example, Tanzania). However, increasing urbanization has also increased demand for vegetables in local and regional markets (Devaux et al. 2016).

Staple Crops: Cereals, Roots, Tubers, and Bananas

Increasing attention to the marketing of staple crops, in alignment with an inclusive markets approach, is evident. The economics of maize production and its value in rural–urban trade has long been the subject of research in Africa, but interest has been growing in understanding value chain operations around roots, tubers, and bananas, especially cassava and potatoes, which involve numerous women producers, processors, and traders.

Across the continent, cassava is second only to maize as a staple food crop and has long been associated with women's work. Local and improved varieties of cassava are drought tolerant and can retain quality in the field for months before harvesting, and some, like the recent vitamin A–rich improved varieties developed by the HarvestPlus program,⁷ contain more micronutrients. Value chain studies have documented the variation in women's roles in cassava production, processing, and marketing. However, studies such as that of Forsythe, Posthumus, and Martin (2016, 110) find that while “narratives often equate commercialization of cassava to benefits for women,” the reality is that women's involvement does not automatically result in greater benefits for them. Cassava processing by hand requires significant labor, but mechanical options for smallholders are often too expensive, unavailable, or not able to produce a product of desirable quality

⁷ www.harvestplus.org.

(FAO 2016; Curran and Cook 2009), and thus farmers' capacity to increase the quantity they can supply to local and larger markets is limited.

Working in Nigeria and Malawi, Forsythe, Posthumus, and Martin (2016) document the importance of context in influencing women's abilities to expand production and take advantage of the growing cassava markets, such as different land tenure systems, patterns of labor access in patrilineal and matrilineal areas, and financial infrastructure. Masamha et al. (2017) found similar constraints and opportunities for women in western Tanzania. More broadly, commercialization of cassava flour and other consumer products, such as *garri*, *attiéké*, *eba*, and *fufu* in West Africa and cassava chips in East Africa, as well as the growing market for industrial use of cassava in baking, brewing, and animal feed, among many other products, lends urgency to the need for greater understanding of women's opportunities in this chain.

Livestock

Poultry, like cassava, has long been associated with women's productive roles and has been considered an opportunity for raising women's incomes and contributing to gender equality for 40 years (Dolberg and Petersen 1999). The last decade, however, has witnessed significant new investments in both homestead and more formal poultry projects for women as well as for youth (typically unmarried young men and women). Women who successfully raise and sell poultry (at all stages of the life cycle), as well as inputs and by-products, generate income for the purchase of a more diverse diet and increase the availability of animal-source protein for themselves and their families (Alemayehu et al. 2018). The Bill & Melinda Gates Foundation has made very large investments in women and poultry, for example, in its *Soutenir l'Exploitation Familiale pour Lancer l'Élevage des Volailles et Valoriser l'Économie Rurale (SELEVER)* project in Burkina Faso and in the African Poultry Multiplication Initiative in Tanzania and Nigeria, the latter of which provides approximately 61 million day-old chicks annually. These projects establish women-managed breeding units, from which rural women can obtain chicks for raising at home until ready for the market.

Results from formative research on the SELEVER activity note that poultry wastes, exposure to which could increase with greater production, can exacerbate health risks for young children in an environment where clean water, sanitation facilities, and good hygiene practices are problematical. The project will be

using a community-based approach to encourage behavior change around this issue so that the intensification of poultry raising will provide health as well as income benefits (Gelli et al. 2017). An evaluation of the Bill & Melinda Gates Foundation's co-investment with EthioChick in Ethiopia found that although household incomes increased as a result of sales of both eggs and chickens, the nutritional impact on children was less than anticipated over the short term.⁸

Other livestock value chains, particularly those involving goats and sheep as well as calf fattening and dairy, have also shown promise for achieving the mutual goals of income generation and improved household nutrition. Kristjanson et al. (2010) note that much research on gender and livestock chains has focused on sales of milk and animals but that there are many other nodes in the chain that can afford women similar benefits of increased income, such as providing services supporting animal health. The actors in livestock value chains include not only livestock producers but also input suppliers as well as traders and processors.

Tea, Coffee, and Cocoa

Women's involvement in global beverage commodity chains—such as tea, coffee, and cocoa chains—differs not only according to which chain they are part of but also according to whether they are smallholder producers growing for larger buyers or working for daily wages or as permanent employees. Manfre and Laytham (2017) provide a good review of gender issues in the coffee value chain. Some coffee value chain actors have put in place several innovative mechanisms to improve benefits for women producers. For example, the Gender Action Learning System (GALS) has become a common tool used by coffee value chain actors. Developed under Oxfam Novib's Women's Empowerment Mainstreaming and Networking program, GALS is a participatory, community-based methodology designed to address identified gender issues. Coffee cooperatives and companies in Tanzania, Uganda and the Democratic Republic of the Congo have used it. Users have reported positive gains not only in production quality and levels but, importantly, in “individual life and livelihood planning skills for women and men as a basis for mutual empowerment, joint decision-making and joint land agreements” (Mayoux and Oxfam Novib 2014).

In another innovative effort, Sustainable Harvest Coffee Importers partnered with Bloomberg Philanthropies to institute the Sustainable Harvest Premium Sharing Rewards™ program in Rwanda in 2015. Along with providing training

8 www.idinsight.org/projects/ethiochicken.

on coffee growing, the program encourages women growers to earn points for following specific agricultural practices, from maintaining a home garden to selling high-quality coffee or joining a cooperative. The points are redeemable for such items as farm implements, solar lamps, and cell phones. Rewards are funded from coffee sales to roasters and consumers (Griswold 2015). The initiative reports good adoption rates and gains in productivity of up to 86 percent on enrolled farms and income increases of 137 percent, and it is scaling the program in Rwanda and expanding to the Congo.⁹

Nutrition-Sensitive Value Chains

Hawkes and Ruel (2011) introduced the concept of nutrition-focused value chains, elaborated on by Gelli, Hawkes, and Donovan (2016), using markets to link producers to consumers in the supply of more nutritious foods. The principle is behind the expansion of value chains in poultry, described above, and in other biofortified crops such as high-iron beans and vitamin A–fortified maize, sweet potatoes, and cassava, among other foods, which can be grown both for home consumption as well as the market. Although women’s ability to access and control resources is now well recognized as critical to improving household nutrition, the connections between gender disparities outside the home and women’s roles in nutrition-oriented value chains are less well researched, especially as nutrition-rich crops and livestock become higher income earners for the household.

Lessons Learned

The many contemporary value chain studies provide us with in-depth descriptions across a wide range of value chains and geographic locations. Sources point to the importance of context in shaping the dynamics of women’s engagement in value chains and opportunities for accessing increased income. Several authors speak to the detrimental ways in which simple dichotomies about men’s and women’s different areas of responsibilities or control can obfuscate critical complexities in actual practice. Here are several recommendations drawn from recent studies:

- **Be deliberate.** To reduce risks to women and their families and to maximize their benefits, it is critical to be clear about gender equality goals and desired outcomes when designing value chain strategies, whether for private firms or

publicly funded interventions implemented by nongovernmental organizations or in public–private partnerships (Barrientos 2014; Gates 2014).

- **Look closely at the context.** Perhaps the most important overarching finding is recognizing that men’s and women’s roles in agricultural value chains are not fixed, and that their responsibilities are often overlapping and intersecting. It is simply not acceptable to dichotomize “men’s crops” and “women’s crops” or to assume that men or women are involved only in production or in processing or in trading. Even where broad patterns are identifiable, and men are primarily responsible for one task and women another, it is important to investigate the exceptions, as they can contain new opportunities. For example, Campos et al. (2014) have found that in Uganda women who start businesses in areas dominated by men, such as construction and metalwork, on average are more profitable compared with women who remain in enterprises more typically associated with women, and their businesses can be equally as profitable as enterprises owned by men. Women in such cross-over businesses reported having had a male role model when they were young.
- **Support the creation of village savings and loans groups for women.** Building village savings and loans (VSLs) and using them to educate rural women (and sometimes men) about successful business development strategies and money management as well as to provide credit and increase savings can reduce barriers to women’s entry into agricultural value chains. In a systematic review of whether economic self-help groups improved women’s empowerment, Brody et al. (2016) found that participating in women’s self-help groups had a statistically significant positive effect on economic, political, and social dimensions of empowerment. That study, however, included only one African example among the 23 cases reviewed. In another, multicountry report, a rigorous evaluation of a CARE VSL program in Ghana, Malawi, and Uganda, Karlan et al. (2017) found that the VSLs increased women’s saving and access to credit but did not improve the financial well-being of their household or have effects on women’s empowerment.
- **Supply integrated support services to reinforce and advance capacity building and sustainability of women entrepreneurs.** VSLs as well as other types of associations are an important mechanism for building skills not

⁹ <https://bthechange.com/from-crop-to-cup-how-cooperatives-training-and-a-unique-partnership-is-changing-coffee-and-the-f0de623d8f09>.

only in financial management but also in nutrition, health, environmental management, and climate adaptation. There is now ample evidence of the success of this model of “bundled” services in agriculture (see Buvinic and O’Donnell 2016).

- **Pay more attention to public–private partnerships.** A growing number of public–private partnerships (PPPs) explicitly incorporate gender equity goals (and sometime youth engagement) in the design of value chain programming. For example, a consortium consisting of Heifer International, the Swedish International Development Cooperation Agency (Sida), the private firm Tetra Laval, and the government-run New Kenya Co-operative Creameries is participating in the Kenya Market-led Dairy Supply Chain Project, an initiative designed to improve the quality and quantity of milk and at the same time bring more women and young people into the dairy value chain.¹⁰

PPPs that support the development of infrastructure—such as energy and transportation infrastructure—are another way to support gender equality outcomes in agriculture. The World Bank has identified five ways in which PPPs can do a better job of meeting women’s needs:

(1) clearly identify what both women and men need from infrastructure services; (2) ensure that the legal frameworks governing PPPs do not reproduce gender discrimination; (3) consult with stakeholders and use the resulting information; (4) include a gender-specific affordability analysis; and (5) embed gender considerations in the output specifications for the private sector (Shepard 2016).

- **Realize that good guidance is available, though not perfect.** Many frameworks and strategies now exist to guide the process of integrating gender into agricultural value chains. No one guide, however, speaks to all implementers’ needs, and specialists are needed. Stoian et al. (2018, 507) point out the need to refine and integrate guidance with emerging research findings to better address “context-specific options for negotiating change in household and business relations, the critical factors behind the change, and resulting implications for promoting gender equality through VCD.”
- **Improve data quality.** The quality of the now large literature on gender and agricultural value chains remains uneven. Evaluations on the impact of VCD

projects on various dimensions of gender equality and empowerment—such as the studies emerging from the different adaptations of the Women’s Empowerment in Agriculture Index (WEAI) and other impact evaluations conducted by CGIAR and other research institutions—are welcome additions (for example, de Brauw et al. 2018).

- **Fill data gaps on key topics.** Although lending institutions, national governments, and researchers maintain an increasing number of databases, some dimensions of value chain operations and gender relations remain understudied:
 - We need to better understand the *capacities and characteristics of all women (adult and youth) in agriculture*, whether smallholders, women agri-entrepreneurs, or women wage workers in agribusiness. The expanding literature on women entrepreneurs does not always include those working in agriculture. Data gaps are evident in basic demographics (age, sex, geographical location) as well as in other areas such as volume of sales, type of business, type of value chain actor, and stage of business growth (incipient, established, expanding).
 - We need more data on *women’s motivations* for entering into business, such as whether it is a result of their own choice or their need to survive (Scott et al. 2016) or it stems from their understanding and desire for the empowerment that is at the center of current agricultural programming (Meinzen-Dick et al. 2017). The use of quantitative, qualitative, and participatory approaches in various combinations of *mixed methods* is growing and offers important new findings that promise better design and greater sustainability for women’s engagement and empowerment.
 - *Systematic measurement* of results remains uneven. Which node of the chain can offer women the greatest benefits and strengthen empowerment? Many studies continue to focus on women’s involvement in only one node, such as producers, as processors, or as traders. But there is an increasing need to understand which node within a single chain holds the greatest opportunities for women, and what barriers exist to engaging in that chain. At the same time, are there some chains that will provide greater benefits for women than others? That is, should West

10 <https://www.heifer.org/about-heifer/press/press-releases/2017/us126m-project-to-increase-kenyan-milk-quality-production.html>.

African women turn to expanding shea or hibiscus or vegetables? In East Africa, is poultry really a better choice than small ruminants for maximizing income and nutrition? The market inclusion module of the WEAI¹¹ now under development is one avenue for collecting and analyzing data on this topic, but more analysis across chains and across countries is greatly needed.

- We need more *comparative studies* and broader compilations. Although many excellent localized studies on specific value chains exist, it can be difficult to compile and/or analyze existing data from multiple sources. This complicates efforts to determine what interventions, whether public or private, are most effective for women working at different nodes of the chain.

What's Next?

Based on our review of research and materials in this chapter, we highlight some areas that can be further investigated to boost our understanding of the changing dynamics of gender relations in agricultural value chains.

Gender-Equitable, Climate-Smart Value Chains

Today we need a broader view of gender and climate change that also encompasses resilient agricultural practices for crops and livestock. Shifting climate patterns are typically seen as creating additional burdens for women farmers, such as increasing the labor associated with fuel and water collection or increasing the costs of energy for processors and transporters. But climate change may also hold potential for developing new enterprises or expanding existing ones when farmers can access the weather data and the information they need on adaptive management of crops and livestock. In Tanzania, CARE (2018) has worked with women farmers using its Farmer Field and Business School model to promote drought-tolerant crops for sale, thus adapting to climate variability in production and increasing resilience through farm diversification in market sales. The program has achieved good results in raising the productivity of cassava and sesame with associated increases in income of US\$165 to US\$215 per year (CARE

2018). Taking the next step to upgrade women's skills in these value chains by identifying possible value-added products could further strengthen resilience.

In addition, research should continue to identify stress-tolerant crops or new crop mixes and sequences with greater climate resilience that do not add to women's labor and time burdens. Introducing new crops can be advantageous to women when they are either integrated into existing gendered responsibilities or create new opportunities (Rubin and Manfre 2014).

The Gender Dimensions of Value Chains for Previously Neglected Crops

The proliferation of studies has covered many new value chains, but there is room for considerably more investigation in the following areas: seed system value chains (especially crops that are propagated by vegetative means); expanding the work of the World Vegetable Center on indigenous African vegetables; roots, tubers, and bananas value chains, as well as chains for sorghum, millet, and fonio; value chains for biofortified crops, such as high-iron beans and vitamin A maize, originally intended for home consumption but now increasingly marketed. These value chains would benefit from both basic descriptive research as well as more in-depth analysis of shifts in gender roles and responsibilities in the chain and control over earnings, given the increasing commercialization.

The Role of the Private Sector for Most Effectively Promoting Women's Economic Empowerment

The private sector has a critical role to play in closing gender gaps by supporting women's agri-entrepreneurship through diversifying its supply chains, meeting gender-equality standards, and providing equitable opportunities and safe environments in workplaces. As seen earlier in the discussion, private businesses and PPPs are expanding into developing countries and into agricultural value chains. Closing gender gaps through "gender-smart solutions" would benefit the private sector by creating new markets for inputs, raising productivity, and reducing losses (IFC 2016).

Corporations have in recent years made large strides in creating programs and partnerships with women at many points in agricultural value chains. The United Nations Global Compact and the International Finance Corporation

¹¹ See <http://weai.ifpri.info>.

established the Women's Empowerment Principles in 2010; as of 2019 they have been agreed to by more than 12,000 companies in more than 160 countries. Agreement involves not only acceptance of the principles but also commitments to develop action plans to implement the principles, report on their performance, raise awareness, share good practices, and engage with other businesses.

Voluntary sustainability standards are another potential tool for increasing women's participation, performance, and benefits in agricultural commodity value chains as women agri-entrepreneurs (including smallholder farmers) and wage workers. It would be helpful to understand in greater detail how much impact these types of principles or other voluntary standards for the private sector have on sustaining women's economic empowerment (Sexsmith 2017; Smith et al. 2018).

Women and Agri-entrepreneurship

Supporting women agri-entrepreneurs makes economic and social sense. Yet data on entrepreneurship in the agriculture sector generally are not as abundant as the type of statistics available for manufacturing and services in other sectors, and the need for comparative, quantitative data on women agri-entrepreneurs is still great, especially in developing countries (de Haan 2016).¹² Agriculture remains the focus of the large population of rural women in developing countries and a key source of their employment. Compared with men-owned businesses, women's businesses tend to provide greater employment for other women, so supporting such businesses can bring stronger benefits of employment to rural women, who have been found to experience greater disadvantage than either rural men or women and men in urban areas (Murray 2015).

There are, however, disconnects in the literature on gender, value chains, and women's entrepreneurship. Few value chain studies distinguish between different types of agri-entrepreneurs, and many use frameworks for categorizing them that are similar to those used in the broader entrepreneurship literature. What are the factors that help women in micro-agribusiness make the transition to small businesses and from there grow into medium and large ones? Value chain studies have focused largely on the small producers and processors and informal traders, neglecting the larger and more successful women agri-entrepreneurs. Similarly,

the literature on networking among African businesswomen has not specifically addressed the needs of women agri-entrepreneurs among their members.

Programs such as Value4Her help to strengthen women's agribusiness enterprises. Operating in Africa, the Caribbean, and the Pacific, Value4Her helps women agribusiness owners increase their incomes and create jobs for women in agriculture. Launched in 2018, the program offers women agri-entrepreneurs access to knowledge, skills, and capacity to grow their agribusinesses; links them with high-value regional and global markets; and improves women business leaders' technical and managerial skills. It is notable as one of the few efforts to provide Africa-wide networking and market linkage facilitation to help women scale their agribusinesses. The project also facilitates innovative business linkages to other women-led agribusinesses and helps agri-entrepreneurs link with suppliers and buyers through an African women's agribusiness intelligence portal, a digital business-networking platform jointly operated by CTA and partners African Women Agribusiness Network and African Women Innovation and Entrepreneurship Forum. Value4Her has already reached 350 women agribusiness owners.¹³

Gender-Based Violence in Agribusiness

There is increasing awareness of the existence of gender-based violence (GBV) in the agriculture sector. Fear of GBV, whether it is violence from intimate partners or from those with whom they work affects women along the value chain, restricting their mobility. Both the fear of violence or harassment and the experience of it can influence women's choices about work and workspaces as they try to avoid exposure to perpetrators (Nordehn 2018; Theis, Martinez, and Myers 2018).

Despite the apparently high prevalence of GBV in agribusiness, comparable data on incidences are scarce. In Kenya, out of 40 female cut flower industry workers, 90 percent perceived sexual violence and harassment as the biggest challenge they face (Jacobs, Brahic, Olaiya 2015). In Ethiopia, of 160 women sampled, 137 said they had experienced some form of sexual violence and harassment themselves, while in Tanzania, 89 percent of women workers across 20 farms had personally witnessed one or more incidents, mainly perpetrated by managers (Mlynska, Wass, and Amoding 2015). Henry and Adams (2018) reviewed four cases of commercial agriculture. The one African case draws primarily on the

12 The Global Entrepreneurship Monitor 2018/2019 Global Report [Bosma and Kelley 2019], for example, combines data on agriculture with extractive and construction industries, without identifying gender differences in this category.

13 <https://www.cta.int/en/project/value4her-strengthening-women-s-agribusiness-enterprises-in-acp-countries-sid003907918-80bb-406a-a8f5-d83a175d029a>.

horticultural sector of Kenya, with additional information on Ethiopia, Tanzania, and Uganda. They found that across all cases—in Africa, Latin America, and Asia—the combination of social norms that tolerate harassment and little accountability from supervisors and other staff led to conditions where sexual violence and harassment frequently occurred in commercial agriculture.

The probability that GBV against women occurs in some agricultural value chains urgently requires more rigorous data collection about its prevalence as well as the factors that contribute to its persistence. Other recommendations to address GBV in agribusiness situations include:

- upgrading women's contracts to provide opportunities for advancement similar to those of men,
- providing legal protection for temporary workers,
- improving working conditions for all workers, and
- requiring trainings on awareness of GBV to change attitudes and behaviors (Henry and Adams 2018, 43).

Youth, and Especially Young Women, in Agricultural Value Chains

Young women face a triple challenge in becoming agri-entrepreneurs: gender, age, and the limitations of the informal sector. Furthermore, young married women often fall between programming cracks: they are no longer in school, have the heavy burden of caring for young children and other family members, and often lack the resources needed to succeed in agribusiness.

To better develop interventions to help younger women succeed in agribusiness, we need

- data on the age as well as the sex of entrepreneurs so that we can distinguish the impacts of interventions on young as well as older women;
- to identify factors that contribute to agri-entrepreneurial success among younger women;
- communication channels that can effectively provide young women with market information, especially using technologies such as mobile phones; and

- financial mechanisms (in-kind transfers, savings, cash grants, and micro-lending) that are accessible to and manageable by young women.

Research studies and implementation experiences over the last decade have deepened our understanding of the ways that participation in agricultural value chains both builds on existing patterns of gender relationships and also changes them. When researchers provide background on gender relationships that is specific to different agricultural value chains, and to particular countries, it provides practitioners the information they need to design their agribusiness interventions both to earn the profits needed for growth and sustainability and to deliberately achieve not only increased participation of women but also greater benefits accruing to women and their families, as well as to contribute to women's empowerment.

Across the African continent, inclusive agricultural value chains can simultaneously benefit women, their families, and the larger economy. The challenge for the future is to use our growing knowledge about the gender dimensions of agricultural growth to ensure that we make changes in the direction of promoting gender equality and women's empowerment.