GENDER AND THE AGRICULTURAL VALUE CHAIN: TRANSFORMING AFRICA'S AGRICULTURE THROUGH WOMEN'S EMPOWERMENT

AFRICAN CENTRE FOR GENDER AND SOCIAL DEVELOPMENT

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EXECUTIVE SUMMARY

Agricultural value chains promise to yield a transformative development strategy globally due to the pivotal role of agriculture in the post-2008 crisis era. In Africa, this development strategy is most relevant because of the critical role of agriculture in economic growth. Africa has been buying into emergent value chain development for a variety of commodities, mostly non-traditional export products, in response to increasing global demand.. It appears that Africa can derive more growth and poverty reducing employment from value chain activities than from primary agriculture. However, as of now more trade has occurred in primary agricultural commodities. The value addition that comes from transformation is yet to make its contribution to economic growth and sustainable development.

Gender participation in emerging agricultural value chains is skewed in terms of both structure and benefits. Various gender barriers debar women farmers from entering thriving value chains or from participating profitably where they already operate. The inequality that persists in the ownership of productive assets, especially land, as well as lack of access to capital for technological upgrading, are major reasons. Lower productivity of women farmers, both on and off-farm, due to structural inequalities in access to requisite resources, technical know-how and entrepreneurial capacities, as well as other socio-cultural problems, constitute further reasons. Unfortunately, most analyses of new growth trends in Africa have failed to assess what the emerging opportunities in value chains mean for the future competitiveness of the continent when the low productivity of the vast majority of farmers, predominantly women, is factored in. The capacity to transform and innovate for rapidly changing market demands relies very much on productivity at the lowest end of value chains, where women operate as small-scale producers and low-paid or unpaid workers. Yet, policy and programming initiatives to address this through women's empowerment initiatives have been limited in their effectiveness.

Few studies on agricultural value chains have been undertaken with specific gender-aware objectives, although many report unintended gender findings, outcomes and implications (Riisgaard et al, 2009). A good number of these studies have been conducted outside Africa. There is a pressing need for a coordinated body of knowledge on gender and agricultural value chains in Africa that can inform very strategic and transformative policies for gender-equitable agricultural transformation outcomes.

The current *AWR* recognises the policy importance of agricultural value chains and links the active empowerment of key agents in these value chains to the agenda for Africa-wide transformation. The findings of this report point to an alternative pathway for socially inclusive structural transformation through agriculture that addresses gender inequalities. By identifying critical gender-based challenges, it is possible to devise women's empowerment strategies that allow more women to participate and benefit equitably. Similarly, by documenting best practice and win-win situations of women operatives and other stakeholders, the detailed cases studies in this report

provide strong pointers to policies that are effective, together with the local coping strategies that can be a springboard for better-targeted programming for gender-inclusive agricultural value chains. Analysis of the activities of women as owners (actors) and operatives is situated within the framework of the Comprehensive African Agricultural Development Programme (CAADP), which currently drives national, sub-regional and regional policies. The study also assesses the relative capabilities and endowments of women and men in the context of their participation in selected emerging value chains.

Case studies of thriving value chains carried out in six countries – Mali, Cameroon, Morocco, Uganda, Zimbabwe and Ethiopia – exposed generic and gender-based problems and prospects on these value chains, as well as country-specific challenges. The critical policy issues reinforce the contemporary need to approach the important Sustainable Development Goals with a strong gender focus.

Summary of Findings

The Policy Context

Macroeconomic contexts within Africa suggest that existing policies and emerging developments do not augur well for value chain expansion because they are so focused on the primary nodes of value chains. They thus miss the vast opportunities that can be found in vertical and horizontal linkages, thereby limiting the value addition to be gained from CAADP-driven agricultural growth. The macroeconomic contexts of different countries present opportunities and challenges for all small farmers, but more limited opportunities for women farmers. In general, policy inconsistencies and inadequate focus on the specific challenges of women remain pervasive within national agricultural transformation strategies. The push factors for value chain development are not being adequately harnessed for all small farmers, male and female. Thus mainstream initiatives are gender-blind and may even reinforce gender inequalities. Gender strategies exist but are generally not well implemented, due to a range of institutional and other factors, including systemic and socio-cultural factors, as the country studies showed. Some progressive policies do exist, but they are limited in their effect and tend to ignore culturally induced barriers to their implementation. For example, the policy of joint titling of land by husband and wife exists in a number of countries but fails to tackle the issue of male control over labour and outputs. Policies exist to support credit associations, but do not give sufficient attention to the need for the technological upgrading of women in agricultural value chains. Similarly, research and training programmes fail to retain the interest of women, while policies for varietal improvements omit to take account of women's superior knowledge of local tastes and preferences. Such policy initiatives must be redesigned to address the specific needs of women in agriculture.

Gender-Aware Value Chain Analysis

Country case studies reveal the gender intensity of various nodes of value chains as well as their labour use patterns. These show that women are more involved as operatives (workers) rather than actors (enterprise owners), thus there is a low level of empowerment of women in spite of their

centrality to the activities on all the value chains. Access to and control over resources is an important need for women participants. Land ownership, including independent ownership of land titles, is key. Whereas land policies have promoted women's access to land through joint titling, this has not translated into the kind of independent agency that will enable women to make independent economic decisions regarding chain, process and product upgrading. Women's poor access to land, and especially to the larger parcels of land needed for higher end commercial production, seems to be a major reason for their low empowerment. In Zimbabwe and Uganda, for example, women are active as small-scale commercial producers but are limited by land size, access to better technological training and the requisite capital outlay for better returns to land.

Women are often stuck at the lower end of value chains, though female dominance of some value-adding nodes is noted in some countries, for example injera production from teff in Ethiopia, the processing of mangoes in Mali, fish-smoking in Cameroon and the selection of olives for processing in Morocco. In other countries such as Zimbabwe and Uganda, agency is mixed at most value chain nodes, but with gender segmentation in scale and market reach. Thus women are active in small commercial production while men dominate both the higher-end large-scale production and the growing secondary value chains. Examples of the latter are the industrial utilisation of maize in Zimbabwe and the production and export of organic pineapple in Uganda. Wage work is visibly expanded for women across all the nodes, but low wages and women's lack of the skills needed for higher end employment limits sustainable livelihoods from emerging value chains. However, within more formal value chains such as in manufacturing, women tend to find more remunerative engagement, even as employees, as technologies expand production boundaries. But there is still deep gender segmentation, differentiating the outcomes and prospects for progressive movements along the chains.

Other patriarchal barriers include labour appropriation by men and drudgery for women in a context of gender-blind research agendas, together with lack of organisational and networking skills, especially for growing networks outside the immediate localities of women, who suffer from weak ties. Women's need to upgrade their operations is still much hampered by low access to credit other than micro-credit, while their capacity needs in the area of skills, knowledge and information on best practice are still undermined by research and extension systems that are insensitive to women-specific challenges.

The outcomes of value chain participation are also, therefore, largely skewed by gender, in terms of the control of output and investment decision making (very low in Ethiopia) and the drudgery of female tasks, coupled with patriarchal control of women's time. The technological structure of female-dominated and male-dominated nodes is segmented in terms of business volume, level of technology application, type of end product and links to end-markets. There are questions of low profitability for women due to the lower application of high-end inputs and also low profit due to a lack of access to raw materials, for example in the case of fish smoking in Cameroon. Market share also tends to be gender differentiated, as in Uganda and Zimbabwe. Profitability of women's enterprises tends to be limited due to gender inequality in technological know-how and access to

critical inputs. Employment generation is differentiated in terms of wages and level of engagement, as in Zimbabwe and Ethiopia, although this seems to be significantly improved in secondary value chains, for instance in Zimbabwe's growing industrial sector. Low capacity for business organisation was found in the majority of country case studies, although the growth of women's cooperative farm associations is one means that women are devising to address some of their challenges. Socio-cultural barriers including low education, poor links to external business ties, lack of self-confidence especially for formal transactions and poor price bargaining are some of the obstacles to better outcomes and more equitable governance of value chains. An important finding in all the case studies is the intersectionality of outcomes among women, as more educated, urban-based women are benefitting disproportionately from emerging opportunities. Examples of this can be found in the injera baking and exporting ventures in Ethiopia and in access to government support systems for maize production and marketing in Zimbabwe. These opportunities are however fostered through the sweat and drudgery of rural women farmers at the lower nodes, namely in on-farm production systems that are highly dependent on female labour in the production of teff, maize, olive and mango. Finally, distribution of value added is skewed, being more robust at male dominated nodes where the degree of capital outlay seems to be the enabler of higher returns. Women are rarely capable of capital outlay due to serious constraints of asset ownership and access to financial institutions.

In spite of the heavy involvement of women in all value chain activities, the role of women as actors remains limited, whereas as operatives in the primary production system they are more visible. Thus progressive empowerment through a combination of welfare activities, capacity building, the transfer of resources and control and decision-making agency is currently lacking. Breaking the subsistence trap or progressing to higher levels of commercialisation remains a challenge that must be speedily addressed. Examples of farmer-induced best practice are emerging to address some of these issues, with some measure of success. The report documents some promising practices and successful case studies that can inform much-needed policies in individual countries and for the continent as a whole. Indeed, gender-inclusiveness promises increased commercialisation, employment growth, greater scope for manufacturing, including the utilisation of secondary products, and greater linkages to local and global end markets in all value chains.

Emerging Policy Issues from Country Case Studies

- Many viable value chains are evolving throughout the continent and women are participating increasingly both as actors and operatives but under less optimal conditions than men. The causes are related to differentials in the technological structure of female and male dominated nodes. Gender appropriate technologies are needed to promote inclusive value chains.
- In general, dichotomisation of value chain nodes into formal versus informal, traditional versus commercial farming systems or government controlled versus private sector

controlled systems may have reinforced the marginalisation of women's interest in evolving value chains. Women tend to be concentrated in the informal, traditional and government controlled systems. Institutional structures for a fluid transition and interaction between the dichotomous two systems are needed.

- Women's entrepreneurial capacity is still low and must be enhanced, not only through engagement in primary agriculture via small farmer commercialisation, but also by promoting business behaviour on and off farm as well as skills to take up growing employment opportunities in agro-industries and export markets.
- Women's low endowment of economic rents that could render them more competitive is a major concern in value chain enterprises. This is tied to the perennial low entitlement to productive resources, land being a major factor. Structural transformation should not erode women's assets or debar them from asset ownership. Rather it should lead to assets build-up by a greater number of active female farmers so they can be actors, rather than mere operatives.
- Because most off-farm value chain activities are private sector-driven, women's businesses must be viable enough to attract private investment. While privatisation can be progressive, and aligns with one of CAADP's core principles, it might be detrimental to women's inclusion in the medium to long term, due to perceptions about the low viability of women's enterprises. However, our findings reveal some measure of profitability even at low levels of engagement, meaning that women can operate profitably if enabled.
- A critical issue is how to involve the private sector financial market in supporting value chain ventures that are dominated or managed by women. The study reveals many successful business women on different value chains who can provide a showcase for private investors. Very viable strategies are needed to build on this success factor and prove that women in agricultural value chains are bankable. There is also need for more targeted intervention to enable women to develop capabilities that can attract private-sector investment in their value chain enterprises, such as technological application and efficiency via the use of productivity enhancing resources. Enhancement of TFP is critical to sustain women's participation through the development of a competitive edge.
- Greater local outreach, alongside a local-global reach of participants on value chains, is critical to optimising benefits. This is possible through initiatives that promote market access and networking among actors. Women's culturally restricted space has especially limited their local-global reach and, thus, the critical success factor of connecting to and understanding the changing nature of end markets. This may be one of the biggest losses to women in evolving value chains. This negative effect is revealed through the analysis of the distribution of value added. Technological barriers as well as the socio-cultural attitudes that limit women's mobility and external networking must be reduced.
- The norms and practices that tie women's domestic activities very closely with their market activities, and deprive them of information and education, are deeply cultural. It will require cooperation of all custodians of culture, including men, to remove these. Such

socio-cultural concerns continue to reinforce the problem of unequal gender-power relations and the welfare impacts on agricultural households in particular.

- The primary research revealed a range of less tangible outcomes of value chain participation, especially the welfare outcomes that contribute to women's progressive empowerment as actors (owners of enterprises), or that allow the acquisition of capacities to function as skilled operatives and enterprise managers. These and other outcomes, such as improvement in the education of their children and greater availability of social services, promote their holistic empowerment. Policies must therefore focus not just on monetary gains, but also on the interaction between tangible and intangible benefits. Recommendations on how to link value chain programming with that in other social sectors are critical.

Unless there is decisive, deliberate and focused policy attention to implementing the numerous policy pronouncements on gender equality as well as initiating specific new ones, women may end up losing out on the growing opportunities from value chains on the continent, even while sustaining the value chains at the low end. The incentive for more people to benefit is a growing middle class in Africa, as well as multi-million-dollar markets that are booming on the export end of these value chains.

The Policy Imperatives of the Findings

In order to sustain the drive for gender equality and women's empowerment within the context of CAADP and other transformation agendas on the continent, gender-targeted policies must be seen as relevant to the development trajectory, rather than as affirmative action. Enhancing women's role as actors and operatives must also be seen in the light of several classical economic rationales:

- Growth of gender-inclusive value chains must entail a high share of women employed in the value chain as compared to the economy at large; as agriculture becomes an employment pivot, more rather than fewer women are employed, as compared with industrialised economies where both women and men exit the sector. Policy initiatives in Africa must recognise this as the natural process of structural transformation;
- Growth in the voice and agency of women in each value chain must be a central goal. Therefore even though employment opportunities are important, an increasing proportion of women must also be seen as actors rather than operatives, especially in traditional economies where women have comparative advantage in the production and processing systems. This is to reinforce their progressive empowerment, up to the highest level, as in the instructive Women's Empowerment Framework (WEF).
- Favouring women in value chains creates low-entry barriers for small-scale and poor entrepreneurs in general. While enlarged scale and upgrading are desirable, vulnerable women must be capable of entry with a small scale of production and low start-up costs not requiring major capital investment and using low-technology and skills. Local

markets for low-volume production must be sustained through local demand management policies such that value chain development does not erode local food security.

- Women's empowerment cannot be a one cap fits all process. Policy actions need to be differentiated to benefit different categories of women, thus effectively benefitting women at all five levels of empowerment simultaneously (see Figure Two). Our analyses indicate that women in urban centres, more educated women and those who have had more contact with institutional support systems, either through networking or political or economic empowerment, are better off than rural women who constitute the bulk of operatives. Thus any proposed actions must be specifically directed to target groups of women, based on their current endowments.
- The empowerment of women should focus on growth potential and relevance to the economy as a whole. Policy initiatives that are desirable should have the potential to contribute to over-arching goals through productivity increases and the income growth of new actors, namely women in value chains and the growing number of unemployed youths. While productivity issues relate directly to access to resources, income issues relate to production and wage work. Policy imperatives must address the twin goals of progressive empowerment and growth and poverty reduction. Women's empowerment should be a catalyst for further growth rather than an end in itself.
- In relation to policy entry points, the Comprehensive African Agricultural Development programmes (CAADP) is a major plank for transformative change through agricultural value chain development in Africa. Many of the barriers identified should therefore be addressed within specific pillars of CAADP. This is a sustainable gender-mainstreaming strategy for agricultural value chain development. There are ample programming possibilities within CAADP platforms for gender integration. Policy recommendations should seek to pigeon-hole programmes and actions within specific pillars, towards making such programmes more actionable.
- Other policy entry points are available via the numerous policy engagement forums on the continent such as the CAADP Partnership Forum, the Rural Futures Initiative and the Empowerment of Women in Agriculture (EWA) programme being spearheaded by a group of African development partners known as EWA Champions. These provide a timely entry point for enhancing the opportunities and benefits of women in primary agriculture, while also ensuring vertical and horizontal linkages across other critical sectors.

Policy Recommendations

- **Harmonising Strategies for Empowering Women in Agriculture and Trade.** One major underlying recommendation is to harmonise women's empowerment and women in agriculture programming in Africa. Pockets of women's empowerment initiatives are

addressing some of the specific challenges, but are not well coordinated both within countries and across the continent. Initiatives by the same development partners in different countries need to be synchronised such that there is inter-country cross-learning and replication across the region. Harmonisation of such programmes can be spearheaded by the UNECA Centre for Gender and Social Development. As a first step, a scoping or mapping of such initiatives can be carried out. The next step would be to categorise initiatives according to the broad and specific goals of inclusive agricultural transformation. By focusing on developing well-targeted Gender Action Plans that are aligned with the four CAADP Pillars, all actors can organise around the same strategies for stronger impacts. A stepping stone for this harmonisation is the newly initiated Empowerment of Women in Agriculture, noted above, which was endorsed at the AU Summit in 2013. EWA's strategies are compatible with this proposed harmonisation and a partnership between EWA and key African institutions would further the same goal.

- **Enhancing a broader utility of women's farmer associations. Several women's cooperative associations** exist in all the study countries. These can be a plank for effective networking across countries and the region in addressing the gender-based challenges of agricultural value chains, for example by forging links with similar new and successful networks such as the WEIGO[i]. Strategic interventions that can lead to cost reduction through cooperative action will boost women's competitiveness, enable women actors to consolidate their gains and lead to higher employment opportunities for women operatives as wage workers. Thus women organising for women will be a win-win strategy for progressive empowerment.
- **Broad-based education for women in agriculture. Education, both basic and specialised,** is key to enhancing the entry and benefits of women in agricultural value chains. Mentorship programmes for entrepreneurial education, adult and vocational education should be entrenched through sustainable institutional measures. Assistance programmes by networks of successful women in agri-business are recommended. WEIGO remains a key example where women leverage other women to remove constraints across the board, including constraints of education and skills development.
- **Improved access to market information and better prices and incomes** will increase the incentives for women farmers to invest in firm upgrading. Currently, men and educated women gain from price increases especially through exportation. Women in primary production are generally ignorant of the end-market price and thus lack bargaining power. Education in contemporary ICT use is gaining ground and must be used to leverage direct connections to end-markets and improved bargaining power. Equipping women farmers with smart-phones and educating them in internet search techniques can be undertaken by development partners. Challenges of connectivity exist but are being gradually addressed across the continent.
- **Expanded utilisation of primary commodities.** Another avenue for enhancing the profitability of women's enterprises is to expand the utilisation of by-products. An example

is the waste from threshed teff, which is currently being used to build storage barns by women. Research on the use of agricultural by-products has been carried out in many countries, but the findings are not being utilised or promoted. Women's empowerment strategies need to focus on expanding research and training for such activities. Research on promising commodities needs to be funded and the findings actively disseminated to women investors through their training and information networks. The involvement of women in such research initiatives will be key, especially where they are the custodians of primary commodities.

- **Financial Leveraging for Chain Upgrading for Women Actors and Operatives.** Women's access to finance, beyond micro-credit, must be the mantra for women's empowerment in agricultural value chains. The establishment of finance institutions for women, such as Women's World Banking, has recorded success in many developing countries, including some African countries.[1] The Women's Budget initiatives have also led to the opening of government purse strings for empowering women in countries including South Africa and Tanzania. Other banks dedicated to women's specific needs can also be established and run by successful women financial managers. An example is the Scottish Widow's Bank, which can be studied as a model for women entrepreneurs. Another option is the establishment of a Regional Trust Fund for Women's Empowerment in Agriculture. This will be a step in the direction of servicing the needs of bankable women's enterprises.
- **Showcasing Women Champions of Change.** There is need to interest the private sector in women's businesses and to debunk the notion that women's ventures are small and risky. Women are currently largely constrained to micro-credit institutions, impeding their efforts to upgrade their enterprises. A national and regional strategy to showcase successful women in agriculture is needed to prove that women are bankable. A central strategy for this needs to be developed through regional institutions, country gender ministries and development partners who have supported women's businesses. A highly visible programme on television and other local media will advance this cause.
- **Enhancing the voice of Women in Agricultural Value Chains. C**ountries need to seek new ways for women to build effective voice in value chain processes. This can be achieved through accountability mechanisms that allow women's associations to be heard, for instance through the CAADP Partnership Forum. Networking capacity must be expanded such that women's forums with voice at national level can be connected to local women's groups, while those proven to be effective at the local level, such as the "*kebele*" in Ethiopia, should be upgraded to the national level. This implies that information flows to local networks can be enhanced.
- **Small and Medium Enterprise development schemes for women.** Linking women with small business development institutions such as SMEDAN (Small and Medium Enterprises Development Agency) in Nigeria have proved successful for rural women and women in

[1] See Women's World Banking: http://www.womensworldbanking.org/.

informal businesses in general. Similar initiatives across the continent and other developing countries should be documented and replicated.

- **Job creation for women in agriculture still needs to be reinforced as a central strategy.** Value chains continue to open up spaces of employment for millions of rural sector workers, mainly women. However the benefits are undermined by low education, low skills, domestic time poverty and other socio-cultural barriers leading to unfair wage gaps and unpaid labour, including child labour. While agricultural value chains are viable for job creation, the empowerment of women requires that they occupy much larger employment spaces and at higher levels than currently. Strategic training to meet job needs within specific countries must therefore be a focus. Promoting fairer labour use practices via information flows to women on their right as workers is another sustainable strategy. It is worth noting that programmes of the World Food Programme in many African countries have enhanced job opportunities for women in agricultural production and marketing while enhancing food access to the poorest.
- Climatic shocks are becoming a real threat to farmers in agrarian developing countries. African countries suffer greater impacts due to existing environmental challenges such as tree felling for firewood. Moreover, small farmers tend to be unaware of impending changes in climatic conditions. Special early warning systems using mobile phone technology as a medium can benefit women in responding to climatic shocks. Technical skills in climate-smart agriculture (CSA) should be a mandatory component of extension training for women farmers and part of a special curriculum in agricultural training programmes directed both at women and men, giving cognisance to their varying needs.
- Smart green jobs are now being created around CSA as well as other green energy initiatives. Examples of these can be found in UNDP's *Green Jobs for Women and Youths: What Local Governments Can Do*, which includes initiatives for greening rural development,[2] with examples from South Africa and the Philippines as pointers. The Barefoot Solar Engineers[3] programme also provides a value chain niche that provides energy for agri-business as well as lighting for a better quality of life, including more reading hours to promote girls' education, all as community-based solutions. These are CSA value chains that provide wider livelihood options for women's empowerment. Many options have been publicised across the developing world that serve the multiple purposes of economic empowerment, environmental conservation and welfare enhancement for households, while addressing some of the sustainable development goals (SDGs).

[2] UNDP (2013). Green Jobs for Women and Youths: What Local Governments Can Do. http://www.undp.org/content/dam/undp/library/Povertyper cent20Reduction/Participatoryper cent20Localper cent20Development/GreenJobs_web.pdf.

[3] See http://www.barefootcollege.org/women-barefoot-solar-engineers-a-community-solution/.

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ACBF	African Capacity Building Foundation
ACPHR	African Charter on People's Human Rights
AfHDR	Africa Human Development Report
AGOA	African Growth and Opportunity Act
ASAF	Asian and African Countries
ATA	Agricultural Transformation Agency (Ethiopia)
ATOR	Africa Annual Trends and Outlook Report
AU	African Union
AVCs	Agricultural Value Chains
AWR	African Women's Report
BPA	Beijing Platforms for Action
BRIC	Brazil, Russia, India, China
CAADP	Comprehensive African Agricultural Development Programme
CBN	Central Bank of Nigeria
CEDAW	Convention on Elimination of all forms of Discrimination Against Women
CSA	Central Statistical Agency
CSF	Critical Success Factors
CWIQs	Core Welfare Indicator Questionnaires
DA	Development (Extension) Agents
DANIDA	Danish International Development Agency
DZARC	
ECA/ UNECA	Economic Commission for Africa
ECOWAS	Economic Community of West African States
EIAR	Ethiopian Institute of Agricultural Research
ERA	Economic Report on Africa
ESE	Ethiopian Seed Enterprise
FAO	Food and Agricultural Organisation of the United Nations
FGD	Focus Group Discussion
FTC	Farmers Training Centre
FTLRP	Fast Track Land Reform Programme
GAP	Global Agricultural Productivity Report
GATE	Greater Access to Trade Expansion
GDN	Global Development Network
GDP	Gross Domestic Product
GERA	Gender and Economic Reforms in Africa
GMB	Grains Marketing Board
GMO	Genetically Modified
GTP	Ethiopia Growth and Transformation Plan
HQCF	High Quality Cassava Flour
ICESCR	International Covenant on Economic, Social and Cultural Rights
ICT	Information and Communication Technology

IFAD	International Fund for Agricultural Development
IFPRI	International Food Policy Research Institute
IIRR	International Institute for Rural Reconstruction
ILO	International Labour Organisation
IPC	International Policy Centre for Inclusive Growth
KIT	Royal Tropical Institute of the Netherlands
MDG	Millennium Development Goals
MoA	Ministry of Agriculture
MoFED	Ministry of Finance and Economic Development
NEPAD	New Partnership for Africa's Development
NISER	Nigerian Institute of Social and Economic Research
NTFP	Non-Timber Forest Products
PGRC/E	Plant Genetic Resources Centre of Ethiopia
RBZ	Reserve Bank of Zimbabwe
ReSAKSS	Regional Strategic Knowledge Support System for Africa
SADC	Southern African Development Community
SDSN	Sustainable Development Solutions Network
SFC	Small Farmer Commercialisation
SIDA	Sweden International Development Agency
SME	Small and Medium Enterprise
SSA	Sub-Saharan Africa
ST	Structural Transformation
SWOT	Strengths, Weaknesses, Opportunities and Threats Analysis
TFP	Total Factor Productivity
UNDP	United Nations Development Programme
UNIDO	United Nations Industrial Development Organisation
UNIFEM /UNWomen	United Nations Fund for Women (now UNWomen)
USAID	United States Agency for International Development
VAD	Value Added or Value Addition
VC	Value Chain
VCD	Value Chain Development
WDR	World Development Report
WEAI	Women's Empowerment in Agriculture Index
WEF	Women's Empowerment Framework
WEI	Women's Empowerment Index
WTO	World Trade Organisation
ZWRCN	Zimbabwean Women's Resource Centre and Network

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CHAPTER 1: INTRODUCTION

1.1 Background

The past few years have witnessed a resurgent interest in agricultural development worldwide following the 2008 food crisis and global economic and financial downturn. During this period, Africa has demonstrated resilience, increasing its economic performance with an annual growth rate of 5 per cent in many African countries. Indeed, Africa has registered the fastest growth in history, says Executive Secretary of the United Nations Economic Commission, Dr. Carlos Lopes. He explains: "At the turn of the Millennium, Africa's GDP was $600 billion; thirteen years later it was $2.2 trillion, representing the fastest growth in history. In comparison, it took China 12 years to double GDP per capita, India 17 years, the US and Germany between 30 and 60 years, and Britain 155".[4]

This economic trend has been accompanied by a strong call by African leaders for the transformation of the continent's economic structures by moving away from low productivity agriculture to commodity-based industrialisation that adds value to the continent's enormous natural and mineral resource endowedments. A strong consensus has emerged that agricultural transformation will be at the centre of Africa's economic transformation for many reasons.

The first reason is that agriculture is one of the main sources of income and livelihood for the majority of Africans and a key economic driver of the continent. The sector employs between 60 per cent and 70 per cent of the continent's work force and accounts for about a third of the continent's GDP (FAO, FAO's Initiative on Soaring Food Prices, 2008),[56] Women constitute the majority of African smallholder farmers and produce more than 80 per cent of Africa's food[7] (FAO, 2010), making them the backbone of the continent's agriculture and thus of the continent's development prospects.

Secondly, transforming the sector would yield positive impacts for rural communities and for African society and the African economy as a whole. However, the sector remains unproductive because of a lack of technological change.

[4] Carlos Lopes, Executive Secretary, ECA. "Linking Technology to the Current Development Trends in Africa". Keynote Statement delivered at the Africa-Ireland Forum 2014.

[5] IFPRI (2009): AGRICULTURE'S CRITICAL ROLE IN AFRICA'S DEVELOPMENT Media briefing on GM Crops for African Farmers, May 19, 2009.http://www.ifpri.org/publication/agriculture-s-critical-role-africa-s-development; IFPRI 2013, AGRICULTURE IN AFRICA. The 'Cow' that Feeds the Family. Oct 23, 2013. http://www.ifpri.org/blog/agriculture-africa.

[6] FAO (2012): FAO World Food Situation, 2012 FAO Initiative on Soaring Food Prices. Rome.

[7] FAO (2010). *Integrating Gender issues in Food Security, Agriculture and Rural Development.* Rome.

Third, the transformation of agriculture and diversification away from subsistence farming would create backward and forward linkages between the agricultural sector and other sectors of the economy.

A critical pre-condition for achieving the transformation of Africa's agriculture is to tackle persistent gender inequalities that preclude women, main actors of the sector, from reaching their full potential so as to increase their productivity and thereby contribute more significantly to achieving food security and food sovereignty in Africa.

The low productivity of women farmers, due to structural inequalities in access to requisite resources, technical know-how and entrepreneurial capacities, as well as other socio-cultural problems, are areas of concern[8] (GATE, 2009). Unfortunately, most analyses of new growth trends in Africa have failed to assess what newly emerging opportunities in value chains mean for the future competitiveness of the continent when the (low) total factor productivity (TFP) of the vast majority of women farmers is factored in. The capacity to transform and innovate for rapidly changing market demands relies very much on productivity at the lowest ends of value chains where women operate as producers, processors, marketers as well as custodians of family consumption. Accordingly, even as numerous policy frameworks indicate the centrality of gender inequality and women's empowerment as a precondition for growth and sustainable development, especially in low-income agricultural economies such as typify most African countries, yet policy and programming initiatives to achieve transformative and sustainable empowerment of women in agriculture have been limited in their effectiveness. Gender inequality therefore underpins the systemic slow growth and transformation of the agricultural sector.

1.2 Rationale for the study

Within these policy contexts and persistent problems, the main rationale for the study is the need to define appropriate policies and programmes within countries and across the continent that reinforce the objectives implied by these policy contexts and which "support Africa's inclusive/equitable transformation of agriculture by promoting the effective participation of women farmers in and benefit from her agricultural transformation agenda" (CAADP, 2003), and which foster expanded livelihoods, employment and income to women farmers via commodity value chains.

By focusing the *African Women's Report 2014-2015* on the theme "Gender and Agricultural Value Chains: Transforming Africa's Agriculture through Women's Empowerment", the ECA intends to contribute to bringing the gender agenda to the fore of the agricultural transformation policy debate and actions on the continent. The report falls under the Women's Economic Empowerment pillar of the Continent-Wide Initiative for Gender Equality and Women's Empowerment (CWI-GE/WE) developed by the ECA to ensure that every woman participates in and benefits from the

[8] USAID, (2009). Gender and Pro-poor Value Chain Analysis under the Greater Access to Trade Expansion (GATE) programme.

transformation of the continent's agriculture, equitably as men, irrespective of their social location. The two other pillars of the initiative are Women's Human Rights and the Social Sector. This Continent-wide Initiative is being implemented in a context of greater recognition of the pivotal role of women in Africa's development as illustrated by the endorsement and implementation of several international and regional conventions/resolutions on women's economic, socio-cultural and political rights. These include the Convention on the Elimination of all forms of Discrimination Against Women (CEDAW, 1979) and the Beijing Platform for Action (BPfA, 1995), including its reinforced focus on Beijing+20 (2015), the Millennium Development Goals (2000) and Resolution 1325 on Women in Peace. In Africa, we may cite the Protocol on the Rights of Women, the Protocol to the African Charter on People's Human Right, the African Union (AU) Solemn Declaration on Gender Equality (2004) and the mainstreaming of gender equality goals within the Comprehensive African Agricultural Development Policy (CAADP, 2003), the Africa Land Policy (2010). In addition, African Heads of Governments demonstrated their commitment to alleviating the plight of women farmers by endorsing the Empowerment of Women in Agriculture (EWA), an initiative of the group of donors (EWA Champions) in 2013, aimed at placing the needs and contributions of women farmers more centrally within CAADP's implementation framework. They took a further bold decision at their 2014 Summit in Malabo, Equatorial Guinea by dedicating 2015 as "The Year of Women's Empowerment", thereby reiterating their commitment to gender equality and women's empowerment.

1.3 Objectives and Methodology of the AWR (2014-2015)

The overarching objective is to contribute to expanding the knowledge base on gender and value chain development in Africa with a view to informing emerging policies for agricultural transformation from a more contextual and evidenced level. Specific objectives of the current *African Women's Report* (AWR) are to:

- Document and analyse the gender dimensions that prevent women farmers from full participation and benefits, not only from the traditional value chains but also the growing number of modern agricultural value chains across the continent (such as horticultural value chain, modern food processing value chains etc);
- Develop and carry out comprehensive case studies in countries that are experiencing a rapid emergence of modern commodity supply chains through commercialisation;
- Identify the priority constraints that need to be addressed to promote the empowerment of the women engaged in these commodity value chains;
- Document good practice and coping strategies as well as promising policies and programmes for empowering women in agricultural value chains from country experiences that can be replicated across the continent.
- Define policy messages and policy recommendations for African member States to integrate women's specific constraints, needs and incentives in their national agricultural development policies and actions plan to implement CAADP.

- Contribute to the development of an actionable framework for promoting women's empowerment through gender-inclusive agricultural value chains in Africa.

This report draws on a secondary review of literature and primary empirical research. The secondary desk research pulled together a body of knowledge on what is known about gender-related constraints, needs, opportunities and outcomes in agricultural value chains in general and in Africa in particular. This built on existing studies within the ECA as well as other institutional studies and initiatives by the FAO, IFAD, ILO, USAID, DANIDA the Deutshe Bank, and a host of scholarly works. Primary research was carried out in six selected countries representing the ECA's sub-regions, i.e. Ethiopia, Uganda (East Africa), Cameroon (Central Africa); Mali (West Africa); Morocco (North Africa); and Zimbabwe (Southern Africa). This allowed a close examination of gender issues identified in the secondary research, through the collection and analysis of in-country empirical data on gender issues in agricultural value chains for selected commodities. These are horticultural products (mangoes, pineapples) cereals (teff and maize), fisheries and olive oil. The two-pronged approach to the research has enabled us to systematically document what is known, and to identify what we do *not* know about the impacts of a gendered system of ownership, control and participation in agricultural value chains for Africa's agricultural transformation agenda. This is a means to pin-point specific challenges and capacity needs and define well targeted policy recommendations.

Scope and Coverage: Selecting Case Studies (Value Chains) at Country Level

The six countries represent the major sub-regional enclaves of Africa with their varied agricultural zones and regional agricultural endowments, as shown in Table 1. The table also shows the focus of this study on commodities with rapidly evolving value chains across Africa, of which some have been little studied. Figure 1 shows the countries selected for the primary research.

Table 1.1: Coverage of Research in Selected African Countries

Sub-region	Country	Commodity
North Africa	Morocco	Olive Oil
Horn of Africa	Ethiopia	Teff
East Africa	Uganda	Pineapple
West Africa	Mali	Mango
Southern Africa	Zimbabwe	Maize
Central Africa	Cameroon	Fisheries

The selection is intended to draw attention to some little publicised value chains with huge potential, and to provide first hand evidence of their viability and constraints. The livestock and forestry sectors have received relatively greater attention and so are not focused upon here. Rather, we selected the fisheries sub-sector as a new and viable value chain that needs more policy focus.

Figure 1: Map of Africa Showing Study Countries

1.4 The Value Addition of AWR 2014-2015

This study contributes to formulating approaches for transforming imbalances in the structure of gender power relations that inhibit women's potential in agricultural value chains.

First, this volume of the *African Women's Report* strengthens the policy importance of agricultural value chains (AVCs) by positing a necessary link between the promotion of AVCs and the Africa-wide transformation agenda. It also places women's empowerment strategies at the centre of this nexus, given women's historical and critical roles in all agricultural systems. In particular, a good number of studies on agricultural value chains have been undertaken including in Africa, however, less often with a gender-aware objective design. In spite of the gender-blindness, many of these still indicate findings of unintended gender outcomes and implications[9],[10] (Riisgaard, Fibla, & Ponte, 2010). Most of these are also outside Africa. There is a pressing need for a coordinated body of knowledge on gender and agricultural value chains in Africa that can inform very strategic and transformative policies for gender-equitable outcomes of agricultural transformation.

[9] Riisgaard et al, (2009). "Tea and coffee smallholder certification to UTZ, Rainforest Alliance and Fair-trade in Uganda, Kenya and Ethiopia."
[10] DANIDA (2010) "Evaluation Study: Gender and Value Chain Development" by Lone Riisgaard, Anna Maria Escobar Fibla and Stefano Ponte. Danish Institute for International Studies, 2010.

The findings open up new vistas of alternative pathways for employment generation through rural development, both on-farm and off-farm, and for addressing some of the pressing policy goals on the continent, both for women and the teeming numbers of unemployed youths (AfDB, 2012)[11],[12] (UNECA & AUC, Economic Report on Africa: Promoting high-level sustainable growth to reduce unemployment in Africa, 2010). The study exposes the growing prospects for AVCs in the rural off-farm sector as well as in urban peripheries.

Other emergent cross-cutting issues have been unearthed such as the implications of rapidly growing but largely informal value chains for climate change. All of these go towards providing policy-relevant recommendations that are consistent with contemporary international policy concerns, such as the post-2015 sustainable development goals and the central role of climate-smart agriculture in promoting a greener world.

Another major contribution of the *AWR* is to adapt from a variety of methodologies both in generic value chain analysis and those suggested in a growing number of gender analysis frameworks or tool-kits which allow dedicated focus on women's chain activities or female-dominated nodes of specific value chains. Systematic information has thereby been generated, providing useful frameworks for future research on AVCs in Africa.

Finally, through the country research studies, it has been possible to document the priority constraints facing women in the selected value chains and the implications of these emerging patterns for policy making. By documenting examples of best practice and win-win situations of women actors, operatives and other stakeholders, the detailed case studies pinpoint home-grown coping strategies that can be a springboard for better-targeted programming for gender-inclusive agricultural value chains.

1.5. Organisation of the report

This report is structured around seven chapters. In chapter two, the conceptual issues surrounding agricultural transformation, women's empowerment, and agricultural value chain development are discussed, most especially in the context of inclusive growth and sustainable development. These present a conceptual framework that can drive strategic policy development and implementation of women's empowerment programmes. It also briefly describes the methodology of the country research. In chapter three, the Africa-wide and country specific macroeconomic and policy contexts for agricultural transformation are reviewed to show how the policy environment has promoted or inhibited the desired gender equality and women's empowerment towards value chain participation. In chapter four, the economic importance of specific commodity economies in the six countries and their emerging value chains is discussed while chapter five analyses the gender issues in agricultural value chains as technical barriers facing women. This is based on empirical

[11] ECA (2011). Creating Jobs for Africa's Expanding Youth Population. African Economic Outlook. Addis Ababa. See http://allafrica.com/stories/201209191071.html.

[12] ECA (2010). Promoting High-Level Sustainable Growth to Reduce Unemployment in Africa, Economic Report on Africa (ERA) 2010 (Addis-Ababa: ECA).

literature and is corroborated by relevant findings of the primary research. In chapter six, the actual findings of the gender-aware value chain analyses in the six countries are discussed. This is aimed at exposing and documenting the gender issues that are not usually revealed in conventional agricultural value chain analysis. Chapter seven pools together the critical constraints to women's empowerment as prioritised by respondents, as well as the opportunities presented for transformative policy changes, including through existing policy frameworks in the agricultural sectors. This provides the framework for reviewing policy options, making policy recommendations as well as presenting some examples of best practice and home-grown coping strategies of women that can serve as a springboard for well-targeted policy initiatives for continent-wide adoption, towards achieving the goals of women's empowerment and sustainable development through agricultural transformation.

'Chapter Two: Agricultural Transformation and Women's Empowerment in Africa: Conceptual and Analytical Issues

2.1 Agricultural Value Chains as the Driver of Sustainable Development in Africa

The Sustainable Development Solutions Network (SDSN) [ii] sets a proper framework for understanding the linkages between structural transformation of economies and their attainment of sustainable development as an end goal for all forms of economic growth, including and especially agriculture. According to the SDSN (2013)[13] sustainable development is only fully attainable via structural transformation of all economies – both developed and developing. Economic, social and environmental transformations are all inter-related and must come together as one to achieve sustainable growth with equity. That many African countries have been achieving economic growth without sustainable development speaks to the absence of any meaningful structural transformation of their core economic sectors, especially agriculture. It will take deeper transformations to stimulate the kind of growth that ends poverty by creating more jobs, improving opportunities for more rural and urban livelihoods and improving social inclusion by enabling broad-based participation of all population groups, especially the vulnerable. Another important outcome of sustainable and transformative development is ensuring environmental sustainability by managing natural resources within a regulatory framework that promotes corporate responsibility even as industrial processes deepen, and as local communities cooperate to replenish rather than deplete natural resource endowments. As the world becomes more globally integrated, these tenets of development become more important.

In identifying the key five global drivers of change, therefore, the SDSN (ibid) recognised the critical role of new technological era, changing labour markets, global production systems with rise of multinational corporations, changes in planetary boundaries and climate change as well as demographic change and migration. To reinforce the inclusive-development goal of transformation, they noted that sustainable development scenario entails economic progress **for all,** convergence across countries support for fragile countries and skill development **for all**. For agrarian nations, including Africa's bourgeoning population, value chain development in agriculture through agribusiness is fundamental to achieving the kind of social and economic transformation implied here.

[13] SDSN, (2013): Structural Transformations towards Sustainable Development. Background paper for the High-Level Panel of Eminent Persons on the Post-2015 Development Agenda Prepared by the Secretariat of the Sustainable Development Solutions Network, March.

While structural transformation of economies in its classical form may lead to fewer people engaged in agriculture, compared with manufacturing or services sectors, agricultural transformation through value chain development on the other hand promotes agricultural productivity and growth and its interlinkages with other sectors to achieve the sustainable development desired. This leads to an expansion of livelihood opportunities for more people, not fewer, in the agricultural sector. Agricultural value chain development can thus promote Africa's transformative and sustainable development by improving the livelihoods of the population engaged in agriculture. Women farmers constitute a critical mass of the population that can be empowered in this way.

Porter (1985)[14] first used the term '*value chains'* to describe a process previously known as vertical and horizontal integration in agricultural marketing studies, which calls for greater "competitiveness advantage" in agricultural systems. Subsequently, the term was adopted in the general agricultural development discourse, while Africa-specific concepts were added.[15] (Webber & Labaste, 2010) An increasing number of government policies as well as bilateral and multilateral aid organisations now use these concepts to guide development interventions that can enhance the benefits of development to small farmers. Increasingly, value chains have become relevant to the empowerment of women farmers, being the historically dominant population group in agriculture. Value chain development is thus key to understanding the need and scope for systemic competitiveness in any economy and what injections are needed to help its operators, including women farmers, to achieve, benefit from and maintain the pace of economic growth that leads to sustainable development.

Agricultural value chain (AVC*)* describes the full range of activities that are required to bring a product (or services deriving from production) from conception, through the different phases of production — which may involve a combination of physical transformation and the input of various producer services — to delivery to final consumers or final disposal or use (ibid, 4). The most functional agricultural value chain is the simple value chain that simply aims to link farmers to bigger markets such as urban market centres, companies, hotels, supermarkets or major wholesalers via greater commercialisation. Agricultural commercialisation and trade means higher technical efficiency or higher total factor productivity (TFP), which promotes a greater volume of business, a lower price per unit and higher patronage and profits. Value chain development may also involve contract farming, in which the farmer agrees to supply a given quantity and form of a commodity based on the quality standards and delivery requirements of the purchaser, often at an advance price that is agreeable to both. The contract may include support from the buyer to the producer through the stages of production to tide the small farmer over, in expectation of an improved production process. Inherent in agricultural value chain development are the dynamics,

[14] Michael Porter (1985). Competitive Advantage: Creating and Sustaining Superior Performance. New York: Free Press,.

[15] C. M.Webber & P. Labaste (2010). Building competitiveness in Africa's agriculture: a guide to value chain concepts and applications.

which, if properly harnessed, stand to benefit the proactive and innovative small farmer, agro-service provider and agricultural marketers, including cross-border trading. The acumen for adaptation to this framework or the relativity of it between male and female farmers is where the question of equity in value chain participation and benefits emerges. The key conceptual inquiry in this report is, therefore, to what extent women farmers and entrepreneurs can participate fully and equitably at all levels of the agricultural value chains, no differently from men. More importantly to policies, since value chain development is best spurred by market forces, especially price advantages and private investment, how inclusive and equitable can market-led value chains be, especially in African countries where policies have yet to confront deeply entrenched forms of inequality, including gender inequalities in the market economy being actively promoted by global economic institutions? How relevant and practical are the existing policies and strategies for agricultural transformation as the vehicle for equity-led and socially inclusive value chain development within the prevailing contexts?

Inclusive value chains, as a concept, places emphasis on identifying possible ways in which more small-scale farmers, rather than fewer (contrary to the profit-maximising capitalist dictum) can be incorporated into existing or new value chains or can extract greater value addition from such. Yet, the same global and local economic reforms and privatisation policies continue to reinforce inter-firm competition in the commodity supply chains, greater efficiency in production processes and greater reliance on knowledge and networks to drive global growth. This then brings to the fore the relative empowerment of different groups of actors for such efficient participation. Gender equitable agricultural transformation in Africa would essentially mean the development of viable value chains with a strong policy focus on the **empowerment of women farmers** for agri-businesses, full control of such and for political engagement with value chain systems, in order to generate not only agricultural growth but also the much desired transformation of the agricultural sector.

2.2 Promoting Women's Empowerment in Agricultural Value Chains

Global and regional normative and policy frameworks have contributed to setting the gender equality and women's empowerment agendas worldwide and in Africa, as indicated in Chapter One. Women's empowerment has been defined as "the sustained removal of obstacles to gender equality in all productive spheres". With particular reference to agriculture, empowering women farmers and entrepreneurs is one of the pathways to Africa's structural transformation, given the much documented and significant roles that they play. However, empowering women farmers for value chain participation and enhanced benefit will take more than addressing hitherto acknowledged gender inequalities in primary agriculture. It will take particular attention to generating new capacities and new level of competences that all women farmers (particularly small farmers) require to function competitively and to move them progressively from lower to higher levels of the value chains. It will entail addressing specific gender-based challenges not just in primary agriculture, which is crucial, but also at the nexus of commercialisation, industrialisation, and trade and services delivery. For the majority of African countries, this is a major challenge to

the viability of numerous emerging value chains. The recent rapid flow of investment into agriculture in some African countries including South Africa, Nigeria and Ghana, to mention but a few, has led to the growth of viable agribusinesses, increased sources of employment and income, as well as ready supply markets to meet changing tastes and preferences in many parts of the world[16] (Wynn-Ellis, 2010) and those of a growing middle class at home. However, these growing economies have not evolved strategies for social inclusion, thus, growth has not translated into greater gender equality in value chain development. Specific women's empowerment strategies for this purpose are still lacking, thus shortchanging the spread of benefits to the broader economy. Empowering women for agricultural value chain development is critical for the African continent in order to unlock the talent and potential of women farmers, since this would translate into higher human capital formation within families to drive Africa's transformation agenda into the future.

There is much evidence on the positive correlation between women's empowerment, gender equality and sustainable development, providing a valid conceptual nexus with agricultural value chain development. Overall, various definitions of women's empowerment by institutions and renowned feminist scholars present us with a rich menu which can lead to a clearer focus on what women's empowerment entails in the specific context of value chain development and sustained poverty reduction.

Amartya Sen's works on capabilities and choice[17],which address the reduction of systemic poverty through empowerment of the poor, especially women, have been a strong reference point for developing countries' policies on gender equality. The ECA's Africa Gender and Development Index (AGDI) is conceptualised on Sen's three-pronged framework in developing gender indicators for effective gender mainstreaming of policies and programmes and for monitoring policy accountability to women on the continent. With specific reference to women's empowerment in agriculture, the Women's Empowerment Index (WEI) modelled after the Women's Empowerment Index in Agriculture Index (WEAI) [iii] integrates the domains of empowerment as (i) production or farming systems, (ii) access to resources (iii) control over income (iv) leadership and autonomy (IFPRI, USAID, & OPHI, 2012). [18] These imply a progressive process for women in agriculture to move from farm production at various levels of subsistence into small farm commercialisation and large-scale farming and agro-industrial processes, and thereby into agriculture's horizontal and vertical chains off the farm. The identified empowerment domains of the WEAI are constructive for identification of action spaces. The fact that empowerment is not a one-time goal that comes to an end, but a process that continually assesses relative positioning of agents in the same economic system, is reinforced by Sarah Longwe's popular Women's Empowerment Framework (WEF)[19]. The framework suggests that for women farmers to be

[16] Wynn-Ellis, (2010): Corporatisation of Agriculture. Technhttp://trendsoutheast.org/2011/all-issues/issue-01/corporatisation-of-agriculture/ovation Newsletter.
[17] Sen (1989, with Anand 1994a, 1995, 1997), see references.
[18] IFPRI-USAID-OPHI (2012). The Women's Empowerment in Agriculture Index (WEAI). http://www.ifpri.org/topic/weai-resource-center.
[19] Sarah Longwe (1993). The Women's Empowerment Framework, WEF. AWID.

adequately empowered (including for value chain participation), layers of barriers at different hierarchical levels of women's empowerment may need to be removed, depending on their social location at any point in time.[iv] This is consistent with the need for balancing the relative positioning of women and men in different stages of commodity value chains. The WEF has been adopted by many development institutions, including UNWomen, and other important stakeholders.

Finally, from a more contemporary viewpoint of the post-2015 agenda, Sharon and Woodroffe (2013),[20] linking women's empowerment with sustainable development, posit that:

> *"… to achieve real and sustainable change, the post-2015 framework should focus on the social transformations required to eradicate poverty and empower the most marginalised and excluded people. Such transformation cannot happen without tackling the underlying causes of gender inequality and removing the barriers to women's empowerment" (GDN, 2013).*

Gender-inclusive and pro-poor agricultural transformation is, thus, not only empowering for women as key agents, it is also empowering for the agricultural sector by integrating its goals and strategies with other real sector growth agenda, such as manufacturing, trade, technology and infrastructure sectors. Women's empowerment is a cost-effective pathway for transforming Africa's agriculture and ensuring Africa's integration into the global economic scene through value chain development. Women's empowerment in agriculture is thus a necessary and sufficient condition for Africa's structural transformation and sustainable development.

A relevant theory of change from the foregoing is that women's empowerment in agricultural value chains would progressively move more women up from lower to higher nodes of value chains. It would endow critical capacities for personal and household welfare improvement, for integration into community systems of economic growth, as well as ensure their voices in producer organisations and other networks that contribute to gender-sensitive governance of value chains. Finally, this would promote women's ultimate integration into global supply chains as key actors rather than low-end operatives or by transforming the perpetual smallness of their enterprises. In order to reinforce the centrality of deliberate policies to empower women, Figure 2 situates women's empowerment within the desired growth trajectories envisaged by CAADP through its four Pillars of Change. This also ensures that CAADP is accountable to other policy frameworks on gender equality earlier mentioned. In other words, the CAADP pillars[v] can be the push-factors for women's empowerment in agricultural value chains. Entrenching women's strategic and progressive needs in AVCs within the CAADP framework is policy-appropriate. CAADP programmes within each Pillar of Change can target the needed strategic and transformative changes by securing their rights to productive assets, especially their access to and control of land and other critical resources (Pillar One); build critical technological and organisational capacities

[20] Sharon Smee and Jessica Woodroffe (2013).Achieving Gender Equality and Women's Empowerment in the Post-2015 Framework. Gender Development Network, January 2013.

for higher productivity and market access (Pillar Two); promote a gradual and systematic move from subsistence to commercial production through poverty reduction and food security initiatives (Pillar Three); and entrench their technological needs and substantial adaptive practices in the research and development agenda (Pillar Four). Such transformative programmes that promote women's control of resources and income will secure their agency for independent participation, including a stronger voice in decision making and in the policy and programming processes. The CAADP model supports other gender-equitable development practices.

A starting point will be to focus on products and processes where women historically have comparative advantage. This is with a view to securing those spaces and improving the benefits therefrom in a culturally-appropriate environment. According to KIT et al, 2012, enhancing chain activities in women's traditional niches (also) mitigates resistance to their empowerment. The effectiveness of the latter in addressing socio-cultural barriers through partnership with men and local communities is underscored.

This framework informs the analytical methodologies of this research-based report. Gender analysis aims to assess the extent of achievement (or otherwise) of the following expected outcomes of gender-inclusive value chain processes:

- **Women's Empowerment in Primary Agriculture** as a precondition for entry into commodity value chains
- **Empowerment of women as Value Chain Actors** via the control of assets, resources and Income;
- **Women's Empowerment in Value Chain Activities via** equity in the outcomes of prevailing patterns of gender roles and responsibilities;
- **Women's Economic Empowerment** for enhanced productivity and employment income in the value chains;
- **Women's Social and Political Empowerment** via the governance of the value chains on the one hand, and changes in gender power relations on the other;
- **Women's Empowerment and coping strategies** as central to formulation of strategic and gender-inclusive agricultural value chain development policies.

Figure 2.1: CAADP Pillars Drive the Empowerment of Women in Agricultural Value Chains

Progressive Levels	Status and Empowerment Needs of Women Farmers	Critical CAADP Pillars of Change
Control	Large-scale commercial farmers; women in crossborder trade; women in SMEs (empowerment for local and global networking; access to global markets) Enhanced institutional linkages; Voice and Agency for critical investment decisions and policy and advocacy	PILLAR 2 PILLAR 4
Participation	Commercial farmers and traders in local food supply chains; women in cottage industries (empowerment for control of land, technology upgrade, access to export markets business size, bigger markets, product transformation, access to secondary value chains)	PILLAR 1 PILLAR 2
Awareness	Small commercial farmers; own-account workers; on-farm processors; farm-gate marketers (empowerment for higher productivity - control over sizeable land and access to technology; increased output and market surplus; direct access to markets; diversification for household food security; product specialisation for markets)	PILLAR 1 PILLAR 2 PILLAR 4
Access	Subsistence farmers; wage workers and unpaid family workers; household processors; female-headed households lacking security over land (empowerment for commercial production - access and control over land & productive assets; farm input support, technical production and employment skillsl)	PILLAR 3 PILLAR 1
Welfare	Landless women, farm wage workers and unpaid family workers; extremely poor female headed households; women in other vulnerable situations (empowerment for household welfare and food assistance; skills for employment in growing value chains)	PILLAR 3

Source: Adapted from Akanji Bola (2014): "Programming for Empowerment of Women in Agriculture". (EWA) Programme Document prepared for African Capacity Building Foundation, Zimbabwe.

2.3 Study Methodology

The research in six countries used a set of uniform field instruments in order to provide some comparable benchmark parameters and also to provide a framework of indicators for further empirical gender analyses of agricultural value chains. Three sets of instruments were used (and adapted) in various country contexts (see Annexures). The first aims to map the structure of the value chains from a gender perspective to expose the degree of gender segmentation and roles and responsibilities, with emphasis on women's roles as actors and as operatives. The second aims to analyse the distributional outcomes in terms of economic as well as socio-cultural results of participation; this also utilised the SWOT analysis to identify priority constraints as well as

opportunities and best practice. The third instrument if for policy mapping and evaluation, replying on a cross section of stakeholders including government agencies, non-governmental bodies, representatives of development partners and women and men operators in the value chains.

Table 2.1: Field Instruments and Target Respondents

Instruments	Respondents
One **Mapping of Value Chain: in-depth interview**	Commodity (apex) organisations Large commercial farms/firms Small-scale women farmers Small-scale processors/associations Cooperatives of actors and operatives
Two **FGD/SWOT analysis of capacities of females**	Female actors and operators Women's networks, Apex organisations of producers, processors etc. Project managers on women's empowerment programmes;
Three **Mapping and ranking of policy initiatives by reference groups**	Government officials in different sub-sectors of agriculture Development partners in women's empowerment and agriculture FGD with women in agriculture Central planning agencies of national governments apex organisations, individual operators and actors in agriculture

The main field approach was case studies and other participatory methods such as in-depth interviews, focus group discussions as well as rapid surveys of critical parameters in the operation of value chains. These generated both quantitative measures and qualitative measures, including "voices from the field", as key respondents freely expressed their experiences. Illustrations through pictures taken on the field showcased some of the realities of women's experiences, including

progress in several respects. There was also great reliance on general and country specific literature and content analysis to support the use of field instruments and to give broader context to the findings.

Chapter Three: Gender Issues in Africa's Transformation Agenda: A Critical Analysis

3.1 Trends in Agricultural Value-Added in Africa: The Macroeconomic Context

Africa's transformation agenda, as spelled out in the Comprehensive African Agricultural Development Policy (CAADP, 2003), has a central goal – "structural transformation and economy-wide integration of the agricultural sector through significant productivity and output growth (targeted at 6per cent annually) and development of the upstream and downstream sectors"; these imply reliance on value chain development. Under its implementation framework for agricultural transformation, CAADP seeks to make agriculture the economic growth pivot for the continent. It combines strategies for "agricultural expansion, massive public sector support (commitment of 10per cent of national budgets to agriculture) and private sector growth, towards sustainable development". However, in spite of the well-articulated goals and explicit recognition and centrality of agricultural value chains (in Pillar Two) and the concern to support women farmers and other poor cohorts (vulnerable populations, (in Pillar Three), concerns remain about the effectiveness of CAADP to achieve these goals in the short to medium terms, especially to contribute to the progressive inclusion and empowerment of women farmers.

One major concern is the composition of growth, let alone growth in agriculture sector The bias of Africa's growth pattern towards the extractive sectors, including mining and primary agriculture, means there is very little value-addition in production. Unlike in fast-growing regions of the world where higher composition of growth is found in the manufacturing sector, per centacross African countries recently growth in manufacturing accounted for less than 10per cent of GDP on average[21] (UNECA & AUC, 2013). It is however, noteworthy that agriculture contributed much more to GDP in the broader agribusiness small and medium enterprise (SME) sector than in the primary sector in many of these African countries, accounting for close to half of GDP (Schaffnit-Chatterjee, 2014)[22]. This means that greater economic diversification can result from agriculture by its linkage with other sectors such as manufacturing, trade, science and technology and the fast-growing services sector. As such it is paramount that the labor force, the majority of which is engaged in the agriculture, and particularly women is transitioned out of the low-value addition sectors with poor manufacturing linkages in an effort to boost agricultural productivity and growth.per cent While growth in output in the extractive sector augurs well for short-term growth, it cannot guarantee long-term or sustainable growth.

[21] ECA (2013). "Making the Most of Africa's Commodities: Industrialising for Growth, Jobs and Economic Transformation". Economic Report on Africa (ERA) 2013 (Addis-Ababa: ECA); AfHDR, 2012. African Human Development Report. UNDP.

[22] Schaffnit-Chatterjee (2014). Agricultural value chains in Sub-Saharan Africa: From a development challenge to a business opportunity, Deutshe Bank Research, April 14, 2014.

The available evidence on the growth of the agri-business sector and value-addition in Africa is instructive. Figure 3.1 shows Africa's pace in integrating her agriculture with other growth sectors through value addition. In the figure, SSA has the lowest (nominal) value of value-added and at the lowest rate of change over the period 2000 to 2013. Indeed, GDP from the agriculture sector in Africa, measured by value-added as a percentage of GDP averaged 13per cent in 2009, and had declined further to 10.8per cent by 2010[23] (World Bank, 2011). In Figure 3.2, SSA's value addition is one of the lowest world-wide, compared to other developing regions such as East Asia and the pacific, South Asia and Latin America. As a result, poverty rates have remained chronically high in Africa over the past three decades, failing to decline at the expected rate despite the plethora of strategies and the rising (global) prospect of the agricultural sector where most of the poor are found. These concerns corroborate the critical importance of effective implementation of Africa's transformation agenda, which seeks to reduce poverty by promoting value chain development in different countries. Some of the problems precluding the desired goals include lack of policy attention to gender inequalities even as value chains are gaining ground, meaning that the potential of all actors is not being optimised.

In a majority of African countries, even though there has been growth in trade (agricultural exports), import substitution capacity is still low and thus, negative trade balances are recorded. In the countries under study, the trend in value-added from agriculture, manufacturing and trade (services) seem incompatible with successful structural transformation. Manufacturing's share remains low, agriculture's share has not improved significantly and progress is recorded largely in the services sector. With the exception of Ethiopia and Uganda, all countries have a negative growth rate in their trade balance (see Figure 3.3). Although all the countries experienced increased exports, not all reaped the benefit of a positive net trade balance. While Cameroon, Ethiopia and Uganda did experience a positive trade balance, Morocco, Mali and Zimbabwe experienced a negative trade balance, due to greater dependence on imports, even as exports increased in volume and value, as in Morocco and Cameroon.

[23] World Bank (2011). World Development Report.

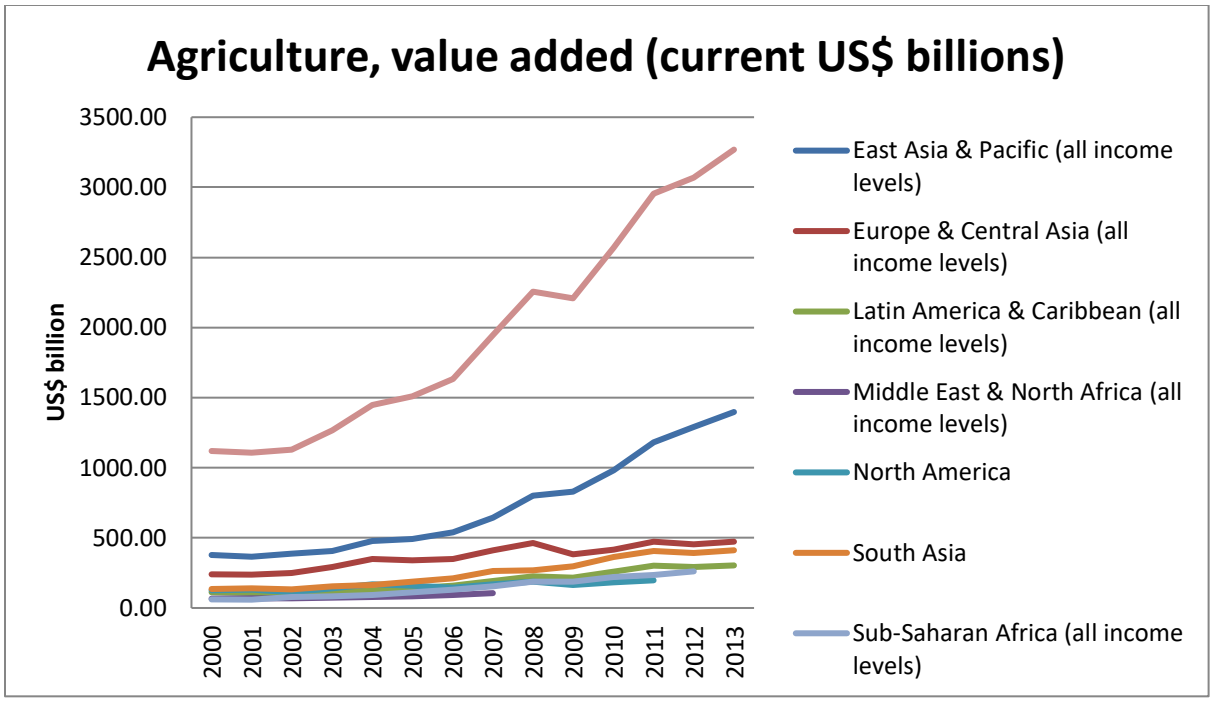


Figure 3.1: Agricultural Value Added in US$ billion

Source: Adapted from World Bank, World Development Indicators

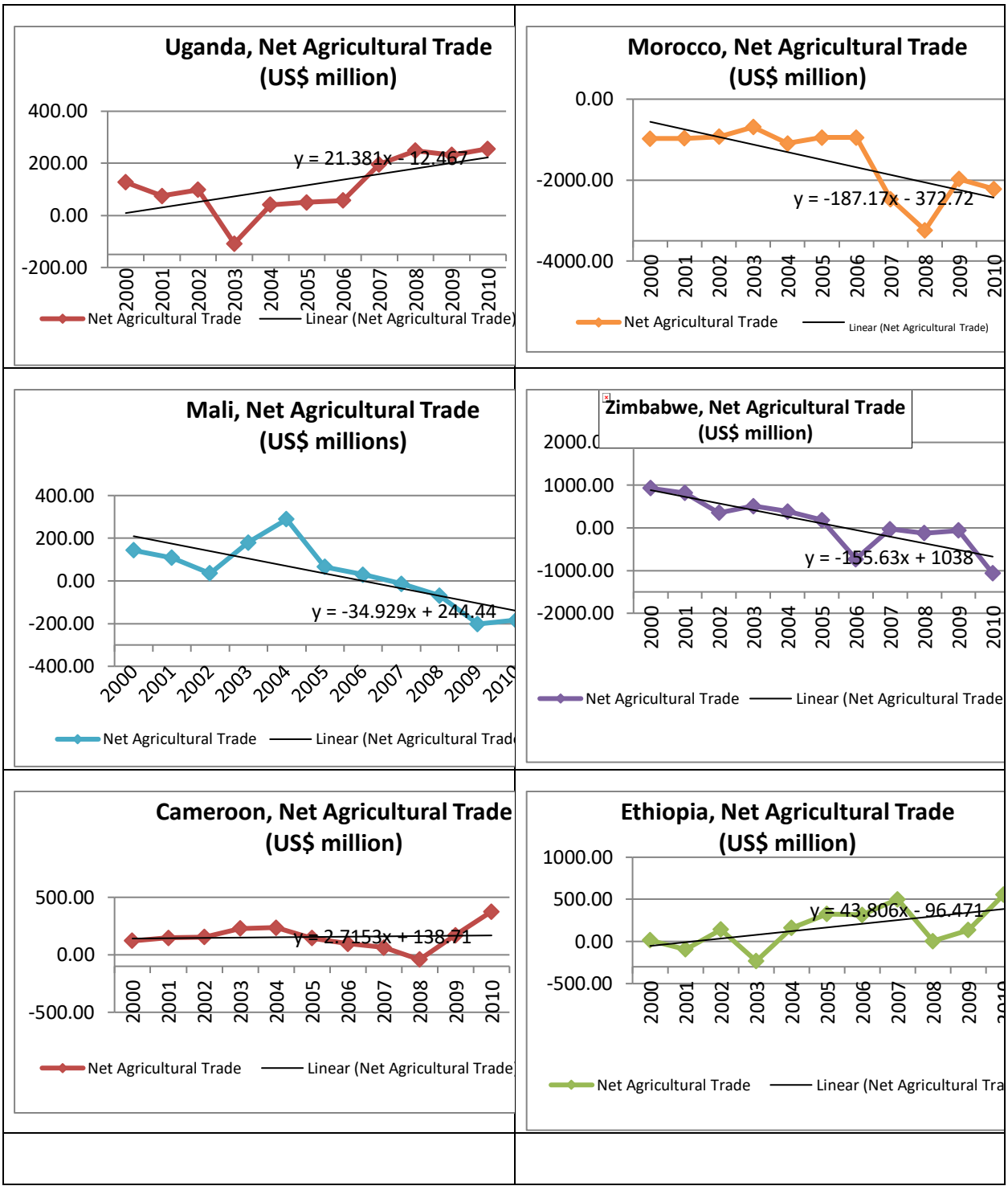


Figure 3.3: Net Trade Balances in Selected African Countries (2000 to 2011)
Source: Adapted from World Bank, World Development Indicators

Sectoral Performance and Contribution to Value Added

Sectoral distribution of GDP (value added) is a metric for assessing the extent of interlinkages between critical sectors of the economy. Agricultural growth should be matched by concomitant

growth in manufacturing and trade to support the positive evolution of agricultural value chains. On the other hand, growth in services that includes trade may be a function of expanding agro-services that value chains entail or simply a concentration of trade without the related employment opportunities through vertical and horizontal linkages at the local level.

In some of the countries it is indicated that while agricultural value added is on the rise (Ethiopia, Mali and Zimbabwe – with a slight drop in more recent years), value added from manufacturing and services (which includes trade) has generally been on the decline, rising only in Zimbabwe, and rising at a much slower rate in Morocco. This implicates the level of policy attention to the vertical chains of the main productive sector, agriculture. On the other hand, value added from services has been on the rise in all the countries, indicating growing trade activities, including in primary agricultural products. The implementation of the transformation agenda of most of the countries appear to be lacking in the areas of agro-processing and trade in processed (finished and semi-finished) commodities. Conflicting reform policies may also be implied as causes as countries' internal policies for food self-sufficiency (production and local marketing) often do not work synchronously with export promotion policies to enable the full benefit of transformation. For instance, while Ethiopia has liberalised her agricultural marketing system, which may have spurred its recent higher growth, Zimbabwe retains control of marketing of its most viable commodities through the Grains Marketing Board which may have contributed to constrain the sector's growth, as shown in recent years. In the same vein, the fall in value added from trade in Zimbabwe, unlike other countries, may have been induced by her recent policy ban on the export of certain agricultural products including maize.[24] It would be instructive to analyse if the drop in VAD from services in the country over the same period is compensated for by the slight rise in manufacturing value added, thus making such protective policies to be worthwhile. Uganda's agricultural value added has remained between 20per cent and 30per cent, even dropping in recent years. Manufacturing value added has remained below 10per cent while the services sector (which includes trade) has done significantly better that other sectors, contributing over 50per cent of GDP. It is however apparent that much of the trade is in primary agricultural products as indicated in several studies of the growing place of non-traditional exports, including a host of horticultural crops such as pineapples in the East African region.

In more specific terms, therefore, to what extent do direct macroeconomic effects of adding value at sectoral level reflect microeconomic dynamics in different sectors where value chain development is desired or is being pursued? And as the countries aim to integrate into global supply chains through their agricultural transformation agendas, to what extent are complementary policies put in place to foster gender-inclusiveness? While many female small-scale farmers have entered into the production of these commodities, to what extent have they benefited in the growing

[24] It must be noted that self-sufficiency concerns often lead to such export bans. In Zimbabwe, maize is a strategic grain and as such can only exported if there are reserves over and above annual forecasted consumption needs. In the absence of such buffer stocks, countries can be exposed to hunger risks in case of negative weather shocks.

value chains, including through processing and exporting? Has there been equitable participation on all nodes of these growing value chains for both women and men? In particular, how have internal policies impacted on the majority of small women farmers? These queries prompt a focus on how gender issues have been integrated into the transformation policies across Africa.

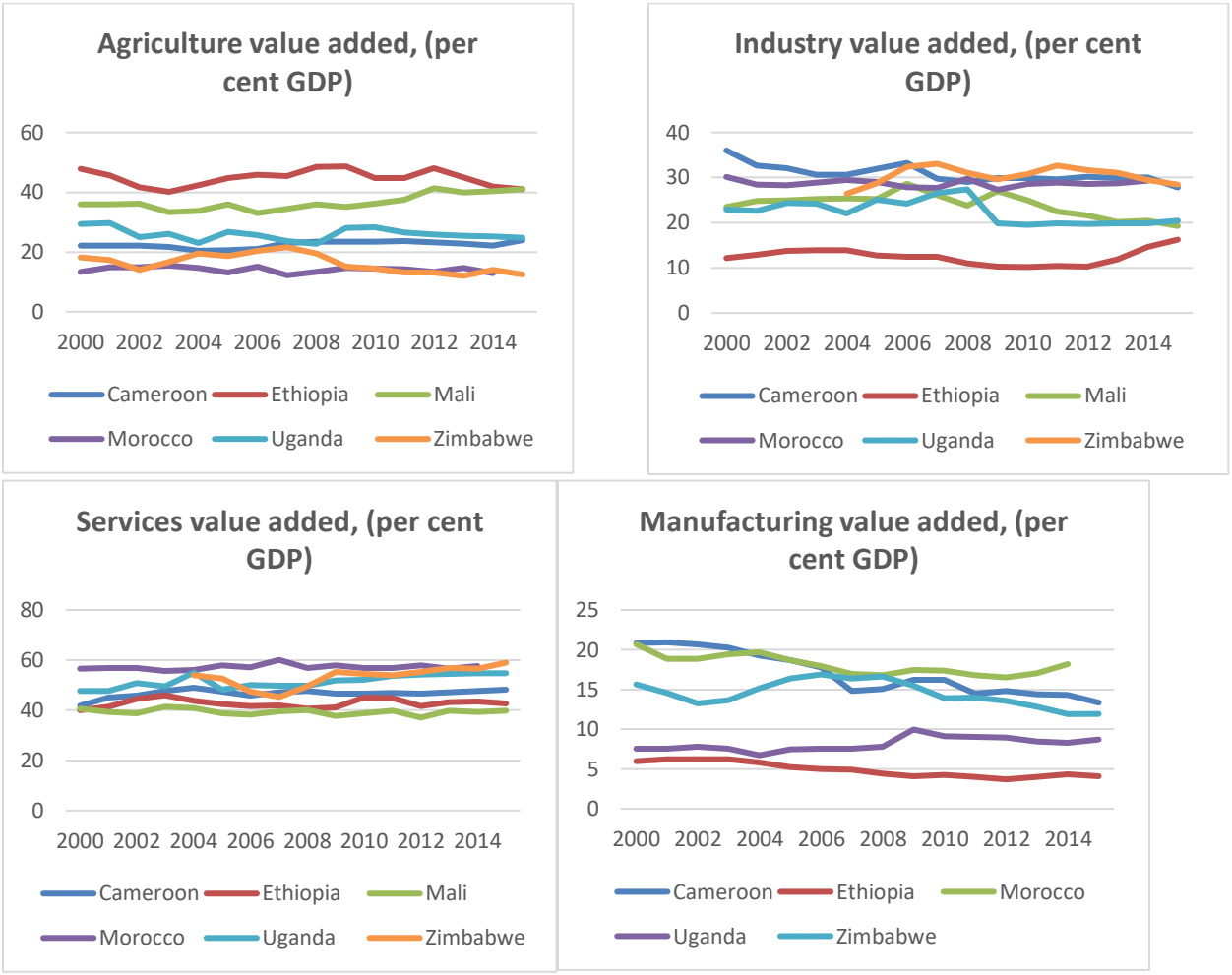


Figure 3.4: Sectoral Distribution of Gross Domestic Product (Value Added to GDP)
Source: Adapted from World Bank, World Development Indicators

Figure 3.4: Sectoral Distribution of Gross Domestic Product (Value Added to National Income)
Source: Adapted from World Bank, World Development Indicators

3.2 Gender Issues in Africa's Transformation Agenda

Box 3.1 "Women: the global majority in low-income countries' growth poles.
As the global majority, women cannot be treated as 'a special case' but their needs and interests must be an integral part of any development policy as those of men. Failing to effectively harness the creativity and effort of at least half the population inevitably

significantly undermines the potential for growth, with serious implications not only for women themselves but for household and national poverty reduction. Enabling women to realise their full potential requires removing gender inequalities and discrimination which constrain them at every level. It also requires affirmative action to enable women, and also men, to promote and benefit from this change". (*Mayoux and Mackie, ILO, 2007)*[25]

The importance of women's empowerment to the discussion of agricultural growth and its value chains is measured by the levels of female participation in the primary agricultural sector of African countries. Over time, the proportions have remained generally unchanged. In 2006, the population of women working in agriculture was 68per cent in Cameroon, 78per cent in Zambia, 84per cent in Tanzania and 91per cent in Ethiopia[26] (Seagher, 2009). In Uganda, while 72per cent of all employed women were working in agriculture, the rural component was 90per cent, compared to 53per cent for rural men [27] (Ellis, 2006). Women also predominated in food production, with 80per cent engaged compared with 49per cent of men. In direct on-farm activities, they contributed between 60per cent and 80per cent of labour for planning, weeding and harvesting and 90per cent to processing. In Zimbabwe, it was estimated that women contributed about 70per cent of agricultural labour, with the bulk of them found in the subsistence sector. In rural Ethiopia, female farmers provided between 50 and 80 percent of the labour force required in farming, livestock production and environmental rehabilitation[28]. This pattern has been referred to as the feminisation of agriculture, which translated to the feminisation of poverty on the continent[vi] (UNIFEM, 2005).[29]

In Africa, women's roles span the food-industry link via their processing and trading activities, yet their strength in these other domains remains untapped. In the expanding trade corridors of Africa, women's presence as traders of primary agricultural product has been variously documented[30]

[25] L. Mayoux, and G. Mackie, (2007**)**. Making the Strongest Links: A Practical Guide to Mainstreaming Value Chain Analysis in Development. Geneva: International Labour Organisation. Available at: www.ilo.org/wcmsp5/ groups/public/@ed_emp/@emp_ent/documents/ instructional material/wcms_106538.pdf.

[26] Joni Seagher (2009). Penguin Atlas of Women of the World, 4th Edition. Penguin Publishers

[27] Ellis, (2006): Agrarian change and rising vulnerability in rural sub-Saharan Africa. *New Political Economy*, *11*(3), 387–397.

[28] UNECA/WARDIS, (1997) and Tamirie, (1995) as cited by Wudenesh, (1999).

[29] UNIFEM (2005). Programming to Address Feminised Poverty in Africa. Regional Programme of Africa Region (2006 – 2011).

[30] Sudarkasa, (2005):The Status of Women in Indigenous African Societies. (in) Andrea Cornwall (ed) Readings in Gender in Africa. The International African Institute and Indiana University Press

(Sudarkasa, 2005),[31] (Morris & Saul, 2005),[32] (Clark, 2010),[33]). Women are also known historically to have gained skills in agro-processing (vertical integration into value chains), yet are not being capacitated to optimise these skills. In a World Bank agricultural survey, it was found that while over 60per cent of the population engaged in agriculture, 50per cent of women compared to 25per cent of men diversified into agro-processing[34], meaning that women arguably have the inherent ability to be entrepreneurial and to build value chains in the sector. But they lack the wherewithall, including capital and technologies, to successfully upgrade their products and their place in the value chain. Women farmers also have traditional niches of efficiency across countries, and across sub-sectors[35]. But they operate in sub-optimal conditions of low technological structure, low volume of business, poor market linkages and low incomes. It stands to reason that enhancing women's roles through value chains will promote higher levels of empowerment while at the same time generating higher value added, and growth, through the manufacturing and services ventures of women. The current scenario appears to be that export growth may have been occurring in these countries at the expense of the greater empowerment of women in agriculture.

In corroborating the statement above, a focus on the programming approach is relevant. A strategy that limits the participation of its most populous cohort to lower rungs of the transformation ladder shortchanges its own potential outcomes and impacts. The framework of CAADP as a transformation strategy is particularly instructive for what it says about the ways in which gender strategies are assumed to have been mainstreamed. Various analysts have claimed that CAADP's implementation framework lacks a clear gender focus. According to Bread for the World, (2013), in a follow up to CAADP + 10, most of the 54 African nation states have signed and adopted CAADP in their national agricultural policies by developing their CAADP National Agricultural Investment Plan. Although it has been shown that redressing gender inequality would be a game-changer in the fight against hunger and poverty, yet most CAADP-led national agriculture investment plans lack a clear focus on programming specifically for women farmers. One of the reasons given is that there are insufficient gender indicators to measure gender equality within CAADP, and this means that there is also insufficient basis for evidence-based gender-aware policy and budgeting. Others allude to the plethora of gender-mainstreaming frameworks adopted

[31] Morris Gayle and Saul, Mahir (2005): Women Cross Border Traders in West Africa (in) Boko S and Biliamoune-Lutz M. Women in African development. The Challenge of Globalisation and Liberalisation in the 21st Century.
[32] Clark, Gracia (2010) Clark: African Market Women' Seven Life Stories from Ghana. Indiana University Press;
[33] USAID-West Africa Trade Hub. Road Governance Studies http://www.watradehub.com/resources/studies.
[34] World Bank (2006, 2008): Gender aware programmes and Women's Roles in Agricultural Value Chains. A Policy Memorandum. Small Scale Gender and Agriculture Survey. Comprehensive Food Security and Nutrition Survey in Liberia (CFSNS).
[35] KITS, Afri-ProFocus and IIRR (2012). Challenging Chains to Change: Gender Equity in Agricultural value chain development (2012).

through institutional Gender Ministries. Yet, much remains to be said for raising the quality of life of rural women, the majority of whom operate in the agricultural sector.

In a recent mapping of gender initiatives in CAADP[36], it was found that most of the countries assessed scored relatively high in gender-mainstreaming of policies and programming for women, but scored very low in gender mainstreaming of budgets, meaning that policy formulation lacks necessary funding for implementation. Most gender progammes have weak conceptual and empirical basis, and also provide little room for follow-up Gender Action Plans which enable effective implementation and accountability. In the mapping study, programmes of CAADP generally had low female participation except in Pillar Three programmes, which focus on women's vulnerability and seek to promote subsistence activities towards household food security and poverty reduction (ACBF, ibid). And although several of the Pillar Three programmes are yielding results mainly in terms of welfare improvement, especially those being co-facilitated by development partners, women's participation in and benefits derived from the programmes of other Pillars have been very limited in scope and impact. The study also noted that national agricultural agencies lacked the skills and tools to design and implement gender programmes and the institutional mechanisms to include more women in the policy-making process was generally weak.

Effective mainstreaming of gender into all other Pillars of CAADP, such as in the ownership of productive assets such as land and water (Pillar One), better resources for higher productivity and integration into end markets (Pillar Two) and through gender-sensitive research and innovation for technological upgrading (Pillar Four), can lead to significant improvement in women's current contributions by enhancing their preconditions for entry and sustained participation in agricultural value chains. What policies and programmes are therefore in place within specific countries to address constraints and build on women's traditional capabilities and practices, as well as promote their entry into non-traditional niches?

3.3 Gender analysis of National Agricultural Transformation Policies

The evidence so far suggests that women are losing their traditional space to men as their products enter larger and more remunerative markets. Policies in the countries studied for this report were investigated to assess how policy-making processes and their macroeconomic contexts have enabled or inhibited women's entry as entrepreneurial farmers into value chains and to sustain their participation.

[36] ACBF, (2013): Mapping of Country Initiatives on Empowerment of Women in Agriculture. Assessment studies in selected African Countries prepared for the EWA Programme by Akanji, Bola and Policy Think tanks in Ethiopia, Burkina Fasso, Djibouti, Liberia, Malawi, Rwanda and Tanzania

per centper centOne of the Government of Zimbabwe's strategic objectives in its National Climate Change Response Strategy is to mainstream gender, HIV and AIDS and other vulnerable groups into all climate change interventions. Pillar 1 in this strategy is Adaptation and Disaster Risk Management. In order to foster gender-inclusiveness, such initiatives have been supported by the Government's commitment to apply gender budgeting within its current result-based budgeting approach. The Gender Budgeting and Women's Empowerment Programme launched by the ZWRCN in 2007 has, however, been found to be ineffective as research found budgetary allocations for planned women's empowerment programmes to be always inadequate. This was put to lack of political will and lack of gender disaggregated data, as well as limited civil society involvement in policy formulation and implementation.

In Uganda, the Ministry of Agriculture's (MAAIF) Development Strategy and Investment Plan (DSIP) is aligned to the National Development Policy. It was launched in 2010 to boost economic growth as part of CAADP. Although most of the stimulus for growth comes from sub-regional policies of trade liberalisation, much gain has accrued to local farmers through visibly enhanced incomes. It is tempting to look at the outcomes in Uganda as a means of assessing roles of women and men in relation to crops grown, overall food security and national output capacities. However, there is considerable variation from community to community in these issues and especially as affected by local policies and customs for gender equality. Thus the policies have had varied impacts on rural women, mainly due to the gender-blindness of some local policies, as well as deep-set socio-cultural norms which wrest the control of women's efforts in the farming systems from them, in favour of their husbands or men. In spite of a well-articulated gender policy for the agriculture sector, highly publicised gender mainstreaming initiatives, efforts to produce gender-disaggregated data by the Uganda Bureau of Statistics, spurred by the NAADs, and production of a gender sourcebook, the impact has been limited and gender inequalities still prevail in the distribution of outcomes from the growing commercialisation and trade expansion. At the same time, there are emerging coping strategies that have augured well for women farmers, especially in the fast growing pineapple value chain.

The Government of Mali has expressed its high commitment to agricultural development by taking into account the directives of CAADP, the agricultural development policy of the Economic Community of West African States (ECOWAS) and the Economic and Monetary Union of West African States (UEMOA). The promotion of land access and ownership, access to affordable energy and agricultural mechanisation are considered among the key enabling factors for the transformation of agriculture. There is no clear and specific standalone goal on gender-inclusiveness. This indicates the apparent weakness of these frameworks to benefit women farmers significantly, although at the implementation level, and especially through the Gender Ministry, targeted programmes have aimed to "include" Malian women in the stream of benefits. The formalisation of land tenure through land titling has been instrumental in women's access and use of land. However, this initiative has mainly benefitted women in the urban and semi urban areas

who have the financial resources to acquire land[37]. Rural women continue to face the pervasive unequal land tenure system with negative impacts on their productive, social and economic status. Advocacy efforts have been made by women's rights associations against the gender discriminatory customary land tenure and practices which coexist with the statutory land tenure system. However cultural and religious resistance means that little or no progress has been made. The main channel for Malian women to access land is through marriage or inheritance, but both are discriminatory against women. A married woman can access and use the land of her family or in-laws, land managed and controlled by the head of the family and community, who is usually a man. The situation is worse in polygamous marriages as different women are expected to access and use the same husband's land (or the land of his family) on an equal footing.[38]

Cameroon provides the only case study in this research of a non-crop subsector, fisheries. This yields important contrasts with other value chains. For this subsector, the strategy is to increase livestock and fish production in order to meet both the nutritional needs of the population and the raw material needs of agro-industries, while also achieving surplus production for export. Women account for about 70per cent of entrepreneurs in the fisheries sub-sector and a much lesser proportion in livestock production. Therefore any improvement in the fisheries system will boost the livelihoods of a great number of women.

Specific progressive programmes and policies for women are noted in a number of cases. Although much remains to be achieved in a holistic manner, these are pointers to the institutional strength for gender-aware programming and its impact on the continent and to gaps in policy-making that is called for.

Land Reform Policies

Although the African Land Policy draws attention to the issue of gender equity in land distribution, few countries have tackled this successfully and in specific ways. For the most part, customary laws, which are patriarchal in terms of inheritance and control, continue to govern day to day practices, irrespective of legislations. Therefore, while an increasing number of women have gained access to land, they still lack full control of their own plots where they can make independent economic decisions and gain access to the fruits of their toil on jointly-owned farmlands.

In Ethiopia, the *Land Certification Proclamation on Rural Land Administration and Land Use* PROCLAMATION NO. 456/2005 of the Federal Republic of Ethiopia (FDRE, 2005) which gives women the right to be mentioned by name in land certificates together with their husbands has created a sense of ownership among women. Thus women can in principle use land both as a

[37] USAID Mali, "Mali land tenure assessment report", September 2010

[38] Mali Country Study, by Aissata Traore, "Gender issues in the mango value chain in Mali", ECA African Women Report 2015

productive and a financial asset,. The policy is silent on the control of output from the land. The farming systems in Zimbabwe are dichotomised into formal and informal as well as three hierarchical systems of production – communal/resettlement, small-scale commercial and large-scale commercial. The majority of small producers (over 1.5 million households), and most women farmers are in the communal/resettlement category where about half are small commercial farms. It is therefore a basic right of women to access and control land in the resettlement areas, where they operate as independent farmers. As in Ethiopia, the recently implemented land policy of including the names of husband and wife or both partners in the titling of land under the Land Reform Programme further enhances women's access to and control over land resources in the communal settlement scheme. The Uganda Land Act 1998 also ensures equal partnership through district land committees, but male dominance often prevails due to rigid patriarchal norms and attitudes. The Uganda Land Alliance (ULA) website still shows that women own less than 9per cent of agricultural land and most women still have only usufruct rights on land through marriage, rather than through inheritance or direct purchase. In Mali and Morocco, Islamic law defines the rights of women to land and this is tied to their gender roles and responsibilities. The National Programme for Rural Infrastructure now supports women's access to land through the land titling programme. The strategy aims at promoting farmers' access to and control over land, tackling the many speculations on land in Mali and supporting farmers, male and female, to have access to productive land through a land titling system. In Morocco, while women contribute to labour on their husbands' land, they are not perceived as land owners. Recent gender policy in Morocco aims to address this, however, there are deep cultural barriers to overcome, reinforced by religion.

As a result of policies spawned by the African Land Policy, women probably work harder to improve the productivity of land that they now consider as jointly theirs, however, further research is needed to quantify and qualify the direct and indirect impacts of the land certification schemes on women farmers in Africa.

Policies to Improve Total Factor Productivity

Policies that enhance productivity of land are likely to enhance commercialisation and would also foster access to resources such as (adequate) credit for purchased, yield enhancing inputs, including skilled labour. These should also promote access to technological knowledge, skills and market incentives to invest in better land use practices and naturally improve total factor productivity (TFP). Several country initiatives sought to make this happen, although with varied specificity for gender-inclusiveness and ultimately varied gender impacts on TFP.

In Mali, to promote the competitiveness of agricultural commodity value chains, especially for the country's main commodities such as mango, the Government of Mali established the Agricultural Diversification and Competitiveness Programme (ADCP). Within this programme, a unit responsible for implementation of the country's Integrated Framework was created in order to strengthen the capacity of Malian farmers and the competiveness of Malian products. Support was

provided to the farmers, including through women's cooperatives that have developed for the processing of mangoes and other commodities. The ADCP also specifically takes account of several cross cutting strategies including the National Gender Policy for an effective integration of gender into the country's development including agricultural development, strategies on food security, HIV and AIDS, Information and communication and promotion of rural employment.

In Ethiopia, recent policies for improved extension services include the training of Development Agents (DAs) or Extension Agents at the village level (*kebele*) who play a crucial role in introducing new techniques and technologies to farmers and facilitate the implementation of government supported strategies. However, because more than 70per cent of these DAs are men, the MoA has designed a new Gender Sensitivity Strategy, which will be implemented within the coming year (2015) to ensure that more female DAs are trained and that women's organisations are mobilised to participate more in available technological transfer processes. This training will include gender sensitivity among male and female DAs. The Savings and Credit Associations have also been revamped to enhance access to credit for small businesses of women farmers. However, the question is the volume of credit and the appropriateness for the level of continuous upgrading that is required for value chain participation and sustenance.

The Gender Strategy for Zimbabwe's agricultural sector, developed by the Ministry of Agriculture, seeks to mainstream gender in the provision of agricultural support services. It is designed to enhance women's effective participation in the delivery of agricultural technical and extension, research, input supply, processing, marketing and distribution services as well as to ensure that both female and male farmers and other stakeholders in the agricultural value chain are adequately capacitated to effectively utilise them. Government support in the maize production systems through distribution of free inputs is also noteworthy. However it has had very little impact mainly because it has largely been targeted at the most vulnerable people (poorest farmers in subsistence production) who have little or no capacity to transform to commercial production. As observed by some national analysts,[39] the level of assistance has been inadequate, being spread very thinly among too many needy households. The Southern African Development Community (SADC), through its SADC's Agricultural Input Support Initiative has provided inputs primarily targeted at smallholder farmers in communal resettlement schemes and small-scale commercial farming areas[40]. These have contributed to promoting small farmers' access, yet men are better reached than women due to women's sheer numbers and relative poverty, including time poverty. Approximately 35per cent of rural households are headed by women and these households constitute the largest proportion of the poor.[41] The outcomes of this strategy especially in the communal settlement farming systems are limited also because the system is fraught with

[39] Chiukira and Juru, (2012): Maize and Soya Bean Value Chain Analysis, Zimbabwe Open University International Research Conference 2012, Harare, 30-31/08/2012

traditional norms and values, as well as a relative scarcity of purchased inputs needed by poor farm families.

The Ministry of Agriculture's Gender Strategy also identifies Farmer Field Schools as entry points for reducing the negative outcomes of gender segmentation based on the level of technology applied. This strategy has had some positive outcomes. For instance, although maize yields have been falling in the last one and a half decades, it has been possible for female farmers to maintain yield levels comparable with men's and even achieve much higher yields than men in some districts where women received targeted training and technological support through the Farmer Field Schools. It was reported that more women participated in extension training than men, although a gender segmentation was observed in certain areas. For example, few women participated in demonstrations of the use and maintenance of new farming implements or mechanical equipment or in servicing tractors and other farm equipment.

Box 3.2: Effect of Gender Norms on Women Farmers' Technological Capacity in Zimbabwe

A strategy report of one of the Agricultural Colleges noted that there were hardly any girls or women in the final year of training who could drive tractors. Most admitted to not effectively participating in servicing tractors because it was hard work that involved heavy lifting. This pattern was reflected at the farm level where this type of work was reserved for men. The strategy report identified the need to ensure the full participation of women in all areas of training so that they could demonstrate to women at the farm level that technological barriers could be overcome. Stringent requirements for all students' participation in all aspects of training and work needs to be put in place in the college curriculum and in the results-based approach.

Uganda's agricultural strategies aim to promote access to farm inputs for small farmers through the MAAIF initiatives. The achievement of this goal still falls short due to pervasive gender inequalities in access. Despite the increased awareness and the availability of information on existing gender disparities in agriculture, the country's extension services have not successfully addressed gender in the design and implementation of programmes. Women therefore have limited access to extension services due to lack of attention to different gender roles and needs in the curriculum and training of extension workers. There has also been inadequate gender attention given to the development of technologies for crops, livestock, fisheries and forestry development. Studies in the country (see MISR 2012) on mainstreaming gender through the NAADS programmes have shown that women continue to have limited access to training opportunities because of gender insensitive training programmes, including in the availability of women to participate. The assumption that training and information provided to men will be transferred to women farmers in their households does not hold true in most cases.

There are several successful initiatives and practices that can be built upon in the provision of credit, mainly through policy support for savings and credit cooperatives (SACCOs). The increased formation of networks has fostered more than credit, but also the transfer of knowledge and training opportunities, including showcasing model farms.

Policy Initiatives for Market improvement

Specific programmes fostered through Ethiopia's Agricultural Transformation Agency (ATA) have yielded positive results for women in agriculture. These include promoting access to market information through the utilisation of mobile phones to obtain price information from regional markets, known as the IVR/SMS system and the 8028 agricultural hotline for smallholder farmers.

The most significant institutional safeguard for the marketing of agricultural products in Zimbabwe is through the guaranteed buying scheme of the Grain Marketing Board (GMB). Yet, the benefit to women is limited due to many administrative bottlenecks to timely payment as well as unrealistic buyer prices that preclude the participation of private buyers mainly from the secondary value chain of crops such as maize. While the government buying scheme does not intentionally disadvantage women, problems including women farmers' small volumes, poor rural access to buying centres and, often, women's risk aversion to seeking alternative (private) markets has made the policy less beneficial to them.

The Malian Agricultural Diversification programme was adopted by the government with the objective to support access to global markets by actors in the mango value chain. Women who have succeeded in entering the mango value chain therefore stand to benefit, but if and only if their specific and gender-based challenges are addressed. The Integrated Framework was established following the diagnostic study on mainstreaming trade (DSMT) which highlighted constraints that hamper economic and social development in Mali. The programme has a gender component at the Executive Secretariat level in Geneva and at the national level. Women are involved in the design of trade-related programmes through their representation on the steering and monitoring committees and also as the main beneficiaries of such programmes under the DSMT.

Fresh pineapples from Uganda face competition from those grown in Kenya. Women producers are most affected by competition over standards due to their more limited access to processing, packaging and preservation technologies. As a result of their low capacity, women farmers seem to be losing market share to men. Although women are largely responsible for selling and marketing traditional crops such as maize, sorghum, cassava and leafy vegetables in local markets, when urban markets for these traditional crops expanded rapidly, including into Cameroon and Kenya, men became the major marketers. The challenge was, as usual to ensure that women retain control over their marketing as well as their roles in production systems. In Uganda, a strong demand for leafy vegetables (traditionally a women's crop) grew in Kampala markets in recent times. Men have rapidly taken over the cultivation of these vegetables, leaving women as mere

labour providers. The same trend was observed in Côte d'Ivoire's cocoa expansion projects[42]. In such situations, women's ability to derive more benefit from changes in global and national economic conditions, including through regional initiatives such as the African Growth and Opportunities Act (AGOA)[vii] are being shortchanged by negative gender power relations in households and communities.

Agribusiness Development: Small and Medium Enterprises Growth

The emphasis of policies and programming for women's agri-business capacity, especially off-farm, is driven by the perceived key roles of women as well as their rights to land as a key productive asset. In countries where land access has been promoted and women operate as independent farmers, policy leverage tends to be applied mainly on-farm to the exclusion of related off-farm enterprises. On the other hand, where women are not perceived as land-owners, policy leverage has been applied to off-farm enterprise development. In Zimbabwe and Uganda, value chains are promoted for commercial farming and marketing while in Mali, Morocco and Cameroon, there has been more leverage on processing and marketing activities. It may therefore be inferred that value chain development policies for women are being driven by traditional gender norms of roles and rights and how these can be applied for income generation. Very few countries have focused on both the on-farm and off-farm strengths of women. This may be one of the policy lapses that have limited the growth of agricultural value chains.

In Zimbabwe, this is evidenced by the plethora of programmes that have been supported by government to improve maize output through input support.[43] By contrast, the growth of maize processing has depended more on private sector initiatives. The few initiatives that cut across farm and off-farm domains have been spearheaded by local NGOs and other development partners in the country. For instance, the acquisition of hammer mills by women's groups to provide milling services in their communities was funded by Development Partners. Much more still needs to be done to transform the scope of women's agribusiness beyond the primary sector.

Building Organisational Capacity

Women's limited networking and business organisational skills tend to impede their participation in beneficial programmes for innovation transfer. Access to information and support mechanisms outside the immediate rural areas, such as through export promotion programmes and membership of chambers of commerce, are becoming increasingly critical in linking farmers to the market for innovation and "rents" as well as in providing direct links to the end markets for the products of women's (localised) value chains activities. Some promising initiatives to foster the establishment of cooperatives in the different countries are worth noting.

[42] Mayoux, L. (2009). Engendering Benefits for All. http://www.thebrokeronline.eu/Special-Reports/Special-report-The-power-of-value-chains/Engendering-benefits-for-all

[43] Chiukira and Juru, (op cit).

Agricultural cooperatives in Ethiopia are established under Cooperative Societies Proclamation No. 147/1998 (FDRE, 1998). The local level '*kebele'* system[viii] has also had a very positive impact on women farmers by making it easier for them to access vital inputs such as seeds and fertilizers from government controlled farm services centers. This focus grouping has allowed women to voice their concerns and also share their knowledge. Establishment of *kebeles* is however compulsory only at the local level; thus the voice of women farmers is not strong at the national level. This has precluded the emergence of broader alliances for addressing women farmers' needs and connecting them with relevant institutions nationally and globally.

In Uganda, the role of community development associations has been much stronger in fostering the empowerment of women by enhancing the reach of government agencies through a growing number of women's cooperatives. Three government-owned bodies with a specific gender mandate in this area are the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), the National Agricultural Research Organisation (NARO) and the Kawanda Agricultural Research Institute (KARI). MAAIF, NARO and KARI, work through women's cooperatives to ensure that women farmers are given requisite knowledge in new seed varieties and planting techniques. In a complementary activity, Volunteer Efforts for Development Concerns, a local NGO, gives seeds mainly to female farmers. At the same time, training programmes organised by National Agricultural Advisory Services have recently attracted a large number of women. Such programmes have increased women's roles in decision-making positions in mainstream farmers' organisations. However women's leadership roles in these organisations still remain very low-key.

In Mali, women farmers and producers of mangoes are organised into different associations and cooperatives such as the National Federation of Rural Women, Networks of Women Entrepreneurs etc. In addition women are members of the five federations that composed the national Inter-Professional Organisation which coordinates and manages the various actors and activities of the mango value chain.

3.4 Emerging Policy Issues

A number of important policy issues emerge from this review of Africa-wide and country-level macroeconomic and policy contexts that can help to articulate specific contexts for primary research at country level:

- Africa's growth pattern indicates insufficient development of value chains despite positive agricultural growth. It shows that greater scope exists for value chain development than African countries are presently exploiting. Given the rapid growth in commercial agricultural production, more vertical and horizontal linkages are possible to expand the benefits of recent growth into value addition and employment opportunities for large numbers of poor women and a teeming youthful population.

- Despite several progressive initiatives to transform agriculture and empower small farmers, there may be an insufficient number of specific gender-inclusive programmes to advance women's empowerment in agriculture. Thus many "progressive" programmes may still be flawed in terms of accountability to women, as entrenched in the overarching (but also non-sector-specific) AU declaration on Gender Equality and the more recent declaration of the year of Women's Empowerment. The causes are not unrelated to the well-documented low participation of women in the policy-making and programming process, which has been seen to plague many countries' policies[ix].
- Control over land is important both for production and for generating additional income through value chains. Although the land certification policy has been effective in giving access, the size of land available to women is still an issue that needs to be addressed. Also, it is doubtful to what extent these strategies for land access have improved women's rights to decision-making over land-related issues within households. The findings of the primary research on access to and control of, not just land, but the products from land are instructive as to the holistic benefit of land reform schemes across the continent.

  Many existing agricultural programmes are aimed at small farmer commercialisation and empowerment in general but they fail to reach huge proportions of women farmers due to peculiar challenges that they face that preclude their availability and active participation. Gender-neutral policies and programmes will not lead to gender-inclusive value chain development.

Consequently,, while the macroeconomic and policy contexts are critical especially to stimulate the right environment for response of farmers to incentives, they may be insufficient to engender equitable participation of all potential agents, especially the most vulnerable and systematically excluded groups. The policy context in the individual countries towards the empowerment of women and for agricultural transformation needs to be shaped by the right combination of national macroeconomic dynamics, global macro-economic stimulus and deliberate policy actions at the micro or local level. Such systems that seek to promote gender equality both in processes and outcomes, with well-developed metrics of policy effectiveness and accountability to women will be key to expanding the potential benefits of the emerging transformation agenda to all. Otherwise, these policies will fail to generate holistic outcomes of the macro-economy. The primary research further exposed specific policy contexts which are either gender-neutral or gender-specific, and how these enable or inhibit women's capacities as actors and operatives.

Chapter Four: The Economic Importance of Selected Commodity Value Chains

4.0 Aggregate Demand as Push Factor

The dynamics of aggregate demand in different countries and across the globe are often relevant to the evolution of commodity value chains. Generic value chains may often develop as a response to some policy incentives, such as a ban on the importation of competing products or specific leverage on commodities of national comparative advantage, or even price incentives in the global supply chain.

4.1 The Economy of Teff in Ethiopia

Ethiopia is the centre of origin and diversity of teff, also known under its scientific name, *eragrostis teff*. The cultural and scientific importance of teff is summarised below.

Box 4.1: Attributes of Teff

- *Eragrostis Teff* (or *Maskal Teff*) borrows its scientific name from Greek. It means "the grass of love" from Eros – love, and agrostis – grass.
- Teff is 100per cent gluten-free
- Teff requires only 36 hours to sprout, the shortest time for any grain
- For its survival, teff uses a type of photosynthesis called Carbon 4, which makes it the most resistant grain at high temperatures
- Three thousand grains of teff weigh just one gram. One pound of teff seeds can produce up to one tonne of grains in only 12 weeks. This amount is hundreds of times smaller than that required for planting wheat.

Teff is the pride of Ethiopians as it is engrained in the culture, tradition, and food security of its people. This ancient staple crop of Ethiopia started to grow in global importance due to the growing expatriate communities of Ethiopians across the globe, especially in the United States, fueling the spread of the traditional food through restaurants and food stores. It was also recently fueled by the search for healthier alternatives to the basic calorific staples.. Teff has huge potential for improving the incomes of farming families. Export of the commodity also has the potential to increase foreign revenues and improve Ethiopia's international terms of trade. Though Ethiopia's climate limits her natural resource endowments, while her geographical status as a land-locked country affects trade, teff has the unique potential to break through such constraints.

Grown by an estimated 6.2 million farmers,[44] more than half of them women, teff is cultivated on more than 20per cent of all arable land in Ethiopia. Production is spread across the heart of the

[44] Demeke M., Di Marcantonio F. (2013). Analysis of incentives and disincentives for teff in Ethiopia. Technical notes series, MAFAP, FAO, Rome.

country, making consumption accessible to every corner of Ethiopia. The capital, Addis Ababa is strategically located to capture the modernising consumer market for injera into supermarkets and the growing export market (Figure 4.1). In the 2012/13 during the main rainy season known as the *Meher* crop production season, the total area covered by teff was 2,730,273 hectares, which was about 22.23per cent of the total cultivated land in the country and it contributed 16.25per cent (3,765,241 tons) of the total crop production of the country. Therefore, the crop stands out for its broad land coverage and high production next to maize when compared with all the cultivated crops during the 2012/13 *Meher* cropping season[45]. Unlike most crops that have cultivation advantage in only specific climatic zones, teff can be produced in a wide variety of climatic conditions, hence this resilience has contributed to its popularity as an economic crop. Depending on the location and maturity period of the cultivar, it is grown during the main *Meher* rainy season between July and November, but also during the small rainy season (called *Belg*) between March and June, allowing year-round production. Teff has the shortest gestation period of all crops in the country, from 60 to 180 days depending on the variety and altitude, with an optimum gestation period of 90 to 130 days. It is generally cultivated as a mono crop, but farmers who use multiple cropping systems benefit from soil conservation and better yields over time**.** Teff is the highest-priced cereal grown in Ethiopia. On average, the price of teff increased by 200per cent between 2005 and 2010. In 2008, the price of teff, wheat and maize reached a peak, causing concern about food security. Teff is especially targeted by speculators forcing the Government to intervene, sometimes with harsh measures, when artificial grain shortages and high price inflation are provoked by hoarders and speculators.

Teff promises to be a commodity that can contribute to food security and poverty reduction among Ethiopia's largely rural populationThere is considerable political support for development of the teff value chain in the country. This support is founded on recognition both of the growing economic benefits, as well as the need to regulate the development of improved varieties such that they do not compromise the germ-plasms through genetic modification (GNO varieties).

[45] CSA.2012/13. Agricultural Sample Survey: Area Planned and Production of Major Crops, Ethiopia Maher Season. Vol 1.

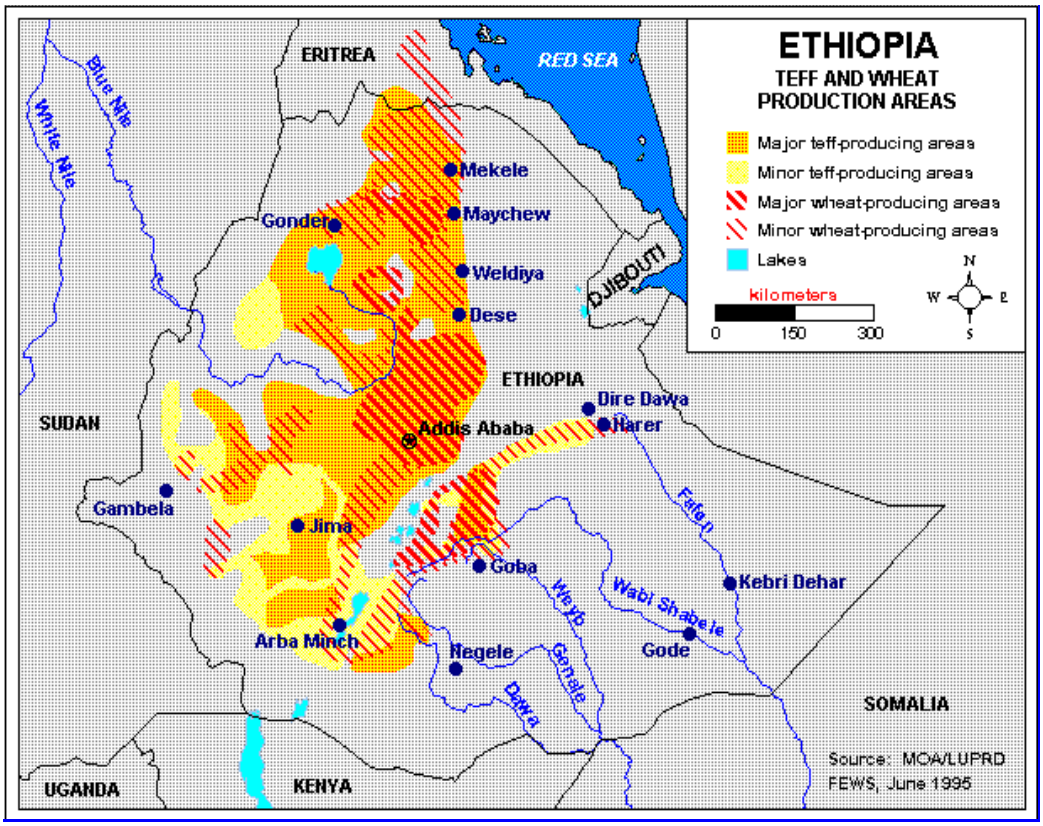


Figure 4.1: MAP of Teff production areas in Ethiopia
Source: *Distribution of Eragrostis Teff in Ethiopia (adopted from* (Yumbya *et al.* 2014: 14)

Teff production is highly labour-intensive and depends mostly on family labour as well as communal and some hired labour. The production season is virtually year-round and fully engages operators through the different seasons in one activity or another, including cultivation, harvesting and threshing, utilisation of the residue for storage barns, together with milling and injera baking, which are year-round activities in almost every Ethiopian household.

4.2 The Maize Economy in Zimbabwe

Maize is the most important grain crop in Zimbabwe as it is the major food staple for the majority of the population. The second most produced food crop in Zimbabwe after sugar, maize accounts for 76per cent of the cereal diet and 47per cent of the total diet. At least 1.5 million tonnes of maize are consumed by humans each year, and an average 350,000 tonnes is utilised by other commercial users, including the stock feed industry, while the remainder gets used for seed and other industrial purposes. Maize is consumed as raw grain, processed into maize meal or alternatively used to make a variety of other products and by-products, including flour, oil, samp, maputi and grit, which is used in making snacks or stock-feeds.

Zimbabwe is divided into five ecological zones with Natural Region I being the highest potential one and Natural Region V the lowest potential zone. All producing areas combined cover

averagely 390,700 square miles. Maize is cultivated throughout the country in all the five natural regions, inclusive of very low potential areas. Natural Regions II and III, covering about 130,000 square miles, account for 84per cent of total maize production while Natural Region IV, covering almost 200,000 square miles, has the largest area under maize production but records the lowest yield. The map below shows the geographical location of the five agro-ecological zones.

Figure 4.2 shows the coverage of maize in each Natural Region and showing the production locations in the north central region of the country. Being fairly central, access to markets throughout the country is enhanced as well as to neighboring countries of Mozambique and Zambia, facilitating export of finished products. The economic advantage of maize is high and its growing value chains continue to provide employment for millions, including women in rural and urban areas.

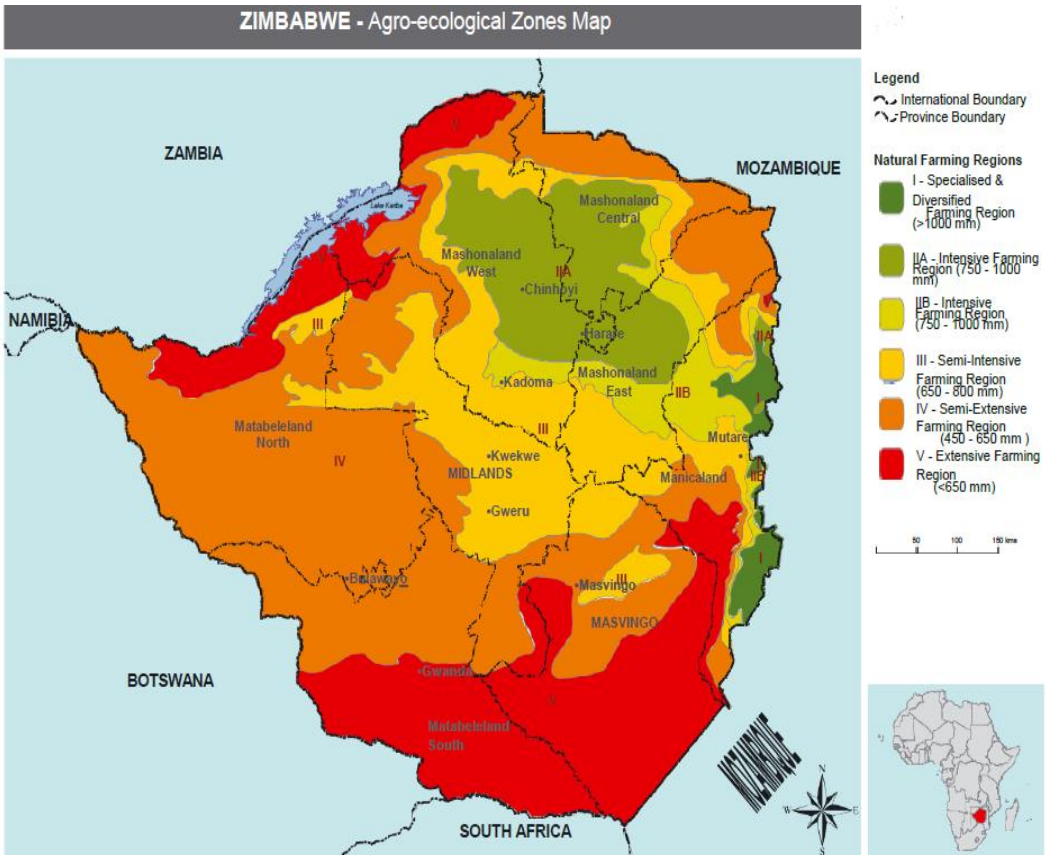


Figure 4.2: Agro-ecological regions of Zimbabwe in conformity with climate variability and change. Source: Adapted from FAO and Surveyor General's Office.

Table 4.1: Area Covered by Agro-ecological Zones in Zimbabwe

Natural Region	Area covered (in square km)	per cent of total area
I	7,000	1.80
II	58,600	15.00
III	72,900	18.70
IV	147,800	37.80
V	104,400	26.70
Total	390,700	100.00

Source: Extracted from Progression Zimbabwe "Seed Saving and Climate Change"

Generally, maize productivity has been declining because of external climatic shocks and macroeconomic challenges. Adverse climatic conditions have had a negative effect on the economy because of the pivotal role agriculture plays. As one goeshigher into the maize value chain, adverse climatic conditions affect women more disproportionately than men. For example, during the economic crisis period of 2007-2009, many businesses closed down, including numerous grain millers. In 2008, membership of the Grain Millers Association stood at 325 men and women. Currently, membership stands at 55, with no female member at all. Most women closed their businesses because of economic hardships, lack of access to capital and a restrictive operating environment. Apart from the fact that women found it more difficult to access the limited available capital, they were also less willing to take risks than men.Despite all government efforts, maize yields continue to fall due to input unavailability, late delivery and high costs. However, there are pockets of high performing production, including farms managed by women. There is ample potential for increased yield, up to 13 metric tonnes/ha, even among women farmers, if given the right support including enhanced access to resources. Women have demonstrated high technical efficiency on male farms where inputs are more readily available.

The Maize-to-Maize Value Chain Analysis operates at five levels of activities, namely seed producers, traders, processors, retailers and households. The maize value chains also constitute four sub-chains, namely:

1. Maize seed value chain
2. Maize food value chain
3. Maize stock feeds value chain and;

4. Maize industrial value chain

These sub-chains are essentially interlinked at the seed production stage. Subsequent sub-chains depend on utilisation of the maize seed. The majority of players can be found in the maize production stage. Other players are maize millers, food-processing companies, breweries (wet millers) and supermarkets. Others are livestock feed companies, livestock farmers, wholesalers and retail traders. There is also upstream utilisation of maize in manufacturing companies for vegetable oil, paper, paint and textiles. The government controlled Grain Marketing Board and private silo operators are also key actors in the four sub-chains.

Figure 4.3 depicts the emerging maize value chain, which shows integration of all the main sub-chains. It shows that the chain is a simple one up to the production of maize (from seed maize to maize crop). The sub-chains are constituted at the processing and utilisation stages. The maize crop production stage is therefore where the majority of actors are found. Women farmers make up a very significant proportionHowever, women begin to disappear as main agents in the processing and utilisation stages although they continue to operate as employees or wage workers, including as managers. Thus women's participation is critical in all sub-chains of maize.

There are two types of industries, primary and secondary. The formal primary industry constitutes big commercial producers, silo owners and big millers (dry and wet milling), while the secondary informal maize value chain constitutes small-farm maize producers and small individual hammer dry and wet milling industries. Informal activities are often confined to the farm gate, the local market and, increasingly, cross border markets. The actors in the informal chain are mainly farmers in the communal resettlement schemes, which are either family farms or small male- or female-owned maize seed farms. The majority of women actors (farm owners) are found here. Women are also found as wage workers in expanding commercial schemes. The pull factor here is the growth of the secondary market and the formal value chain. The main actors here are small and large commercial farms as well as millers, handlers and marketers, mostly male.

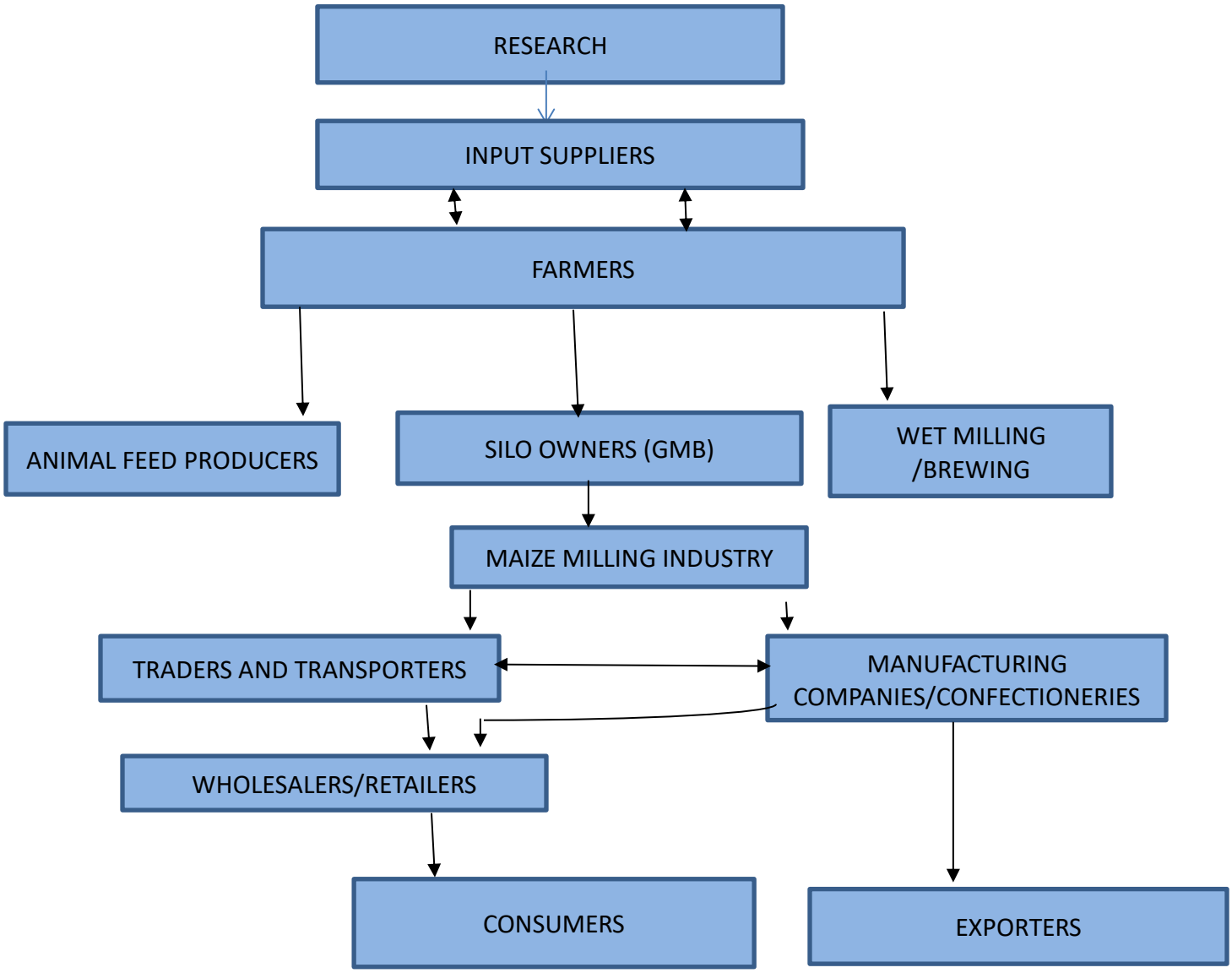


Figure 4.3: The Comprehensive Maize Value Chain in Zimbabwe

4.3 The Pineapple Economy in Uganda

Smallholder horticultural farmers are scattered all over Uganda's agricultural provinces, though the majority of pineapple growers are found in thpe central region of the country (see Figure 4.4). Pineapples mostly grow in the central region due to the favourable tropical climate. This map shows the strategic access to Kampala and other big markets in the country, as all roads that are major trade outlets are connected to the city and central region. Government efforts continue to expand this rural-urban connectivity.

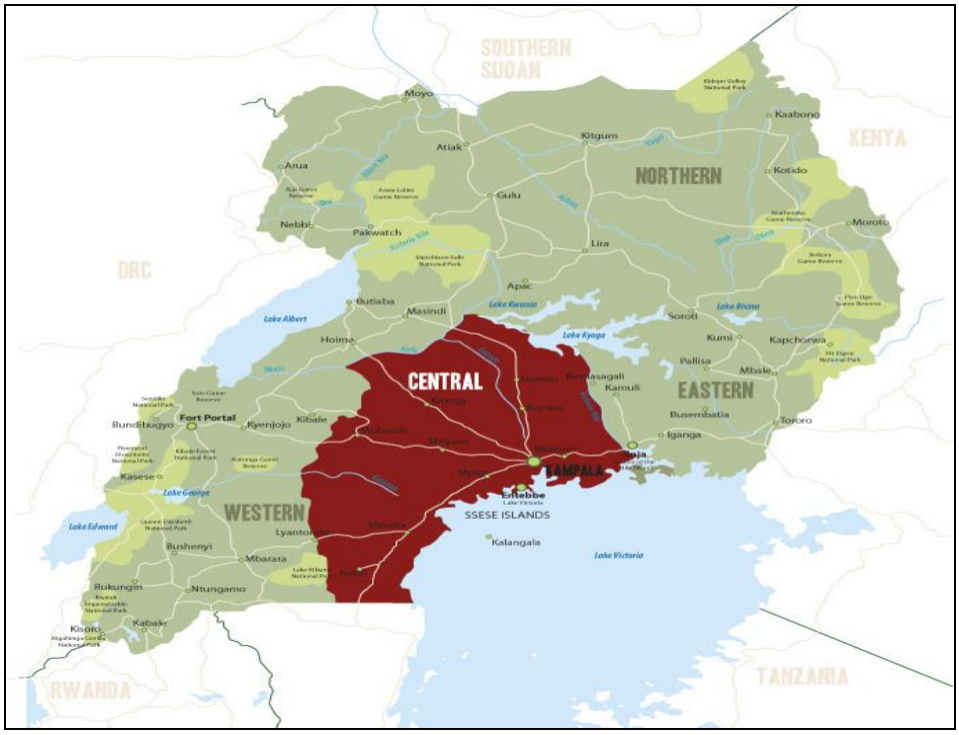


Figure 4.4: Map showing major pineapple growing areas in Uganda
Source: Map extracted from the Internet

There are two distinct systems of production. The first is the indigenous production of conventional fruits, which is often geared towards the domestic market and depends on family and unskilled labour, especially women's labour. This type of production is characterised by low input in terms of suckers, agrochemicals for pest and disease control, improved planting materials and soil fertility enhancing measures. The second system is that of organic pineapple production, which is geared towards the export markets concentrated in some parts of the sub-region and the European markets. This is more 'modern' (or commercialised) in terms of production methods and more formal in terms of the organisation and governance of the chain. Typically, men dominate this system due to their access to support services and export bureaucracies.

Pineapple is produced mostly as a smallholder crop, and is often intercropped with bananas and other fruits like papayas. The climate in Uganda makes it possible to harvest pineapples twice a year, unlike other areas in the world, which gives Uganda a competitive advantage. The production season is also staggered, which increases all year availability of pineapples and reduces the scarcity in the off-peak months. While these conditions provide the incentive for women who are renowned pineapple growers to intensify and expand their production, this same incentive has brought more men into the farming system, especially since they tend to have greater access to expansive land and requisite technologies for commercial production.

Another inhibiting factor for female expansion is that production inputs are very specific and critical for good output in both farming systems, which makes this a specialised farming system. It is difficult to grow pineapples without such inputs as coffee husk for fertilisation, which is very expensive. As indicated by farmers in the study, at least 3 lorry-loads of coffee husk are required for 0.4 ha of pineapple plantation, each lorry costing between Ushs 273, 000 and 381, 000), equivalent to 91 to 127 Euros. It was reported[46] that cattle manure and surface mulching with banana trunks and leaves were an important source of organic manure in a banana-based cropping system. However, the results of the present study show that the amount of cattle manure and surface mulching applied is very negligible and always inadequate for a pineapple plantation. All organic pineapple plantations with plantains are fertilised with coffee husk.

While the products for the local market get no pre-treatment prior to marketing, those for export purposes are brushed before packing and are trimmed to leave a stalk of 1 inch for holding the fruit during movement from the field; for fruits produced for the local market, stalks are completely broken off. While grading for local markets takes place by the retailers' market preferences, those for export are graded according to colour and size and only pineapples weighing 2 to 2.5 kg are exported. Given the complexities associated with the exporting process, only a few educated and privileged women are targeting the international markets.

There are also a few big names who are directly linked up with associations of small farmers who operate as contract farmers. Apart from these well-connected women, the commercialised sector is male-dominated in terms of ownership (actors). Government efforts to support the growing pineapple economy has been targeted to these coalitions and corporate farms [x] rather than individual farmers. For instance, the government recently, under the Presidential Support to Farmers programme, gave processing equipment to Sunrise Farms to enable produce to be converted to juice and dried fruits. It also tried to improve the main road to Zirobwe, enabling pineapple growers to transport fresh fruit to bigger markets in Kampala and from there to wholesale marketers bound for The Sudan.

[46] Bekunda andWoomer (1996): Organic resources management in banana-based cropping systems of the Lake Victoria Basin, Uganda. Agric. Ecosys. Environ 59(3): 171-180.

Figure 4.5: Pineapples Intercropped with Bananas in Luwero district, Uganda
Photo by Juliet Kiguli, Field work, 2014

Pineapple production is rapidly evolving into a major niche for farmers' empowerment. In national and local markets an average of 40,000 pineapples are bought each day by groups of traders and sold to different buyers while the regional market channel continues to grow as importers from Kenya and South Sudan seek produce from pineapple markets in Kayunga and Luwero districts, often going deep into farming communities to engage contract farmers, paying them ahead of harvest. This has been a major means of addressing the barriers of high cost of production for small-scale farmers. The question is, how systematic are these systems of support and to what extent do they enable women producers to transition into the more lucrative nodes of the value chain? Figure 4.6 shows the growing integration of the Pineapple Value Chain in Uganda.

The pathway for pineapple production, processing and marketing in Uganda is split into four channels: (i) the domestic conventional products channel; (ii) the regional market channel; (iii) the export channel for conventional fruits; and (iv) the organic exports channel.

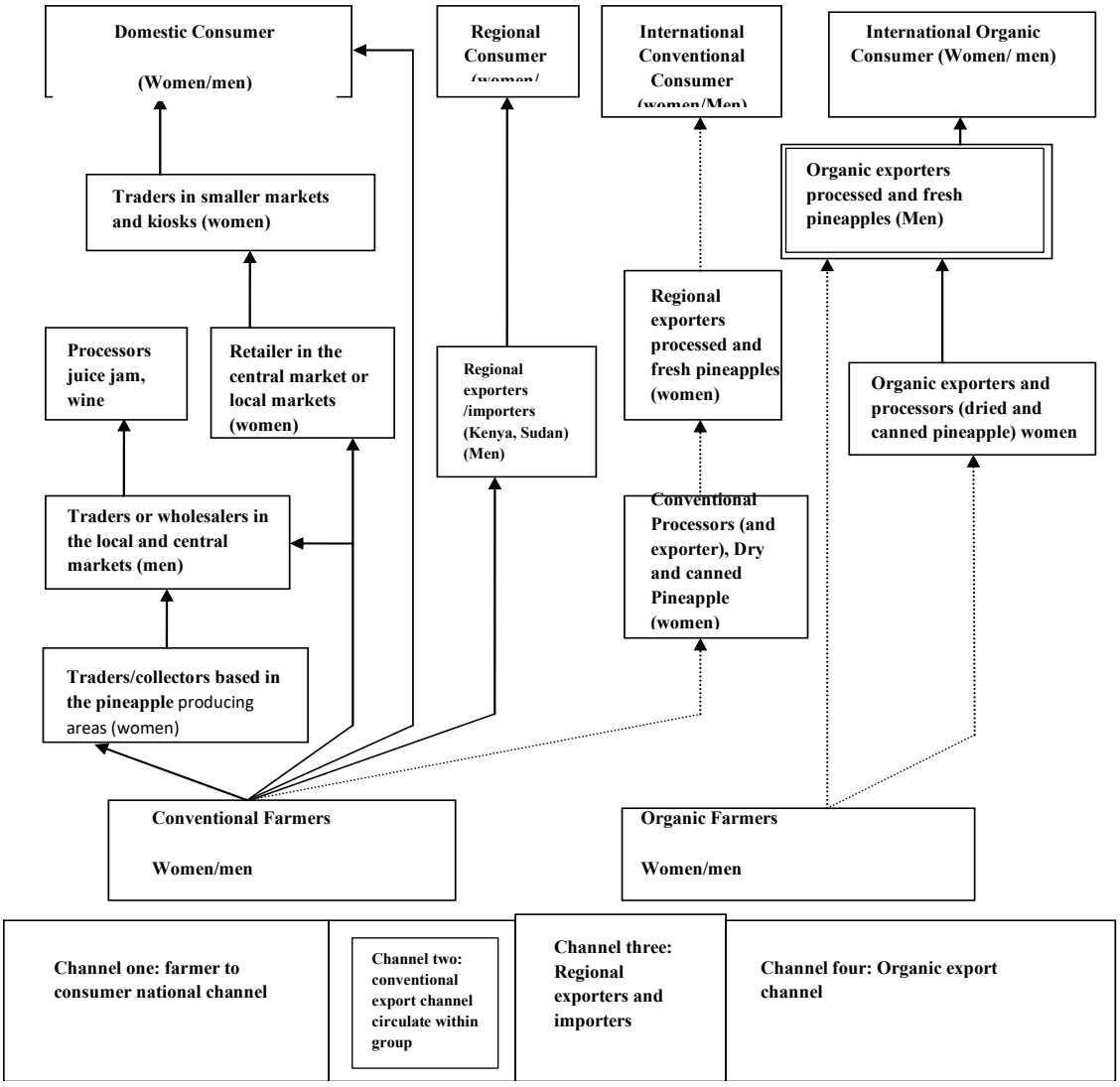


Figure 4.6: "Farm to Table": Market linkages for Pineapple in Uganda
Source: Juliet Kiguli, modified from Semwanga Consulting Ltd, FIT Uganda Limited Fruit sub-sector Market Study (2006).

Channel one: the domestic market

The domestic pineapple market chain is controlled by wholesalers in district central markets and larger central markets. Examples are Luwero district market in Luwero sub-county and St. Balikuddembe Market in Kampala. Most of the retailers swarming to central markets for bulk supplies are women from the cities seeking additional income generating activities while many of the wholesale stalls are owned and operated by men. The male wholesalers often also have retail stalls and supply directly to food stores, restaurants and hotels. Women operate within this channel as actors (farmers, sellers at the farm gate and retailers in consumer markets).

Channel two: the regional market

Fruit importers from Kenya and Southern Sudan buy produce from the pineapple markets in central markets, especially in Kayunga district. They sometimes go as far as the farm gate during the off-peak seasons and may buy on informal futures markets in pineapple fields. This often results in local price hikes for consumers but is favourable for farmers. Women pineapple farmers claim that this trend favours them.

Channel three: the export channel (fresh and dried conventional pineapples)

In Kangulumira sub-county and in Luwero sub-county there have been attempts by export companies and non-governmental organisations such as the Volunteer Efforts for Development Concerns to process pineapple into its dried form. During the last season, for example, Ugandan dried fruits company, Fruits of the Nile, purchased dried fruit from 110 farmers at 85 different sites. The drying technology is simple and has been passed onto farmers who in turn supply the fruits to exporters. This channel is dominated by the more educated farmers who can obtain credit to purchase the drying technology and also comply with required quality standards. Women farmers tend to be disadvantaged in this lucrative node of the chain.

Channel four: organic exports

This includes the production and marketing of both fresh and dried pineapples of the organic varieties. The farmers are mobilised by exporters to produce under a controlled system of production, which is certified by the exporting company. Contract farming is prevalent in this system, under which contract farmers receive training and sell at premium prices. A trail blazing study carried out for the integrated assessment of the organic agriculture policy[47] found that farmers sold fresh organic pineapples at Ushs 900 compared with Ushs 500 for the conventional variety. However, a large volume of organic fruit is still sold as non-organic due to quality controls and limited local demand. Fewer women are found in this system, again due to strict standards of practice and the time constraints of women farmers when it comes to undergoing training[48].

4.4 The Mango Economy of Mali

The agriculture sector accounts for 45per cent of the Malis's GDP and employs about 80per cent of its work-force, with women constituting the majority.[49] Mango remains one of the main products grown in Mali. Traditionally it was produced by smallholders in the southern part of the country because of climatic conditions favourable to the production of mangoes. Most of the mango crop was consumed locally and sold in neighboring countries. As part of the Government of Mali's efforts to promote agricultural development through agricultural diversification, investment was made in the development of agricultural value chains with mango being one of the targeted commodities because of Mali's comparative advantage in the sector. Mango has a special social and economic importance in Mali, providing income to a significant part of the population and contributing to poverty reduction and to the improvement of the livelihoods of women in

[47] Tumushabe Joseph et al (2000) Gender and primary schooling in Uganda, IDS research report No. 42.
[48] FIT Uganda Ltd and Semwanga Consulting Ltd. Fruit Sub Sector Market Study, 2006.
[49] The World Bank, 2010, "Growing Mali's Mango Exports: Linking Farmers to Markets through Innovations in the Value Chain".

households. However, the mango value chain is yet to reach its full potential owing to several challenges, including the lack of technological upgrading of the sector, high transaction costs due to the fact that Mali is a landlocked country and limited access to global markets as a result of the latter. Poor organisation and coordination among the producers is also identified as a major challenge.

Through the national agricultural diversification strategy, the government has made efforts to support the mango value chain with a view to promote rural development and tackle poverty. The diversification strategy fits into and is coherent with the National Strategy for Poverty Reduction (Stratégie Nationale de Lutte contre la Pauvreté, SNLP 1998); followed by the adoption in 2002 of the Strategic Framework for the Fight against Poverty (Cadre Stratégique de Lutte Contre la Pauvreté - CSLP Final) as the main reference policy document and guidance for the socio-economic development of the country. The gradual development of the mango value chain is therefore producing a positive impact on farmers, including smallholder producers, and is translating into government revenues through taxes. The economic importance of this commodity is a major motivation for government efforts as it has huge potential as a crop of national growth and global integration.

As can be seen in Table 4.2, mango exports from Mali is increasing. Mexico is the leading supplier of mango in the world with exports estimated at over 275,000t in 2010 (Haidara, 2012). Mali holds the 17th position among exporting countries across the world.

Table 4.2: Major Mango Exporting Countries (2006 to 2010)

RANK	MANGO EXPORTS, tonnes				
	2006	2007	2008	2009	2010
Mexico	232.376	235.995	226.083	232.643	275.366
India	253.151	239.751	281.669	267.617	182.974
Thaïland	29.777	61.026	61.608	144.079	144.56
Brazil	115.724	116.271	133.944	110.355	124.380
Hong Kong	19.988	41.589	42.853	104.441	99.386
Peru	82.685	82.675	82.696	69.191	96.942
Mali	8.554	6.586	8.056	n/d	13.908
Côte d'Ivoire	15.374	16.877	12.949	13.763	12.975
Burkina Faso	n/d	8.101	6.458	5.355	6.915
Senegal	7.051	8.865	7.164	6.650	4.165
Ghana	156	711	779	332	8
Others	375.744	440.710	441.405	490.058	488.356

TOTAL	1,140,580	1,259,157	1,305,664	1,444,484	1,449,941

Source PCDA Report

Mali is ranked as one of the leading mango producers in the West African sub-region, due to the taste and quality, diversity of varieties, broad coverage of many production areas and national output, which is estimated at between 30,000 and 60,000 tonnes per annum. About a quarter of this is consumed within the country, with considerable post-harvest losses. Only a minute proportion is currently processed using mainly traditional methods and predominantly through women's micro-enterprises. Industrial processing of mango is carried out by two major industrial units, CEDIAM and COMAFRUIT, where the workforce is dominated by women; and a jam factory at Yanfolila which is a medium enterprise fully managed by a cooperative of rural women. Fresh mangoes, which have been exported for several decades, are beginning to gain ground as a contributor of economic growth as production volumes increase each year. The number of countries importing mangoes from Mali is also widening and include European countries (France, Netherlands, United Kingdom, Germany and Belgium) and some Gulf countries, as well as neighbouring countries like Côte d'Ivoire, Senegal and Mauritania. The exportation of fresh and dried mango from Mali promises new opportunities when we consider that major mango exporting countries in Latin America and Asia are farther from Europe than Mali and that most of them do not have capacity for arable land expansion to establish new plantations, while Mali is yet to exploit its full production potential. New opportunities continue to emerge like the use of refrigerated trucks bringing fruits and vegetables from Morocco for export from Mali. The growth rate of mango imports from Mali is above 10per cent for most importing countries, with the highest growth rate of 193per cent occurring in Hong-Kong over the period 2006 to 2010. Mango exports from Mali have gained international recognition, presenting huge opportunities for income generation, and women are not left out.

The main mango producing areas are the Sikasso and Koulikoro regions, together with Bamako District and surrounding areas and a small part of the Kayes region (Kita and Kegneba). New state-of-the-art and more productive orchards are also springing up in the Sikasso and Kuoulikoro regions and Bamako District where more women are engaging with production.

Figure 4.7: Mango Producing Regions of Mali

One of the challenges to exploiting this potential in the past was the accessibility of producing areas to large markets. Mangoes produced in the remote Kayes region, for instance, were not included in the export chain. Thus most of the produce was consumed locally or wasted. For the same reason, the COMAFRUIT factory, originally located in this area, was moved to another area in Selingue. Today, due to government efforts to harness the potential in the sub-sector for value chain development, the Kayes region has improved road infrastructure and the opportunity to export by sea through the Dakar port or by road to neighbouring countries.

The mango value chain also operates through multiple distribution channels:

- Export by air, which is private sector-driven, is the leading medium of export to Europe, however there is only one woman among about twenty registered exporters. The most significant value addition lies in the transportation of goods, which is facilitated by foreign companies, meaning that the value added is not absorbed into the Malian economy. The high cost of air transportation makes mango exports from Mali less competitive in terms of sale price and has limited export volumes, despite increasing demand from Europe;
- Export by sea also contributes to the value chain, and is aimed at diversifying the market and reducing the cost of exports;
- Export by road is gaining ground and engages more women than the other two channels;
- The local sale of fresh mango generates more resources through the transportation from production areas to non-producing areas in the northern regions of the country or to other countries in the sub region like Senegal and Mauritania. Unfortunately, the volume of trade on this channel is not well documented at the national level due to large-scale informality, including via cross-border trade where many women are found operating in the West African trade corridor.

- The diversified products of mango value chains include a mango paste value chain, a dried mango value chain and those for mango concentrate production of jam, juice and vinegar. The most important value chain in terms of turnover is that of dried mango.

This performance of women who are very active in all these value chains could be further improved by providing better support to the women to enable them deal with the various constraints.

4.5 The Economy of Olives in Morocco

Olive production is a major revenue earner in Morocco, contributing more than all other crops to poverty reduction as it generates employment for a significant proportion of the population, while generating large export revenues for the country. The value addition to olives is derived from their being grounded for processing into olive oil, the major output. Thus the value chain is invariably part of the production system.

Figure 4.8: Map of Olive Producing Areas of Morocco

(Morocco to send map)

Olive production takes place in peri-urban and rural areas in priority regions in Morocco. Key operations in the olive value chain include upstream and downstream activities. The majority of activities now take place in (continuous) modern and semi-modern factories. However, the primary production system is the orchard system, which requires huge land holdings and very extensive manual labour, even with improved intermediate technology, such as vibrating hooks for harvesting. The industry is thus dominated by landowners who use cheap local labour and sell to crushing ventures run by local entrepreneurs.

Olive crushing is at the heart of the value chain and includes activities such as de-leafing manually by women or by machines in modern units. Washing, grinding, blending and separation of oil and pomace are tasks that are mainly mechanised. However, the traditional crushing process called "*Maâsra*" is dominated by women and this is more laborious. Packaging and storage of oils is done by both men and women depending on the nature of processing units. While labelling is mainly done by women (33per cent of labour in the factory sector is hired for labelling), men are responsible for packaging.

The main output of the value chain is virgin olive oil, produced under thermal conditions that do not alter the properties of the oil, thus such oil should not have been exposed to any processing beyond washing, decantation, centrifugation and filtration. In all, there are three redible oils produced, extra virgin oil (acidity less than or equal to 0.8per cent), virgin oil (acidity less than or equal to 2per cent), ordinary virgin oil (acidity less than or equal to 3.3per cent). After the bottling of oil in various containers, its sale is mainly targeted at the local market (over 50per cent of the product) through fairs, exhibitions, shopping malls, etc.

Compared to the continuous system, the traditional process of extracting the oil is discontinuous and commonly done through *maâsra* (traditional processing)systems located in mountainous areas

and especially in remote landlocked areas where there are no amenities (water and electricity). These *maâsra* systems, which are 16,000 in number, are still involved in trituration and account for about 40per cent of national olive production. Furthermore, the rudimentary technology used in these *maâsra* systems causes significant losses, both quantitative and qualitative, since about 50per cent of national olive production from these traditional units consists of lampante olive oils which are, by international standards, unfit for consumption. Hygiene rules compliance is difficult and processing parameters (thinning-out of leaves, washing, grinding, pressing, settling and decanting, etc.) cannot be satisfied. Grinding is often prolonged due to animal traction, which considerably affects the quality of the oil (fatty acid oxidation, minor components, etc.). The oil produced is of low nutritional value, low commercial value and poor resistance to oxidation. A relative improvement of these *maâsra* systems might be to replace animal power with an electrical mechanism and restructure them into semi-modern units.

In general, modern technology is applied in 60per cent of crushing units and *maâsra* in 40per cent of units. This indicates the importance of women's roles in the entire olives economy.

4.6 The Fisheries Economy in Cameroon

With a coastline of nearly 360 km and many rivers, fishing is a very important activity in Cameroon. The picture below presents the map of fishing areas in Cameroon. With an annual production of 180,000 tonnes, fishing accounts for only 1.7per cent of the country's resources or $119.4 billion of value added.

There are four types of fishing activities. The first is industrial marine fishing, or sea fishing, which is operated in five regions: Ocean, Sanaga Maritime, Wouri, Fako and Ndian. The second type is small-scale inland fishing, which is practised in rivers (Nyong, Ntem, Sangha, and Sanaga), dams (Lagdo, Maga) and in Lake Chad. The third type, aquaculture, is not well developed in Cameroon and production does not exceed 50 tonnes a year. Artisanal fishing is the fourth and most important type of fishing activity, accounting for over 80per cent of national production.

The main marketed species are: Heterotis, Tilapia, Clarias, Synodontis, Labeosp, Mormyropssp, Alestes, Lates and ophiocephalus. Artisanal fishing provides about 80per cent of national production and is a source of employment for 20,000 people, with women accounting for 70per cent of the operators (FAO Report, 2013). Despite this modest contribution to GDP, artisanal fishing remains an important socio-economic activity as it provides the majority of jobs in the informal sector.

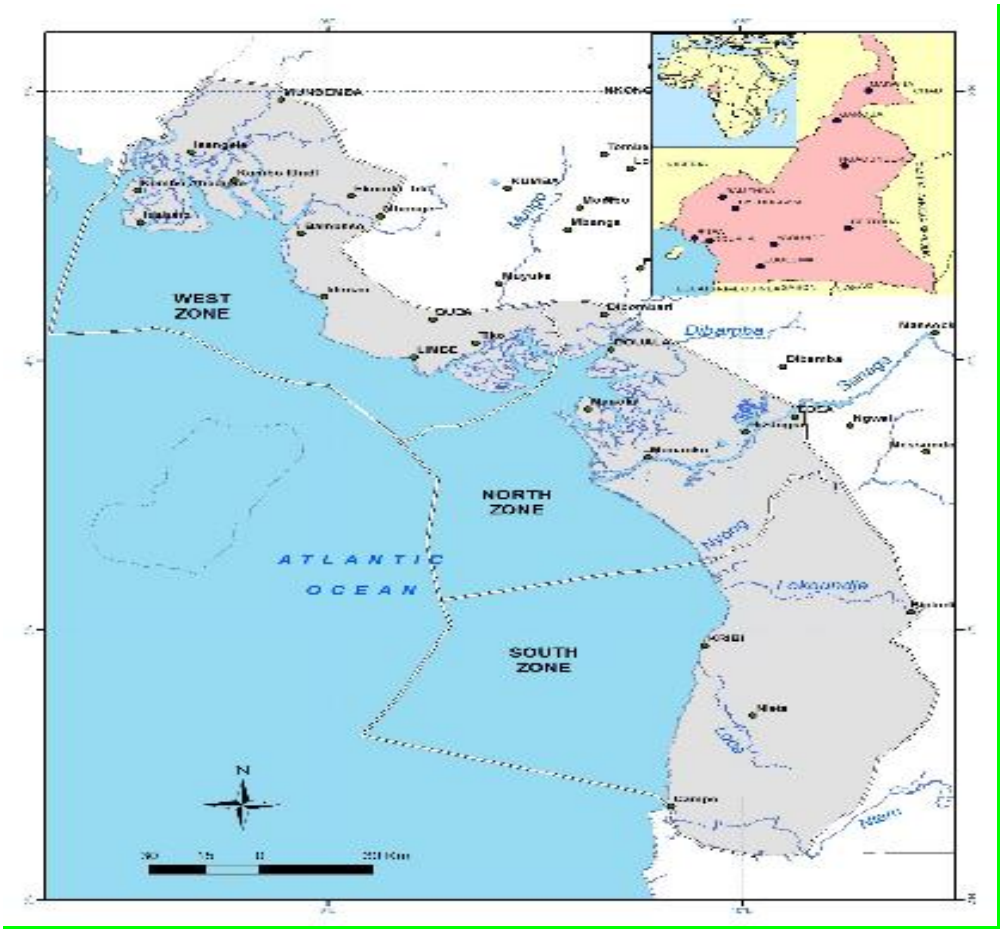


Figure 4.9: Coastal Fisheries Zone of Cameroon. Source: E&D et Hydracs 2010

Given the excess demand and the country's relative fisheries endowment, it has been the goal of successive governments to tap into the available resources of this sub-sector to boost economic growth and reduce pervasive poverty. Value addition through processing constitutes a major income earner for the poor and especially women who dominate fish processing activity. Yet, the potential benefits for women's empowerment are undermined by various challenges that women continue to face.

Drawing on the literature together with primary observations from the case study countries, the next chapter discusses the gender-specific nature of the challenges faced by women in agricultural value chains. The primary research is particularly instructive in helping to unearth specific details of the challenges faced, as well as the huge opportunities that are being harnessed not just for these six value chains, but for other evolving value chains across the continent.

Chapter Five: Gender-based Challenges and Agricultural Value Chain Development

5.1 Technical Capacities for Successful Value Chain Development

In the 21st centurery, value chain development strategies are often growth and private sector oriented and are driven by technology. Capital increasingly replaces labor and in the presence of income and genderi inequalities, there are valid concerns about leaving many behind. Upgrading women's technical and soft skills as well as the technology of their enterprises is a dire need to improve women's competitiveness and attract financial investment. This chapter will discuss a range of core capacities necessary for women to reap the benefits of value chain developpment

The basic requirements for well-functioning value chains are gaining attention in the agricultural literature[50]. What has been less articulated is that these requirements are fraught with gender-based barriers. In summary, the critical factors for successful participation in value chains include:

- A market system perspective;
- A focus on end markets;
- Rapid changes in firm behaviour;
- Ability to target leverage points;
- Building relationships and trust;
- Empowering the private sector; and
- Adhering to standard rules of VC governance.

Naturally, these innovative and knowledge-driven approaches hold inherent constraints for women farmers, due to their low levels of literacy and poor connectedness to networks outside their immediate, usually limited sphere of influence. For governments in poor agricultural economies, these conditions may contradict other welfare and poverty reduction goals. Yet, agricultural value chains hold the key to women's holistic empowerment, which in turn holds the key to Africa's sustainable development. The dilemma remains in the balance of the role of government, private sector investors and development partners in leveraging women's entry into value chains and sustaining their participation by ensuring equity in the endowment of capabilities and distribution of outcomes. In this discussion, some of the inherent gender-barriers to the identified critical success factors are outlined (illustrated in Table 5.1).

Table 5.1: Key Elements of the Agricultural Value Chain Development and the Gender Barriers

Key Elements	Implication for practice and participation	Gender-based constraints

[50] Gloy, Brent (2005); A Guide to Understanding the Value Chain. Department of Applied Economics and Management, Cornell University in Smart Marketing, a monthly marketing newsletter which reviews the elements critical to successful marketing in the food and agricultural industry. Articles are written by faculty members in the Department of Applied Economics and Management at Cornell University.

Market system perspective	Implies competition, innovation, technology, good knowledge of competitors (number, business size, capacities). Private fund-driven rather than public sector-driven; Commercialisation as *sine qua non.*	Poor access to assets, information and market; Poor access to private capital; Cultural alienation from local and community busir networks; Low technical information flow; who does not have access to information? Subsistence trap;
Focus on End Markets	VC fully integrated into micro systems as well as macro markets. Full knowledge of price, quality and innovation changes, sustaining rents for price competition).	Poor information and technological capacity; who i out? Low security of productive assets, low and slow acc to resources – labour, technical skills vis a vis chan innovations; Low business size; Domestic burden and impact on business decision making: what kind of domestic burden and who bea
Changes in firm behaviour	Economies of scale; Continuous product flow; Awareness and proficiency in adapting to key consumer trends and technological advances; Repositioning firm against competitors; Progressive attitudes toward new technology;	Poor access to capital and land for business expansi Poor leverage in the non-market sector; Cultural inhibitions, gender power relations and imp on women's time and mobility may be a hindrance
Targeting Leverage points	Critical to profitability and efficient use of (private) resources especially capital. Targeting decision on biological production risk and perishability - important characteristics of agricultural value chains.	Mapping of gender value chains shows that women farmers do not operate at the most profitable points; Poor targeting of support services; Low business aptitude and agency for better positio
VC Governance	Important role of local and global institutions in fostering trust and stability of niche markets; Importance of longer rather than shorter term investment such as investment in critical infrastructure. Managing the effects of frequent policy shifts and shocks; Participation and ownership of processes that promote trust among small operators;	Political will for gender equity is hardly transparent Lack of relational trust between women and govern platforms; It becomes less convincing for women to commit va assets to new investment.
Building relationships and trust	Economic relationship rather than socially-based relationships (weak ties in networking) Quick price discovery; Preference for networks of popular suppliers. Meeting production quality standards;	Women's focus more on social capital and social networks (strong ties with family and community) a disadvantage in business relationships; Technology for quality upgrading usually a constra Gender-blind extension systems
Empowering the private sector	Initial financial leverages for take-off of profitable and competitive VCs. Public-private partnerships are critical but may thin out as VCs get grounded	Private investors hesitate to fund women's enterpris Poor business management skills; Poor leverages with private funding organisations.

Source: Akanji, Bola (2009). "Background Paper for a Comprehensive Programme for Women's Empowerment in the Context of the Food and Financial Crises". UNIFEM. Adapted from various publications including USAID, 2008, Gloy (2005).

Important implications of these technical challenges to women are very often corroborated at the empirical level including in the case study countries.

5.2 Barriers to Women's Entry into Commodity Value Chains

The implications of Table 5.1 can be summarised as the need for small farmers to progress from their current level of agricultural activities to achieve a set of minimum standards in terms of efficiency and upgrading. These include:

i. Capacity for small farmer commercialisation (SFC), which rests very much on access to productive assets, a dominant one being land;
ii. Improvement in total factor productivity (TFP), the bedrock of commercialisation, which focuses on resource use efficiency; this is also closely related to access to resources especially yield enhancing inputs, technological knowledge and skills in the use of improved resources;
iii. Development of entrepreneurship or a business behaviour that determines market access and sustaining market share;
iv. Business upgrading, which involves a readiness and ability to modify chain activities, inputs and outputs with significant infusion of technology and financing;
v. Organisational and networking skills underlie the ability to connect to "weaker ties" by building relationships of trust, within and outside their localities;
vi. Inter-sectoral linkage of activities is critical; this comes from economic interactions between different stages of the agricultural spectrum (farm production commerce and international trade), and across other sectors such as manufacturing, science and technology and other sectors that ensure an enabling business environment including infrastructure and human capital development and access to social services such as health and education for actors, operatives and their households.

The contemporary status of African women farmers with respect to these qualities (or pre-conditions) often present fundamental barriers and define their ability to enter into commodity value chains, thereby achieving empowerment as dominant actors in agricultural value chains.

5.2.1 Small Farmer Commercialisation as Barrier to Entry

Small farmer commercialisation (SFC) is a term used extensively to describe the gradual process whereby small peasant farmers move from subsistence production to income-generating agribusiness systems. Theoretically, commercialisation should be beneficial in all contexts, especially in times of food price hikes and even when input costs rise significantly. Cash incomes enable smallholder farmers to offset food inflation. This is especially so because small farmers still diversify to meet most of their food needs from their own production. Income through commercialisation should therefore lead to more savings and asset build-up, which is required for technological upgrading for value chain activities.

In reality, African women farmers face several constraints to increase commercialisation of their agricultural activities and thus the positive outcomes often elude them. As shown by empirical studies, the process also has unintended outcomes for women. One, commercialisation may lead to additional cost of welfare provisioning by women as they spend more time away from home and sell more of what they produce. The additional cost may sometimes outstrip the purchasing

power of the extra cash and may worsen poverty for rural households[51]. Evidence from an FAO survey of gender impacts of small farm commercialisation in 14 developing countries[52] indicated that the increased income made possible by commercialisation, in almost all the countries, led to a parallel increase in household workload, including labour commitments on family farms, as men diverted more and more of their resources into cash crop production. Consider revising:Women's participation in income generating activities is a necessary but not sufficient condition for women's empowerment. Even at the top of the value chain, women working at the highest level occupations find themselves increasing their time spent at household chores.Secondly, men often controlled the income generated through commercialisation, even when women had invested an equal or higher amount of labour in its generation; SFC's impact on women in terms of household decision-making and status in the community was therefore considered neutral or negative in most of these countries.

Conseuqently, increased commercialisation was not correlated with transformative gender power relations in the majority of cases, further corroborated in other studies such as Ivy, (2007)[53] in Ghana; Fischer and Qaim, (2012)[54]. In a study of banana commercialisation in Kenya (Fischer and Qaim, ibid), commercialisation led to women losing their place in this traditional female crop. Group membership even worsened this tendency, except when women themselves were the major group members. In this case, they had more control over income from commercialisation than if they were represented by the (male) household head. Increased commercialisation did not guarantee increased incomes for women, except in cases where female-headed households owned sizeable land or other productive assets. The latter was confirmed in Nigeria's poverty assessment studies over the period 1999 through 2009 which showed that, although female-headed households were highly represented among the moderately (core) poor, they were less represented among the extremely poor, suggesting that independent decision making had a positive effect on their (women's) economic empowerment. This was further corroborated by other studies in Nigeria[55] that found that economic independence through agricultural commercialisation in peri-urban parts of metropolitan Lagos promoted women's decision making power. However, it led to conflicts

[51] Kennedy, G. (2008) Kennedy, Gina (2008) "Food Security in the Context of Urban Sub-Saharan Africa," Internet Paper for Food Security Theme in Food Africa Internet Forum, accessed online at http://foodafrica.nri.org/urbanisation/urbspapers/GinaKennedyFoodsecurity.pdf, on Aug. 5, 2008

[52] FAO, (2011) "Gender and Agricultural Value Chains – A Review of Current Knowledge and Practice and their Policy Implications". ESA Working Paper No. 11-05, March, 2011. Agricultural Development Economics Division. The Food and Agriculture Organisation of the United Nations. www.fao.org/economic/esa

[53] Ivy T (2007) Gender and Small Farmer Commercialisation. The Case of Two farming Communities in Ghana Journal of Agricultural Economics.

[54] Fischer, E., & Qaim, M. (2012). Gender, agricultural commercialisation, and collective action in Kenya. *Food Security*, *4*(3), 441-453.

[55] Palmer, Akanji et al, (2009): Palmer D, Akanji B, Rao N and Akpokodje G, (2009): Gender and Growth Assessment in Nigeria. Research Reports prepared by the Nigerian Institute of Social and Economic Research and Overseas Development Group (ODG), University of East Anglia. Submitted to DfID and CIDA.

within households of such women in thriving agri-businesses, as an unintended socio-cultural outcome. Another study in eastern and southern Africa[56] found that women farmers favoured semi-subsistence over commercialisation, because the former ensured diversification and household food security while women also had more control over income from semi-subsistence than from commercial production.

These findings reinforce the dilemma of choice between commercialisation and household food security. Ultimately, the problem is intra-household resource allocation. Women's lack of bargaining power leads to inefficient allocations for the purposes production in favour of men. One potential solution is to expand women's productivity through technological upgrading and helping women cope with risks associated with comeercialisation.

In the primary country research, these patterns were also observed to a large extent. In Ethiopia's teff value chain, women's attempts to expand their production of teff in partnership with their husbands led to increased workload and drudgery, rather than less. The introduction of so-called time and energy-saving farming techniques, such as row planting and improved ploughs, which should have alleviated women's burdens, in reality had the reverse impact or none. Some implements were too heavy to be handled by women. Cost of production is also a barrier to commercial production. Female own-account farmers generally find the cost of production, especially (male) labour and improved inputs rather prohibitive. Thus most women end up working on family farms or as wage workers on other teff farms. Demand for injera has spurred the expansion of teff production, however, growth in commercial production remains slow and tends to move out of the female domain. The profitability of the final processing of teff into injera, which women control, very much depends on the price of the raw product, controlled by men. These may be further constraints to the commercialisation of teff by women.

In Zimbabwe, women in maize production have largely moved into commercial production, incentivised by the growing secondary value chains such as in confectioneries, breweries, vegetable oil production and local production of maize meal. Therefore more women are well represented in the small commercial farms on communal or resettlement farms and even to some extent, in large-scale commercial farms. But family labour obligations often come in the way of their profitable independent production. Commercialisation has been more successful in the maize value chain, mainly because of the very well developed derived demand market in its secondary value chains.

In Uganda, women farmers in pineapple production still face the same generic problems that constrain commercialisation of food crops. However, because the production of pineapple is

[56] Govereh, Jayne and Nyoro, James (1999):Smallholder Commercialisation, Interlinked Markets And Food Crop Productivity : Cross-Country Evidence In Eastern And Southern Africa.

essentially a commercial venture, there are coping strategies such as group formation for the collection and distribution of pineapple suckers, group access to credit and inputs which ease their constraints. Off-farm constraints are more severe in the handling and processing activities where problems including poor road conditions, the high cost of transportation and the lack of facilities for preservation of the fresh product continue to shortchange the gains of commercialisation. Women also face considerable marketing problems.

Box 5.1: Marketing Constraints of Women Farmers in Uganda

Examining coffee farmers, Hill and Vigneri (2009, pp.23-24, p.28) found that gender differences in marketing are largely explained by women marketing smaller quantities and not owning bicycles. Men-headed households' and women-headed households' (WHHs') access to markets differs in relation to bicycle ownership. In addition, women have less access to trader networks and the market information these can provide. WHHs also 'engage in less value addition (transporting to market, milling)' (idem, p.24). Women find themselves limited to marketing channels with 'very low transaction costs, but also lower prices' (idem, p.28). The main challenge for women is accessing marketing channels that allow value addition, rather than any discrimination in marketing channels (idem, p.27). This situation also plays out in the pineapple value chain.

In Cameroon, the main constraints facing women fish smokers border on low capital, inadequate availability of fresh fish, low access to improved technology and processing equipment. Fish is smoked in traditional dryers known as "*banda*" where the fish is in direct contact with the smoke from the firewood, which affects the wholesomeness of the fish.

It would appear that SFC is less restrictive when secondary markets, such as export markets or manufacturing demand, are well developed. When commercialisation is targeted only at primary food markets, women appear to suffer more constraints. In addition, commercialisation for women very much depends on the power relations of land ownership, as well as the intra-household distribution of roles. These have defined whether women in viable value chains can retain control of production and move up the value chain via commercialisation (linkage to bigger markets) or how equipped they are to upgrade into commercial processing.

5.2.2 Total Factor Productivity as an Entry Barrier

Total Factor Productivity (TFP) refers to the cumulative and incremental production or yield resulting from the application of additional units of different production inputs – land, labour, capital and technology. It therefore defines the decision point for farmers' supply response to market incentives, that is, the cost of additional financial and physical investments *vis-â-vis* the incremental output. For a positive supply response, the latter should outstrip the former. But because of the technical difficulties of separating the effects of different essential inputs, a loss in

productivity from one input may sometimes wipe out the positive productivity of another. The critical balance often calls for high technical capacity and better understanding of input and output market trends.

The previously outlined commercialisation risks for women also tend to shortchange overall TFP in the entire farming systems. Since women tend to dominate small scale production or make up a huge proportion of agricultural wage workers, their technological efficiency, economic efficiency and labour productivity remain key to the measurement of TFP. This suggests that productivity growth in the small farm sector can bring much to bear on cash crop activities if women farmers are given essential capabilities, for the following reasons. First, the surpluses that result from their yield increases are the bedrock of agri-business. Secondly, productivity growth in women's food crop production (subsistence) can be critical to driving down the price of food in farming households and raise rural disposal incomes required for system upgrading in non-food farming systems, including commodity value chains. A special focus on smallholder farmers' productivity, particularly of women, will therefore be required to ensure TFP growth[57]. Gender-based challenges to TFP growth also include the cost of mechanisation and the risk that mechanisation poses for women. While mechanisation can increase productivity and incomes, it can also displace workers, particularly women[58]. On the other hand, increases in productivity can trigger investments in processing that create new employment opportunities for both women and men. The secondary literature indicates that small low-risk investments to increase quality and yields are the most effective paths for generating behaviour that promotes value chain competitiveness among the poor, particularly women[59]. This is because, even where credit facilities are available, women tend to be risk averse and not borrow at all or borrow relatively smaller amounts compared to men, thus hindering the progress of commercialisation through mechanisation. Finally, TFP depends highly on technical efficiency through extension knowledge and requisite training. This can spell the difference between TFP on male and female farms. Study findings have consistently shown that that women farmers are technically efficient if given the resources and capacities.

In Zimbabwe, smallholder farmers including women farmers have been experiencing lower yields since 2000. This is due to a number of factors that include reduced access to agricultural inputs because of unavailability and lack of finance, adverse climatic patterns, depletion of large-scale farms and an unfavourable regulatory and policy environment. Although women, who dominate smallholder maize production, have been hardest hit, a study found that despite the general trend of a decline in productivity, women farmers are technically efficient. In pockets of areas where

[57] Global Harvest Initiative-GAP report, (2013). Global Agricultural Productivity Report (GAP): Sustainable Pathways To Sufficient, Nutritious and Affordable Food, (Washington, DC: Global Harvest Initiative).
[58] Fox et al, (2006): Fox M, Johnson D and Rosser S(ED) (2006) Women, Gender and Technology. University of Illinois Press, Urbana and Chicago.
[59] USAID, (2013) Feed the Future Learning Agenda Literature Review: Expanded Markets, Value Chains, and Increased Investment July 2013.

productivity growth is being experienced in both the large-scale commercial and smallholder sectors, women have been key players.

Box 5.2: Women farmers in the Bindura District

Women in Bindura District are producing up to 13.9 tonnes/ha against a national average of 0.75 tonnes/ha. While there were such outstanding performances by women, investigations into productivity patterns by gender revealed that yields of male maize producers in that area tended to be higher than those of women (see Table 5.2). It is however notable that many of the farms identified as being owned by men were actually female-managed while the men were away in urban-based formal employment. This was particularly true of large-scale commercial farmers who were beneficiaries of the Land Reform Programme and tended to have strong ties with government support services and with financing schemes. The efficiency push factor is therefore males' superior access to yield-enhancing inputs due to "weak ties".

Table 5.2: Maize Yields for Matepatepa Area by Gender of Farmer (2013/2014 in Tonnes/ha)

	FEMALE FARMERS			MALE FARMERS		
FARMER TYPE	Lowest Yields	Highest yields	Average Yields	Lowest Yields	Highest Yields	Average Yields
Communal Areas	0.3	2.00	0.6	0.4	3.5	0.7
A1: Small Commercial	2.00	3.5	2.5	2.4	6.00	3.5
Large-scale Commercial and A2	2.5	13.90	3.00	2.5	10.00	4.00

Source: District Agronomist, Bindura District

Significant differences between the yields of male and female farmers were found in communal areas and A1 farming areas, which are the beneficiaries of the Land Reform Programme. In spite of enhanced access to land, productivity differentials prevail due to other gender-based constraints. However, the highest yield, which was close to the potential yield based on experimental plot averages, was recorded among female farmers who had received training and resources. In the 2013/2014 season, the best performing farmer in the large-scale category in Bindura District was a woman. The agronomists attributed her success to high level of mechanisation and extension services.

5.2.3 Women's Access to Resources as a Barrier to Entry

In most African countries, women are less visible among commercial farmers due to the perennial problem of poor access to land and other complementary resources. The above example is clear evidence that where there are strong incentives such as improved access, women farmers can move beyond subsistence production.

Access to Land

Property rights to land still largely disadvantaged women both in customary and statutory land tenure systems. Findings of this and other studies indicate continued and progressive discrimination against women in land reform issues, usually stemming from patriarchal interpretation and implementation of land reform policies. Thus reform policies only paritially addressed the problem of inequitable access to land. Even when women have access to land, it is difficult for them to secure their rights.

In Tanzania and Congo, the female share of landowners was found to be 25 percent in one study of land distribution[60]. In Benin Republic, only 11per cent of landowners are female and the average size of holdings,1.0 hectare, was half that of men's. In Zimbabwe, only 18per cent of beneficiaries under the Model A1 Land Redistribution Programme were women and only 12per cent of beneficiaries under the commercial A2 scheme were women. L resettlement programme in much of Southern Africa, including Zimbabwe, has not shifted the persistent inequalities. Lack of assets, mainly land as security, precludes the availability of collateral for accessing formal financial institutions with bigger funds that enable the needed upgrading. In Uganda, it was shown that even when women own land, the level of asset depletion through land sales is high as they need to acquire other basic needs. For example, between 1992 and 1999, while the percentage increase in land area for male headed households was 27.1per cent, a decrease in the land area of 14.3per cent was registered for the female headed households (UNHS, 2000). Thus, poor access to financing for other inputs continue to limit the benefits of land ownership.

Access to Other Inputs

Box 5.3: Zimbabwe: Other resource constraints limit the benefit of land ownership for women

Recent agronomic studies in Zimbabwe revealed that the major constraints facing women landowners are lack of draught power and poor access to biological inputs such as fertilizers; men tend to enjoy better access to these due to greater financial capacity. Ownership of critical assets that promote agribusiness was seen to be skewed in favour of men. Women owned only 10.5per cent of available trucks or vans for transporting goods of less than one tonne carrying capacity and 7.1per cent of self-propelled combine harvesters.[61] Of 121,927 short-term loans advanced to farmers in 2010, only about 8per cent went to communal areas and the proportion of male farmers who directly accessed them was 12per cent compared to 4per cent for women. In 2007, the Reserve Bank of Zimbabwe established an Agriculture Support Fund to finance agricultural activities throughout the country. According to the "Gender in Sector Budgets" study conducted by the

[60] Deere, C.D. & Doss, C. 2006. Gender and the Distribution of Wealth in Developing Countries. UNU WIDER Research Paper No. 2006/115.

Zimbabwean Women's Resource Centre and Network, (ZWRCN), women received only 27per cent of the fund[62].

There are pockets of best practice and good outcomes. Comparative data from the Comprehensive Food Security and Nutrition Survey[63] for Liberia indicated rural households with access to land had increased production by over 20per cent between 2006 and 2008, as an outcome of the reconstruction programme. The gap between women's and men's ownership also continued to shrink. In 2006, women had only 34per cent of the land; by 2008, the female share had increased to 44per cent. However, only 11 percent of the women held title compared to 20 percent of men. The joint Land Certification Scheme in Ethiopia and a few other countries has the potential to remove some of this barrier. However, women who are not in marriage face greater constraints of land access and greater need for collateral than married women. The formation of women's farmers' cooperatives under the land reform scheme, which cedes bigger parcels of land to women's groups or to women farmers who independently own land titles, is also benefiting more women farmers.

Land ownership is central to women's participation in contract farming

Women generally gain from participation in contract farming schemes that enhance access to inputs, reduce production and marketing risks, improve technology access and ultimately induce higher and more stable incomes[64],[65]. Although there is evidence of challenges facing women in price negotiations, contract farming can help women's take-off to a higher level of productivity. Most contract farming schemes however require larger parcels of land (or other productive assets such as fishing boats) than women farmers can acquire. Contract farming has huge advantages for small-scale farmers but has posed limitations for women.

Box 5.4: Institutional barriers to Contract Farming in Zimbabwe

In Zimbabwe, maize farmers, including women, prefer to deal with private buyers, including in contracting schemes, because this provides more timely payment for their products than when they are forced to sell to the government's Grain Marketing Board (GMB).[66] But when institutional risks are created in the contracting system, women are the first to opt out of beneficial contracting arrangements out of consideration for their domestic commitments.

[62]ZWRCN, 2008 Zimbabwean Women's Resource Centre and Network.
[63] CFSNS (2006 and 2008) (op cit).
[64]Christopher Coles and Jonathan Mitchell (2011): Gender and agricultural value chains a review of current knowledge and practice and their policy implications ESA Working Paper No. 11-05 March 2011 Agricultural Development Economics Division the Food and Agriculture.
[65]Maertens, M., Minten, B., & Swinnen, J. F. (2009). Growth in high-value export markets in Sub-Saharan Africa and its development implications.
[66]Zimbabwe Country Report, (2015).

When private millers and other buyers outside the GMB were arrested for not adhering to government-prescribed prices in their dealings with contract farmers, men persisted in defying the GMB. By contrast most of the women chose not to resist the marketing barrier because they could not afford to spend time in jail due to their domestic responsibilities.

In countries where there is currently no documented evidence of contract farming, cultural notions about the ability of women to independently engage in contract farming need to be overcome. Women often lack decision-making power to use jointly-owned land for such purposes without the involvement of their husbands.

5.2.4 Socio-cultural norms and Gender Power Relations as Barriers to Entry

Several socio-cultural barriers have impacted negatively on the progress of commercialisation and productivity growth in Africa and other traditional economies, limiting women's entry into promising commodity value chains.. In the same vein, women's dominance of specific nodes which are often traditionally driven, lead to differential outcomes for male and female dominated nodes of value chains. Socio-cultural barriers primarily tend to limit women's mobility and thus their ability to form ties and networks that forge commercialisation or other forms of economic and political empowerment. Socio-cultural barriers are also reflected in women's domestic work burden and time poverty. Moreover, women's farming activities tend to be devalued because they are seen as a cultural obligation rather than as productive economic activity. Several studies of small-scale agricultural systems have shown that women are less likely to do well in their farming roles if they are unlikely to be paid for their work or if wage differentials exist with men. The loss in productivity resulting from this bias was estimated as equivalent to a 15per cent yield loss in one study of African farming systems[67].

In Ethiopia's teff economy, the poor perception of women's economic roles is a strong factor limiting opportunities for women to attend capacity building events that could empower them to achieve higher TFP. Another study of the rice farming system in Cameroon found that the introduction of commercial rice farming produced unintended gender effects as it increased women's time poverty as the incremental workload added to their heavy domestic responsibilities[68].

Another dimension to poor cultural perception is that both women and men are likely to under-report women's activities in all farming systems because it is seen as an extension of their

[67] World Bank, 2001 World Bank, 2001.Engendering Development through Gender Equality in Rights, Resources, and Voice, Volume 1, World Bank Policy Research Report 21776.World Bank, Washington DC.

[68]Fonjong, L. N, & Athanasia, M. F. (2013). The fortunes and misfortunes of women rice producers in Ndop, Cameroon and the implications for gender roles. *Journal of International Women's Studies*, *8*(4), 133-147.

household chores and not as a production input[69]. Thus, policy attention to these domains remain limited or shadowed. In a gender analysis of the bay leaf value chain in Nepal, an analysis of the gender division of labour and workload showed that women and children performed over two-thirds of the activities. Women's involvement is greater than men in five major activities. Analysis of the workload reveals that 45 per cent of the overall work is done by women, 32 per cent is done by men, and 23 per cent is done by children[70],[71]. This has implications for the types of technology upgrade needed for the reduction of drudgery in certain tasks.

Intra-household power relations including household decision-making affects the allocation of household tasks. Household decision-making processes are thus at the core of the issue of access to and control over resources. In a focus group discussion with women farmers in Zimbabwe, women pointed out that "*...even when they made the decision, they made the men feel that they were the decision makers*…". This is a coping strategy, but may be insufficient when socio-economic empowerment is the desired goal. In general, the weight of restrictive social norms to education and training, and the burden of unpaid domestic work, together with the enormous difficulties that women face in balancing their domestic roles with participation in economic production may make it very difficult for the majority of women to enter mainstream economic activities.

5.2.5 Governance of Value Chains as Barrier to Entry

Several issues are involved in the governance of value chains. These range from a determination of where value is being added in the value chain, equity in participation of all actors (producer organisations as well as dealers and end market agents), issues of food safety, health and promotion of nutrition standards and environmental safety in the changing production and processing systems. Other issues are labour standards and quality assurance and their determinants including codification of standards[72]. Because of the variety of issues that have come up as empirical examples in this field, it has been difficult to give a precise meaning to the term. In newly emerging forms of global value chain, governance is driven by the internet era where fast links between agents can lead to dominant firms or decision makers on the chain and reinforce existing power structures between smaller and larger firms. With specific respect to gender issues, it was clearly indicated[73] that such hierarchical power structures that are created between small and large firms

[69] USAID, (2010: 11) Field Report No. XX. Behaviour Change Perspectives on Gender and Value Chain Development. Final Report produced in collaboration with the FIELD- Support LWA, USAID. November, 2011.
[70]Bhattarai et al. 2009, cited in ICIMOD, 2009
[71]ICIMOD, 2009: Engendering Value Chain Development**.** Prepared by Basundhara Bhattarai and Brigitte Leduc. November 2009.
[72] Nadvi, K. (2008). Global standards, global governance and the organisation of global value chains. *Journal of Economic Geography*, *8*(3), 323-343.
[73]Karina Fernandez-Stark, Penny Bamber and Gary Gereffi (2011). The Fruit and Vegetables Global Value Chain. Economic Upgrading and Workforce Development.

are also replicated between women and men, with men as actors and women as operatives in most agricultural value chains in Africa.

Tallontire et al (2011) focused on how global quality changes have impacted countries at the institutional level by setting private standards for farmers' supply response. Men's ability to respond drives standards, even for government schemes. In other words, private-sector driven value chains can be a signifier for corresponding government action as far as standard setting and codification is concerned[74]. This pattern of governance affects African women farmers in several ways. For instance, global links in the vegetable value chain have raised production standards in the industry[75]. Thus African actors have higher standards to adhere to, often with greater challenges. The operations of contract farming between global firms and local producers are a good case in point.

Contracting and the Governance of Value Chains

The gender implications of contract farming *vis-à-vis* production standards are described in the literature on the artichoke value chain in Peru and maize value chains in Africa, (USAID, 2009)[76]. A shift in the market base of teff production in Ethiopia is a further concern of this study.

In the case of artichokes, the contracting mechanisms posed an entry barrier for many small farmers because they imposed the adoption of new varieties of the crop and new standards of cultivation and handling. The inability to bear risk, linked to concern that they might lose their means of livelihood, meant that many small women farmers were reluctant to shift from indigenous varieties of artichoke, which they sold in local markets, to the hybrid varieties that were produced for export. There were new quality standards that many small farmers generally found difficult to quickly adapt to. Artichoke contracts became burdened with conditions surrounding the sale of produce, the recovery of the cost of inputs and the payback mechanisms of credit advanced to small farmers. These were even more cumbersome for women farmers due to their low capabilities in relation to formal negotiating systems (ibid, p.9).

In Ethiopia, injera, which was previously prepared at home and produced in small quantities by women, is now subjected to global market standards with implications for rural-urban pricing differentials. Yet, the teff grains of the improved varieties are not being readily adopted because they present finished products that are different from the familiar tastes embedded in Ethiopian culture, even when much higher yields are reported. The internationalisation of injera in foreign

[74]Tallontire, A., Opondo, M., Nelson, V., & Martin, A. (2011).Beyond the vertical: Using value chains and governance as a framework to analyse private standards initiatives in Agri-food chains. *Agriculture and Human Values*, *28*(3), 427-441.
[75]Dolan, C., & Humphrey, J. (2000). Governance and trade in fresh vegetables: the impact of UK supermarkets on the African horticulture industry. Journal of development studies, 37(2), 147-176.
[76]USAID (2009): Gender and Pro-poor Value Chain Analysis under the Greater Access to Trade Expansion (GATE) Programme.

homes and restaurants will most likely change the prevailing ownership of the farming system from a small subsistence women-dominated farming system to one of bigger male-owned or male-controlled commercial farms. Injera will also cease to be a shining example of local food preparation dominated by women and become a big-ticket grocery item prepared by commercial firms. The relevant governance issue is how to ensure that the benefit from the growth of value chains accrue to women, who are the traditional custodians of many commodities within subsistence systems.

In the maize value chain in Zimbabwe, the dominant actors in the four sub-chains (seed maize, food maize, stock feed maize and industrial maize) are the buyers of raw maize who often have a controlling influence on the quality, quantity and price of maize. Seed houses for example, determine who produces maize, of what quality and at what price. One of the major barriers to women's entry into seed maize production is the preference for large-scale producers who have irrigation facilities and high technology machinery. As indicated earlier, the proportion of women in large-scale commercial farming is less than 20per cent. A major governance issue in the maize value chain is the current legislation based on command and control rather than incentives and penalties. Government has maintained control and influence over the marketing of maize through the agricultural marketing authorities aimed at regulating the marketing of agricultural commodities within the free market economy. These institutions have failed to effectively deliver on their mandates mainly because of limited funding and rigid price regimes which are neither favourable to users of the product (private sector buyers) nor the farmers who are rarely paid in a timely fashion. Another issue in this realm is that the capacity of women farmers for seed production is being stifled by formalised processes.

Box 5.5: Barriers to Community Seed Multiplication Schemes in Zimbabwe

Community seed banks have proved to be beneficial to women farmers in Zimbabwe as elsewhere in Africa. Women's community-based groups have increased seed stock, biodiversity and seed distribution in their role as local breeders. However, targeted seed growers are now trained in seed multiplication techniques that include isolation distances, seed selection and storage of open pollinated varieties, and have become certified as breeders. Currently in Zimbabwe, breeding and selling of seed without a breeder's permit is viewed as a violation of breeders' rights. This means that the concept of community seed banks may be difficult to apply in the context. The implications of this law is that women farmers in Zimbabwe are not able to benefit from initiatives such as seed multiplication schemes that have benefited women's groups in other countries. Communities of farmers need to advocate for such recognition and certification of women community breeders.

Labour Standards in Agricultural Value Chains

Other issues in the governance of value chains concern the conditions of labour for operatives in the different value chain nodes. It has been noted in various studies that women and men are engaged under different labour contracts, especially in the growing high-value agricultural

production in such countries as Kenya, Uganda, South Africa. Dolan and Sorby (2003)[77] studied five value chains (cut flower, vanilla, vegetables, poultry and fruits) and reported that emerging value chains have generated foreign revenue for poor countries and the employment opportunities have been empowering for women. They nevertheless drew attention to aspects of value chain systems that do not promote socially responsible growth, adding: *"[B]ut [this] is characterised by several shortcomings, from occupational segregation, gender wage gaps and environmental health issues and other gender-based constraints in rural employment and farming systems*." It was similarly shown in the maquila sector in Mexico[78], that while value chains led to a four-fold increase in employment, they also led to a significant decline in women's earnings. In the maquila business model, the term "worker" literally means "women workers" (Sklair, ibid).[79] Yet the earnings continue to be determined by gender norms favouring men.

Local governance of value chains play out in the allocation of farm tasks whereby gender norms strictly guide labour use patterns. Labour contracting has been a popular option in agricultural value chains especially for widowed female farmers who have to contract male labour to cultivate inherited land. For instance in teff production, several activities are defined by gender, and cultural beliefs prohibit or challenge women to cross those cultural lines. Thus where tasks are designated as male tasks, women have to hire male labour rather than undertake them themselves. These strict lines of governance do not favour women's profitability due to the high cost of hiring male labour. In teff production, women farmers have been noted to offset labour charges with significant portions of their output, in lieu of monetary payment.

The issue of quality standards is a barrier to women maize farmers because as noted by seed company representatives, women are capable of handling more delicate processes in crop production and processing because they tend to pay more attention to detail. In the olive value chains, women, especially older women are favoured for fruit selection due to this same notion that women are better for such delicate processes. Older women who have gathered much experience over time are in high demand. However, labour wages do not reflect the premium values extracted from women. Women have benefited from employment opportunities on value chains but the conditions of employment are rarely in their favour. It is unacceptable that export growth comes at the expense of rural women's rights and family welfare. With better governance of value chains, such negative repercussions can be alleviated and averted, for instance, *"...through effective worker training, as well as the enforcement of national and international labour protections and codes of conduct*" (Dolan and Sorby, ibid, 3). The need for a gender perspective in the governance of the set of activities that constitute an agricultural value chain cannot be overemphasised.

[77] Dolan and Sorby, (2003). Dolan, C., & Sorby, K. (2003). Gender and employment in high-value agriculture industries. Agriculture and Rural Development Working Paper, 7.
[78] Leslie Sklair (2010): Assembling for Development. The Maquila Industry in Mexico and the United States. Routledge Library Editions.
[79] *Trabajadora* in Spanish (pl. *trabajadoras)* means female worker(s).

Organisational capacity of Women

Strong organisational skill is another element of governance or agency that determines participation and benefits, over and above economic incentives. This is fostered by political representation through networking and organisational capacity, including advocacy and lobbying for transformative change. These skills allow female farmers to be better linked to sources of technological information, innovation transfer, upgrading techniques and connection to end markets. Evidence abounds that there is significant difference in women and men's organisational capacities. Men relate more to "weak ties", that is, high-end networks that link them to superior information and skills, while women tend to remain closer to their community networks and families and do business more within these "strong ties" that do not promote innovation.[80] In many farming communities across Africa, women farmers have benefited from cooperatives and other organising, albeit at the community level. While this may not augur well for linkage to higher ends of value chains, it has led to palpable benefits towards enhanced productivity at the primary production stage, as well as in the marketing of primary products in local consumer markets. What is lacking is the upgrading of women's organisational capacity to access higher technological knowledge and skills, including for product, process and chain upgrading, as well as access to higher and more remunerative end markets in expanding global supply chains.

There are examples of women's organising that have benefitted women farmers.

Box 5.6: Best Practice in Women's Organising for Higher levels of Commercialisation in Zimbabwe

Through collective action, and because of their well-developed organizational capacity, women farmers have been able to influence a government institution involved in the breeding and multiplication of climate smart seed maise varieties to afford small-scale producers entry into seed maize production. The Women Farmers Association entered into partnership with the Scientific and Industrial Research and Development Centre (SIRDC), involving 11 lead women farmers on a combined 200 hectares across Zimbabwe to produce a hybrid high-yielding maize seed variety (SIRDC). This arrangement has provided women farmers a better chance to enter the high value market and produce seed maize that would fetch $660 per metric ton as opposed to commercial maize that would sell for $390 per tonne. This case demonstrates the importance of organisational capacity as a governance tool that empowers women to exercise influence for their benefit in value chains.

In some communal areas of Bindura District in Zimbabwe, women have been able to organise themselves as production and marketing groups for bulking their products into volumes more compatible with formal marketing, including international standards. The common success factor

[80]Chen, M (2008). Women and Employment in Africa: A Framework for Action Harvard University WIEGO Network.

is the collective nature of access to resources and services at the production and marketing levels. Moreover, while a lot of available literature has identified limited access to extension services as a major factor explaining women's low productivity, this study found that through a collective approach, many women farmers in Zimbabwe enjoy easier access to available extension services. In addition, extension delivery is not dominated by men as suggested in most available literature. In Zimbabwe, women make up close to 50per cent of field extension staff. This is compliant with the gender policy of the country's extension system and continues to improve the relative knowledge endowment of women farmers. A strong aspect of training has been on climate-smart agriculture. Thus farmer field schools incorporate climate change knowledge and demonstration into their programme, including in training programmes that specifically target women farmers through their cooperatives. In the figure below, a female extension agent demonstrates climate-smart farming techniques to female farmers.

Figure 5.1: A woman smallholder farmer demonstrating her use of mulching to minimise run-off.

Photo by Ruvimbo Mabeza-Chimedza, field work 2015

Box 5.7: Women farmers' enhanced access to extension services in Bindura District of Zimbabwe

The District Extension Officer for Bindura confirmed that women participate in extension activities more than men do. There was a clear cut pattern of division of labour in extension activities. Women tend to participate more in shows and field days while more men attend technical extension meetings where, for example, demonstrations on the use of new improved farm equipment or farm implements are introduced and explained.

5.2.6 Value Chain Financing and Payment Systems as Barriers to Entry

In the case study countries, small farmers' lack of access to finance was found to be a key constraint for both men and women. With very little formal credit being advanced to smallholder farmers, particularly women, the only alternative sources of finance exist in the informal sector. Government action or inaction may exacerbate the problems of much-needed financing, for instance, where contract farming schemes are constrained by government regulations or when government payment systems constitute major impediments. The maize value chain again provides a good example of government dominance of the maize marketing system.

Box 5.8 Poor marketing prospects limit women's access to value chain financing in Zimbabwe

In Zimbabwe, the biggest challenge to farmer's financial capacity is delayed payment for maize deliveries to the Grain Marketing Board (GMB). Farmers have sometimes had to wait up to twelve months before being paid for their deliveries. The situation is exacerbated by price controls, which raised the price of maize from $270 a tonne to the current $390 a tonne. Many buyers find the new price prohibitive and have suspended purchases. This has left farmers stranded. Farmers indicate their willingness to accept $300 if this would bring back the alternative buyers who make faster payments than the GMB.

GMB's failure to pay farmers has far reaching implications, the most serious being farmers' inability to purchase inputs for the subsequent season. According to a group of women farmers at an irrigation scheme, delayed payments by the GMB have resulted in the erosion of farmers' productive base as some farmers are forced to sell assets such as livestock in order to earn money for the purchase of seasonal inputs. The women farmers argued that they were not asking for free inputs but wished to be paid for their maize so that they could use part of their earnings to purchase inputs. Their problem is compounded by the fact that most farmers cannot access agricultural loans in the financial market.

5.3 Endowment of Critical Success Factors in Selected Countries

All the extant issues in the entry and participation in value chains are linked to certain critical capacities that are fundamental to successful value chain development in agriculture. These have

been referred to as the critical success factors (CSF) for entry and beneficial participation. CSFs confer a competitive edge to operators at different points in the value chain in the form of "economic rents", which enhance profitability through competition. But economic rents can also create entry barriers against competitors in order to entrench the survival of lead firms in the chain. Economic rents include technological rent (gaining access to technological resources), human resources rent (having access to better operational skills), organisational rent – (acquiring superior management capabilities and skills) and marketing rent (capabilities to reduce marketing cost or to gain bigger market share. Others are financial rent, infrastructural rent and relational rents, which focus on networking capabilities, as well as efficiency issues, timeliness, and labour composition for different agents and operatives on various nodes of the chain.

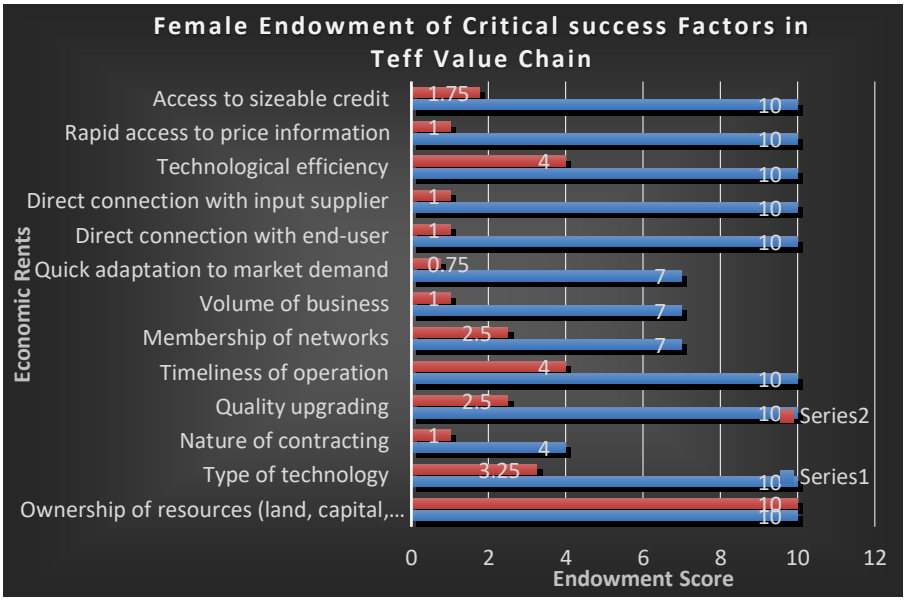
The critical gender issue is that economic rent is *usually* linked to the possession of scarce attributes including creativity and resilience of actors, apart from the basic conditions of entry. In order to address gender inequality in value chain development, the relative ownership of various forms of rents need to be assessed. The gender of operators is hereby recognised as a barrier to these critical success factors and so the relative endowment of CSF by women and men (actors) is a fundamental metric of gender-inclusive value chain analysis.

The CSF framework was tested in the study countries with a view to assessing the initial conditions of female agents/actors in value chains, as an explanatory basis for further specific findings. The rent factors assessed are the type of technology, nature of contracting, level of quality upgrading, membership of networks, volume of business, and adaptation to (new) markets, direct connection to end users, access to sizeable credit and rapid access to information. The assessment was based on an opinion survey of the study Reference Group of stakeholders, which included policy makers, private sector operators (representatives of commodity producers, processors and marketers), as well as women engaged in the value chains. As shown in Figures 5.2 to 5.6, there was marked inequality in the relative endowment of CSFs by gender of actors, indicating fundamental entry barriers for women.

In Ethiopia, inequalities in the basic conditions of women and men were very stark. Women in the teff value chain had a highest score of 4 on the scale of 10 in technical efficiency, timeliness of operations and quality upgrading, meaning that if given the right resources, they can adapt current indigenous technology for better outcomes. Next is membership of networks where they also had a low endowment score of 2.5, meaning that although women's organising is a growing phenomenon, it is still at a low level compared to what is required for competitive advantage against (male) competitors. Women were also rated very low relative to men in "connection to end markets", noting that *"Only a few big players are connected to restaurants, hotels, supermarkets and export market"* who prefer to buy quality injera from the growing number of SMEs (who all use female injera bakers as operatives!)**.** Women's inability to respond effectively to market demand was explained: *"...although the demand (for injera) is rising, women are risk averse due*

poor link to the remunerative markets; and their competing interest for household consumption needs of the same product". Women's low endowment in direct connection to input supplier was explained as a function of *"Government controls over input supply activities through (male-led) community associations; extension services are targeted to One member per household (usually men)", making* women farmers to be almost exclusively reliant on men for their informational needs.

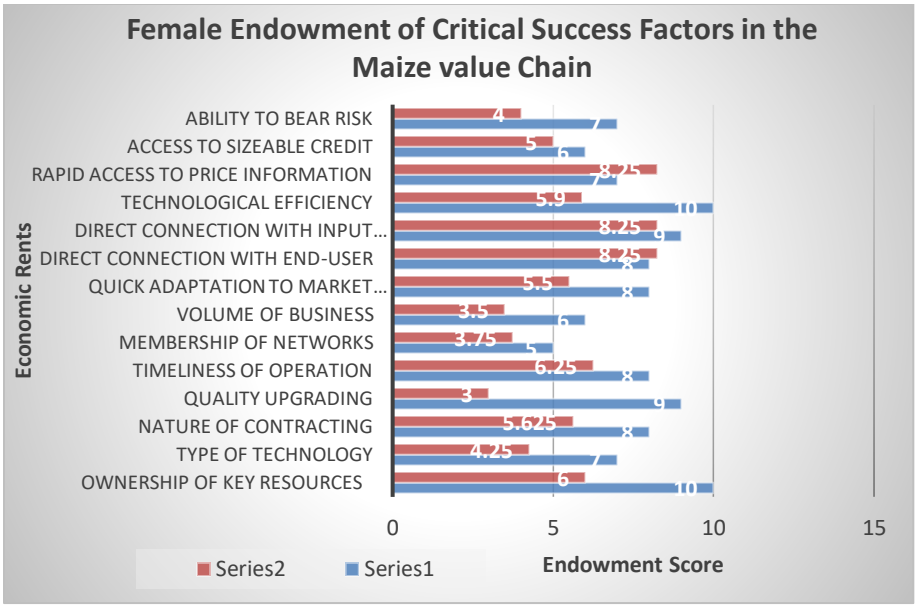
Figure 5.2: Female Endowment of Critical Success Factors in Teff Value Chain



Source: Field Work in Ethiopia, November, 2014

In Zimbabwe, the findings were less stark (Figure 5.3). The endowment score of women for most CSFs was above average. It was however relatively low (4.25) for types of technology, quality upgrading, volume of business and ability to bear risk. Women were almost neck to neck with men in their connection to input markets and end-markets (currently the monopoly market of the Grain Marketing Board). With regard to input markets, the findings indicate that group access has been a major enabler for women's endowment of this CSF.

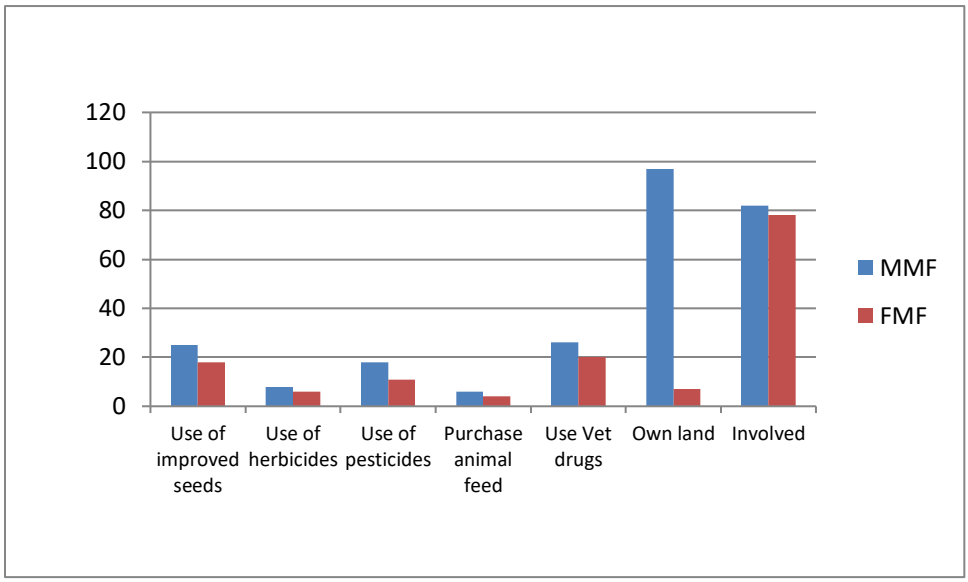
Figure 5.3: Female Endowment of Critical Success factors in Maize Value Chain



Source: Field Work in Zimbabwe, November, 2014

Ugandan women's poor access to land and low scale level of commercialisation appear to be the two major deterrents to their entry into the pineapple value chain (see Figure 5.4). This is underlaid by similar gender inequalities in capacities for successful commercialisation, even though females are almost as equally involved in all aspects of pineapple production as men. Access to land is where women in Uganda are most limited. These other factors would further limit the benefits of participation even for those who have access to land.

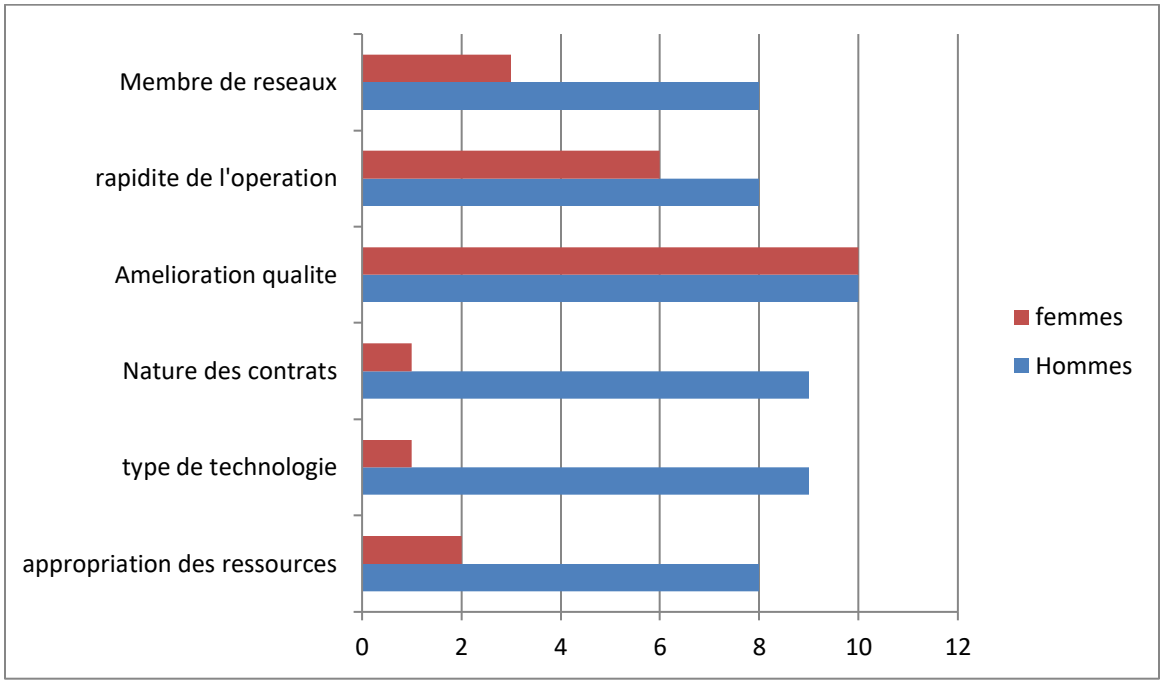
Figure 5.4: Indicators of Farm Commercialisation on male-managed and female-managed pineapple farms in Uganda



Source: Fieldwork with stakeholders in Uganda, November, 2014

In Mali, apart from the training in quality improvement received by most women in mango processing and among "pisteurs" (small traders), there are many aspects of gender inequalities in respect of other factors such as business management, negotiation skills, capital and knowledge for accessing innovative technologies, representation in umbrella and inter-professional organisations (where women's representation is currently less than 30per cent). Many of these CSFs are relatively more attainable by men and thus, ability to sustain participation through beneficial outcomes remain skewed by gender in the country. Figure 5. 5 shows the gender disparity in the endowment of selected CSFs in Mali.

Fig 5.5: Critical Factors of Success: Mali Mango Value Chain



Source: Field Work with Reference Groups (stakeholders) in Mali, November 2014

In Cameroon, the returns to fish processing are linked to women's score on a number of critical success factors – capital outlay, availability of raw materials (timely and affordable fish catch), technology application, adaptation to market demand, as well as the availability of processing and preservation equipment, among others. Figure 5.6 indicates the importance of these factors. The most critical factors are access to finance, market access, quality of output and technology use. Volume of business was also considered very important. The relative endowment of these factors among women (not charted) was generally below 5, meaning that the ability for women to engage profitably in the fish value chain is still constrained by their lack of empowerment to access these critical factors.

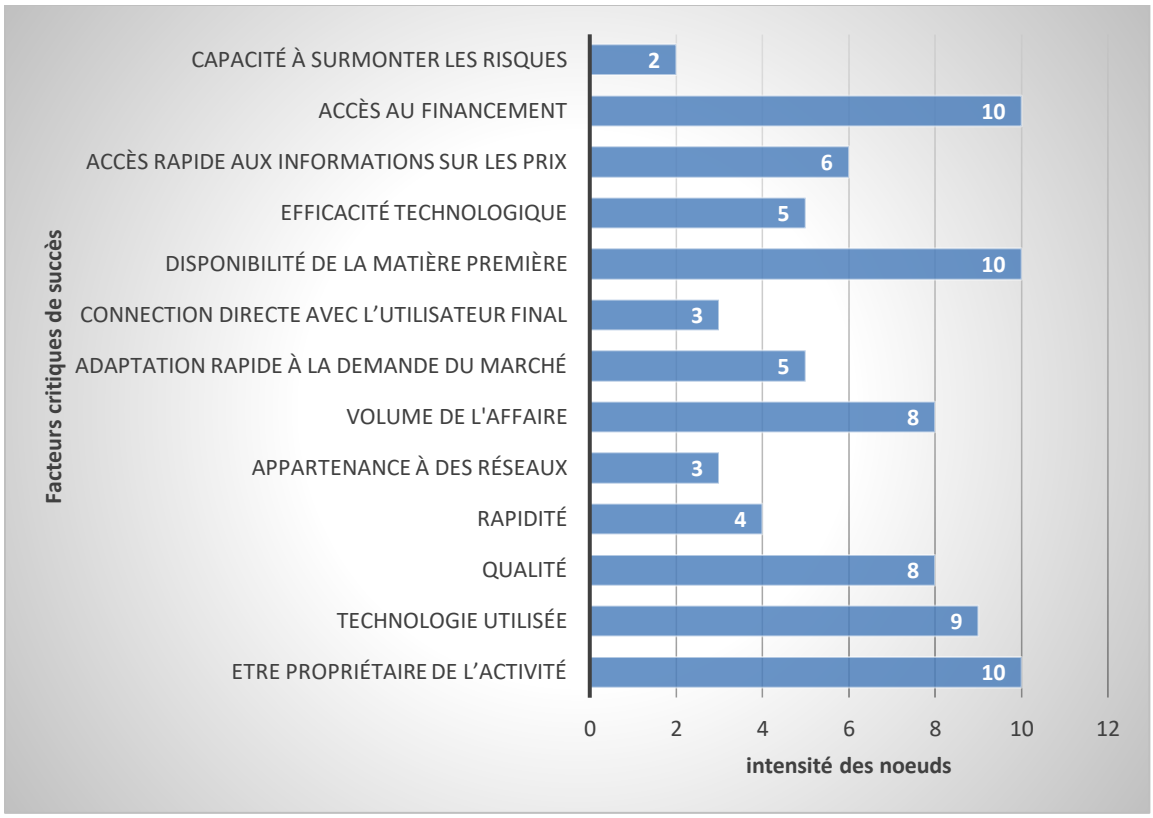


Figure 5.6: Critical success factors in the fish value chain in Cameroon

In general, the current level of endowment of women in most agricultural value chains does not put them in a position to be successful and withstand the growing competition in value chains. In the next chapter, case studies were used to unearth specific aspects of gender differentials in capabilities and enabling environments as well as to relate these to the outcomes of their participation.

Chapter Six: Gender-Aware Value Chain Analysis: Case Study of Selected Commodities

6.1 Frameworks for Gender-aware Value Chains Analysis

Value Chain Actors and Operatives

Value chain 'actors' are firms and individuals who own resources and take control of the product as it flows through the supply chain. They own basic productive assets, usually land, equipment or machinery, and have control over the types of and benefits to workers ('operatives') that carry out value chain activities. Persistent gender inequalities in the ownership of agricultural assets thus become relevant to the analysis of outcomes associated with value chains.

Value chain development enlarges the spaces of employment and income for more people as agricultural transformation takes places. Benefits thus accrue to operatives who are either paid or unpaid workers at the lowest level of the value chain. With respect to outcomes, the gender of operatives as well as their capacities and the type of incentive structures put in place are important. This is because in traditional and small-scale commercial systems, it is the workers rather than the owners that determine value chain outcomes based on their labour productivity, i.e. skill set and labor standards and renumeration and technical efficiency in the mix of inputs used. The mix of skills that operatives bring in, and especially, the balance between capital and women's labour affect ultimate profitability.

Value chain actors and operatives are rarely a homogenous group. Breaking down these actors and operatives into more homogenous sub-groups allows us to take into account the variation in constraints and opportunities of different sub-groups such as female and male actors and operatives.

Classical Value Chain Analysis

Three main steps constitute value chain analysis. First, a structural analysis of chain actors, chain activities and chain processesis carried out by identifying the main firm types (actors), mapping out their main functions and resources, including main activities that move products from producers to the final consumers through the standard stages of input supply, production, processing, and distribution links. Structural analysis also focuses on the level of technology involved, the size of business and the types of output generated. Secondly, an analysis of **value chain outcome** is conducted through an assessment of value-addition and other benefits to the actors, operatives and the end-users in terms of prices, profits and wage incomes, as well as product satisfaction (quality, taste, convenience, image, etc.). Third is an analysis of **governance of value chains**, which focuses on business practice and the enabling environment, such as the mechanisms

for information flows, opportunities for capacity building, access to basic resources and acquisition of rents within the value chain. The analysis of **vertical and horizontal linkages** assesses the degree of collaboration between value chain actors at the same level and at different levels in the chain. At the vertical level, analysis is focused on the degree to which innovation flows freely across different actors on different nodes of the chain. At the horizontal level, the interest is usually around competition and cooperation among similar actors. The role of other actors such as governments, NGOs and community networks is also important. Governance also therefore looks at policies, regulations, institutional arrangements and public infrastructure as they affect performance of actors and operatives (USAID, 2008).

Gender-based Analysis of Value Chains is a gender-aware analysis of all the above that seeks to identify the gender intensity of all nodes of the chains via the gender of actors, patterns of gender responsibility for activities and the level of process upgrading via the technological structure. Gender distribution of outcomes is the focus of value-chain outcome analysis while the gender equality or otherwise in the systems of governance is the focus of governance analysis. These determine if the evolution of the value chain is gender-inclusive in the various respects. Gender becomes relevant here because of the goals of gender-equality, women's empowerment and sustainable development.

Gender segmentation naturally occurs in growing value chains as the relative access to rent factors – resources, skilled labour and technology – condition the participation, outcome or benefits to women and men either as actors or operatives along the chain. Segmentation by gender is an outcome of differences in the endowment of critical success factors, as described in chapter 5. Overall, the level of segmentation indicates the gender intensity of different chain processes. Gender intensity may not be synonymous with ownership of the processes (agency as a form of empowerment); it relates to women's empowerment through income opportunities via the prevailing patterns of gender responsibility. Both avenues for income (actors and operatives) point to alternative entry points for the increased participation of women within emerging value chains.

Patterns of Gender Responsibility for Chain Activities

Value chain activities are the tasks that are inherent in each enterprise along the chain. How these tasks are assigned to different operatives by their gender, based on their perceived capability and rewards, is of concern to this study. The relevance of gender lies in the way that African agricultural systems have traditionally exhibited certain patterns of gender responsibility that continue to influence gender role allocation within emerging value chains. Although these traditional patterns tend to be altered when macroeconomic changes lead to different sets of incentives (usually for men in cash crop systems and for women in food-crop systems), the socio-cultural contexts still reinforce gender stereotypes especially in the transactional relationships that accompany new modes of production. These ultimately determine not just the distribution of responsibilities between male and female farmers as skilled and unskilled workers, paid or unpaid

workers, as own-account workers or family workers, but the ultimate outcomes that go with these differentials.

The well documented patterns of gender responsibility relate to the labour use patterns for farm tasks, ownership of farms or headship of family farms, as well as commodity/crop focus by gender[81],[82]. These patterns have been largely reproduced in emerging value chains. While in some, new nodes of commercial activity have led to changing social and economic relations between women and men; some actually changed the cultural contexts of production of several traditional commodities [83] (see Hebo, 2014, for the case of milk production in Cameroon). Nonetheless, the outcomes of these patterns further define the level of gender segmentation of outcomes within value chains.

Chain Activities/farm tasks are classified as male tasks, female tasks, joint tasks and shared tasks.

- Male Tasks are predominantly carried out by men;
- Female Tasks are predominantly carried out by women, often with male and female children;
- Joint tasks are those in which both women and men can interchange roles and either or both can perform the tasks;
- Shared tasks imply that women and men perform different aspects of the same task complementarily. A common example is harvesting, which is usually cooperatively done in many cereals farming systems. While men cut the harvest with sickles, women pick and haul the harvest, or vice versa.

Technological Structure and Upgrading of Value Chains

Technological structure refers to the level of upgrading occurring on value chains in terms of capital formation or asset building, technology application, product transformation, volume of business and target or end markets. This also refers to the level of vertical integration or linkages between nodes and sub-channels. Agricultural value chain analysis distinguishes between the four technological structures of different firms/farms in terms of the following:

Type of technology

- Peasant farms who use mainly family labour and rudimentary or indigenous technologies both on and off farm (first stage of processing);
- Small commercial farms and processors using low to intermediate technologies; and

[81] Yisehak, K. (2008). Gender responsibility in smallholder mixed crop–livestock production systems of Jimma zone, South West Ethiopia. *Livestock Research for Rural Development*, *20*(11), 12.

[82] Akanji, B. (1999, August). Differentials and patterns of Gender Responsibility in Tradable crop Agriculture in Nigeria. *Conference on Women Farmers: Enhancing Rights and productivity by Centre for Development Research,(ZEF), Bonn, Germany* (pp. 26-27).

[83]Hebo, M. (2014). Evolving Markets, Rural Livelihoods, and Gender Relations: The View from a Milk-Selling Cooperative in the Kofale District Of West Arsii, Ethiopia. *African study monographs. Supplementary issue.*, *48*, 5-29.

- Large commercial production and processing firms using capital-intensive, state-of-the art equipment.

Business Volume

- Small business volume of products target farm-gate and local consumption markets;
- Larger business volume allows linkages to bigger (urban food markets);
- High business volume allows linkages with regional and export markets as well as modern markets such as hotels, supermarkets and so on.

Products or outputs of each node

- Processed products usually target final consumption markets, including global consumption markets, and are ranked highest;
- Semi-processed products target industrial markets as raw materials;
- Non-processed primary products mainly target local consumption markets or may also be exported and thus acquire value added outside the country or region of production;
- Service firms however add value internally through handling activities, for instance storage, packaging and transportation (USAID, ibid, 3).

Target markets

- Global supply markets for final consumer products are highest on the scale;
- Regional and sub-regional markets attract primary products for direct consumption of semi-processed products;
- Urban national markets are the collection points from the sub-national level or wholesaling of all forms of outputs;
- Local markets and farm-gate markets cater to the immediate consumption needs of farm families both in primary products and raw materials for processed output.

Prices vary according to the distance between the production and final consumption points. This is expected to correspond to the level of market investment and to correlate with the price premiums or value addition to marketing services.

Distribution of Outcomes and Governance of Value Chains

The benefits of value chain participation evolve through several outcomes such as increased productivity and yields, profitability, access and control of productive assets, wage employment and reduction in gender wage gaps, enhanced markets including better prices received, and so on. Other less tangible outcomes are in terms of enhanced voice and participation and improved family welfare. A critical measure of gender distribution is the distribution of value addition across the chain. This is in terms of returns to investment, price margins and/or the value of product transformation along the chain.

The colour legend in Figure 6.1 attempts to categorise women and men's value chain enterprises according to technological structure. In the empirical research, an attempt was made to differentiate the spaces of ownership (actors) and operations (gender roles) as well as the technological structure of enterprises of women and men. As shown in Figure 6.1, this assumes

possible segmentation at different levels. In the annexure to Chapter 6, some of the outcomes are presented in schematics using this framework.

Chain Actors/Activities	Male intensive activity	Female intensive activity	Joint (Gender neutral)	Government controlled
Enterprise size	Small scale/subsistence	Small commercial	Large commercial	
Technology Use	Low	Medium	High	
Output	Fresh product	Intermediate	Finished	
Market linkage	Retailer	Wholesaler	Export	

Figure 6.1: Colour legend for Gender Segmentation of Agency, Processes, Outflows and Technology application

Research Findings

6.2 Gender Segmentation in Selected Value Chain

Gender Intensity of the Value Chain (Actors)

Figure 6.2 shows the predominant patterns of ownership and control of various stages or nodes, from input supply, production, processing, marketing and final utilisation. This is an indication of the agency of dominant actors. The prevalent pattern is that, although women are generally involved as operatives (labour/employees) in virtually all nodes of the different value chains, a few nodes of activities have females as key actors.

Input Supply is an important stage of all the value chains. Government control of the input procurement processes was a common feature in all the value chains; distribution or marketing of inputs was however dominated by male entrepreneurs, as agro-dealers. The capital intensive nature of this activity tends to preclude women. Thus this stage is government-controlled and male-dominated in all the countries studied. It is noteworthy that women were sometimes active members of community seed growers associations, for example, maize and pineapple suckers associations. These were largely informal associations rather than formal certified seed growers. Women simply store seeds or seedlings and distribute or sell to other women growers. Seed production and distribution is dominated by men in the olives value chain but women are the main operatives, being very adept at fruit and seed selection.

Production is heavily male-intensive by ownership but female-intensive by operators.

In Ethiopia and Morocco, women rarely own land independently but are very active in production as operatives. Although joint land certification schemes gives women the rights to land in Ethiopia, they were rarely found as sole actors in farming except as widows. While teff farms tend to be family-owned with joint titles held by men and their wives, the ultimate control of the product is by the male partner. Few women independently own their own farms, unlike in other value chains where women were seen as independent farm owners or managers (actors). Only the final processing of teff into injera, the local staple, is completely female-dominated.

In Zimbabwe, women were found to be the pre-dominant actors in the small-scale production and farm gate marketing of fresh maize, as well as in the processing of maize at household level into maize meal. Production is thus female intensive and more than 50per cent of small-scale commercial farmers are women. Male and female farms however operate at different levels of commercialisation and technology application. Women in the resettlement communal schemes produce both for the market and home consumption, but more men were found in the larger commercial schemes.

In the pineapple value chain, both women and men also own and manage production units, again with a clear dichotomy in their systems of production. While women are dominant in production of the conventional pineapple variety, which also tends to be on a small scale, men are dominant in the organic production system, involving larger commercial farms and producing as contract farmers or targeting urban and export markets.

In Morocco, women rarely own land due to deep patriarchal norms.. But women are expected to operate on family farms and work as paid operatives on commercial farms. The orchard production system is predominant and generates huge employment spaces for women who arepredominantly involved in the upstream segment of the production chain but they operate as wage workers or family farm hands The gender role distribution in Table 6.1 shows that women contribute up to 30per cent of planting activities (notably the selection of seedlings), 30per cent of fertilisation activities, 40per cent of pruning (to sustain production) and 75per cent of harvesting, which includes the selection of olives according to their maturity. The technology for most female operations is low to medium, due to socio-cultural barriers that create a gap between men and women in terms of educational attainment and skill set. The most advanced mechanical method of harvesting olives used by women involves the use of poles, along with vibrating hooks, swing combs and vibrators. Women contribute close to 45per cent of transportation activities mainly by head loading. Once the olives are sent to the crushing units, they are handed over to the men responsible for loading them onto machines, which are exclusively operated by male technicians. Alternatively, the olives are stored when inflows outweigh crushing capacity.

In Mali and Cameroon, women are main actors in processing while men are sole actors in production systems, being the owners of productive assets, including land and fishing equipment, and usually the sole possessors of technological skills.

Table 6.1 Gender Roles in Olive Value Chain

Tasks	Male Share	Female Share
Land tilling		
Planting	70%	30%
Fertilising	70%	30%
Pruning	60%	40%
Harvesting	25%	75%
Transportation	55%	45%
Crushing	100%	-
Labelling	66%	33%

Source: Field work in Morocco, 2015

Processing also tends to be segmented by gender, contrary to the presumption that processing is a female-intensive activity in much of Africa (Morris and Saul, 2005). While first stage processing, usually on-farm or in local cottage industries, is sometimes owned or managed by women, as processing becomes more technologically advanced women's presence disappears.. This was observed in the teff value chain, where men were identified as threshers and processors milling teff into flour. Although this activity is also carried out in almost all households by women, using local methods of grinding, the few commercial mills were male-owned because men could afford to buy the machines and were often more knowledgeable in operating the mills.

Both women and men process maize into flour in Zimbabwe, but again with differentials in the various stages of operation. Many large-scale mills for flour and further processing into confectioneries, brews and livestock feed were private sector driven and male-intensive in ownershipPineapple processing is at a rather rudimentary level in Uganda, being limited to either juice making, local brews or solar dried fruit chips. While women producers process the fruit into local brews and juices, males are engaged in producing fruit chips, destined for global and regional markets. Recent efforts by development partners to organise and train women in the solar drying of pineapples are worth noting. But there is still a dearth of home-grown initiatives addressing barriers to such opportunities.

In Mali, women are concentrated in the transformation node of the mango chain where they represent 78per cent of actors. Women's participation in other levels is very low. They represent only about 6per cent of producers with the critical challenge being the unequal land tenure system, which impedes their access to and use of land, especially for this tree crop production. They account for 25per cent of *pisteurs* (small traders), although this proportion is estimated at 50per cent in the capital Bamako, where there are more urban consumers, and only 7per cent in Sikasso, a rural enclave that is the most important production area. Women constitute only 9per cent of pepinièristes (mango tree nursery holders) and only 11per cent of traders/exporters of mangoes. The main reason for such low representation is their limited financial capacity, since both activities, particularly sea or air exportation, require substantial resources. Despite being the key actors at the transformation level of the chain, women face constraints related to the cost of packaging and the high cost of electricity-driven processing facilities. Processing still remains the major domain of women as they have carved a niche in most of the evolving processing systems. While they own and manage processing businesses mainly as cooperatives, they are engaged mainly as operatives in technologically advanced firms that process for high end markets and export markets.

Patterns less in semblance with the traditional norm of mixed task allocation were found in Cameroon, where fishing is done exclusively by men while women's key role is in post-harvest operations, namely handling/sorting, processing/smoking and marketing of fisheries products. Processing fish into its frozen form is exclusively large-scale and private sector driven, and employs large numbers of women as marketers. Men are exclusively involved in artisanal fishing with zero involvement of women. Thus, the gender roles of actors in the fish value chain are clearly segmented. This appears to be the general pattern also in the livestock sector.

The implications of these patterns are that women farmers lack not only productive assets such as land and capital equipment but also control of land when owned jointly with men. Where women own land and other assets in their own right, they do enter into commercial farming as actors, though they face considerable challenges of low business size and small market share. In all the value chains, women farmers as actors rarely progress to higher and more remunerative levels of marketing including exportation.

Figure 6.2 indicates the gender intensity of various nodes of the selected value chains. This is helpful in identifying where women are located on the value chains, in order to facilitate strategic interventions and empowerment on nodes where they currently face unfavourable competition with men.

Gender Intensity of Value Chain Nodes (Actors)

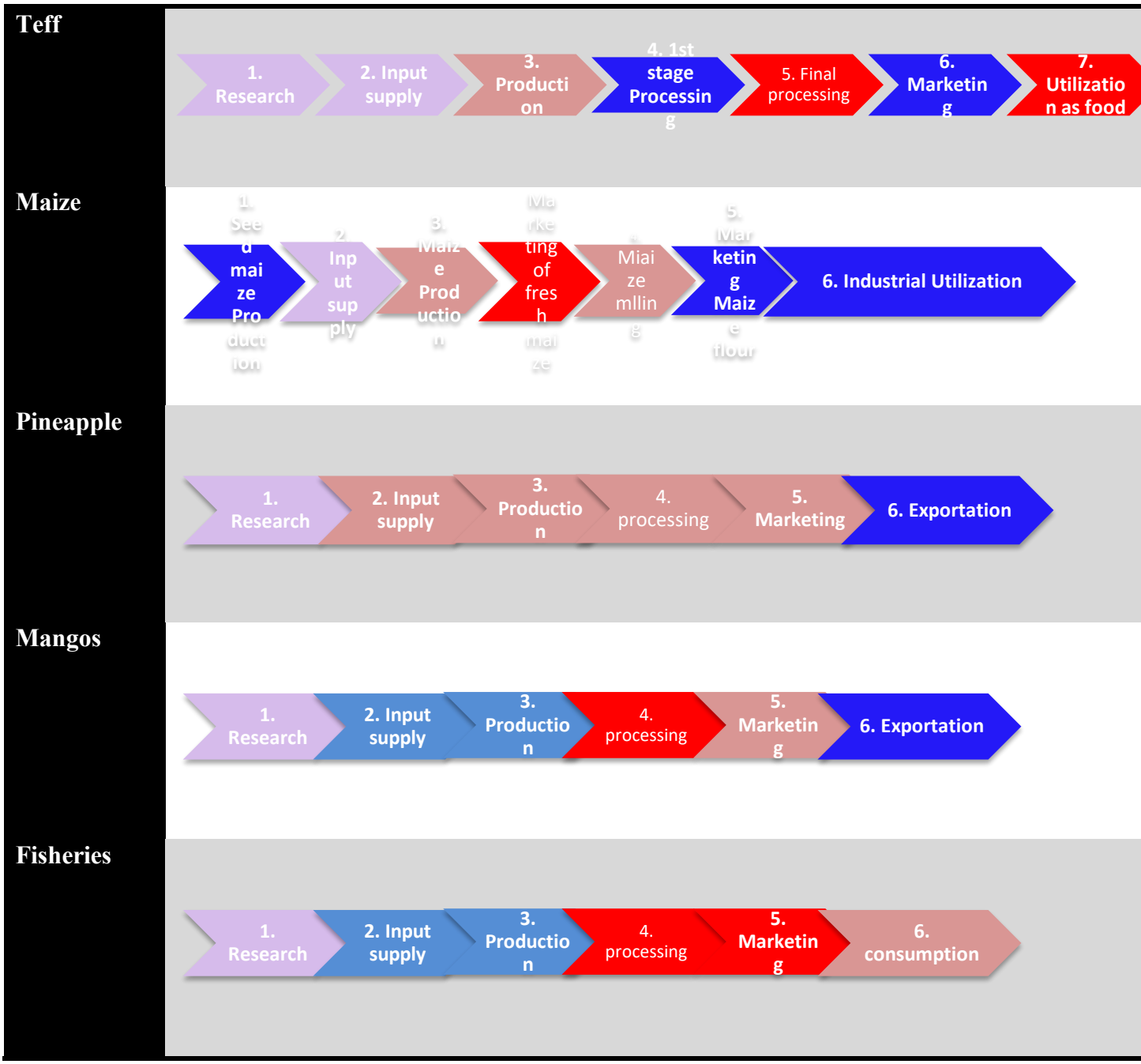


Figure 6.2: Gender Intensity of Commodity Value Chains: Ownership of Enterprises
Source: Compiled from Country Research Findings

Gender Intensity of Value Chain Activities: Patterns of Gender Responsibility (Labour-Use)
Patterns of gender responsibility on nodes of value chains are always influenced by the traditional gender norms of a particular country. However, these traditional norms are often likely to change with changes in the economic life of people. Figure 6.2 and the individual country value chain maps shown in the annexure to chapter six indicate a high mixture of female intensive and joint

tasks for most stages of the value chains, which shows that although women may not be the main actors or entrepreneurs, women's labour is critical for most activities on these emerging value chains. Increasingly, joint tasks can be observed in all chain activities. It is apparent that chain activities depend heavily on the labour of women, often accompanied by their children. Yet the majority are not own-account sole entrepreneurs (actors). Where women are actors (enterprise owners) they are segmented into specific nodes at a given level of technological application. An example of the strict influence of traditional norms is still observed in Ethiopia, as shown in Box 6.1.

Box 6.1: Role of Cultural Norm on Women's Dominance of Value Chains: The Case of Injera in Ethiopia

Baking the consumer product "injera" is a female task because cooking is traditionally a household task undertaken by women. The development of injera baking into a cottage industry may be the only female domain where women's comparative advantage meets no resistance, as explained thus:

"It is inconceivable for men to bake injera. This means that women, who have sole responsibility for injera baking, benefit the most from the the value added by transforming teff flour into injera. From making injera at home and in the kitchens of Ethiopian restaurants across the globe, today women who bake injera have an opportunity to scale up their trade to meet the fast growing global market"(Ethiopian Case Study Report, 2014).

Injera processing, marketing and export are the only nodes that seem to be fully dominated by women. While urban-based, educated and well-connected women are able to secure capital, technology and market access to modern outlets such as hotels, restaurants and foreign markets, rural women have little access to such opportunities. Although government efforts are recently geared towards promoting rural women's involvement in teff flour marketing, there are challenges with regards to the lack of marketing and processing centres in rural areas. Thus, although the internationalisation of teff via a growing global taste for injera favours women, there is need to ensure that both rural and urban women can take advantage of this opportunity.

While gender roles often may seem rigid, when tasks become more capital intensive or command higher market demand, there is room for change.

In the pineapple value chain, the cropping system used to be female-intensive. But as the market continues to expand, especially into organic production and processing into juice and solar dried fruits, male tasks have become more significant. Figure 6.4 below illustrates the presence of male labourers in the pineapple farming system.

Figure 6.4: Male Worker in a pineaaple farm in Zirobwe, Luwero district
Photo by Juliet Kiguli, Field work, 2014

The patterns of gender responsibility also show differences between formal and informal value chains. In Zimbabwe and Mali, which have well developed secondary value chains, women and men are differentially placed. While women maize growers were mainly found in the informal chain where seed maize is produced as an input for the formal chain and also used as a consumption product for a variety of local needs, many tasks on the formal value chains are female tasks. Women also operate at the administrative level. Although certain highly mechanised tasks in the secondary maize value chain are dominated by men, in commercial production systems such as feed mills, confectioneries, breweries and so on, a high proportion of female and shared tasks were observed. Formal value chains may have opened up more employment opportunities for women in industrial and services sectors. Contrary to the expectation that high technology displaces women and favours men, in maize industries higher technology displaces more men and creates tasks for more women, especially as tasks require more detail such as labelling, sorting and packaging. In Mali, female entrepreneurship in the mango value chain is high, but tends to occur in less formal processing firms or in inland and cross-border marketing, compared with the male dominance of sea and air-based trading.

Box 6.3: Women are visible in the Growing Employment Niches of Formal Maize Value Chains in Zimbabwe

This study found that women were visible at all levels in the three leading seed houses in Zimbabwe. However, there was considerable gendered division of labour, which varied at different nodes of the chain. While all three seed companies were headed by men, the second level position was held by women financial executives. In one of the companies, the laboratory was run by women only and the majority of those employed in research, at both technical and unskilled levels, were women.

Figure 6.3: Joint Tasks in a Maize Milling Plant in Zimbabwe.
Photo: Taken by GMB Communications Officer, field work, 2015

Women may, however, lack the requisite skills to remain central to employment in modernising value chain activities. In spite of the heavy gender intensity of farm tasks in most production systems in favour of women, there does not appear to be significant employment advantage, in terms of wage work, for women which leads them to perform as contributing family workers or on.

High Female Drudgery in the Production systems

Due to the perceived gender norms that also permeate policy initiatives, most production systems that are female intensive in task allocation tend to remain rudimentary and laden with drudgery. Teff production represents an area of very high female drudgery. Although new teff tilling technologies with proven high yield outcomes have been introduced, there is reluctant uptake. This disconnect is due to inadequate information on new technologies introduced and the cost, which, though outweighed by the increased yield, still constitutes a barrier to uptake. The development of tools and energy-saving devices that could alleviate the burden on women who perform these undervalued tasks is not given proper attention in technology research. The focus of extension services is not on women's tasks and this serves to reinforce their invisibility at the production stage.

Figure 6.5: Women's arduous labour Input to Teff Production and First Stage Processing

The figure shows Ethiopian women engaged in backbreaking weeding during cultivation and similarly involved in very labour intensive manual threshing, cutting of dry stems and baling to make grain silos.

Box 6.4: Drudgery of Female Tasks in Teff Cultivation in Ethiopia

Teff cultivation requires a high tillage frequency compared to other cereal crops grown in Ethiopia, ranging between 3 and 12 times. This is because the teff seed is very small and therefore germination can be difficult depending on the agro-ecology, the soil, and other land characteristics. Regardless of their farm size and relative wealth, Ethiopia's teff farmers till their land the traditional way, with ox-drawn ploughs known as Mofer and Kenber. Although tilling is the most difficult and physically challenging part of the teff farming process and is mainly a male task, women are heavily involved in a backbreaking aspect of tilling process called 'gulgwalo', which

is done by hand and critical to the preparation of the land. The yield loss for teff crop due to weeds ranges between 23per cent around the Debrezeit area, to 56per cent in Shewa (Fessehaie and Tadele, 2003). The intensity of teff weeding determines the yield level and quality of the grain. **On most teff farms, weeding is done by hand, generally as a female task. Apart from the drudgery, there is a** high health risk of exposure to toxic herbicides and non-organic fertilizers. Because of the high product loss during threshing, due to the "shattering" process, which accounts for about 20per cent of the harvest in the Adaa and Bachoo region, women are often expected to carry out the complete evacuation of crops during harvesting (Bekabil et.al, 2011).

In Cameroon, women's role in fish processing is also very tedious. The fish is smoked with firewood and women are required to cover several kilometres on foot in search of firewood. The firewood is transported in a basket carried on the back as the picture below shows. Fish is smoked in a traditional oven known as "*banda*", built with recycled materials. In addition to the fact that the fish is in direct contact with the smoke, considered harmful, women fish smokers absorb a great deal of smoke, which is injurious to their health.

Figure 6.6: A woman fish smoker transporting firewood to smoke fish
Source: Picture from Field work 2015

Figure 6.7: Picture of a "Banda" Predominantly used by Women in Cameroon
Source: Picture from Field work 2015

The implication of these examples of extreme female drudgery is that women's participation as operatives on value chains yields less than optimal benefits due to the low policy attention to labour-saving devices. Cultural notions about the opportunity cost of women's time may be a major challenge to women's empowerment. Such socio-cultural norms constrain the benefits of value chain development for everybody, not just women, because of their impact on TFP.

6.3 Technological Structure and Chain Upgrading

Women's Capacity for Chain Upgrading in Value Chains

The level of technology available to and adopted by women in different value chains usually varies between men and women. The general picture of gender segmentation in technological structure of different value chains is that at the production stages, the technological structure tends to be similar for both women and men, as a characteristic of prevailing peasant farming systems. At higher nodes (processing, marketing and exporting), the picture tends to change with women crowded into areas of low technological input in small businesses undertaking limited transformation of products and serving limited, usually local markets, while male enterprises tend to enjoy higher levels of technology.

The technological structure of women's enterprises is constrained by several factors. First, savings potential of women farmers is curtailed by the use of commodities produced for home consumption, thereby limiting economic benefits and hindering future investment in upgrading. This was true of the maize value chain, but less so for pineapples, mangoes and olives, as commodities produced strictly for the market. For these, profitability was constrained by other factors, such as poor access to capital and poor technological knowledge, which discouraged

technology uptake by many women in the study areas. Because of such factors, the potential for savings was also low.

Secondly, and related to the above, women farmers tend to receive lower prices for their outputs than prices received by men, especially as they tend to sell at the farm gate. This is due, on the one hand, to the high perishability of goods such as pineapples and mangoes and, to a lesser extent smoked fish, and the scarcity of preservation and storage technologies. On the other hand, marketers (wholesalers or village collectors), usually men, tend to offer lower prices to women farmers than they offer to male farmers. This is a socio-cultural perception of the worth of women's labour output compared with that of men. Women's lack of voice tends to affect their bargaining power.

A third determining factor is the availability of a ready product market. In Zimbabwe, more women are found in commercial farming systems because women's cooperative organisation facilitate their access to capital, and also due to the fact of a ready market presented by the secondary value chain. In Uganda, women hesitate to upgrade because marketing constraints generally limited their outlets to local markets. More men are able to link with higher end markets such as by exporting to Sudan and Kenya. In Mali, women in mango processing produce mainly for urban market uptake via male middlemen, and this tends to erode their profit margin. In fish smoking, women agents sold to wholesalers who in turn sold in urban centres, again redistributing the price premium between the point of production (smoking) and the end markets.

Fourth, due to prevailing gender norms women are compelled to provide labor to famrs of other family members, while men do not. As such, lower than optimal supply of hours in female farms reduce the scale of women's operations and the technology that can potentially be used. .

Due to changing gender roles, women and men will continue to find suitable niches in the different value chains. However differences in technological structure will also continue to differentiate the outcomes, usually to the disadvantage of women actors. Some of the gender impacts of technological change are discussed further.

Technology Defines the Gender Division of Labour on Value Chains

Technology appeared to affect the gender division of labour in some value chains. In Zimbabwe, while the allocation of tasks in the communal/settlement and small commercial farms generally followed the traditional pattern of gender responsibilities in Africa, with growing formalisation of the maize value chain labour use patterns changed and drudgery was lessened for women. There appeared to be greater gender equity in the division of labour at higher levels of agricultural value chains, although fewer women were found there. As technological structure improved, the gender division of labour tended to alter, much to the advantage of women operatives on the various value chains.

Box 6.5 Technology Use Defines Patterns of Gender Responsibility in the Formal Maize Chain in Zimbabwe

While over 70per cent of large-scale commercial farmers (entrepreneurs) contracted by seed houses are men, an estimated 90per cent of people involved in the different seed maize production tasks are women. However, men tend to be found in activities that involve machine operation, maintenance of equipment, high risk tasks such as fumigation, lifting heavy objects and supervision of labour. Because men are involved in the high technology tasks that do not require much labour, there tend to be fewer men than women in the seed supply chain. A comparison of two leading seed houses that were using different technologies in moving packaged seed showed that the company that was using a more advanced method of forklifting hired fewer men and more women than the one using conveyor belts, a form of intermediate technology. Representatives of input supply and agro-processing companies expressed a preference for women's labour in their factories. Men were only preferred for high risk activities such as spraying dangerous chemicals, operating machinery, or maintaining equipment and jobs that required lifting heavy items. In general, men tended to take on high technology jobs, except in the area of information technology where both men and women are employed. Manual or hand tasks such as selecting and sorting seeds are allocated to women. It will be interesting to see what happens when these companies introduce high technologies for selection and sorting. *(Representative of SeedCo)*

Technological Structure defines End Markets for Female and Male Producers

In Uganda, women are lagging behind in the production of organic pineapple commands higher prices for those who adopt the necessary technologies. A number of barriers prevent women from making the shift from conventional production of pineapples to organic. Poor infrastructure constitutes one type of barrier. In addition, training in organic pineapple production is more readily available to contract farmers. Most women are not involved in contract farming schemes due to other barriers such as small landholdings, lack of the requisite tools and a lack of storage facilities. The differentials caused by women's and men's unequal access to technological capital and knowledge is clearly demonstrated in pineapple marketing operations. As shown in Figure 6.7 and 6.8, women agents are limited to small retail activities while men manage wholesale operations. The use of transportation too varies according to technological structure. Small commercial farmers haul goods by head-loading or loading them onto bicycles; bigger commercial farmers use trucks and other motorised means of transport.

Figure 6.7: Female Retailers of Local Varieties; Male Wholesalers of Organic Variety in Uganda's Pineapple Value Chain

Figure 6.8: Different Modes of Transporting Produce by Female and Male Agents in Uganda.

Poor Innovation (Technological Knowledge) Transfer inhibits Process Upgrading

Most women farmer-actors operate in a low-technology, low-input environment, with female labour being the most critical input. Lack of greater opportunity for technological information and innovation transfer appears to be a major deterrent to technological upgrading.

Box 6.6: Poor Links in Technology Transfer Inhibits Adoption of Improved Methods in Zimbabwe

Study findings on the Melkassa Agricultural Research Centre in Zimbabwe indicate that there is a disconnect in the transmission of technological information from extension agents to women farmers. Farmers are often uncertain about the expected outcome from new technology and thus resist its uptake, preferring to guarantee food security for their households rather than risk uncertain outcomes. While this reduces productivity, it also continues to reinforce female roles in low-technology manual systems with little direct benefit.

Box 6.7: Inadequate technological information exacerbates drudgery for women in Ethiopia

Farmers are reluctant to use herbicides that have not proved to be effective and low in collateral damage. According to a study by Bekabil et. al (2011, cited by ATA), many farmers cautiously apply a lower dosage than prescribed. In the Dejen area, moreover, farmers rarely used herbicides because *"….the application of the chemical can lower yields as it kills not only the weeds but also the teff plants.. Thus, the farmers prefer hand weeding (two times a season) and only use chemicals in rare circumstances under the close supervision of extension workers".* Elsewhere, however, Ethiopians continue to use the 2-4-D herbicide, which has been banned in almost all countries. A new generation of 2-4-D resistant weeds have therefore emerged, making the female task of weeding all the more tedious.

Although problems abound, as described in boxes 6.6 and 6.7, on the other hand, great potential is emerging for technological progress, which, if tapped into, can help women actors to break into higher technological status and higher benefits.

Process and Product Upgrading Differs by Gender on Value Chains

Product upgrading occurs either through improvement of seed varieties or the transformation of the primary product into improved products through technological innovation. Process upgrading often involves innovations to improve efficiency. Both are important success factors for sustained participation.

In the study countries, uptake of improved seed has been limited mainly due to the lack of interest by certified seed producers who are not knowledgeable or convinced about the benefits, especially the yield pattern. This was clearly demonstrated in Ethiopia by teff farmers. Local food tastes and preferences have been the key metric for uptake. Because field inspection and laboratory analysis are often very limited, farmers rely on local end users to set the standards, based on preferred tastes in milling quality and culinary outcomes. The absence of women in research and development for varietal improvement has deterred acceptance. In Uganda, it was noted that women farmers produced the less technologically advanced conventional pineapple while men produced the improved organic species. However the reasons are more related to the inadequate knowledge of women farmers about cultivation and handling methods. This has differentiated utilisation and outcomes of technology by gender.

Export Demand has a positive impact on technology uptake

As value chains become more integrated into formal systems, female actors tend to respond more to technological upgrading even though the standards of products and services are higher. In Zimbabwe, as women producers in the informal maize production systems became linked to formal actors through the production of seed maize and with their greater involvement as employees in industrial milling or processing firms, they experienced positive spill-over effects in the production sphere through innovation transfer and greater voice within producer associations. Although women in Ethiopia have benefited more from the growing local demand for injera than from international demand (the exportation of injera is still in its infancy stage), the introduction of higher technology processors through the use of the double-dough method, which gives higher output, has enabled processors to meet the growing local demand and respond to export demand from foreign restaurants and indigenous food stores, especially in North America. This trend is expected to lead to higher product and process upgrading, most particularly to meet international standards of packaging and handling. Examples of improved packaging from the international market have also begun to spur innovation within the country (Figure 6.9).

Figure 6.9: Examples of Improved Packaging of Teff flour

Notable improvements in technological upgrading by women

There have been some notable improvements in technological upgrading for women-dominated nodes in some countries. The example of the double-dough technology for injera-baking has led to faster processing and bigger volumes to meet growing demands. The introduction of the electric tunnel dryer has revolutionised mango drying in Mali. With this new technology, drying is faster,

the production capacity is greater and the final product is of better quality, with reduced losses. Waste portions are recovered to produce mango rolls, which are also exported with the ATESTA dryer (Figure 6.10). The high cost of electricity however makes this technology unaffordable for the majority of women, who still sun-dry or buy traditional ovens. A growing number of women are involved in organic pineapple production in Uganda. Their participation is limited by land access constraints; hence they are unable to join contracting schemes where technological packages, including training, are offered to participating farmers. With greater access to larger parcels of land, more women would venture into organic production and contracting, both well remunerated. They would need to confront other limitations such as the technological and bureaucratic demands of the export marketing channel. Ugandan women producers are diversifying into pineapple juice processing and solar dried pineapple. This has led to some success stories in terms of increased income for women in the value chain. Although the methods currently being used by women are indigenous pineapple processing techniques that require little capital investment, some have been able to leverage access to development partner financing, and this is yielding benefits in terms of growing their income base, generating local employment and improving the welfare of women in the pineapple value chain. Yet there appears to be slow progress in terms of women respond to fast growing markets in the organic pineapple export sector and the whole-foods global supply chain. Meeting global standards requires more than financial leverage; it requires training and demonstration to ensure that women build key capacities to tap into this niche such that current initiatives are sustained and that the greater investment support required will pay off.

Figure 6.10: ATESTA Dryer at Bougouni, Tunnel Dryer at Sikasso

Box 6.8: Pineapple processing yields greatly enhance income in Uganda

"After acquiring processing machines, I started bottling the juice, which I sell to local wholesalers, traders and consumers. I also began making pineapple wine from the juice. By making dried chips, juice and wine from pineapples, I increased my income because the products were on high demand. A kilogramme of dried pineapples goes for Shs 8,500 while a half-litre bottle of wine is Shs 10,000.

Because of the value addition, from five pineapples I get 13 litres of wine from which I earn Shs 260,000 (26 bottles). But before this, I would earn only Shs10,000 from five pineapples. I now sell the wine and dried pineapples in Kayunga, Jinja and Mukono. I also sell bananas. Even though wine takes between four and six months to be ready for consumption, in one month I produce 100 litres of wine. My products have not yet hit the big markets because the Uganda National Bureau of Standards has not certified them. I am in the process of acquiring a Q mark so that I am able to sell my products in supermarkets and outside Uganda. Because of the heavy workload, I now employ 10 people who earn between Shs 80,000 and Shs 100,000 a month." — [INSERT Name and Occupation]

The reasons for the low technological structure on women's enterprises are not peculiar to any single value chain. As an example, respondents in Ethiopia provide insights into some of the major barriers to upgrading on the teff value chain in Table 6.2. This provides signals to areas of much needed and well-targeted policy interventions.

Table 6.2: Process, Product and Chain Upgrading for Teff

Nodes of the Teff Value Chain	Types of Upgrading	Barriers to Upgrading
Input supply chain	Introduction of improved teff seed variety; training in application of new methods	Resistance of farmers to new varieties due to uncertainty about local reception; weak institutional mechanisms for transfer of research output and innovation.
Primary Production	Introduction of improved plough technology, row planting machine, seed broadcaster machine and threshing machine; IVR/SMS system and 8028 agricultural hotline for smallholder farmers	Most farmers still use manual labour extensively, and female labour especially due to cost savings and seemingly available pool; Socio-cultural obligations of women is a major factor in their compliance;
Marketing of primary product	Organising traders into cooperatives and unions to facilitate access to markets; utilisation of mobile phones to obtain price information from regional markets	There is increasing use of mobile technology for pricing and technological information; while many women use mobile phones for injera marketing, more men use them for price information on primary products, where they control the market. Although increasing expansion of the telecom service is reaching rural parts of the country, utilisation of mobile phones among rural women still remains low compared to male counterparts
Processing of Teff	Creative improvement in baking accessories Double-layered dough dispenser container	Women have been able to upgrade their small scale injera-baking activities. However, there is limited progress in the introduction of new technologies and the small size of businesses makes it unprofitable to upgrade them

	Smaller sized electric stove for baking injera has been introduced to match the demand created by smaller cooking quarters in the new condominiums built in Addis Ababa	
Handling of Processed products	Adoption of modern ways of packaging injera e.g. vacuum sealing machine;	Again, economies of size are important to maximise the benefit of new handling technologies. There is lack of quality control at an institutional level; the foreign market is sensitive to handling and this may limit the market share of women.
Marketing of final product	Small businesses are now setting up their own websites to expand market reach	Weak organisational capacity of women across the chain; Stronger links needed between production, primary processing and end product production and marketing. More women producers need to integrate into expanding opportunities as agents and actors to improve overall profitability;
Export of final product	International standard packaging and labelling of the content of *injera;* *Dominance by a few big firms;*	More women-owned enterprises need support to grow. Financing for technological and quality upgrade remains a constraint for most women in the value chain.

Source: Field Work in Ethiopia, 2014

6.4 Gender Distribution of Value Chain Outcomes

Value chain outcomes vary. They may take the form of expanded business volumes or enhanced efficiency, both leading to increased income for actors. They may also manifest in the form of wage increases to operatives. Value added is an important metric of value chain outcomes and a proxy is the distribution of profit (price margin) along the chain. Outcomes are also sometimes indirect benefits in terms of enhanced voice for policy inputs and intra-household bargaining power, as well as poverty reduction and a better quality of life for participants and their households.

Productivity along Value Chains

It was not feasible to compare the yield and profitability on male-managed and female-managed nodes for most of the value chains in the study. However, relevant metrics of benefits were analysed on female dominated nodes and some metrics were compared for enterprises with different technological structures, within the framework of gender segmentation previously analysed. Secondary data has also been used to supplement findings of the primary research.

Productivity and Income on the Teff value chain

Secondary sources show that the national average grain yield of teff is 910 kg/ha while improved varieties of teff give a grain yield of 1700-2200 kg/ha on farmers' fields, and 2200-2800 kg/ha potential yield on experimental plots. The gap between actual and potential yields suggests a low productivity production system in existence currently. The pattern of gender roles is central to this scenario, first, via the drudgery of female roles that permeates all the chain activities and secondly, via the cost of production, which limits investment in yield-enhancing inputs. The cost of fertilizer is a significant proportion of the production cost in teff production, requiring significant use of inorganic fertilizers such as DAP and urea. This is because teff fields are exposed to nutrient degradation after the harvest because most of the crop parts are removed, leaving little on the field to recycle nutrients into the soil. As reported by farmers in the Adaa and Bachoo areas, fertilizers account for about 30per cent to 36per cent of the total cost of production, despite tight government regulation of the input market. The labour of women, which is usually undervalued or largely unpaid, appears to supplement the profitability of teff production. Similarly, the unaccounted input of women in first stage processing also implies that this node, which is male-controlled, would be unprofitable if women's labour were appropriately valued and accounted for. Women are thus shortchanged and women's empowerment is held back.

Gross margins in Maize and Fisheries Value Chains

A gross margin analysis of maize production in Zimbabwe under different management systems, and in the fish-smoking business shows the prevailing pattern in most of the value chains studied. The incentive for higher productivity is the rate of return to total investment, in this case net revenues. The rate of return does not appear to present sufficient incentive to investment in yield enhancing inputs. Profitability measures on farms are also veiled due to the high female-intensity of labour, which is largely unpaid or underpaid.

In the case of maize, although yields are higher in small commercial farming system, the rate of return does not appear to be significantly different from the communal farming system.. If women's labour input was appropriately valued, the cost of production would have been significantly higher in real terms and the rate of return much lower. On the other hand, the cost of labour may further short-change productivity on female-managed farms more than male-managed farms because of the high labour cost of male tasks. The average cost of producing maize similarly varies across the different production systems, depending on the relative application of technology, including chemical inputs, skilled (male) labour and upgrading equipment required in commercial farming. According to Table 6.3, the average cost of maize production per hectare for the large-scale commercial farming sector is twice as high as it is for the communal areas. Although the yield is also twice as high, the rate of return to capital does not appear to be significantly higher. This may imply low incentives for the progressive empowerment of women through scale upgrading. Attention to the cost of production via improved access to inputs, reduction of drudgery and equitable governance of labour remuneration could improve the incentive structure needed by women producers.

Table 6.3: Economic Analysis of Maize Production in Different Farming Systems in Zimbabwe

Indicators	Communal area production	Small-scale Commercial	Large-Scale Commercial
Input costs/ha	$300	$396	$1450
Labour/Machinery	$290	$290	$90
Total variable costs	$590	$686	$1540
Yield MT/ha	2.7 MT/ha	3. MT/ha	7 MT/ha
Gross value of output (US$)	$1053	$1165	$2730
Net Revenue	**$703**	**$479**	**$1190**
Rate of return to capital	**1.78**	**1.69**	**1.77**

**Provided by individual farmers in Bindura District

In Cameroon, a gross margin analysis showed that this also varies according to the type of player in the value chain. The gross profit of a woman fish smoker is $1,050 while that of a fisherman who owns his canoe is $5,200. However because of low capital outlay, the rate of return is much higher for women fish-smokers, 1.1, compared to about 0.35 for men. The main expenditure items of a woman fish smoker are fresh fish and firewood; for the fisherman, it includes the high cost of fuel and fishing inputs. Thus fish smoking remains a profitable economic activity. Higher scales of operation requiring higher capital outlays may reduce the rate of return but will surely enlarge the income as well as yield higher benefits of larger market outreach, which in itself will be an impetus for higher technological input and the empowerment of more women.

Table 6.4: Gender-based analysis of economic profitability of Fisheries in Cameroon

	Woman fish smoker (US dollars)	A fisherman who owns a canoe (US dollars)
Ration at sea	/	800

Purchase of fresh fish	600	/
Purchase of fishing inputs	/	3 000
Transportation of fish	100	/
Fuel	/	8 000
Purchase of wood and other smoking ingredients	200	/
Arrangement of the fish in the smoker	50	/
Payment of taxes	/	3000
Total expenditure	950	14 800
Revenue	2000	20 000
Net Revenue/Rate of return	**1050 (1.1)**	**5 200 (0.35)**

Source: Gross margin analysis of a woman fish smoker and a fisherman in the Idenau community

According to the gross margin analysis of pineapple farms in Uganda, high labour cost appears to be a major challenge in Kayunga even though the price of output is the same. In Luwero, close to Kampala, labour appears to be more accessible and affordable, but prices are often determined by government. In Bussi, higher prices received more than offset the high cost of equally scarce labour. The role of pricing as an incentive for women's investment in larger volume of business is underscored. Connecting to end markets will go a long way to secure profits for women's businesses. Access to higher income, training and direct market information will go a long way to reduce the exploitation that they currently face.

Table 6.5: Gross margin in the pineapple value chain – Production and marketing of one truckload

Revenue **Price/truck**	**Districts/sub-counties** **Luwero**	**Kayunga**	**Bussi**
Revenue	800.000	800.000	1000.000
Costs	50.000	100.000	100.000
Land clearing	100.000	200.000	200.000

Ploughing	50.000	80.000	80.000
Weeding	60.000	100.000	70.000
Harvesting	100.000	100.000	70.000
Post-harvest	80.000	80.000	50.000
Total variable Cost	**440.000**	**660.000**	**570.000**
Net Revenue	**360.000 (0.82)**	**140.000 (0.21)**	**430.000 (0.75)**

Source: Data from Stakeholders in Uganda, Field Work, 2014

While gross margin varies by the production system, it also varies by location of production relative to the market (location of consumption). The latter is related to access to bigger markets, which is one of the limitations of women's enterprises in the various value chains.

Analysis of Value Added through Price Margins

As products are transformed along the chain, prices change to reflect the value added. The price premium on certain products is a measure of the returns to value adding activities across the value chain. There are clearly observable price margins for different products on different nodes of the value chain. But the distribution of value added between male and female dominated nodes is a more important measure of women's empowerment as it shows gender segmentation in the distribution of value chain outcomes.

There are various factors that impact the level of value addition. These include the base price of the fresh product and the level of subsidy (input or output)\, which may be an incentive or disincentive to further upgrading through processing. Although most economic studies in agriculture show that women make more income from processed products than primary products, this depends on their initial investment in production. Two examples from the study are from the maize value chain and the fisheries value chain. In their study of the Zimbabwe maize value chain[84], for instance, the authors found that farmers could make profits of 30per cent to 100per cent when they processed their maize into any of the finished products. There appears to be positive value addition during processing of maize as shown by the price changes with movement from primary production to the final consumer. However this also puts a lens on VAD on female versus male intensive nodes as the structure of incentives may vary, depending on quality of products (as in fish types in Cameroon) or on the level of government price support (as in maize in Zimbabwe).

Table 6.6 shows the distribution of value added along the maize chain. This generally shows disincentive at the lower nodes of the chain such as in milling grain into maize meal, due to a

[84] Kapuya and Juru, (op cit).

government guaranteed price of $640/tonne for maize seed, which is higher than or similar to the market price of milled grain as well as other processed forms of grain. Value addition is lowest, and even negative on female-dominated nodes of the chain since processing appears to have negative value addition. Marketing of milled grain beyond the local farm gate may however be attractive, given the 13.6per cent price margin. Women can be empowered to market the milled product, which is produced by both women and men. More women can gain empowerment by entering at the marketing node. The highest value added however accrue at the highest ends of the node to male-owned processing firms producing snacks and other confectioneries. Although the huge capital outlay is a major consideration, the benefits to the economy of maize in general are much higher in highly privatised formal enterprises, especially as these enterprises have been shown to yield employment opportunities for women**.**

Table 6.6: Distribution on Value Addition (Price Premium) on Maize Value Chain

Products of the Value Chain	Price per Unit	Value Added per cent
Seed maize	$640/tonne	
Maize food	$390/tonne	
Processed maize (1)		
Processed maize (2)		
Processed maize (3)		
Milled grain, local market	$499/tonne	25.6per cent - 11.4per cent
Milled grain, urban market	$576/tonne	47.7per cent 13.6per cent
Final product (1) (samp)	$600/tonne	53.8per cent 20.24per cent
Final product (2) (snacks)	$800/tonne	410per cent 60.3per cent
Final Product (3) (maize oil)	$640/tonne	64.1per cent 28.3per cent

By contrast, in the case of the fisheries processing sector in Cameroon, Table 6.7 shows that value added improves with processing even at the lowest ends of the node, meaning that any value adding activities in the value chain can be empowering for women Statistics indicate that depending on fish type and quality, the profits from marketing fresh fish may be greater than the value added through fish smoking, since investment in smoking equipment is not profitable for the cheaper quality fish. However, with higher valued fish such as bass, smoking adds more value than marketing the fish fresh. Although the latter merely requires the quick transportation of fish livestock, extending the shelf life of fish products through smoking appears to have intrinsic demand value. It may be observed that while fresh fish has higher value at the local market, smoked fish has higher value in urban markets. In summary, the value in female-dominated nodes of the fish value chain is considerable whether processing or marketing fresh fish.

Table 6.7: Value Addition to Fisheries Activities (Price Margins along the Value Chain) in Cameroon

	Price of a kilo (in dollars)		Value added (per cent)	
	Bass	Carp	Bass	Carp
Landings **Fresh fish**	2	1	-	-
Coastal Market : **Fresh fish**	2.5	1.75	25per cent	75per cent
Smoked Fish	3	2	20per cent	14per cent
Local Market **-Fresh fish**	3.5	2.5	40per cent	42.9per cent
Smoked Fish	4	3	33.3per cent	50per cent
Urban Market **Fresh fish**	5	3	28per cent	16.6per cent

Smoked Fish	6	3.5	50per cent	14.3per cent
Average VAD (fresh fish)			**36per cent**	**46.0per cent**
Average VAD (smoked fish)			**34,4per cent**	**26.1per cent**

Source: Data from Field Research in Cameroon, December 2014

Employment and Income in Selected Value Chains

Value chain activities have been found to provide higher employment opportunities for women in different countries studied here, supporting the findings of earlier studies, discussed in chapter 5. However certain conditions of the labour market were found to remain unfavourable for women, while certain characteristics of value chains were found to present better entry opportunities for women operators. The challenge is therefore to focus on improving the capacity of women to take up higher-end jobs and to eliminate gender wage differentials that serve as a disincentive for women.

In spite of heavy female tasks in teff production, wage differentials exist for a large proportion of women, as their labour is simply regarded as an entitlement of the family enterprise. However, many women have found employment in the growing number of SMEs engaged in injera baking. Because more households now rely on the ready-baked injera sold in various shops and supermarkets, enlarging markets are opening up employment and income opportunities.

There is a significant presence of women at all levels of engagement in informal and formal maize value chains. More income opportunities exist in the formal system, including at administrative and technical levels. Table 6.8 shows the distribution of employees at a maize processing company in Zimbabwe and indicates that women have gained employment at virtually all levels. Although formalisation of the maize value chain appears to have favoured male employment where special skills are involved, greater mechanisation (without much automation) tends to disadvantage men and advantage women due to the expansion of the manual aspects of the operations. Thus intermediate, rather than high technology on value chains may be more beneficial for women.

Table 6.8: Employment Profile in a Seed Maize Company in Zimbabwe

	No of Males	No of Females
Managing Director	1	0
Executive Directors	1	1
Managers	10	10

Technical staff	36	4
Administration and clerical	5	15

**The above represents the permanent employees of the company. During the peak seasons they employ temporary labour.

Table 6.9 is a comparative wage structure for male and female tasks in the pineapple value chain in Uganda. This shows that gender wage gaps exist for different operations, depending on the pattern of gender responsibility. For joint tasks such as ploughing and weeding, women's wage can be half that of men's; but for female tasks, such as planting and harvesting, there is a reverse gender wage gap when males perform such tasks. Culturally defined patterns of gender responsibility seem to be an important factor negatively affecting employment opportunities for women.

Table 6.9: Wage structure by Gender for Pineapple farming in Uganda

Activity on one acre of land	Wage rate in Uganda shillings (FMF)	Wage rate in shillings (MMF)
Ploughing	30.000=	50.000=
Planting	20.000=	15.000=
Weeding	20.000=	40.000=
Harvesting	60.000=	50.000=
Farm gate marketing	40.000 – 70.000=	60.000 -90.000=

FMF – Female Managed Farm. **MMF** – Male Managed Farm

In Zimbabwe, more women entered the formal, secondary value chains as skilled workers and at higher levels of employment than the primary value chain. An examination of wages paid for the different activities did not reveal significant gender disparities at the higher employment ranks. For example, in Seed Co, the seed house profiled in Table 6.8, women who worked at the factory as skilled workers and as operatives in the research laboratories earned the same wages as men. This was also true at management level. However, like in Uganda and Ethiopia, gender wage differentials operated at the low-skilled and unskilled jobs on the production farms. throughout the entire organisation, women were marginalised simply because they were concentrated in unskilled areas and were consequently more affected by the gender wage gap.

On the mango value chain, women are observed to hold management and leadership positions when they are owners or entrepreneurs, and even as wage workers, they face no gender-based differences in wages. The difference lies in the types of activities and the requirement to undertake physical effort or night work, which women usually reject. Thus gender wage differences are related to the gender-sensitivity of tasks.

The major employment niche in the fish value chain is unrelated to the local fisheries activities, but rather to the massive importation of frozen fish to meet the shortfall in local production. Annual fish consumption is estimated at 298,000 tonnes or an average per capita annual consumption of 17.9kg. The country imports on average 126,000 tonnes of fish each year mainly from Senegal and Mauritania to meet the shortfall. Because imported frozen fish species such as horse mackerel, mackerel and sardines are relatively cheap, they are highly patronised by the poorest proportion of the country's population. The sale of frozen fish by about twenty fish distribution companies provides local employment at various levels, especially for women fish sellers as well as sales people at company distribution centres.

The gender profile of Fresh Fish, a distribution company, gives a picture of roles of women and men. Women are nowhere to be found in management or other high skill positions. They mainly operate as cashiers and custodial staff while a few relatively well-educated women are distributors (sellers).

Table 6.10: Gender Profile of Employment in a Fish Distribution Company in Cameroon

	Total Number	Men	Women
Managing Director	1	1	0
Director of Finance	1	1	0
Human Resource Director	1	1	0
Officer in charge of stocks	1	1	0
Cashier	9	3	6
Sellers	18	11	7
Security	3	3	0

Source: Fresh Fish, a fish distribution company in Yaoundé

Employment of women and men on value chains

Another glaring difference is that most women employed at the lower levels of the chain are temporary or seasonal workers earning relatively low wages. According to one female large-scale commercial farmer in Zimbabwe, she employed more men as permanent workers because as long

as they were in permanent employment they were more likely to remain on the farm whereas women often had to leave at very short notice to go wherever their husbands or partners went. She also added that the disruptions caused by child bearing responsibilities forced her to choose men over women, since men tended to be more reliable employees in terms of availability. Thus, more women than men were subjected to uncertain employment conditions both at formal and informal nodes of value chains, in spite of their large numbers.

These trends have also been observed in Mali and Morocco where the majority of women engaged in mango and olive value chains are found in low-skilled and low-paid jobs. Although many budding SMEs in the mango value chain create employment for poor women, they are still very limited in terms of creating opportunities for better paying, more skilled jobs. Figure 6.10 illustrates the high visibility of women in mango SMEs, where women are increasingly in control of complex processes. However, it may be noted that men have also found an employment niche in the area of haulage or other heavy and mechanised tasks. In Ethiopia, women are very visible as operatives, and the growing injera economy is rapidly modernising through improved processing and packaging, thereby contributing to poverty reduction.

	
Women workers in Multichem processing centre, Mali. Country Case Study, 2014	Women operatives in a state-of-the-art injera factory in Ethiopia

Figure 6.12: Mango and teff value chains open up employment opportunities for women: Mali and Ethiopia

Gender wage gaps apply more at the lower end of value chain employment than the higher end employment niches. Raising the capacity of women to undertake higher skilled jobs would therefore reduce this disparity at the aggregate level.. Wage equality in the higher employment cadres does not fully compensate for the mass gender wage inequality at the lower ends, especially

in informal production systems, as there are more women in informal than formal value chains. More information is needed on income benefits to landless women, unemployed urban youth, and poor women needing basic survival income and to what extent this is being found in the fast-growing niches of value chains such as injera-baking firms. Other forms of benefit would be an indication of changes in welfare and empowerment status, and a pointer to the achievement of some of the goals of women's empowerment through value chain development.

6.5 Gender Issues in the Governance of Value Chains

The governance of value chains relates how critical constraints and opportunities are being addressed at the interpersonal, association and governmental levels; and the roles that women, as organisations are able to play. Various levels of empowerment can be observed in the different value chains based on (i) governance of resource ownership and control (Ethiopia and Morocco); (ii) size of business and market dynamics and access (Uganda and Zimbabwe); and (iii) gender-intensity of nodes of the value chains (Ethiopia, Mali and Cameroon). Thus women's empowerment as actors or operators is determined by several factors, which need targeted intervention to sustain, enhance the outcome of participation and extend involvement across the entire chain.

Women's Leadership and Decision-making in value chains

Box 6.9: Risk Aversion Limits Women's Agency in Formal Maize Value Chain in Zimbabwe

Women's relative invisibility as actors at the maize processing node of the value chain speaks mainly of risk aversion. Women entrepreneurs exited the formal milling system when economic conditions in Zimbabwe were at their worst and price controls were being enforced without much regard to operating costs. Following this exodus, women became concentrated in the low-technology informal processing sector where volumes are relatively low and the focus is on the local market. The study found that because of their inability to bear risk women were not quick to adapt to market demand. *Source: Chairman of the Grain Millers Association*

Unlike women's limited decision-making role in primary, informal production systems, women's leadership could be observed in the management of firms in the formal sector. Some urban-based injera baking SMEs in Ethiopia are owned by women, although these are few. The largest maize meal processing company in Zimbabwe was headed by a woman and in most seed houses the finance executive, who is second in command and acts in the absence of the head, is a woman. Women could also be observed running large stores of maize products in urban peripheries. Although most of these marketing outlets are owned by men who hold other jobs in the cities, their wives run the businesses on a day-to-day basis. Decision-making is done jointly by men and women in such businesses.

Women in the fisheries value chain can generally be considered as actors since they often operate independently without the support of their husbands and are thus sole decision makers. Women-centered associations are set up within a traditional financial system known as *"tontine"*, under which women can take loans without collateral at very low rates, often 3per cent for three months. Although this translates to 12per cent APR, due to the short business cycle the lower rate is more applicable except in cases of default. The "tontine" system operates much like the rotatory savings schemes (ROSCAs) now found in many developing countries.

Government Control versus Private Sector Management of Value Chain Processes

Government control has not fully empowered women in value chains while the private sector governance structure may have been more beneficial. There is reported gender discrimination in access to government controlled input support systems in some countries. In Zimbabwe, reports of women being sidelined by more influential men in the allocation of inputs was rife. A case in point is that of female maize millers in Zimbabwe seeking to purchase maize from the GMB. Women would sometimes wait three days for a single maize allocation, during which time men would receive numerous allocations. Moreover, while male millers received their allocations in Harare, female millers would be referred to depots far away from Harare. This resulted in a production costs difference in the same output market. At the time of the research the Grain Millers Association did not have any female member. Thus the absence of women's voice is a glaring cause of such inequities.

Box 6.10: Policy and Institutional Constraints: Inconsistent Government Policies

Excessive government control in the buying of maize from farmers as well as in fixing the selling price of maize meal leads to inconsistences that erode the profits of the millers. With the late announcement of season prices common, the government then directs that farmers who sold their produce before the price pegging are allowed to claim the difference. If a farmer sold his maize at $100 per tonne and the government has pegged the buying price at $200 that farmer is allowed to claim the difference of $100 per tonne. Policy inconsistences and the removal of subsidies on maize production by the government have resulted in rising production costs. The preferential treatment given to the larger millers in the importation of cheaper grain resulted in a price edge over the small millers, which includes the majority of women.

A more effective institutional structure was observed in Mali. Greater liberalisation of the governance of the mango value chain resulted as the subsector is controlled by stakeholders through an organised structure that brings them together to manage the activities of the chain. However, women's presence at different sections of this structure is still limited.

Box 6.11: Greater Role of Stakeholders in Mali's Mango Value Chain

The governance structure of the mango value chain is based on Decree 08-793 of December 31, 2008, the law that regulates professional and inter-professional organisations in Mali. The inter-professional structure of the mango value chain was established in 2011 and is composed of five

professions within the chain. The structure coordinates the rules and actions between the various actors leading to inter-professional agreements that define production rules, collective promotion of the products of the sector, establishment of the production zones, and actors' financial contributions to the management of the structure. All the five federations are, however, headed by men. Financing also largely remains the responsibility of men and two of the federations have no women in their management bureau. While the federation of buying agents (pisteurs) has 29per cent of women in its management bureau, the trade and export federation has just 7per cent of women. Women constitute the majority in the management bureau of the federation of processors. However, the low participation of women in the decision-making structures of value chain associations suggests that specific working conditions may be ignored; their needs are neither fully understood nor tackled.

These systemic problems speak to the effectiveness, or lack thereof, of institutional policies and practices and how they create barriers or generate opportunities for all small farmers. They also speak to the socio-cultural problems that continue to plague prospects for women's empowerment through value chains. Where patriarchal norms and values dictate the level of attention given to women's needs, well-intended institutional arrangements will continue to sideline them. These challenges also speak to the overall macroeconomic context, in this case as it affects product marketing and government protectionist or liberalisation policies. These can affect women and men in different ways. While the liberalisation of teff in Ethiopia has mainly been to the advantage of women injera processors, protectionist pricing policies in Zimbabwe have unintended negative effects on women in the maize value chain. Meanwhile, price distortions are created in the pineapple value chain due to differences in the bargaining power of women and men. Overall, poor attention to the needs of women and gender-insensitive policies have led to differential levels of participation, gender segmentation and gender differential outcomes.

Organisational Competencies of Women in the Value Chain

In most areas in the smallholder farming sector, women are adept at organising themselves into multipurpose groups that work mainly as receiving systems. These groups have helped increase women's access to extension services and input supplies, through bulk purchasing. They have also helped in procuring credit from internal saving and lending activities, exposure to new technologies and ideas through farmer field days and other forums, securing markets through collective marketing, and upgrading through group investment.

In the current study, collective action through farmers' unions, commodity associations and community based farmer groups was found to be very effective in increasing voice and bargaining power for women in production systems. However, unlike in the smallholder sector, women in large-scale commercial farming did not have as much opportunity to network among themselves or to link up with other actors in the value chain.

Box 6.12: Women in Small Commercial Informal Chain Farms are better connected than Women in the Secondary Formal Value Chain

Model farmer Tarisai (see case study below) has limited involvement with other farmers through organisations such as the Zimbabwe Commercial Farmers Union (ZCFU) because she does not see benefits accruing to members. Tarisai says that the ZCFU is merely a lobby group that does not deliver the kinds of benefits that would interest her. She would like to see the ZCFU offering benefits such as bulk purchasing of inputs, group access to loans at concessionary interest rates and some organised marketing. She says she wants something that would add value to her operations. Tarisai bemoans the disappearance of country clubs that used to be a place for networking among farmers. Commercial farmers no longer meet to exchange ideas and share experiences to solve problems facing them. She says that women farmers are especially isolated because, unlike some men who come together to play golf and other sports, women rarely participate in social activities in their farming areas.

In the same district where women large-scale commercial farmers such as Tarisai feel isolated, a group of female smallholder farmers involved in conservation agriculture have formed netball teams and play netball on a weekly basis. Before playing, the teams debate selected topics relating to their agricultural enterprises.

Box 6.13: Women's Group Builds Climate-Smart Capacities in Zimbabwe

A group of nine women is involved in conservation farming in Zimbabwe as a way to mitigate the impacts of climate change. The group is supported by the International Maize and Wheat Improvement Centre (CIMMYT), which runs demonstrations on this production system. With input support from CIMMYT these women realise yields of up to 8 tonnes a hectare applying the zero tillage approach. The engagement with CIMMYT has raised the level of environmental awareness among the women. According to an extension officer in the area, women are more receptive to conservation agriculture than men. The nine women are also involved in bulk purchasing of inputs. According to a member of the group, one of the major seed companies encouraged them to form groups and purchase their inputs, as well as market their produce, in bulk.

At one of the smallholder irrigation schemes visited, women were very actively involved in all aspects of work. There was gender balance in the committee that was responsible for the day-to-day running of the scheme. The chairperson of the Irrigation Committee was a woman who believed that her husband's absence due to wage employment helped her to become more assertive and successful. She achieved a yield of up to 11 tonnes a hectare.

In Uganda, women farmers benefit from membership in associations.For example, associations can extend their reach to the supply of products to big hotels, schools, universities etc. By contrast, individual farmers with small business volumes cannot easily contract formal sales. It is therefore instructive that women farmers are now forming networks that allow them to penetrate bigger markets. But they are still in competition with men who have wider networks, larger business volumes and, often, lower production costs due to economies of scale. There is much mistrust between farmers and traders, including exporters who are mostly men. Women producers have now organised themselves into farmers associations to bargain for better prices and to also deliver their produce directly to markets. This has improved the margin accruing to farmers who operate within cooperatives and reduce the farm-retail gap.

According to Julian, a female pineapple grower and entrepreneur from Luwero, Uganda, networking has been a major vehicle for her empowerment. She is involved with several women's and business associations and also helps women in agriculture and business to establish associations. Julian sits on the board of several associations, including the Uganda Manufacturers' Association.

Women and men differ, however, in the kinds of associations they form or seek to join. While men seek to join big networks that are linked to the private sector as well as formal government institutions, women form home-grown small associations that deal mainly with other women, as well as with government and NGO programmes.

Role of Economic Interest Groups in Morocco

There is an increasing role in olive oil processing for cooperative groups known as Economic Interest Groups (EIGs). These groups are economic stakeholders, including farmers, owners of crushing mills and marketers. Within the EIGs, cooperatives are organised and establish a committee that is responsible for door-to-door sales and prospecting for potential markets at local and international levels. They also negotiate prices and prepare for participation in fairs and exhibitions. Women account for 20per cent of EIGs with mixed sex membership, whilst women-focused EIGs have 100per cent all-female membership.

Major constraints have been identified through the EIGs. Virtually all cooperatives are cash strapped and lack the resources to participate in international exhibitions to promote their products. Cooperative members deplored the lack of publicity and low public support in general for products of the region. There was no promotion of olive oil and its health benefits in the media. They were of the view that the state had not accorded sufficient importance to promoting products of the region or strengthening the cooperatives, given that these cooperatives lack the necessary technical and financial resources to promote their products.

Research and Technology Development for Women's Empowerment

Most programmes or projects supporting women to add value to maize have focused on activities that take place on-farm and at the level of subsistence. Very little support has been given to the promotion of middle or high technology activities for women. The glaring absence of women in the large-scale commercial milling industry in Zimbabwe is testimony to this. In Uganda, women lament the lack of attention to their technology needs, which pits their products against imports, much to their disadvantage. According to one woman agent, "*There are high taxes on goods and it is also expensive to import juice processors from Germany. So the fresh fruit goes bad. We too cannot even compete with firms in Kenya, which are highly technologically good and big.*"[85]

Women can be made pivotal to issues of varietal selection due to their cultural awareness of local tastes and preferences in the final food product. Women farmers can contribute more to research in product upgrading. Training farmers to appreciate the benefits of improved varieties and training women to modify the processing styles of local food with improved varieties can enhance product upgrading.

Intra-gender differentials in value chain participation and benefits

Overall, educated, urban-based women appear to benefit more from value chains than rural women. An analysis of women's participation levels in the different nodes points to a need for specific measures to ensure that their participation leads to gains beyond increasing the number of participants in low paid and unpaid work. There is need to facilitate women's bargaining power both in relating to other value chain actors such as buyers and sellers, as well as in intra-household gender dynamics such as negotiating the distribution of outputs and income. There are currently no policies addressing middlemen's exploitation of female farmers. There is need for a regulatory policy to dis-incentivise the rural-urban market link in the local-global market chain by linking women producers directly to end markets to prevent price exploitation by middlemen.

Leadership roles for a few women may not automatically lead to better governance for other women. Large farmers associations do not appear to deliver much benefit to women whereas bottom-up networking via cooperatives appears to yield more benefits for small women farmers through improved organisational capacity. Greater benefits to rural women can come about through collective bottom-up networking and advocacy by female actors and operatives alike through the collective power of numbers.

6.6 Women's Empowerment as Outcome of Value Chain Participation

Empowerment is a major expected outcome of value chain participation for women in agriculture. The *a priori* expectation of this research is that various developments on the emerging value chains would achieve progressive levels of women's empowerment according to Figure 2.1. A summary

[85] Woman member of Uganda Manufacturer Association, Kampala.

indication of empowerment outcomes is based on the dominant patterns coming out of the research findings. While it has been possible to identify different categories of women participants, namely actors (enterprise owners) and paid and unpaid operatives in primary and secondary agriculture value chains, they lack most of the critical success factors to consolidate their current level of empowerment or to move them to higher levels. The empowerment outcomes can be summarised as follows:

Empowerment for Ownership of Enterprises (Actors)

Females are observed more as operatives than actors in Ethiopia's primary production system due to their lack of control over resources (especially land jointly owned with men), but they are more visible as actors in maize, pineapple, mango and fisheries production systems, albeit at lower ends of the value chain. Educated and urban-based women appear to be more empowered at the highest level as medium and large-scale commercial farmers, large scale processors and marketers (including exporters). The development of the secondary maize value chain in Zimbabwe and Uganda (organic products) presents greater opportunity for women's empowerment at higher level. However while in Zimbabwe women are achieving higher status, in Uganda women are highly restricted in their movement due mainly to poor access to bigger parcels of land. In the teff, mango and fisheries value chains, where the final processing is fully dominated by women, there seems to be expanding entrepreneurial opportunities for women as actors. Many more rural women farmers have not benefited from these opportunities as they face significant socio-cultural and locational constraints to progress to the appropriate level of independent entrepreneurship. In the olives value chain, women were rarely observed as actors but largely as income earners; yet their empowerment in this niche is constrained by socio-cultural norms of gender entitlement, religion being a major factor preventing land ownership among female actors and the building up of assets as independent processors.

Women's Empowerment as Chain Operatives: Wage work and Family labour supply

There has been significant growth in employment opportunities for women in most of the value chains studied. However, formal, secondary value chains seem to provide better opportunities for female employment and empowerment. Wage inequalities are less prevalent at these formal nodes than at informal farm-level nodes where women operate more as unpaid or low skilled, low-paid workers in primary production systems. The pervasive low socio-cultural perception of the value of women's time continues to limit the pace of empowerment via comparable wage employment. Low educational attainment also limits the entry of women into high-skilled employment niches while low technological knowledge reduces them to low-end jobs. In value chains that are female intensive, there may be a greater tendency to employ other women. However when brawn or technical application is needed for higher efficiency, female operatives may be sidelined. Efficiency gains may currently be counterproductive for women unless they can tap into higher levels of labour efficiency via education and training.

Women's Empowerment in small farmer commercialisation

There is greater evidence of women's empowerment via small farmer commercialisation in maize, pineapple and fisheries value chains. Due to independent ownership of enterprises, especially land, albeit on a small scale, women are able to enjoy a certain minimum level of commercialisation and sometimes also engage with bigger end markets, though these are usually urban markets rather than export markets. However, women face constraints in moving to higher levels of commercialisation, due to their limited land holdings, technological knowledge gaps, limited access to credit for productive inputs, low process upgrading and barriers to more remunerative markets. Total factor productivity is generally lower on female-owned enterprises, not due to a lack of technical efficiency, but more due to the lack of access to resources. Women farmers whose access to inputs and training were leveraged through collective organisational skills and specially targeted women-focused programmes were able to significantly increase productivity, indicating technical efficiency. Poor access to market infrastructure, transportation, storage and poor bargaining power also eroded their gains from marketing. Without due attention to marketing barriers, women's empowerment via small farmer commercialisation remains limited.

Women's Empowerment for subsistence production

Where access to land has been enhanced in some countries, women farmers are able to skip the subsistence stages and move into small farmer commercialisation, thereby entering value chains. There is therefore little evidence of women emerging into subsistence in the case studies, except where women intercrop their commercial farms with food crops such as bananas in Uganda or the case of teff production for household food security in Ethiopia. Indeed, teff production is largely for subsistence but has recently gained market entry.

Women in subsistence farming have no visibility in emerging value chains, yet this is an important stage in which their opportunities for commercialisation can be enhanced. Subsistence has socio-cultural implications for household welfare and food security, therefore promoting access to land for landless women can kick-start their empowerment via subsistence. For women farmers currently in subsistence production, there are no policies (either of CAADP or at national level) affecting them directly to enhance their productivity or to access to bigger parcels of land so that they can begin to generate market surpluses. Land certification schemes seem to favour women who are in commercial production more than those producing for subsistence. Subsistence farmers however augment household income as wage workers in commercial farms during off-peak labour demand periods. However problems of the drudgery of female tasks, persistence wage gaps and the burden of household responsibilities need to be addressed for this cadre of women to be relieved of the subsistence trap.

Women's Empowerment for Welfare Promotion

Landless women now operate as wage workers in many emerging value chains. This has been a growing source of income for the poorest women. However, they tend to have low literacy and

lack skills to engage in more remunerative operations involving knowledge and innovation. There is therefore need to engage women in skills training for wage work in value chain activities such as processing, sorting, packaging, etc. Pervasive gender wage gaps and segmentation, which limits women's participation to low-end tasks, can be addressed through special skills training tailored to the needs of specific value chains. Land access may not be an immediate need because of women's poverty and lack of capital to operate farms for income. Wage work provides income that covers their basic welfare needs. The study showed outcomes of improved household welfare, suggesting that value chain operations have the potential to move women and their households out of extreme poverty, into a subsistence category focused on food security, and thereon, with necessary access to land, to become key actors.

The outlined progression can be gleaned from this study's research findings. However, there is need for empirical proof, which can only be provided through a more extensive survey of women at different levels of empowerment.

Economic Empowerment for Women: Changes in Welfare and Entitlement of Value Chain Actors

Benefits from participation in value chains also accrue to women farmers in other indirect ways. Pineapple income has led to better family welfare in Uganda. According to one member of a focus group discussion with women in Luwero district:

"The income from selling pineapple is used to pay school fees for children, invest in pineapple farming (hired labour and buying or renting land), buying food, purchase of livestock, house construction, etc."

Another independent female entrepreneur relates her gains thus:
"From this business of selling pineapples I have been able to educate my children, build a house and also take care of my family."[86]

[86] Key informant business woman, Kasubi.

Figure 6.13: Women producer: Bountiful pineapple harvests have led to improved household welfare in Uganda
Source: Case Study, 2014

In Cameroon, women's participation as sole actors has led to considerable empowerment and independence of women in the country. Women are increasingly responsible for the total welfare of their families as men tend to relinquish their traditional duties as head of family when the female spouse becomes successful in business. The need for further sustainability and enlargement of economic benefits for women becomes more important in such a context. According to Maman Ashu Lucy, President of the Association of Women Fish Smokers in Idenau:
"[M]y life has completely changed since I started smoking fish, I can afford what I want, my children eat what they like, they attend big schools, thank God."

For Moroccan women, the economic benefits of olive oil production are significant and respondents reported an improvement in living standards. The ultimate goal of production remains the sale of olive oil, which has a direct impact on boosting the incomes of both men and women. For women, it is the best means for achieving economic, financial, social and political autonomy. As women's membership of cooperatives and EIGs has ensured their emancipation and empowerment, such membership is considered as key in ensuring women's integration in socio-economic development, coupled with obvious positive change in their social status.

The impact is further felt as it opens prospects to participate in decision making. The same can be said of making household expenditure commitments including expenses related to religious festivals and Ramadan, as well as expenditure on household equipment or the purchase of cows and additional goats, and their involvement in the educational choices of children and their enrolment in school.

"Financial empowerment has strengthened the role of women as stakeholders in the management of family assets. It has improved their living conditions by facilitating access to water, electricity, and housing. Moreover, it has improved their dressing, feeding and leisure."

Women's role in the value chain is, however, seasonal and this means that women have precarious livelihoods. They work for a maximum period of three or four months per year to produce olives and process its oil for sale. For the rest of the year, they work on other products (couscous, aromatic and medicinal plants, soap) whenever work is available. Alternatively, they continue to assist family members (father, brother, husband) with field work as unpaid helping hands.

6.7 Summary of Findings and Emerging Issues from Country Case Studies

Many viable value chains are evolving throughout the continent and women are participating increasingly both as actors and operatives, but under less than optimal conditions. Gender-appropriate technologies as well as extension support are critical for women farmers to experience positive change. The causes are related to differentials in the technological structure of female and male dominated nodes and will continue to segment ownership control and outcomes for women and men differently, largely to women's disadvantage.

- In general, dichotomisation of value chain nodes into formal versus informal, traditional versus commercial farming systems or government controlled versus private sector controlled systems may have reinforced the marginalisation of women's interest in evolving value chains. Women tend to be concentrated in informal, traditional and government controlled systems. Institutional structures for a fluid transition and interaction between the dichotomous two systems are needed. Women's entrepreneurial capacities must be enhanced, not only through engagement in primary agriculture via small farmer commercialisation, but by promoting business behaviour on and off farm, as well as through the development of skills to take up growing employment opportunities in agro-industries and export markets. As women gain empowerment as individuals and in groups, they are also capable of become active actors in shaping policies. Pointers to spaces for such transition and progressive empowerment will be key, not just for women, but for fostering this evolving growth niche within Africa.
- Because most off-farm value chain activities are private sector-driven, it appears that women's businesses are rarely viable enough to attract private investment. While privatisation is progressive and aligns with one of CAADP's core principles, it might be detrimental to women's inclusion in the medium to long terms, due to low viability of their enterprises. A critical need is how to involve the private sector financial market in supporting value chains that are dominated or managed by women. The study reveals many successful business women on different value chains who can be the show case for private investors. Viable and unique strategies are needed to build on this success factor and prove that women in agricultural value chains are bankable. There is also need for more targeted

intervention to enable women to develop capabilities that are required to attract private-sector investment in their value chain enterprises in order to promote their access to productivity enhancing resources. Enhancement of TFP is critical to sustainable participation through the competitive edge.

- Greater local outreach as well as the local-global reach of participants on value chains is critical to optimising their benefits. This is possible through initiatives that promote market access and networking among actors. Women's culturally restricted space has especially limited their local-global reach and, thus, the critical success factor of connecting to and understanding the changing nature of end markets. This may be one of the biggest losses for women in evolving value chains. This negative effect is revealed through analysis of the distribution of value added, whch shows that female-intensive nodes command some of the lowest price premiums.
- Socio-cultural concerns continue to reinforce the problem of unequal gender-power relations in asset ownership, task allocation, remuneration (or its lack) and the welfare impacts on agricultural households in particular. Primary research reveals a range of less tangible outcomes of value chain participation, especially the welfare outcomes that contribute to women's progressive empowerment as actors (owners of enterprises) or that allow the acquisition of capacities to function as skilled operatives and enterprise managers. These and others, such as improvement in the education of their children and greater availability of social services, could promote further holistic empowerment. Policies must therefore focus not just on monetary gains but on the interaction of both tangible and intangible benefits. Recommendations on how to link value chain programming with that in other social sectors are critical.

Chapter Seven: Policy Issues in the Development of Gender-Inclusive Value Chains

Policies for women's empowerment must derive from strategic initiatives that target women-dominated nodes as well as their priority constraints. Attempts were made to draw out some of these most pressing constraints. Many tend to be generic while some are country specific. The constraints highlighted by female agent respondents and reference groups in the study countries can be categorised as socio-cultural, technological, financial or systemic, usually surrounding production, processing and marketing systems and practices. The commonalities should inform policies across the board while country-specific policies take their context from national and local level constraints. All policy development must invariably synchronise with the broad goal of women's empowerment within the context of Africa's structural transformation. Similarly, there are pockets of initiative and opportunity evolving from the participation of women, albeit in less than optimal conditions. These constitute coping strategies and home-grown solutions that provide the necessary leverage for policies since they represent challenges that have already been confronted. This chapter reviews challenges, policy imperatives and policy recommendations.

7.1 Generic Gender-Related Constraints on Commodity Value Chains

Male-centered Research, Training and Information

Although there is considerable research effort, including for instance the current research focus on teff, this usually fails to provide much information on the experiences and challenges of female farmers. It was estimated that out of 100 farmer trainees, only 12per cent are females. As extension agents tend to focus on male farmers' experiences, the socio-cultural dimensions of technological knowledge are important to understand. In some countries, training is targeted at male household heads, while female farmers and female household heads are often excluded. Yet, female roles and responsibilities are predominant in most farming systems.

Women face time constraints that conflict with agricultural training schedules. Women who do attend training programmes tend not to absorb much knowledge, due perhaps to a variety of reasons including anxieties over domestic responsibilities and lack of gender sensitivity among trainers. Yet, low gender sensitivity worsens the drudgery of women in many of the value chains due to lack of attention to their need for mechanisation.

In the Ugandan pineapple production system, the issue of drudgery is related to scarcity or the high cost of male labour in this female-intensive ownership system. The problem of poor access to technological information is compounded by women's time constraints. In Ethiopia, women farmers' time constraint is caused by labour obligations on family farms.

Women are similarly challenged in catching up with new processing methods due to their low participation rate in training programmes. In the area of training for contract farmers in the production of organic varieties, for instance, women are often excluded for reasons related to small land size, lack of modern equipment, low technical capacity to adhere to strict cultivation standards and the risk averse attitude of women.

Access to Resources for Chain Upgrading: Credit

The problem of credit scarcity underlies the challenges of technological capacity for upgrading, which in turn depends very much on access to financing. In most countries, access to sizeable capital is still a huge challenge for women farmers. In the teff production system, in spite of the rising profile, policies are yet to address the challenges of capital leverage for upgrading. Existing credit delivery programmes, the SACCO in Uganda, are not yet fashioned to target potential growth niches and to leverage bigger volumes of capital for small farmers in general. Thus, although access to micro-finance is higher for women, process and chain upgrading requires more than micro-finance which is often short-term in duration and small in size.

Low Private Investment in Female Enterprises

One underlying mechanism that can explain access to credit is lack of confidence by private sector in the profitability of female farmer's efforts, often citing women's lack of sound education and networking capacity. This is an assumption that needs to be debunked by real evidence of profitable women's enterprises. There is a general lack of media attention to successful women entrepreneurs and women are pigeon-holed away from mainstream investment streams. For example, they are often tied to micro-finance schemes and government support or development assistance programmes. Without these notions being challenged, there will be little justification for the private sector to intervene and women will face perpetual limitations.

Land Ownership Inequality between Female and Male Actors

Asset ownership is key for value chain operation and sustainability. Land ownership is a major incentive or precondition for entry, however women are not favoured like men. Larger land sizes promote commercialisation of agricultural activities, which have helped male-headed households to earn higher incomes and reduce their poverty levels. This is not the case for the majority of female-headed households who own smaller land sizes that cannot facilitate commercialisation. The majority of women are not land owners, except by virtue of marriage.

Women's lack of control over the land and products is another challenge. In spite of land certification policies noted in a good number of country studies, relatively few women are owners of farms. Joint ownership with spouses tends to limit their control over land and its outputs. On the other hand, divorced and widowed women as female-headed households have full control over their products, although divorced women have lower access to land titles. Although land certification schemes have benefited women in terms of ownership of titles, they have not conferred control of farm decisions and output commensurately.

Control over commodity by-products also becomes relevant. Teff, for instance, generates useful by-products such as the stem recovered after threshing, which is used in the construction of barns and silos, usually by women. Pineapple generates by-products from suckers and stalks. It is unclear if women have exclusive rights to these by-products and what economic benefits they derive from them. These are potential links in value chains that can give women control over products and by-products. More research and information is needed on this aspect.

Gender differentiated impact of market information technologies

Current infrastructural development and expansion of telecommunication and the media has eased access to updated price information and technological knowledge in most countries. Access to full price information however benefits men more than women because of the time constraints of women. Women's competing and multiple responsibilities limit their off-farm mobility and hence their availability to act upon this informatiom. Market information is also shared via networks. Low participation in viable and external networks limits access to development information outside the immediate radar of women. Although some examples of best practice are beginning to emerge, these need to be enlarged for greater effect. In Uganda, pineapple farmers receive different prices for the same products depending on their gender; and also depending on the point of sale. Greater bargaining power is needed through a liberalised market information system.

Absence of effective networks among women

Women's networks are growing but they often operate only at the local level,as observed in Ethiopia and Uganda. There are growing opportunities for women to organise around the products that they currently control, such as injera in Ethiopia, seed maize in Zimbabwe, or conventional pineapple in Uganda. Yet, women's networks are limited in reach due to inadequate exposure to knowledge and innovation. Women associating with women is beneficial but precludes the broader information base possible from expanded networks with men and with other women's networks outside the rural areas or national confines. AGOA provides a platform for women traders to introduce their product to the international market. There is however a disconnect between rural women and more educated urban women on the platform.

Marketing Constraints of Perishable Commodities

In spite of the growing demand, limited markets and market access is a problem for both men and women in horticultural production: long distances to village markets, low prices paid for the crops during the peak season, lack of preservation facilities, high market dues demanded by local government councils are key constraints. Farmers are often forced to sell at low prices at the farm gate. In spite of government programmes for road improvement, delivery of these programmes are slow and limited. Many women said that they were offered low prices by the men who came to buy the pineapples at the farm gate, namely wholesalers who load them onto lorries bound for the city. Ownership of transport equipment like bicycles makes the gender differences more

pronounced. Fewer women own bicycles, which many men use in trucking goods away from the farm-gate.

Socio-cultural Barriers

By far the main barrier to gender equality and women's empowerment in all value chains is the persistence of negative cultural attitudes, gender biases and misconceptions about the value of the role of women in the economy. It affects the valuation of wage work, the appreciation of unpaid family labour, the distribution of proceeds of joint labour, time poverty and its impact on technological knowledge and innovation, as well as the claim of women to land as a right, even in the presence of land reform policies and laws. Conflicts with household food security have also been reported, resulting in socio-cultural frictions and trade-offs in overall benefits from expanding markets. A focus on women's economic empowerment is a means to address this undervaluation. The greater the economic benefit from value chain activities through higher commercialisation, access to better markets, leverages for technological upgrade and profitability, the higher the bargaining power of woman vis-à-vis her spouse. The risk of violence in retaliation to such changes in spousal bargaining in intrahousehold resource allocation should not be ignored.

7.2 Country Specific Constraints and Opportunities: SWOT Analysis of Commodity Value Chains

Analysis of Strengths, Weaknesses, Opportunities and Threats (SWOT) in the countries studied identified priority constraints and opportunities for developing gender-inclusive value chains. Major nodes of value chains were marked for targeted policy interventions. The priority constraints tend to be similar for several issues identified within the commodity value chain. They relate to the adequacy or otherwise of systems in place for chain actors' full participation and benefits. They highlight the areas of capacity deficiency, problems of access to key resources and of the pricing mechanisms vis-à-vis information and infrastructure support, which affect women disproportionately. Other issues specific to particular commodities are, for instance, the perishable nature of pineapple, the quality improvements vis-à-vis local tastes for injera, the impacts of government involvement in maize marketing, and so on.

Table 7.1: General Constraints of Stages of Commodity Value Chains

Stages of Value Chains	Priority Constraints
Inputs Procurement	Gender insensitive research and knowledge transfer Bottlenecks of government control
Input Distribution	Male dominance of agro-dealers; limited access of women to private dealers; cost of inputs from private dealers

Primary Production	Drudgery of female tasks Lack of control over land and labour Low technology of production – inadequate access to improved packages Cost of yield enhancing inputs Limited participation in contract farming
Primary processing	Poor control over output in joint enterprises Male dominance due to market prospects; male's increasing access to better processing technologies; Limited knowledge and capital for technological upgrade with modern processing facilities Sizeable capital for modern processing facilities Small business size vis a vis main demand centres
Handling ()	Meeting Quality standards; extensive low-skill female tasks; Male dominance of handing facilities (trucking, storage) Poor power infrastructure
Marketing	Distance from bigger markets; pressure to sell at farm gate limits profitability; Lower access to market information; Time and facilities (capital) to engage in Men wholesale marketing Low bargaining power Infrastructural barriers – roads, transport facilities, preservation facilities (for fresh fish)
Secondary processing	Capital for upgrading; Organisational skills for collective operations; Modern processes of secondary chain vis-à-vis female low education and skills; Unequal benefits to urban-based women
Final marketing/Exports	Weak rural links to modern consumption markets Lack of knowledge of end market conditions, including prices Small business size; Meeting quality standards of modern markets including export Competition with other regional producers, including cultivation of teff in USA
Consumption	Rigid cultural tastes and preferences Conflict between household consumption needs and income from commercialisation

Source: Compiled from SWOT Analyses Outputs of Study Countries

Different country respondents also identified their priority constraints, which are detailed in their SWOT analysis Tables in the Annexure to Chapter 7.

In Zimbabwe, the macro-economic context presents particular challenges to effective private sector growth as well as restrictive marketing options. Women are also finding jobs in formal nodes of the chain but still lack the education and skills to take on more managerial jobs or permanent positions. Seasonality of jobs is still a problem for more women than men. Women

farmers still find it difficult to enter into large commercial maize farming due to socio-cultural and institutional barriers while their milling operations remain small due to lack of adequate financing.

In Cameroon, the major constraints facing women fish smokers include the availability of fresh fish, since women are not involved in fishing, the environmental implications of high dependency on firewood and the growing scarcity of firewood. Marketing constraints arising from the lack of capital for quick and effective transportation of highly valued fresh fish further erode women's profit margins. Finally, the drudgery and hazards associated with traditional smoking methods also affect women's health. While the absence of women from fishing is a major barrier to the availability of fish as a raw material for their smoking activities, aquaculture is a growing value chain niche in many developing countries that can be introduced to women. Cooperative ownership of fishing enterprises by women is also an option, even if males are paid operators. Concerted attention to expanding fisheries production and processing will relieve the country of high dependency on fish imports. Women in the value chain have proved to be efficient, even under sub-optimal conditions, and can become a plank of macro-policy. Having sought economic empowerment, such women can be introduced to other more remunerative niches in the value chain, such as export markets. Business linkages to regional fisheries market can be promoted through CAADP Partnership Forums and regional trade fairs.

In Uganda, the transition from traditional production systems to the more remunerative organic production system is highly difficult for women due to technical requirements, inadequacy of financing and training, and links to end markets through contract farming. As actors, nevertheless, women do have economic independence, albeit with low business volumes. Their proven capacity can be cited for greater leverage. Women need access to bigger parcels of land, along with access to appropriate extension services to manage bigger farms. Storage and preservation of the perishable product are further challenges that limits the bargaining power of women entrepreneurs and erode their potential profits. Their challenges are not only local but permeate the growing horticulture value chain across Africa. A coordinated forum of horticulture growers at national and regional level could provide a much-needed platform to share knowledge on ground-breaking strategies and technologies for addressing constraints.

In Mali, the constraints highlighted are also related to women's lack of access to land for mango production. This is a socio-cultural barrier that is worsened by religious injunctions. Land reform programmes that grant land to women as cooperative growers can, nevertheless, enhance their entry into contract farming. Women's proven niche in processing also needs to be expanded through better technologies both for fuller utilisation of the product and by-product. Mango seed is a very profitable product in high demand in a number of African countries. Markets in the diaspora are also growing for this product. Ample opportunity exists for women in Mali and across the region to expand their current acumen. Much progress is being made that can be leveraged for policy making.

In Morocco, women do most of the farm work but lack direct access and ownership of land, as well as technology and finance for high-valued olive oil processing, while also enduring the drudgery of head transportation. Women in the olive value chain can become independent actors within their emerging economic interest group cooperatives. However targeted skills training for high-value virgin oil processing is a critical need, since most still use the *maasra* system of processing. Financing for women's cooperatives was found to be a critical constraint in Morocco. In spite of women's involvement in the EIGs, any financial crunch could render them unviable. The problem of quality certification for virgin olive oil is becoming an issue of global competition. Meanwhile, local processors, mainly men, lack technical skills and equipment. Besides these men, women operators have used their indigenous skills to support production systems, yet are rarely found as owners. The inherent skills of women in the selection and processing nodes of the value chain need to be harnessed to enhance their progressive empowerment. In conformity with religion, women's spaces may tend to be restricted. However, women-only programmes can be tailored for women's private spaces. There is a gradual emergence of new activities in the cooperatives to ensure year-round activity beyond the two or three months of the olive season. New activities include the production of cosmetics with 100per cent olive oil soap and virgin oil cheese, for which demand is growing due to high health benefits.

In Ethiopia, the greatest constraint of women in teff production is their lack of labour-saving devices for the gruelling work of production and immediate post-harvest operations. Women also lack control over land owned jointly and thus operate as unpaid workers without much benefit. Independent ownership of land will be key to enabling women to become sole actors in teff production. Poverty and illiteracy was also highlighted as a major challenge of women, again born of a socio-cultural milieu that undervalues their contribution. Female ownership of teff milling ventures is limited because of lack of finance to set up commercial mills. This is a niche of the value chain that women can enter if given the right leverage, given the rising demand for teff flour. In the area of injera baking, female-owned enterprises are still few, despite women's cultural strength as injera bakers. There is therefore need to enable full ownership of injera baking businesses where women are proven to be adept yet, due to illiteracy and ignorance, lack knowledge of growing lucrative end markets. Training in the use of internet and communication technologies (ICTs) can be used to improve the knowledge and bargaining power of women bakers. Capacity building in entrepreneurial skills remains key, alongside efforts to improve the general educational status of women in Ethiopia. Expanded utilisation of teff by-products will provide alternative income for women who do most of the harvesting and processing.

Opportunities emerge mainly in terms of perceived growing attention to the resolution of some systemic issues, not necessarily for women's benefit alone but for all farmers' benefit. The best emerging opportunities for women are in terms of group mechanisms that enable them to gain greater control of larger volumes of products, to access resources that facilitate entry into higher levels of commercialisation, to acquire better and more relevant technological knowledge and

generally to achieve some measure of independence in their participation, as actors and also as wage workers or operatives.

Individual countries' SWOT Analyses Findings are shown in the Annexure.

7.3 Guiding Principles for Gender-Responsive Policy Actions in Commodity Value Chains

Solutions to the development needs of Africa are not in short supply. Governments, development partners and community organisations have been responding to the growing need for gender-inclusive agricultural transformation. This has entailed significant adaptation of countries' transformation policies in agriculture and related sectors – manufacturing, services, trade, and so on. Some of the major policy thrusts have been outlined in chapter three, especially as they affect women's needs in the key sector. The assessment of specific action plans within individual countries did not however reveal substantial focus on gender-targeted measures. Rather country initiatives tend to respond to the needs of small farmers in general, on different stages of value chains. The Gender Ministries have shouldered most of the responsibility for empowerment of women farmers through assistance programmes for women in general and women in agriculture in particular. The emerging view is that agricultural policy frameworks still lack the specifics to target specific challenges of women in the sector. Although countries all have gender mainstreaming strategies, most are yet to be defined for target outcomes, that is, they lack the Gender Action Plans that will yield gender-specific outcomes. Tables 7.2a to 7.2c in the Annexure illustrate some of these policy gaps with respect to steps being taken to increase value addition in agriculture.

A policy assessment indicates that while the transformation agenda for most countries entails programming for agricultural modernisation through vertical and horizontal linkages, initiatives that have benefited women are those that have specified quotas to ensure equitable participation of men and women. Often, gender quotas have been unable to substitute for other leverages and sustainable practices that are not put in place. For instance, the improvement programmes for marketing information through ICTs, the small farmers credit schemes (SACCOs), the specialised training for farmers by gender-focused groups, and so on, are often farmer-driven rather than policy initiated. Several of these best practices by farmers themselves have been captured as policy recommendations. Several broad-based strategies are also proposed to accelerate the pace of women's empowerment within value chains.

However, in order to achieve the optimal mix for women's empowerment, certain policy imperatives must guide interventions for women on agricultural value chains in Africa, not just with the goal of women's empowerment but also with the expected outcomes for Africa's transformation agenda. In other words, the expected outcomes of women's empowerment policies within agricultural value chains must be seen in the context of revamping the African economy

towards faster and more inclusive growth and sustainable development. Women's empowerment is a goal in itself but must also be a means to a broader end of sustainable growth. Certain principles must therefore guide policy actions:

- Growth of gender-inclusive value chains must entail a high share of women employed in the value chain as compared to the economy at large; as agriculture becomes an employment pivot, more rather than less are employed. Policy initiatives need to address this frontally as natural process of structural transformation;
- A growth in the voice and agency of women in each value chain must be a central goal. Therefore even though employment opportunities are important, an increasing proportion of women must also be seen as agents rather than operatives, especially in traditional economies where women have comparative advantage in cultivation.
- Favouring women in value chains means there must be low-entry barriers for small-scale and poor entrepreneurs. While enlarged scale and upgrading are desirable, vulnerable women must be capable of entry with a small scale of production, low start-up costs not requiring major capital investment and using low technology and skills. Segmentation of policy action to benefit different categories of women will achieve benefits to women at all the five levels of empowerment (see Figure Two); our analyses indicate the need to differentiate between different categories of women. Obviously women in urban centres, more educated women and those who have had more contacts with institutional support systems either through networking or political or economic empowerment are better off than most rural women who constitute the bulk of operatives. Thus any proposed actions must be specifically directed to a given target group of women based on their current endowments.
- More importantly, the empowerment of women should include some growth potential, so as to be relevant to the economy as a whole. Policy initiatives should have the potential for over-arching contribution to growth through productivity and the income growth of new actors. Value chains can be an entry point for women as well as for the growing number of unemployed youths. While productivity issues relate directly to access to resources, income issues relate to production and wage work. Policy imperatives must address these twin goals towards progressive empowerment as illustrated in the conceptual framework.
- Policy actions need to be aligned with CAADP Pillars. There are ample programming possibilities within CAADP platforms for gender integration. Policy recommendations will seek to make this alignment or specific pigeon-holing of recommended policies within specific Pillars and towards making them more actionable.
- In general, women's low endowment of economic rents that could render them more competitive on value chains is a major concern. This is tied to the perennial low entitlement to productive resources, and land remains a major factor. Structural transformation cannot support the erosion of women's asset ownership. Rather it should lead to assets build-up by a greater number of active farmers.

- Other technological barriers as well as socio-cultural attitudes that limit women's mobility and make their external networking less viable must be reduced. The norms and practices that tie women's domestic activities very closely with their market activities, and which keep them away from spaces of information, education and growth, are deeply cultural. It will require the cooperation of all custodians of culture to remove these.

7.4 Policy Recommendations

- **Harmonising the Empowerment of Women in Agriculture and Trade:** One major underlying recommendation is to harmonise women's empowerment and women in agriculture programming in Africa by focusing on effective mainstreaming of gender into policies and budgets and developing well-targeted Gender Action Plans as an accompaniment to CAADP. Women's empowerment initiatives address some of the specific challenges but are not coordinated within countries and across the continent. Initiatives by the same development partners in different countries need to be synchronised such that there is inter-country cross-learning and replication across the region. Harmonisation of such programmes should be spearheaded by the UNECA's Africa Centre for Gender and Social Development. As a first step, a scoping or mapping of such initiatives should be carried out, and they should be categorised to align them with broad and specific goals of inclusive agricultural transformation. A stepping stone for this is the newly initiated Empowerment of Women in Agriculture (EWA) programme being spearheaded by a group of African Champions and endorsed by the AU Summit in 2013. The EWA's strategies are compatible with this proposed harmonisation.
- **Enhancing a broader utility of women farmer's associations** found in all countries for effective networking for addressing the gender-based challenges of agricultural value chains. This can be done by forging links of new networks with similar and successful networks such as WEIGO[87], among others. For instance, strategic interventions that can lead to cost reduction will boost competitiveness and enable women actors to consolidate their gains. Cost reduction can be achieved through economies of scale within women's cooperatives. Thus women organising for women will be a win-win strategy.
- **Broad-based education for women in agriculture** is key to their enhanced entry and benefits. Mentorship programmes for entrepreneurial education, adult education through sustainable institutional measures, including assistance programmes from more successful women, are recommended. WEIGO remains a key example where women leverage other women to remove constraints across the board, including that of education and skills.

[87] WEIGO (Women Entrepreneurs Innovation and Organising) is a global network focused on securing livelihoods for the working poor, especially women, in the informal economy. The philosophy is that informal workers need voice, visibility and validity. WIEGO creates change by building capacity among informal worker organisations, expanding the knowledge base, and influencing local, national and international policies.

Education in contemporary ICT use is also gaining ground and must be used as a leverage point.

- **Improved access to market information** will increase the incentives for women farmers. Currently, men and educated women gain from price increases especially through exportation. Women in primary production are mostly ignorant of the end-market price and so lack bargaining power. There is a critical need to address this information gap through widely available new communication strategies, such as smart phones.
- **Expanded utilisation of primary commodities:** This can be fostered through greater emphasis on SMEs using these raw materials, such as, for instance, SMEs using cassava flour to replace wheat and maize flour in West Africa. More research on promising commodities needs to be funded and findings actively disseminated to investors. The involvement of women in such research initiatives will be key to deepening success stories.
- **Financial Leveraging for Chain Upgrading for Women Actors and Operatives** through chain, skills and product upgrading. Women's access to finance, beyond micro-credit must be the mantra for women's empowerment in agricultural value chains. The establishment of finance institutions for women such as Women's World Banking has recorded success in countries such as South Africa. Widow's Banks are also being created in some countries. Establishing a Regional Trust Fund for Women's Empowerment in Agriculture will be a step in the right direction to service the needs of bankable women's enterprises.
- **Showcasing Women Champions of Change in an effort to attract** interest from the private sector in women's businesses. Currently women are constrained to micro-credit and hence cannot easily upgrade their enterprises. A national and regional strategy to showcase successful women will demonstrate that women are bankable. A central strategy needs to be developed through the regional institutions with support of country gender ministries and development partners to evolve a very highly visible programme on television and other local media.
- **Enhancing the voice of women in Agricultural Value Chainsthrough seeking** alternative ways that women can build effective voice in value chain processes. This can occur by allowing more accountability mechanisms that allow women's associations to be heard, for instance through the CAADP Partnership Forum. Networking capacity must be expanded. Women's forums that have voice at national level and regional level can be used to connect local women's groups while those proven to be effective at local level such as the "kebele" in Ethiopia should be upgraded to the national level. This also implies that the information flows from these local networks must be enhanced so that the benefits from greater voice and change can be made more visible.
- **Job creation for Rural Womenmust be taken as a** central strategy for women in agriculture in rural areas. Linking women with small business development institutions such as SMEDAN (Small and Medium Enterprises Development Agency) in Nigeria have proved successful for rural women and women in informal businesses in general. Initiatives

of the World Food Programme in many African countries have enhanced job opportunities for women in agricultural production and marketing while enhancing food access to the poorest.

- **Climatic Shocks** are becoming a real threat to farmers in most agrarian developing countries. African countries suffer greater impacts due to other environmental challenges such as tree felling for firewood. Also small farmers tend to be unaware of impending changes in climatic conditions, as different from past patterns. Special early warning systems using ICTs (especially mobile phones) as a medium can benefit women in responding to climatic shocks. Technical skills in climate-smart agriculture should be a mandatory component of extension training for women farmers and a special curriculum in agricultural training programmes, directed both at women and men, given their varying needs.
- **Smart Green Jobs** are central to managing environmental issues plaguing women's productivity in value chains. Many options have been publicised across the developing region that serve the multiple purpose of economic empowerment as well as environmental conservation and welfare enhancement for households – addressing some of the post-MDG Sustainable Development Goals.

7.5 Best Practices, Coping strategies and Stories from the Field

Policy initiatives that will meaningfully achieve women's empowerment and sustain women's activities must be informed by home-grown responses on one hand and global cross-country best practices, on the other. The research captured some local initiatives that have potential for bigger impacts. They may be regarded as the win-win strategies that may lead to bigger solutions, but which are also easily owned and adapted by countries. These often lead to more lasting solutions. They also provide policy signals for other countries to emulate.

Box 7.1 : Best Practice - Strategic Intervention for Information Access in Ethiopia

An innovative way of improving access to information is the IVR/SMS system. ***Interactive Voice Response (IVR)/Short Message Service System(SMS), which*** is a toll free hotline providing smallholder farmers with access to information on cereal, horticulture, and pulse/oil seed crops, as well as a wide range of agriculture-related activities. This project has been spearheaded by the ATA in collaboration with other stakeholders. Due to certain socio-cultural barriers facing women, their uptake of this opportunity is still low.

Box 7.2: System of Joint Land-titling aims to strengthen women's right to land in Ethiopia

At the production level, land titling initiatives have recognised the challenges of women's lack of or derived access to land and instituted a system of registering husband and wife or man and partner on land title documents. This system is designed to secure women's land rights so that in the event of the death of the husband or partner, or in the event of divorce or separation, women do not lose

out completely. In addition, in the case of using title deeds as collateral, women can also have the same rights as men.

Comment

Although this land reform measure has been identified as still fraught with some cultural and implementation challenges that need to be addressed and has not therefore improved women's control over the output of land in the majority of cases of joint ownership, this initiative does nevertheless have the potential for further success.

Box 7.3 Best Practice in Credit Provision in Ethiopia

Recently, the Commercial Bank of Ethiopia and the newly established women's bank "ENAT Bank" have introduced banking services and facilities that target specifically women. This trend is a first step towards benefiting SME owners. However, it may be noted that urban-based, educated women have better access to these laudable programmes. In urban areas women have started accessing loans from micro and small credit associations that have helped them form cooperatives of injera bakers. They provide injera in bulk to various hotels and restaurants. They create employment opportunities for many women and are well positioned to fully dominate the entire injera market.

Comments

This is a laudable initiative that is modelled after successful women's banking initiatives such as Women's World Banking.[88] It has been shown that initiatives that will lead to greater formal engagement by small women entrepreneurs are best designed specifically for women and augmented with other leverages that will allow efficient use of capital. This will include training on payment systems, money management and analysis of returns to investment. The initiatives also tend to better cater to women's typically small business scales, which deny women the benefits from broad-based formal credit programmes.

Box 7.4: SACCOs are emerging as alternative providers of credit and technical know-how in Uganda

There is increased formation of farmers' networks in Uganda's agricultural sector. These farmers' groups provide new knowledge and also model farms to train farmers in improving their practices. They also provide finance to farmers. A growing initiative are the SACCOs, which are thrift cooperatives providing credit to small farmers, male and female. Much as men benefit more, there is an emerging gender identity that allows women farmers to also access knowledge, credit and other resources and own big farms and processing plants, for instance in the horticulture sector.

[88] Women's World Banking (WWB) – www.womensworldbanking.org/.

Box 7.5: Women Farmers' Collective Action to Mitigate Financial barriers in Zimbabwe

In Zimbabwe's communal areas, collective action has given women an edge in terms of accessing finance for investment in agricultural production. Village Saving and Lending Associations (VSLA) in a variety of forms have generated financial streams for households. They present an opportunity for women farmers to mobilise funds for the purchase of inputs. They also enable their members to engage in bulk purchasing of inputs and bulk marketing of produce. The more successful groups have been able to make lump sum investments in the maize value chain, the most common being the purchase of hammer mills to process maize into maize meal for their local communities. Some members of VSLAs have acquired and run hammer mills as groups but others do so on an individual basis.

Comments

Although SACCOs generally make available small volumes of credit, being mobilised from savings, which tend to be small, SACCOs also have the initial benefit of increasing the formation of trust-based networks. Similar initiatives via the VSLA in Zimbabwe have, in addition helped women to build bigger volumes of credit. Networks of trust are critical ingredients for linking with global supply chains. Social Solidarity Economies are fostered by women's organising to build assets and share knowledge. The associations so formed also provide a platform for leveraging other benefits.

Box 7.6 PURITY MILLING COMPANY: Mentoring Women in Grain Milling in Zimbabwe

When she started her business, Purity Milling, Mrs. Chirimuuta set out to empower women. She realized that there were local women whose husbands were working at the mine and she decided to engage those women in her milling company. She made a conscious decision to employ predominantly women in her company. The company employs 17 women and three men at their present milling sites. The men, who possess specialised skills and knowledge, provide support services such as repairing machines.

At Purity Milling, women perform most of the tasks that include winnowing the maize, operating the grinding machines, changing the discs on the machines, packaging the mealie meal, loading packaged mealie meal onto trucks and distributing them to customers. These women also work night shifts. The Company has a Staff Development Programme that gives employees the opportunity to upgrade their skills through refresher courses.

Comments

The concept of women supporting women is a credible communication strategy for building the leadership capabilities of women, including young women. The problem of women's invisibility

often stems from a lack of mentorship or role models. It is often stated that women who break the glass ceiling suffer from the "cult of belonging", within which they may distance themselves from women's problems in order to remain credible in the power-plays at higher management levels especially. This case study demonstrates the power of women supporting women. Another initiative is the WIEGO, reported earlier.

Conclusions

Agricultural value chains are a viable strategy for sustainable development in Africa, and are in alignment with the CAADP transformation agenda. Inclusive growth implies that both women and men should be contributors and beneficiaries of the process of growth and development. The findings from both the secondary literature and primary country research clearly show that emerging value chains are currently highly segmented by gender in their structure, governance and outcomes. This is not indicative of inclusive growth and does not align with the contemporary vison of the Sustainable Development Goals, thus gender inclusiveness will be key to success.

Notwithstanding existing opportunities and proven niches of women-intensive activities across several countries, the critical success factors are currently skewed against women. Even though most women farmers and wage workers are already in value chains, this is at the very low end, thus the key policy imperative is to build on their current capabilities in order to expand their activities to higher ends of value chains. It is critical that as women in value chains move progressively higher, to levels of visibility at local, national and regional levels, they can influence policies to empower women still trapped in subsistence. Finally, in order to ensure equity in policy effects, women in value chains need to be treated as special empowerment groups whose strategic needs are targeted and progress monitored. In this regard, the need for indicators of progress is further underscored. Existing indicator frameworks need to be adapted for women's empowerment via multiple sectors and sub-sectors, since the constraints and opportunities tend to be unique. The availability of indicators also enables further research to be conducted in more countries and for more value chains, and also makes it possible to deepen research in gender-aware value chain analysis.

The African Centre for Gender has established through this *AWR* that possibilities abound within the continent. But this report has also opened up questions that must be answered through the further exchange of information across countries and across networks and institutions aimed at achieving women's empowerment and sustainable development in Africa.

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End Notes

[i] WEIGO – Women Entrepreneurs Innovation and Organizing is a global network focused on securing livelihoods for the working poor, especially women, in the informal economy. The philosophy is that Informal workers need voice, visibility and validity. WIEGO creates change by building capacity among informal worker organizations, expanding the knowledge base, and influencing local, national and international policies

[ii] This is an initiative of the United Nations which supports and advocates the Sustainable Development Goals of the Post-2015 global agenda. These are expected to be rolled out in September 2015 when the world will agree on a new set of global development framework, following the current state of achievement of the Millennium Development Goals http://unsdsn.org/

[iii] Women's Empowerment Index in Agriculture Index (WEAI) is a programme of the International Food Policy Research Institute (IFPRI) aimed at consolidating a systematic set of gender indicators in agriculture which will be a metric of women's sustainable integration in the sector.

[iv] The United Nations Development Programme defines women's empowerment as "whether women and men are able to actively participate in economic/ political life and take part in decision making" (UNDP, 1995).

Kabeer, (1999, 2001) [iv]suggests that "empowerment…refers to the process by which those who have been denied the ability to make strategic life choices acquire such ability" (Kabeer 1999; 437 in Kabeer, 2001). Bennett (2002) described empowerment as "the enhancement of assets and capabilities of diverse individuals and groups to engage, influence and hold accountable the institutions which affect them." Furthermore, she emphasizes social inclusion as central to empowerment which she defined as "the removal of institutional barriers to participation".

Amartya Sen's works on capabilities and choice to address poverty through empowerment of the poor, especially women, has been one of the strongest reference points for developing countries policies for gender equality in the context of sustainable human development. His seminal work on Capabilities and Functionings (1989) paved the way for the sustainable development approach to poverty reduction (Sen and Anand, 1994a) and would continue to influence the evolution of the human development concept (UNDP, 1995) which concluded during the Beijing conference that human development is endangered if not engendered, thus bringing empowerment of women as a necessary capacity or policy need. Empowerment, as an embedded concept for gender equality (Sen and Anand, 1995), and poverty reduction (Sen and Anand, 1997) also promoted other pro-poor and gender equality approaches within key institutions such as World Bank (World Bank, 2001), supported by feminist writers such as Nausbaum, (2000). Other works of Sen, (2002) saw human development as having two critical components – **the evaluative and the Agency aspects**, in order to be sustainable. This centralizes Agency, which entrenches **control and voice**, as a necessary form of empowerment, much higher than just access and participation. Enter thus, the hierarchical and progressive levels of empowerment central to Sarah Longwe's Women's Empowerment Framework (Longwe, 1993). Sen's decomposition of sustainable development (for anti-poverty) into three domains of economic rights, social capabilities and political agency provided an assessment framework for gender equality and poverty reduction. With respect to women, he also recognizes many faces of inequality (Sen 2001) that call for strong policies of empowerment.

As consolidated in a review by Siwal, (2009)[iv], women empowerment consists of three critical elements**: rights, resources and agency**, which ultimately define women's **status** in any productive sphere.

Sarah Longwe (WEF) [iv] operates through five hierarchical and progressive levels – **Welfare, Access, Awareness, Participation and Control (Sarah Longwe, 1993**).

[v] **Pillar One – Access to Land and Water (and productive assets)**: Ownership and control of land promotes access to other resources such as credit, skills for utilizing land and other assets for growth;

Pillar Two – Access to Markets: Increased ownership of technology enhances upgrading needed to key into bigger markets and link directly to end-markets

Pillar Three – Food Supply and Food Security: Enhanced income as an outcome of value chain participation both from increased productivity and commercialization satisfies both food security goals as well as welfare enhancement for households and communities;

Pillar Four – Research for development: Women's development needs made central to research and development and more adaptable to women's current scale of operation including adaptation of indigenous methods to meet changing local tastes and preferences.

[vi] Feminization of Poverty was serially documented in many African countries by the UN Fund for Women (UNIFEM) in a background analysis for a Strategic Programme or Addressing Feminized Poverty in Africa (2005)

[vii] The **African Growth and Opportunity Act**, or **AGOA** (Title I, Trade and Development Act of 2000 is a legislation that was approved by the U.S. Congress in May 2000. The purpose of this legislation is to assist the economies of sub-Saharan Africa and to improve economic relations between the United States and the region.

[viii] Through Farmer Training Centres (FCTs) women in Ethiopia are organized into target development groups for sharing information about agricultural improvement practices.

[ix] The NEPAD Gender task Force and the NEPAD Spanish Fund for gender equality programmes has documented this challenge at many levels since the establishment of these parallel women's voice apparatuses within the NEPAD. Not much seems to have changed in this respect, as gender specificity remains lacking in the CAADP. A Forum on "Making the CAADP Work Better for Women" fielded by the NEPAD Spanish Fund emphasizes this. http://www.actionaid.org/sites/files/actionaid/making_caadp_work_for_women_farmers-_buba.pptx

[x] The dominant corporate farms include AMFRI farms, SUNRISE farms, Fruits of the Nile, FLONA Commodities Limited, among others which have benefited under the Presidential Support Programme.