

Gender Analysis of the Maize Value Chain, Ghana



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Full details of all the people we met are provided in an annex. All photographs were taken by Cathy Farnworth in January 2012 with the permission of the photographed.

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Executive Summary

The key finding of the report is this:

Women at all levels of the maize value chain in Ghana face significant gender-based constraints in addition to the constraints which affect women and men equally. These gender-based constraints work to disadvantage women as value chain actors and to reduce their competitive advantage in comparison to men. Gender-based constraints combine to keep women's businesses small and indeed scarcely viable as economic entities in many cases. For this reason, all along the chain, women are not seen as attractive value chain partners, either in terms of vertical chain partnerships or by value chain facilitators and service providers. Women are also very weakly represented in terms of numbers in mixed gender producer and trader associations, and rarely occupy decision-making positions. These organizations, therefore, do not represent women's interests effectively and are poor at linking women to other actors. Women from Northern Region resident in Brong Ahafo, and in Northern Region itself, are members of women-only maize trader associations but these are low visibility and are dominated by social welfare functions: a reflection of women's weak bargaining position and vulnerability in society at large.

As a consequence of the specific disadvantages women face, women-led businesses are trapped in a cycle of poor profits, poor investment capacity, and a general incapacity to expand. To be effective, GIZ MOAP should, from the very beginning of its intervention, work to remove the gender-based constraints that afflict women's businesses in tandem with its wider programme to remove constraints facing both women and men actors, and the maize value chain more generally.

The fundamental premises underlying work towards gender equality in value chains are that paying attention to gender issues can increase production and productivity, speed up the adoption of innovations, raise household incomes, and ensure significant improvements to child health, nutrition and educational levels, thus contributing to the achievement of the Millennium Development Goals^{1,2}. Investing in women to increase their levels of productivity and production, assisting them with product and process upgrading, and increasing their effective participation in value chain organisations, enhances the potential of value chain development to become an agent of sustainable social change^{3,4}.

The research and discussions conducted throughout this study show that women and men do not have equal access to key factors of production at the household level in rural Ghana. It is critical to appreciate

¹ Ashby, J., M. Hartl, Y. Lambrou, G. Larson, A. Lubbock, E. Pehu, and C. Ragasa (2009). Investing in Women as Drivers of Agricultural Growth.

² USAID (2009). Promoting Gender Equitable Opportunities in Agricultural Value Chains: a Handbook. Prepared by Rubin, D. and Manfre, C.

³ Ashby, J., M. Hartl, Y. Lambrou, G. Larson, A. Lubbock, E. Pehu, and C. Ragasa (2009). Investing in Women as Drivers of Agricultural Growth.

⁴ USAID (2009). Promoting Gender Equitable Opportunities in Agricultural Value Chains: a Handbook. Prepared by Rubin, D. and Manfre, C.

that women and men within households run their own enterprises more or less independently. However, gender norms prescribe that men typically benefit first from services and technologies managed at the household and community levels. For instance, men can command women's labour without ensuring they are rewarded commensurate to their labour input. Extension is generally performed on men-managed land and women often do not attend, partly due to the time-consuming nature of their domestic and caring roles, which are rarely shared with men yet take up many hours a day. Women's reproductive roles also affect the amount of time they can devote to their commercial enterprises.

Because women typically do not own key assets, they almost never access formal financial providers since they have no collateral and find it difficult to get a guarantor. This forces a reliance on micro-credit schemes which depend on the ability of women to maintain social capital and ensure compliance by all members. Many women met with in the course of this study need much larger amounts of cash to build their businesses, which micro-finance cannot offer, yet the formal financial sector is usually closed to them. At the same time, women are responsible for significant household expenditures including school fees. This is so even though social norms indicate a strong male role in paying for their children's education. In reality, women typically pay all or most school fees as well as other household costs.

Women are very weakly represented in maize producer and trader associations. This makes it difficult for them to articulate their specific capacity development and other needs in relation to their strengthening their role in the value chain. It also makes it almost impossible for them to forge the vital links with other value chain actors they must have if their businesses are to expand.

The relative lack of access by women to productive assets of all kinds - including land, labour, finance and information - critically undermines their competitiveness and their ability to grow their businesses. Smallholder women farmers, who form a large proportion of all farmers, experience lower levels of productivity and production in maize and thus lower profits. This undermines Ghana's attempts to reduce its annual maize deficit which is expected to reach 250,000 metric tonnes by 2015 unless production is stimulated⁵. Maize aggregator/traders, petty traders, medium to large-scale traders, and banku/kenkey processors likewise face additional gender-based constraints that men do not have. These include mobility constraints – women have less access to transport and also face personal security issues when travelling. Financial constraints have been mentioned, as has the issue of childcare and other domestic work which consumes time and monies. Overall, women's levels of formal schooling are lower than men's, which make it harder for them to benefit from training programmes which depend on good levels of literacy.

At the same time, women respondents met with in the course of this study have a very clear understanding of their constraints and opportunities. Whether literate and illiterate they have well articulated visions for their business - which every respondent said they want to expand, and they know

⁵ Grosse-Rueschkamp et al. (2011) Economic Analysis of the Maize Value Chain with emphasis on the post-harvest part of the value chain. Study Report (October 2011).

what they need to get there. This is a good basis upon which to offer business development services, including functional literacy and numeracy, financial planning, and market analyses.

Moreover, men respondents clearly recognized that women face constraints which men as a category do not face. Men agreed that there are significant gaps between social norms that prescribe certain sets of male-female responsibilities - such as reciprocal labour sharing on fields and male responsibility for school fees - and the reality that men often do not meet their responsibilities adequately. Men often expressed the wish that women expand their business and have their own income. Furthermore, in every group of respondents it was obvious that in some cases women and men within a household worked closely together, and that other cases women and men did not cooperate. This, together with the rapid changes in various areas of life that Ghanaians are experiencing, means that gender roles are in constant flux and that they do not appear impervious to modification. There is, therefore, a strong basis upon which gender equity strategies can be built provided, that they are conceptualized and marketed as 'power with' (men and women together) as opposed to 'power to' (women only) strategies.

Detailed actor-specific recommendations, together with indicators, are made in the main body of this report. The first table below summarizes these recommendations. Since women across the chain face some constraints in common regardless of location, the second table provides cross-cutting recommendations applicable to all actors. Chapter 8 presents component-level gender-sensitive indicators.

Value Chain Actor	Actor-Specific Recommendations
Producers	<p>Productive Assets: Land</p> <ol style="list-style-type: none"> 1. BA: Improve women's access to long-term land leases through work with men & traditional leadership (<i>etc.</i>). 2. NR: Improve women's access to productive land through work with men & traditional leadership. <p>Productive Assets: Technology including machinery</p> <ol style="list-style-type: none"> 1. Train women in improved seed management (local & hybrid); seed bank management; build on women's existing knowledge on seed. 2. Involve women in maize varietal selection/ participatory plant breeding to ensure traits that women favour are identified. 3. Improve women's access to productive technologies inc. planters/sprayers. Link to training in safe use. 4. To enable women to benefit from upgrading, enable women to own and manage post-harvest technologies inc. maize dehuskers/shellers/ mills. Provide suitable credit and training. 5. Promote intermediate forms of transport - IMTs (motorkings/ animals) to enable women farmers with low acreages to bring their maize to central collecting points/maize warehouse. <p>Service Providers</p> <ol style="list-style-type: none"> 1. Develop direct links between input providers and women producers; address women's mobility constraints through IMTs. 2. Improve gender-sensitivity of public and private extension services. 3. Ensure demonstrations conducted on women's land. 4. Ensure women farmers receive timely and equal access to land preparation services. Investigate (household-managed) draft animal services.
Aggregator/ Traders	<p>Transaction Costs</p> <ol style="list-style-type: none"> 1. Promote direct sourcing between women aggregator/traders and producers by eliminating village level collectors. Enable women to own or hire transport cheaply/ travel safely together to villages. 2. Enable women to own & manage dehuskers/shellers for transport to and use in villages. 3. Investigate possibility of women becoming bulk traders/owning stall space in market. <p>Business Expansion</p> <ol style="list-style-type: none"> 1. Facilitate access to large silos/warehouses, provide loans at low cost to enable capital outlay in maize purchases for year round trading. 1. Facilitate links to buyers with predictable and regular demand requirements, such as poultry farms and feed mills. 2. Business Development Services (BDS) including financial planning and market analysis; build on existing mentoring systems.
Petty Traders	<p>Transaction Costs/ Business Expansion</p> <ol style="list-style-type: none"> 1. Conduct outreach and supportive activities to enable petty traders to store maize in warehouses. 2. Provide BDS/loans to enable business expansion including to aggregator/trader level. Build on existing mentoring systems to develop new female entrepreneurs.
Large Traders	<p>Business Expansion</p> <ol style="list-style-type: none"> 1. Facilitate access to large silos/warehouses, provide loans at low cost to enable capital outlay in maize purchases for year round trading. 2. Business Development Services (BDS) including financial planning and market analysis. Build on existing mentoring systems to develop new female entrepreneurs. 3. Address mobility and security constraints through provision of safe transport to village markets and farm gates for direct sourcing.
Processors	<p>Links to Customers</p> <ol style="list-style-type: none"> 1. Assist women through business development sources to find best location for stand and develop customer loyalty. 2. Facilitate links to large-scale customers with predictable and regular demand requirements, such as barracks and schools.

Cross Cutting Recommendations for All Women Actors				
Financial Services	Storage Facilities/ Warehouse Receipt System	Household Approaches	Horizontal Value Chain Relationships	Vertical Value Chain Relationships
<p>1. Work with financial service providers to develop innovative products for women which:</p> <ul style="list-style-type: none"> Recognize their GBCs in relation to collateral and repayment needs. Are suitable for specific needs of women actors at each level. Enable savings, working & capital investments. Provide loans for school fees etc. <p>2. Promote use of banking ICTs to address women's mobility constraints/ concerns about security.</p> <p>3. For aggregator/traders & big buyers specifically: Promote access to immediate use working capital facilities.</p> <p>4. Work with banks to support long-term purchasing arrangements between women traders and big buyers (i.e. sales contract to fulfil collateral requirement of bank).</p> <p>5. Link financial service provision to other BDS including business planning.</p>	<p>1. Develop women's access to existing and new drying and storage facilities in rural areas and at grain markets.</p> <p>2. Producers: Ensure both women and men in a household are named on warehouse receipts (certificate of title/ certificate of pledge).</p> <p>3. Aggregators/traders/ processors: Set aside sufficient long-term storage capacity for women actors. Ensure access to drying & sorting facilities.</p> <p>4. All levels: Ensure that women and men in a household both sign credit agreements with banks</p> <p>5. Ensure female-headed households are targeted for warehouse receipt system/ strategies to enhance access to warehouses and that they receive support, e.g. transport assistance for grains etc. as required.</p>	<p>1. Pilot household approaches with actors across the maize value chain.</p> <p>2. Work with men to engage them for gender equality/support them in behavioural change.</p>	<p><u>Producer and Maize Trader Associations</u></p> <p>1. Increase women's representation in mixed-gender and women-only association by identifying and removing GBCs to participation: membership criteria / ability to articulate views etc).</p> <p>2. Encourage associations to set aside leadership positions for women/ consider quotas.</p> <p>3. Develop the capacity of producer and trader associations to identify and remove GBCs constraining the performance of women members.</p> <p>4. Work with associations to link women as well as men members to key actors (input suppliers, aggregator/traders, big buyers).</p> <p>5. Hold meetings at convenient times/ places. Organise childcare and transport.</p>	<p><u>Value Chain Platform</u></p> <p>1. Ensure women from all actor groups are strongly represented (quota 30%-50%) in VCP.</p> <p>2. Identify and provide logistical support to enable women to attend (childcare, transport, appropriate location & timing)</p> <p>3. Provide capacity development as appropriate to enable women to participate actively/train facilitators to ensure women participate.</p> <p><u>Other VC Relationships</u></p> <p>1. Develop capacity of Producer & Maize Trader Associations to link women members to key value chain actors/ service providers (see column to left).</p>

Also: Involve women from producer to final consumer in maize varietal selection/ participatory plant breeding to ensure traits that women favour are identified.

1 Introduction

The purpose of the study is to carry out a gender analysis of the maize value chain in Brong Ahafo Region and Northern Region in Ghana. The objective is to prepare an analytical report with recommendations to guide gender-sensitive programming in the maize value chain under the auspices of the Market Orientated Agriculture Programme (MOAP). MOAP has three components: (1) upgrading selected value chains, (2) policy advice, and (3) support to the development of private sector organisations. The programme is jointly implemented by the Ministry of Food and Agriculture (MOFA) on behalf of the Government of Ghana, and the German Agency for International Cooperation (GIZ) on behalf of the Ministry for Economic Cooperation and Development (BMZ) of the Federal Republic of Germany. The programme supports the following value chains: chilli, pineapple, mango, citrus, guinea fowl and maize.

The GIZ MOAP Project Progress Review in 2011 noted that more attention needed to be paid to mainstreaming gender in the programme and so this study answers that requirement.

1.1 Gender and Agriculture in Developing Countries

Concern about the ability of the world's ecosystems to continue supporting human life on earth is resulting in a renewed attentiveness to agriculture. In 2008 three major publications reported on the need to focus policy attention on food and farming⁶. One finding of all three reports, supported by decades of research, is that developing gender-centred policies will ensure higher production and productivity in agriculture, and generate a large number of social benefits. These findings are underpinned by FAO's report, 'The State of Food and Agriculture' (2010-2011), which notes that closing the gender gap in agricultural inputs alone could lift 100–150 million people out of hunger. Research conducted over the past four decades shows that women play a major role in food and farming in developing countries. Currently, the proportion of women in production and post-harvest processing worldwide ranges from 20% to 70% or more, and their involvement is increasing in many countries⁷. In Ghana, recent data shows that women produce 70% of the nation's food crops, provide 52% of the agricultural labour force, and contribute 90% of the labour for post-harvest activities⁸. It therefore makes economic sense to work with women to improve their efficiency and effectiveness. Concern for social justice makes empowering women, as an end in itself, an imperative.

It is essential to appreciate that gender is an organizing principle in just about every farming system in Sub-Saharan Africa, with women and men frequently taking on distinct responsibilities for particular tasks and particular crops within a particular farming system. Likewise, women and men are frequently ascribed gender-specific responsibility for obtaining consumption items such as school fees, clothing,

⁶ Gender in Agriculture Sourcebook (<http://worldbank.org/genderinag>); The World Development Report: Agriculture for Development. The World Bank. Washington, DC. 2007; International Assessment of Agricultural Science and Technology for Development (www.agassessment.org).

⁷ Ashby, J., M. Hartl, Y. Lambrou, G. Larson, A. Lubbock, E. Pehu, and C. Ragasa (2009). Investing in Women as Drivers of Agricultural Growth.

⁸ African Development Fund (2008). Ghana Country Gender Profile.

basic staples, and additional food items⁹. This said, there is frequently a lack of congruence between the work men and women do, and their representation in decision-making bodies such as producer and trader organizations. Women are often marginalized both in terms of numbers, and in decision-making roles. This may result in organizations which are ineffective in representing the knowledge, needs and demands of the people responsible for particular tasks - and thus result in weak value chain performance.

Any value chain intervention will be shaped by, and shape, gender relations. Its effectiveness will rely greatly on the degree to which it has acknowledged and worked with gender relations as part of a wider systemic approach to value chain development. This point is discussed further below.

1.2 Gender and the Millennium Development Goals

Paying attention to gender issues in farming can substantially increase production and profits per hectare, speed up the adoption of innovations, and raise household incomes provided women benefit directly. This is important because numerous studies show that resources and incomes controlled by women are more likely to be used to improve family food consumption and welfare, reduce child malnutrition, and increase the overall well-being of the family, thus contributing to the achievement of the Millennium Development Goals (MDGs). Research by the OECD Development Centre¹⁰ shows that looking at women's control over resources, their level of decision-making power in the family and household, and their degree of control over their own physical security sheds light on the bottlenecks that hamper further progress across all the MDG targets. Countries where social institutions are highly discriminatory towards women tend to score poorly against the human development targets used to track progress towards achieving the MDGs. Box 1.1 reveals important associations between women's lack of control over assets, weak decision-making power, and weak development outcomes.

Box 1.1. Gender and the Millennium Development Goals¹¹

MDG 1: Eradicate extreme hunger and poverty:

- Countries where women lack any right to own land have on average 60% more malnourished children. In Ghana, a 1% increase in property owned by rural women results in 2.8% increase of monthly expenditure on food¹².
- Where women lack any access to credit the number of malnourished children is 85% above average.

MDG 2: Achieve universal primary education

- The lack of women's decision-making power in the family and household limits their ability to make choices to safeguard the health, education and welfare of their children. Net enrolment in primary education is, on average, lower in countries with high levels of early marriage.

Other MDGs:

⁹ Doss, C.R. (1999). Twenty-Five Years of Research on Women Farmers in Africa: Lessons and Implications for Agricultural Research Institutions; with an Annotated Bibliography. CIMMYT Economics Program Paper No. 99-02. Mexico D.F.: CIMMYT.

¹⁰ OECD (2010) At Issue: Gender Inequality and the MDGs: What are the Missing Dimensions? www.oecd.org/dataoecd/11/56/45987065.pdf

¹¹ OECD (2010) At Issue: Gender Inequality and the MDGs: What are the Missing Dimensions? www.oecd.org/dataoecd/11/56/45987065.pdf

¹² Doss, S. (2005). Cited in OECD (2010) At Issue: Gender Inequality and the MDGs: What are the Missing Dimensions? www.oecd.org/dataoecd/11/56/45987065.pdf

- Where women’s roles and decision-making power in the household are restricted, they have less ability to influence decisions regarding their children’s welfare and well-being. This is reflected in the fact that under-5 mortality rates (an indicator for MDG 4) are, on average, higher in countries with family codes that discriminate against women.
- The prevalence of HIV in the population aged 15-24 years (an indicator for MDG 6) is on average greater in countries where women have few rights in relation to inheritance or parental authority, and where polygamy is more prevalent.
- Where women have few land rights, the proportion of the population with access to safe drinking water (an indicator for MDG 7) is on average lower as well.

Production and productivity levels increase where there is more equity in asset distribution. This has been known for a long time. In Cameroon, for example, Jones (1983) found that labour was not allocated efficiently across men’s rice fields and women’s sorghum fields¹³. In Burkina Faso, shifting inputs from plots controlled by men to plots controlled by women planted to the same crops resulted in increased total production levels¹⁴. The FAO (2011) State of Food and Agriculture provides substantial empirical data which shows that *‘across countries and contexts women have less access than men to agricultural assets, inputs and services and to rural employment opportunities ... This imposes costs on the agriculture sector, the broader economy and society as well as on women. If women had the same access to productive resources as men, they could increase yields on their farms by 20–30 percent ...’*

1.3 Gender in Agricultural Value Chains

A value chain incorporates the full range of activities that are required to bring a product or service from conception to production, delivery to consumers, and final disposal after use¹⁵. A gender approach to value chain analysis makes it possible to consider (1) the gender-based division of activities in a given value chain, (2) differential gender-based opportunities for upgrading within the chain, and (3) how gender power relations affect economic rents among actors throughout the chain. Box 1.2. outlines how gender dynamics in value chains play out.

Box 1.2. Gender Dynamics and Inequalities in Value Chains¹⁶

Gender dynamics in value chains play out along two main axes: first, that of scale, from individual interactions at the household level, through clusters of horizontally linked households, to the level of the value chain. Second, that of participation-related issues versus factors that govern levels of gains from participation.

Each node in a value chain has barriers to entry. There are prerequisites for a) participation in value chains, and b) competitiveness in a given market. Levels of participation and gains are shaped at the

¹³ Cited in Doss, C.R. (1999). Twenty-Five Years of Research on Women Farmers in Africa: Lessons and Implications for Agricultural Research Institutions; with an Annotated Bibliography. CIMMYT Economics Program Paper No. 99-02. Mexico D.F.: CIMMYT.

¹⁴ Udry (1996). Cited in Doss, C.R. (1999).

¹⁵ Kaplinsky and Morris (2002).

¹⁶ Coles, C. and J Mitchell, M. (2010) 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 Organization of the United Nations www.fao.org/economic/esa

household level by gendered divisions of labour, time budgets, and decision making, and at the value chain level by differential access chain to functions, services and resources, and by gender related power disparities in chain management.

Gender inequities arise from (i) disparities in access to factors of production and education, (ii) gender disparities in time budgets ('time poverty'), (iii) gendered labour markets, and (iv) power imbalances – often linked to cultural norms - that affect the ability of women to participate effectively in decision making.

Low incomes, lack of control over the benefits from participation in value chains, and gender discrimination in access to credit and training can reinforce a cycle whereby women are unable or unwilling to invest their time or money into improving production and productivity, leading to poorer product quality and quantity¹⁷. When value chain interventions do not address gender issues, gender disparities in workloads and incomes may increase, with knock-on effects for human development indicators. Furthermore, failure to pay attention to gender in value chains means that women often lose their existing niches. In Uganda, women in the fruit and vegetable trade lost out to men as markets were developed in Kampala and for export. In Côte d'Ivoire, government regulations on cooperatives in the cocoa industry made participation by women's groups very difficult, resulting in their marginalization¹⁸.

To make value chains work for smaller, weaker actors, they must be enabled to capture a larger slice of the revenues. Pro-poor, women-centred strategies that can enable this goal to be achieved include (i) encouraging women to add value to their product, for instance through improved post-harvest processing, (ii) supporting women to take on more/ different functions in a value chain, such as aggregating and marketing, and (iii) ensuring that contracts are signed with women as well as with men in a household. It is also vital to pay attention to the equity, as well as to the quality, of the institutional arrangements between actors in a chain. In most cases, it is necessary to strengthen relationships between actors in ways that explicitly target and support women as well as men. This involves paying attention to how relationships between actors at the same level (horizontal e.g. producer cooperative) and between levels (vertical e.g. producer-aggregator-trader/ value chain platforms) are created, managed and supported.

All work on supporting women in value chains requires an understanding of their gender-based constraints at each level of a selected chain, and the cultural norms as well as institutional practices that may underpin these. It is upon this understanding that strategies to remove constraints and to maximize the potential of women and men can be built.

To summarise: agricultural value chain development cannot neither be truly pro-poor, nor economically effective, without explicitly incorporating gender issues. Promoting women's economic empowerment through removing gender-based constraints - including lack of decision-making power over how to best manage and deploy resources - will result in better value chains. Gender equity strategies in value chain

17 See further studies in Farnworth, C.R. (2008) Module 5: Gender and Agricultural Markets. In: Gender in Agriculture Sourcebook. World Bank. <http://worldbank.org/genderinag>

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

development can promote the synergies between women's economic and personal empowerment and wider development objectives.

1.4 Food Security, Nutrition and Value Chain Development

All too often agricultural development programmes focus on production for the market and neglect food security. However, in 2010, 925 million people were unable to meet their daily food needs¹⁹. Resource degradation, climate change, alterations in dietary preferences, the development of biofuels, and population growth pose serious sustainability and productivity challenges²⁰. Part of the solution requires policy recognition of the centrality of women to food security and nutrition. However, men should be targeted too in order to ensure that responsibility for healthy and sufficient food for all household members is shared at household level. The Agricultural Support Programme in Zambia trained farmers to calculate their annual food needs using internationally agreed standards for calorific intake. It was successful because both women and men shared responsibility for household food security²¹.

Many programmes work to improve household nutritional practices, for example when people have HIV/AIDs. Far fewer programmes work to combat gendered food distribution practices in the household, which often work to deny women and children protein and vitamin-rich food. Worldwide more than half of all child deaths, and a fifth of maternal deaths, are associated with malnutrition. Key actions include stepping up programmes to ensure gender-equitable food distribution²² alongside nutrition-focused programmes, such as those supporting the widespread utilization of the vitamin A-rich orange-fleshed sweet potato as part of healthy food baskets at household level.

Programmes fostering market orientation should always work in association with food security and nutrition programmes. Indeed, participation in value chain development should be made conditional upon household level commitments agreed by men as well as women to ensuring food security and nutrition.

1.5 Conceptual Constructs

The working definition of gender used in this study is provided in Box 1.3.

Box 2.3. Working Definition of Gender

Gender underpins all forms of human interaction. It influences how people relate to each other, and it structures how men and women access and use the resources they need to survive. Gender defines what it means to be a man or a woman in a given society at a particular time. Since gender is socially

¹⁹ Food and Agriculture Organization (2010) The state of food insecurity in the world 2010. Rome.

<http://www.fao.org/publications/sofi/en/>

²⁰ DFID/DEFRA (March 2010) DFID/Defra Policy Narrative on Global Food Security and Sustainable Agriculture.

<http://www.defra.gov.uk/foodfarm/food/pdf/defra-dfid1003.pdf>

²¹ Farnworth, C.R. (2010) Zambia Country Report: Sida UTV Working Paper 2010:8

<http://www.sida.se/Global/Gender%20in%20Agriculture%20working%20paper%202010-8%20Zambia.pdf>

²² DFID/DEFRA (March 2010)

defined (unlike sex, which is a biological attribute) it is possible to work for change when gender relations are inequitable.

To structure discussion and analysis, and propose additional interventions, the study team worked with the concept of agency, a critical component of empowerment. The basic concept is explained in Box 1.4.

Box 1.4: Defining Agency

Empowerment puts a name to the process of change in women's sense of self-confidence and ability to deal with the world, changes which can be seen on the ground. It is a fuzzy concept because feminists have used it in many ways. Feminist definitions of empowerment are constructed around a cluster of concepts such as power, capacity, rights, interests, choices and control.

Agency means the ability to define one's goals and act upon them. It can take many forms. In the positive sense of 'power to', it relates to people's capacity to define their own life choices and to pursue their own goals. To this can be added 'power with', meaning the capacity to augment power through collective action. Empowerment implies a process of discovering new ways to exercise choice, or new domains in which choice might be exercised.

Agency refers both to the ability of an individual to exercise choice, and also that of a category of people. In Maori culture, for example, agency is defined as self-determination or sovereignty. This asserts the right of people to have choices in how they provide for themselves according to their own cultural paradigms.

The concept of **agency** is critical to the ability of women and men to take rational decisions as well as to wider empowerment agendas. Whilst it is possible to increase agency through educational initiatives and so on, in many situations effective agency is closely linked to **resources** (or assets), for without resources it can be impossible to realize a goal. However, women generally have much less access to, or decision-making power over, critical productive resources such as land, education, social capital, machinery, or money, than do men. This can be so even if the household as a whole has such resources. Unequal access to resources can mean less effective economic outcomes because the use value of these resources is not maximized.

In the context of value chain development, empowerment may be viewed as the process of reducing inequalities in people's capacity to make choices. Two points need to be made. First, women may not be free to choose whether they participate, or the manner in which they participate – for example, in Ghana as in many countries men can often command women to work for them without remuneration or without necessarily granting a share in business profits. Second, the extent to which women gain from their involvement is governed by a complex set of factors, many of which are gender-related²³.

Assets are critical for participation in value chains. However, as a consequence of unequal gender relations, the assets that women control tend to have weak income generation potential and are rarely

²³ The last four sentences are adapted from Coles, C. and J Mitchell, M. (2010) 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 Organization of the United Nations www.fao.org/economic/esa

sufficient to act as collateral for value chain investments. Women-owned assets often include small livestock, kitchen equipment, firewood, jewelry and savings. Women typically invest in such assets as they can control them in most societies. Assets managed by women often depend on the ability to access and maintain social capital, such as merry go rounds. By way of contrast, assets controlled by men are high value and contribute more directly to farm productivity, such as land, education, the ability to command and pay for labour, and farming technologies including ploughs, sprayers, and the like. The access of women to high value productive resources like these is generated through male kin in many cases and is often withdrawn in the event of marital breakdown or death of the husband. In such cases, some women may end up living on the very margins of society.

In order to maximize the utility of productive resources in strongly sex-segregated societies, and in so doing improve women's agency, it is necessary to disaggregate the household as an analytical unit. The work of Amartya Sen (Nobel Prize for Economics) is a valuable tool to understanding why and how households need to be 'taken apart' to understand what is happening within the household in relation to asset management and control, and decision-making regarding benefits from the work of each household member Box 1.5. presents key points.

Box 1.5. Disaggregating the Household: key points

Sen's 'functionings and capabilities' framework²⁴ challenges the view that possession of commodities alone translates into well-being for all household members, as traditionally posited by economists. Sen explains that the possession of goods does not translate automatically into well-being since possession is different from the ability to benefit from the characteristics of these goods. That is, it is not the possession of the commodity or the utility it provides that proxies for well-being, but *rather what the person actually succeeds in doing with that commodity and its characteristics*. For example, a 'household' may 'own' a plough, but the right to use it may be exclusively vested in the male head.

To help explain how this happens, Sen shows in his essay *Co-operative Conflicts*²⁵ that household gender relations profoundly affect the intra-household distribution of commodities and the ability of each gender to use particular commodities. Women and men may collaborate to bring wealth into the family, but the division of wealth is a source of conflict. In many cases, wealth is not divided according to the share brought in by each household member. Rather, division is determined by relative power. Very often, men hold more power than women and thus wield more control over assets and expenditure.

Following Sen's analysis, there are two basic ways of increasing women's access to, and control over, assets. One is to place assets under the direct control of women. The second is to find ways of moderating 'cooperative conflicts' in order to strengthen women's agency in household decision-making.

1.6 Study Methodology

Research was conducted through key informant interviews with staff, including directors, at the Ministry of Food and Agriculture (MOFA) and the Ministry of Women and Children's Affairs (MoWOCA) in Accra

²⁴ Sen, A.K. (1998) The Living Standard. In Crocker, D.A. & Linden, T (eds) *Ethics of Consumption: The Good Life, Justice, and Global Stewardship*: 287-311. Rowman & Littlefield Publishers, Inc., Oxford.

²⁵ Sen, A.K. (1990) Gender and Cooperative Conflicts. In Tinker, I. (ed.) *Persistent Inequalities*. Oxford University Press, Oxford.

and in the study regions; GIZ staff at headquarters and staff at GIZ MOAP offices in Brong Ahafo Region and Northern Region; and a number of international development partners active in Accra and the study regions. In the field, value chain actors along the maize chain were met. In almost all cases, interviews were conducted in gender-disaggregated groups. The study team made liberal use of a draft questionnaire guide currently under development by Cristina Manfre entitled 'Behaviour Change Perspectives on Value Chain Development: tools for research and assessment'²⁶, as well as adding its own questions.

Although the team talked to hired workers from Northern Region who are long-term residents in Brong Ahafo Region, their role in the maize value chain is discussed only in their capacity as workers, and no recommendations are made on their behalf. This is because the study was commissioned largely to focus on the post-harvest part of the chain. However, it would be good to commission a separate study into this group of actors and to support them where possible, particularly because women desperately need own account income to meet their and their children's many needs.

The findings were presented to a wide range of MOFA and international development partners at the end of the mission on 20th January for verification and feedback.

1.7 Structure of the Report

The study is divided as follows.

- Chapter 1. Introduction.
- Chapter 2. Ghana Gender Profile.
- Chapter 3. Gender Overview of Maize in the Study Regions.
- Chapter 4. Gender Overview of Primary Actors in the Maize Value Chain (includes value chain maps).
- Chapter 5. Findings: Gender-based Constraints and Opportunities by Primary Actor in the Maize Value Chain.
- Chapter 6. Household Level Gender-Based Constraints.
- Chapter 7. Gender Analysis of Maize Value Chain Service Providers and Facilitators.
- Chapter 8. Mainstreaming Gender in GOZ MOAP's Value Chain Strategy. This provides suggested component level indicators.

The annexes provide detailed study findings (Annex 1), Schedule (Annex 2), People Met (Annex 3) and References (Annex 4).

²⁶ <http://microlinks.kdid.org/library/field-report-11-behavior-change-perspectives-gender-and-value-chain-development-tools-research>

2 Ghana Gender Profile

This chapter provides a short gendered ‘facts and figures’ portrait of Ghana in 2012. It commences with a socio-economic profile and discusses the representation and roles of women in the agricultural sector. It then presents Ghana’s responses to gender inequalities, by outlining its national gender commitments and explaining how these are articulated in the work of the Ministry of Women and Children’s Affairs, and in the Ministry of Food and Agriculture. The final section provides an insight into GIZ’s gender strategy.

2.1 Socio-economic Profile

Ghana covers a total land area of 238,538 km². A rebasing of the national accounts to a base year of 2006 from the previous 1993 base year led to a rise in the per capita GDP to a provisional figure of US\$ 1,318 per capita for 2010 from the previously calculated figure of US\$750. The rebasing favoured the services sector, giving it a GDP share of 51.1% compared to 35.1% in 2009, whereas the share of agriculture dropped from 37.7% of GDP in 2009 to 30.4% in 2010. The economy has grown steadily over the years with a growth rate of about 6%. The discovery of oil and projected production of between 120,000 and 240,000 barrels a day will bring more revenue for development, though it is not likely to significantly transform the economy.

The nation’s estimated population growth rate is 2.7%. Ghana has a total population of 24,223,431 comprising 11,801,601 (48.7%) males and 12,421,770 (51.3%) females according to provisional 2010 census data. Brong-Ahafo and Northern Regions show the following population figures.

Regions	Total	Male	Female
Ghana	24,223,431	11,801,661	12,421,770
Northern	2,468,557	1,210,702	1,257,855
Brong Ahafo	2,282,128	1,161,537	1,120,591

Ghana’s life expectancy rate is estimated at 56 years for men and 57 years for women. The maternal mortality rate has steadily reduced from 740 deaths in 1990 to 503 in 2005 and to 451 in 2008 per 100,000 live births. A 2011 UNICEF report now pegs it at 350 deaths per 100,000 live births. This reduction notwithstanding it is unlikely that Ghana will meet the MDG target of 185 deaths per 100,000 live births by 2015. The under-five year mortality rate is 80 per 1000 live births and the infant mortality rate at 50 per 1000 live births. The national prevalence rate for HIV dropped from 3.6% in 2003 to 1.5% in 2010. In absolute figures, the number of Ghanaians living with HIV and AIDS is estimated at 222, 000 (57% female and 43% male)²⁷. The prevention of mother to child transmission is a key policy and strategic priority in the country.

The adult literacy rate (age 15 and above) is 65%. The gender parity index for primary and junior high school stands at 0.96 and 0.92 respectively.

²⁷ 2008 Ghana Demographic and Health Survey (GDHS)

Ghana is on track to meet the MDG1 target of halving poverty by 2015. Overall poverty has reduced from 51.7% in 1992 to 39.4% in 1999 and further to 28.5% in 2006. The numbers of people living in the extreme poverty brackets also declined from 36.5% in 1992 to 27% and 18.2% in 1999 and 2006 respectively. These figures, however, masks inequalities related to regional and district disparities. Poverty levels have actually increased in the Upper West and Upper East regions of Northern Ghana. It is estimated that between 1992 and 2006 the number of poor people declined by 2.5 million in Southern Ghana but increased by 0.9 million in Northern Ghana. Food crop farmers, the majority of whom are women, remain the poorest occupational group.

The government has instituted some social protection programmes. These include education capitation grants to improve school enrolment and retention rates, school feeding programmes, a national health insurance scheme, and a cash transfer programme to provide cash for the poor, vulnerable and excluded.

2.2 Women in Ghana's Agricultural Sector

Overall, over 50% of the country's labour force works in agriculture as shown in Table 2.1²⁸. Data includes farming, forestry, fishing and hunting. Women are mainly represented in the farming and processing subsectors, and they are particularly important in food cropping (70% of activity). The table shows that women are less prominent in the agricultural labour force in Northern Region than they are in Brong Ahafo Region. This said, in both regions agriculture occupies over two thirds of the labour force.

Table 2.1: Male/female Representation in the Agricultural Labour Force

Area	Total Labour Force	Agricultural Labour Force	Share of Labour Force by Sex		
			Total	Male	Female
Ghana	8,292,114	4,199,185	50.6%	48.2%	51.8%
Brong Ahafo	819,190	566,066	69.1%	51.1%	48.9%
Northern	727,553	523,278	71.2%	71.2%	44.1%

The FAO's State of Food and Agriculture (2010-2011) report makes the following observations about the status of women in Ghana's agricultural sector. The FAO data is drawn from various sources and is not attributed separately here.

- Ghanaian women carry a much heavier burden than men for household chores despite working outside the household almost as much as men.
- The Rural Income Generating Activities (RIGA) project shows that the gender gap in formal and informal wage employment is large. Almost 15% of men as opposed to 4% of women in Ghana work for a wage. Male wages are 31% higher than women's wages in urban areas and 58% higher in rural areas. Women earn less than men due to occupational segregation and also due to cultural norms which consider that heavy work (such as loading) is 'worth more' than labour-intensive time-consuming work (such as weeding).

²⁸ Agriculture in Ghana Facts and Figures. (2009).

- The disparity in livestock holdings by gender in Ghana is amongst the highest in the world, with male-headed households managing more than three times the size of livestock holding as female-headed households. These figures mask gender inequalities within households regarding livestock ownership. Generally speaking, men control large animals such as cattle and women control smaller animals such as poultry and goats.
- There are strong discrepancies between the educational level of female-headed households, and male-headed households. Women heads of household average approximately 2.4 years of schooling whereas men heads of household have achieved almost 5 years.
- Female heads of households have much less contact with the extension services than do women and men in male-headed households.
- Adoption rates of new crop varieties show a gender gap. Only 39% of women farmers adopt new varieties, as opposed to 59% of men farmers. This is because women have less access to land, family labour and the extension services.
- Women are as efficient as men in maize and cassava production, but they achieve lower yields and lower profits because they cannot maintain soil fertility.
- Female-headed households are more likely to keep their land in production in order to avoid expropriation by the traditional leadership. Their bargaining power is low due to their weaker social and political capital at village level. Constant cultivation erodes soil fertility due to the lack of fallow.
- When women and men cocoa farmers apply the same level of inputs, yields are the same.

2.3 National Gender Commitments

The Constitution of Ghana (1992) upholds the country's commitment to gender equality and women's empowerment. It provides that all persons are equal before law and also that a person shall not be discriminated against on grounds of gender amongst others (Article 17). This notwithstanding, Article 17(4) provides for the possibility of affirmative action by stipulating that nothing in the article shall prevent Parliament from enacting laws that are reasonably necessary to provide for the implementation of policies and programmes aimed at redressing social, economic, or educational imbalance in the Ghanaian society. Furthermore, the Constitution under the Directive Principles of State Policy - article 36(6) provides that the state shall afford equality of economic opportunities to all citizens; and in particular take all necessary steps so as to ensure the full integration of women into the mainstream of the economic development of Ghana.

Ghana is a signatory to key international instruments including the Convention on the Elimination of all forms of Discrimination Against Women (CEDAW), The Beijing Declaration and Platform for Action, the Millennium Declaration and the Millennium Development Goals (MDGs), and thus Ghana is obliged to incorporate these commitments into national laws, policies and programmes and to implement them accordingly.

2.4 The Ministry of Women and Children's Affairs

The Ministry of Women and Children Affairs (MOWACA) was established to facilitate gender-related policy and programme formulation, as well as to coordinate gender mainstreaming efforts to promote women's empowerment and gender equality. MOWACA has put in place a National Gender Policy to guide Ministries, Departments and Agencies and all partners to take cognizance of gender concerns. The goal of the policy is to mainstream gender concerns in the national development process in order to improve the social, legal/civic, political, economic and cultural conditions of the people of Ghana, particularly women and children. Sector ministries including Agriculture, Education and Health have formulated sector-specific gender policies to enhance gender mainstreaming and the full integration of women and men in all interventions from planning through implementation and monitoring. Gender desk officers have been established in all line ministries.

2.5 The Ministry of Food and Agriculture

The Ministry of Food and Agriculture (MOFA) has formulated and adopted a Gender and Agricultural Development Strategy (GADS). The strategy has the overall objective of attaining sustainable agricultural development through promoting gender equity concerns and addressing the diverse rural needs of actors in the agricultural sector as a means to enhance national development. It recognizes the significant contributions of women in the agricultural sector, identifies the key gender-based constraints in the agricultural sector, and specifies capacity gaps together with steps to bridge these gaps through training. GADS also identifies key indicators to serve as benchmarks for monitoring progress in the operation process of the strategy. With the implementation of GADS the expectation is that gender mainstreaming and gender sensitivity in general will become a routine and integral part of all MOFA's activities across all the agricultural sub-sector, resulting in the maximizing of the productive potential of male and female farmers. Finally, GADS proposed the establishment of gender focal points in all directorates of MOFA to monitor progress on implementation of the strategies and actions outlined in the document.

GADS was assessed in 2008 after three years of implementation. The following constraints were noted: (i) low institutional capacity to address gender issues coupled with a strong need for improved provision and analysis of sex- disaggregated data, (ii) inadequate extension services in terms of quality and coverage, and an inadequate understanding of women's specific gender-based constraints with regard to accessing, and benefiting from, the extension services, (iii) inadequate access by farmers – particularly women - to the financial services needed to support implementation of extension service recommendations, and (iv) a serious lack of analysis and outreach regarding the identification and dissemination of improved and appropriate technologies. Furthermore, monitoring of implementation processes was found to be weak.

Following the assessment, an accountability framework was developed in order to align GADS objectives to the objectives and activities of all MOFA departments and units, and of the Food and Agriculture Sector Development Policy (FASDEP) as a whole. The Canadian International Development Agency (CIDA) is supporting the process through working with the directorates to set triggers tailored to the GADS objectives, and linking the triggers to release of funds. Furthermore each directorate/ unit is asked to identify priority gender issues to address and report on. However, the challenge is that at national

level the focus is on policy and not implementation. It is therefore necessary to work through the implementation wings in the districts and communities on the identified issue and report accordingly. The capacity of the Women in Agricultural Development (WIAD) needs to be strengthened to assist in monitoring the process of implementation of GADS.

2.5.1 Gender Responsive Budgeting in MOFA

MOFA is one of the three ministries – the others are Health and Education - directed by Cabinet with the approval of Parliament to pilot the implementation of gender-responsive budgeting as part of the nation's gender mainstreaming efforts. MOFA regional and district offices are responding by identifying women-focused crops in their areas of operation and budgeting for specific support with inputs, as well as lobbying with local authorities for release of land to women farmers.

2.6 GIZ Gender Strategy

The GIZ Gender Strategy (2010-2014) focuses on gender mainstreaming through conducting gender analyses within the framework of project appraisals and drawing out founded conclusions with regard to the extent a project or programme is likely to contribute towards creating equal opportunities. The strategy requires that relevant indicators are set to track progress and that regular reviews are carried out to ensure that gender aspects are properly mainstreamed. The GIZ Gender Strategy emphasizes the need for attaining gender competences at all levels. It stresses accountability in terms of achieving results in aspects of gender equality.

Gender focal points have been appointed to all of GIZ's programmes in Ghana, including GIZ MOAP. These staff have other responsibilities as well and so it is important that they have sufficient time for work on gender, and they may need additional training to properly fulfil their mandate.

2.7 Summary

At the national level there is certainly recognition that gender-based constraints serve to block the effective implementation of measures put in place to achieve poverty reduction and for the promotion of socio-economic development. Ghana has worked hard to put into place gender policies and strategies in all its policies, programmes and activities.

To date gender mainstreaming efforts have achieved limited results. The bottleneck is in implementation. Good mainstreaming practices remained to be identified and up-scaled. Inadequate capacity linked with limited financial resources and low accountability requirements combine to hinder progress in mainstreaming initiatives. Nevertheless, national policies and strategies provide the mandate for all interventions aiming to put into place gender equity measures which seek to ensure women's equal participation in value chain development. This legitimizes the gender mainstreaming efforts of GIZ MOAP.

3 Gender Overview of Maize in the Study Regions

This chapter examines key gender features of maize production, the contribution of maize to household food security, shared gender and regional constraints to maize production (including with regard to climate change and maize as a component of farm diversification), and maize breeding programmes.

3.1 Maize Production

The Northern Region, mostly dry guinea savannah, is largely patrilineal and mostly Muslim. Maize is grown in permanently cultivated fields close to homesteads, and on more distant plots under shifting cultivation. Brong Ahafo Region is largely matrilineal and mostly Christian. Occupying a forest-savannah transition zone, this region is characterized by relatively sparse tree cover and deep soils. Maize is planted twice a year – the major and minor seasons²⁹. There are broad differences in the socio-economic organization of societies in each region, and thus some differences in the gender-based constraints facing women in maize production. Many gender-based constraints are, however, common to women in both regions.

Maize farming in the smallholder sector across Ghana is governed by sex-segregated and sex-sequential task division. Men work almost exclusively on some tasks and women almost exclusively on others. Male tasks include land clearance, weeding – sometimes using herbicides (commonly called weedicides), and pest control through pesticide sprayers. Female tasks include fertilizer application by hand, harvesting, and all first order post-harvest processing of maize (unless this has been mechanized, at which point men, who have the means to acquire machinery, take over for a fee). Women sometimes engage in planting by following men. Men make the holes and women drop in the seeds. Women assist in land clearance by removing stumps and brushwood. They haul water for sprayers, and they cook for their husbands and for hired labour.

In both Brong Ahafo Region and Northern Region, ownership of the maize harvest is correlated with the person to whom the field ‘belongs’ (is managed by). Both women and men manage their own plots for maize production in both regions, with acreages under female management being substantially smaller than those under male management. Priority is given to maize production on men’s fields in both regions and men command women’s labour for this purpose.

3.2 The Contribution of Maize to Household Food Security

In Brong Ahafo Region, maize is viewed as a commercial crop by both women and men. Staple crops include yam, cocoyam, and cassava. Importantly for household food security, women often interplant maize with yam and cassava on their own and their husband’s fields. Moves to encourage maize mono-cropping may endanger household food security and force women to purchase - rather than grow - basic foodstuffs if their kitchen gardens are not big enough or if they lack sufficient labour to clear and manage new fields. This may cause serious difficulties given that (a) women and men maintain separate

²⁹ Report: Innovative Insurance Products for Adaptation to Climate Change (IIPACC) project (2010). GTZ Ghana/Eschborn.

budgets, and (b) male contributions to the household food budget are, according to the field study, not guaranteed even though cultural norms prescribe a strong male role in household provisioning. Any project intervention must understand the basis of household food security, and plan interventions accordingly.

In Northern Region maize is a staple food crop. Ensuring sufficient maize for household food security is a key male responsibility. Maize is typically grown in association with cowpeas and groundnuts. These are considered women's crops and so the same observations with regard to food security in Brong Ahafo Region apply to Northern Region. Maize production for the market is a relatively new phenomenon for both women and men.

In both regions, maize is an emergent and important cash crop for women. Women enter commercial maize production in their search for own-account income, with which they are expected to provision the household for all non-maize foodstuffs, pay the majority of school fees (despite cultural norms that prescribe a strong male role), buy clothing, personal toiletry items, and the like.

These regional differences result in different sets of gender-based constraints for women and men in both regions wishing to farm maize as a cash crop.

3.3 Production Constraints

Women and men maize producers in both regions face the following general constraints: (a) the widespread use of poor production techniques that result in low productivity and poor product quality, (b) an inability to dry maize sufficiently and to protect it properly from pests, (c) poor on-farm storage facilities and techniques often result in high product losses, which undermines the financial benefits of selling part of the production out of season at higher prices, and (d) the selling of maize by volume measures as opposed to by weight places producers in a weak position vis-à-vis aggregator/traders³⁰. Conversely, it should be noted that aggregator/traders largely base their profit margins on manipulating volumes, through transferring maize from maxi-bags into slightly smaller bags for resale.

Further issues include small farm unit size (which create higher aggregation and marketing costs particularly for women who manage smaller acreages), the cost and management of hired labour, and, above all, the vagaries of farming under rainfed conditions. All farmers reported to the study team that most, if not all, of their minor maize harvest had failed due to inadequate rains leaving them with no seed for the following season, and little or no income. They faced the prospect of their investments in hired labour, fertilizer, herbicides, and so on not being recouped and a lack of working capital for investment in the next season.

Aspects of **conservation agriculture** are practiced in some areas, such as zero tillage, but other techniques do not appear to be widely applied and the potential gender impacts, whether positive or negative, of such approaches do not seem to be thoroughly discussed. One point is critical, namely that

30 Grosse-Rueschkamp et al. (2011) Economic Analysis of the Maize Value Chain with emphasis on the post-harvest part of the value chain. Study Report (October 2011).

conservation agriculture depends on inputs such as herbicides. However, many maize farmers, both women and men, are very poor and find the costs of inputs prohibitive. Women in male-headed households who manage their own land undoubtedly have fewer monies to spend on inputs and the hired labour costs associated with application, and thus will find it harder to properly apply conservation agriculture approaches. Research shows that female-headed households in Ghana are still poorer. They apply fewer inputs than male-headed households due to their limited capital, and almost none use mechanical equipment³¹. On the other hand, women may benefit from reduced labour demands for hand weeding.

Whilst some farmers, at least, are aware of **climate change**, no farmer met in the limited sample is currently engaged in climate change mitigation programmes. It is generally known that climate change will impact differently upon women and men due to their different roles in agricultural production and the use of associated resources. For example, if women are responsible for procuring water for watering/sprayers/household use they will be seriously affected by diminishing water supplies and children, especially girls, may be taken out of school to help get water. If men are responsible for pest management then they will be challenged by the appearance of new pests. Generally speaking, in rural areas women's domestic roles depend heavily on their sustainable use of the natural environment (procuring wood for cooking, water collection, provisioning of wild foods *etc.*) and so they will find it increasingly difficult to fulfill their roles as the environment changes and degrades. Women farmers are already challenged in farming due to their weak access to key productive assets and climate change can only worsen their position if compensatory measures are not taken. Strengthening the productive base of women needs to be coupled with programmes to target women alongside men for involvement in climate change mitigation measures.

As noted above, all farmer respondents referred to the importance of chemical **inputs** which they consider a major constraining factor. The use of inputs is encouraged by the extension services, as is the use of hybrid seed which have to be purchased each year. However, dependence on chemical inputs and certified seed can undermine the resilience of farmers who have traditionally relied on storing, breeding and exchanging their seed together with the associated knowledge that come with this. The result is likely to be a gradual decline in genetic diversity and potentially increased indebtedness among small-scale farmers³². The widespread introduction of hybrid seed coupled with a lack of attention to the benefits of local seed may increase poverty among poorer farmers. This said, new varieties can be very important – particularly drought-resistant varieties - but introduction should be handled thoughtfully.

The possibilities of low cost sustainable farming techniques such as the use of compost and trap plants for pest management do not seem to be widely explored or introduced, yet they offer great potential. Farm diversification (particularly crop-livestock) more generally would enable farmers to develop multiple income streams across the year and thus reduce their reliance on income from maize. This should result in not only higher incomes for women and men but may also lead to a reduction in gender-based violence, which studies in other countries show can increase after harvest when women and men

³¹ FAO (2010-2011). The State of Food and Agriculture: Women in agriculture – closing the gender gap for development.

³² Pimbert, M. (2012). IIED Briefing: Putting farmers first: reshaping agricultural research in West Africa. Downloaded from [http://pubs.iied.org/17122IIED.html?g=\(Africa\)](http://pubs.iied.org/17122IIED.html?g=(Africa))

argue over their respective entitlements to money and how to deploy it³³. Farm diversification may enhance household food nutrition, particularly if crops like orange-fleshed sweet potato with its very high vitamin A content are introduced³⁴. Overall, a conscious drive towards balancing maize with other crops and livestock will promote more systemic approaches to farming and reduce risk.

Table 3.1. summarises key recommendations made by farmer’s juries in Mali over the past two years following their assessment of the work of the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) and national research bodies. They are included here since they provide some pointers to how GIZ MOAP and associated partners may work towards deepening their already good work on developing the wider enabling environment critical to successful maize value chain development. A high level policy dialogue was held in Accra, February 1st to 3rd, 2012. It brought together farmers and food processors in Benin, Burkina Faso, Mali, Niger and Senegal, the Alliance for a Green Revolution in Africa (AGRA), and the International Institute for the Environment and Development (IIED). It was chaired by the UN Special Rapporteur on the Right to Food, Olivier de Schutter.

Table 3.1. Recommendations by Farmers’ Juries in Mali for Putting Farmers First in Research and Extension³⁵.

Models of agricultural production	<p>Involve farmers in every stage of creating and selecting crop varieties and focus research on improving the productivity of local varieties through, for example, growing practices, land use and soil fertility management.</p> <p>Find strategies to promote the use, exchange, and storage of local seeds</p> <p>Generate knowledge and technologies to support sustainable agriculture, including tools and machines adapted to small-scale farming; use of natural mineral resources and compost; integrated pest management; and mixed cropping.</p>
Land tenure and property rights	<p>Provide producers with accurate information about land registration procedures.</p> <p>Develop research into how to allocate land titles to women</p>
Farmers and markets	<p>Develop mechanisms to help protect the local market and local produce from unfair competition from imported products.</p> <p>Develop strategies to facilitate sales of local products on markets.</p>
Research governance	<p>Reconstruct agricultural policy to give farmers a central role in defining it.</p> <p>Directly involve producers, users and consumers (both women and men) in controlling, designing, conducting and monitoring research activities.</p> <p>Organize citizens’ juries, or conferences, to define the overarching policies and strategic priorities for food and agricultural research.</p> <p>Identify and investigate mechanisms that enable the state to provide more funding to research and reduce dependency on external sources.</p> <p>Increase efforts to circulate and disseminate the results of participatory research, especially in local languages.</p> <p>Build on and disseminate farmers’ agro-ecological knowledge and innovations (on seeds, fertilization, etc.)</p>

33 See, for example, a study from Zambia: PLAN (2005) Gender Based Violence. A Situation in Chadiza, Chibombo, Mansa and Mazabuka. Study conducted by Pathfinders Consultants. See also OECD (2010) At Issue: Gender Inequality and the MDGs: What are the Missing Dimensions?

34 See the SASHA (Sweet potato Action for Security and Health in Africa) continent-wide initiative for more information: sweetpotatoknowledge.org/projects-initiatives/sasha

35 Edited from Pimbert, M. (2012). IIED Briefing: Putting farmers first: reshaping agricultural research in West Africa. Downloaded from [http://pubs.iied.org/17122IIED.html?g=\(Africa\)](http://pubs.iied.org/17122IIED.html?g=(Africa))

3.4 Maize Breeding and Plant Varietal Selection

It is known that the traits of specific varieties of maize may suit the needs of one gender more than the other. However, it appears that in Ghana currently the traits of hybrid varieties under development with regard to the needs of male/female users are rarely assessed through gender-sensitive on-farm trials, though some participatory work has been done on cassava. It further appears that the traits of landraces, and in particular how women and men may historically have selected for different traits have not yet been adequately investigated³⁶. Gender issues include the following:

- The respective water, labour and chemical inputs requirements of different varieties of maize need to be considered through a gender lens, as do their post-harvest processing characteristics. Studies show that dent varieties are high yielding but women, who are responsible for first-level processing, may prefer flinty varieties which are easier to pound, have higher flour to grain extraction rates, and are easier to store under traditional conditions³⁷. A Ghanaian study showed that the new varieties require longer soaking periods for fermentation, which negatively affected small-scale maize food processors³⁸.
- The findings of the current study suggest that there may be regional gender preferences in Ghana with regard to post-harvest processing characteristics. The women in Northern Region who process maize for household consumption may prefer flinty or semi-flinty varieties of maize, whereas women in Brong Ahafo Region may prefer high yielding dent varieties to maximize sales volumes. These hypotheses should be explored further. It should be noted that if maize processing technology is widely introduced then gender preferences may change quite rapidly³⁹.
- African farmers have for centuries experimented with maize to select varieties suited to particular agro-ecological niches. This has resulted in a large number of landraces. However, African crop genetic resources conservation is generally poorly supported at the national level, and material from the region is not fully represented in the major international gene banks that provide the foundation for sustained public breeding efforts. Indeed, African accessions represent only 5% of holdings in international gene banks⁴⁰. Further work on identifying and banking Ghanaian landraces is needed to help provide input into future breeding efforts, which is urgent in the face of climate change. It should be noted that women are often the selectors and custodians of local seed and they should be targeted in this role.
- The equal participation of women and men maize users – farmers, processors, feed producers and final consumers – is essential to the success and relevance of plant breeding programmes and varietal selection, the identification of land races, and – in all initiatives - the mapping of gender

³⁶ These observations may require some correction. They are based on upon discussions conducted during the fieldwork for this study. Internet research did not provide much data on participatory plant breeding and participatory plant varietal selection in relation to maize in Ghana.

³⁷ See Doss, C.R. (1999). *Twenty-Five Years of Research on Women Farmers in Africa: Lessons and Implications for Agricultural Research Institutions; with an Annotated Bibliography*. CIMMYT Economics Program Paper No. 99-02. Mexico D.F.: CIMMYT. See also Farnworth, C.R. & Jiggins, J. (2006) CGIAR /PRGA PPB Monograph 4: *Participatory Plant Breeding and Gender Analysis* (ISBN 958-694-054-3) CGIAR, Columbia.

³⁸ Tripp (1993) cited in Doss, C.R. (1999). *Twenty-Five Years of Research on Women Farmers in Africa: Lessons and Implications for Agricultural Research Institutions; with an Annotated Bibliography*. CIMMYT Economics Program Paper No. 99-02. Mexico D.F.: CIMMYT.

³⁹ This has happened in other countries. See Farnworth, C.R. & Jiggins, J. (2006) CGIAR /PRGA PPB Monograph 4: *Participatory Plant Breeding and Gender Analysis* (ISBN 958-694-054-3) CGIAR, Columbia.

⁴⁰ Burke, M.B., Lobell, D.B., and Guarino, L. (2009). Shifts in African crop climates by 2050, and the implications for crop improvement and genetic resources conservation. *Global Environmental Change* 19 (2009) 317–325.

preferences by user group. This will contribute towards development of maize varieties suited to the multiple needs of users⁴¹ as well as the increasing vagaries of the climate.

41 See the following for the methodology and case studies of good practice: Farnworth, C.R. & Jiggins, J. (2006) CGIAR /PRGA PPB Monograph 4: Participatory Plant Breeding and Gender Analysis (ISBN 958-694-054-3) CGIAR, Columbia.

4 Gendered Overview of Primary Actors in the Maize Value Chain

This chapter provides an overview of the actors in the maize value chain in Brong Ahafo Region and Northern Region. Chapter 5 examines the actor-specific, gender-based constraints of the primary actors in the value chain. Chapter 6 discusses key cross-cutting issues. Chapter 7 assesses the key value chain facilitators and secondary actors in the chain with regard to their contribution to, and alleviation of, gender-based constraints in the value chain. These three chapters present suggested activities and indicators at the output level. Chapter 8 presents gender indicators for GIZ MOAP's indicator framework at module and component level.

In order to better understand the gender-based constraints of the primary actors and the key relationships in the maize value chain two diagrams are presented. Figure 4.1 presents a gendered value chain map – 'gender map'. Figure 4.1 does not depict the whole maize value chain. Rather, it aims to show the locations in the chain where women are prominent actors, and to highlight relationships between primary actors. The diagram is colour-coded: pink = women; blue = men, and green = men/women are both actors (though not necessarily in equal numbers). The top line represents core processes in the value chain. The activities of the primary actors in the chain have been carefully aligned to the processes: it should be noted that in some cases some actors combine processes. This is important because although the GIZ MOAP programme focuses upon improving the post-harvest part of the chain, the same actors may be involved in production and post-production processes. These backward-forward linkages need to be worked with, particularly if the intervention intends to have a pro-poor orientation and thus aims to find ways to add value to the work of the poorest. The bottom line represents secondary value chain actors. They include key value chain facilitators and input providers: farm workers and input suppliers as well as financial service providers *etc.*

Figure 4.2 presents a map of the entire maize value chain – 'overall map'. This was created by an economic analysis team to MOAP GIZ which presented its findings in October 2011⁴². Figure 4.2 is thus contemporaneous to Figure 4.1. Similar to Figure 4.1, the top line of Figure 4.2 indicates key processes, though these have been differently titled in recognition of the fact that women take up specific niches in the chain which are not fully acknowledged in Figure 4.2. The bottom line of Figure 4.2 depicts some services offered to the value chain. A comparison of the two figures enables critical points to be made. They are summarized here and subjected to analysis in the next chapter:

1. Figure 4.1 – the gender map – shows that women are strongly represented at the bottom end of the chain, as producers. However, whilst some women act as aggregators/traders, large traders, and as processors, their numeric representation at these levels is limited. Overall figures are not known but the main point to be made is that they do have a presence and that they are able to travel widely to villages.
2. Figure 4.2 - the overall chain – depicts a significant range of buyers from 1st level intermediate trade through to 3rd level intermediate trade and from thence into processing/retail and sale to final

42 Grosse-Rueschkamp et al. (2011) Economic Analysis of the Maize Value Chain with emphasis on the post-harvest part of the value chain. Study Report (October 2011).

consumers. However, the gender map shows that women traders are concentrated at 1st level intermediate trade. A few women, large buyers from Accra, are represented in the 2nd level, and women are also involved as kenkey/ banku makers in the 3rd level of trade. However, the latter's customer base is typically miniscule and reliant on passing customers, some of whom are loyal and others who pass by chance. Such a customer base is very different to those of other actors at the 3rd level who may be selling huge quantities to multiple retailers (supermarkets) or the World Food Programme (WFP). No women met engaged in international trade, nor did they supply multiple retailers, breweries or indeed any large buyers on a regular basis. A few women said they occasionally supplied poultry farms, but this was rare and ad hoc.

Before proceeding with the detailed analysis, it should be noted that some of the relationships and roles depicted in the map of the overall chain are different to those noted in the gender map.

1. The overall map uses the term 'retail to consumers' for the final process indicated. However, the gender map prefers the term 'consumer' to point out that women producers and traders often have direct contact with the final consumer (as opposed to their product being sold through a retailer). This term also enables the key function of maize as a staple food in Northern Region to be included under this column. The purpose is to enable potential tensions between maize for food security and cash cropping to be visualized and discussed.
2. The present study notes that many women and men involved in 1st level trade also act as aggregators in their own right and in this capacity travel to villages. Once in the villages, women aggregator/traders rely on 'collectors' to source their produce for them from outlying farms. Male aggregator/traders usually source maize themselves. Women are allegedly frequently 'cheated' by collectors regarding quantities of maize collected, and must also pay them a fee - these are costs men aggregator/traders do not have.
3. Aggregator/traders, both male and female, use intermediaries known as 'bulk traders' to sell their produce for them at markets such as Techiman in Brong Ahafo Region. For this service bulk traders, all of whom are male, are paid a commission. The actual selling price fluctuates daily. Bulk traders sell small quantities of maize to petty traders (all women) who sell very small quantities of maize to individual consumers for household use. These two actors are not shown on the overall map, yet disaggregating and interpreting the categories reveals important gender issues upon which a gender-sensitive strategy can be built.
 - On the gender map, first order maize processing (dehusking, shelling) has been depicted as a function in its own right to permit gender dynamics to be introduced. At the producer level women perform all first order processing manually. That is to say, the functions of production and processing are concentrated largely in one actor. However, when technology, such as shellers, is introduced new value chain actors step in to capitalize upon the fee attached to such services. These new actors tend to be men.
 - The gender map includes certified seed growers. These actors have been trained in professional first level processing of maize seed and thus represent a potential model for developing the capacity of maize farmers to prevent the sometimes huge levels of post-harvest losses that many incur.

Figure 4.1. A Gendered View of the Maize Value Chain

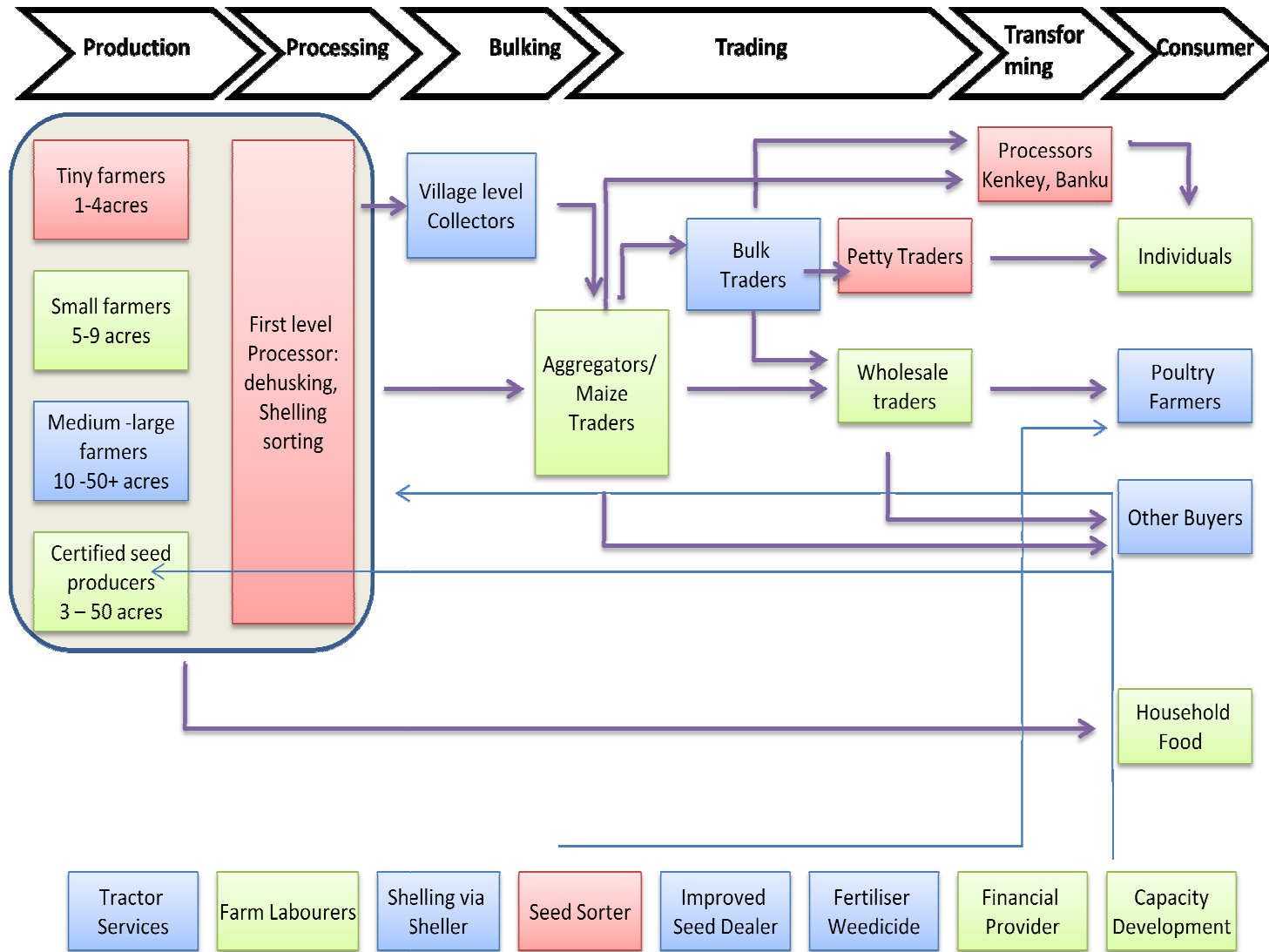
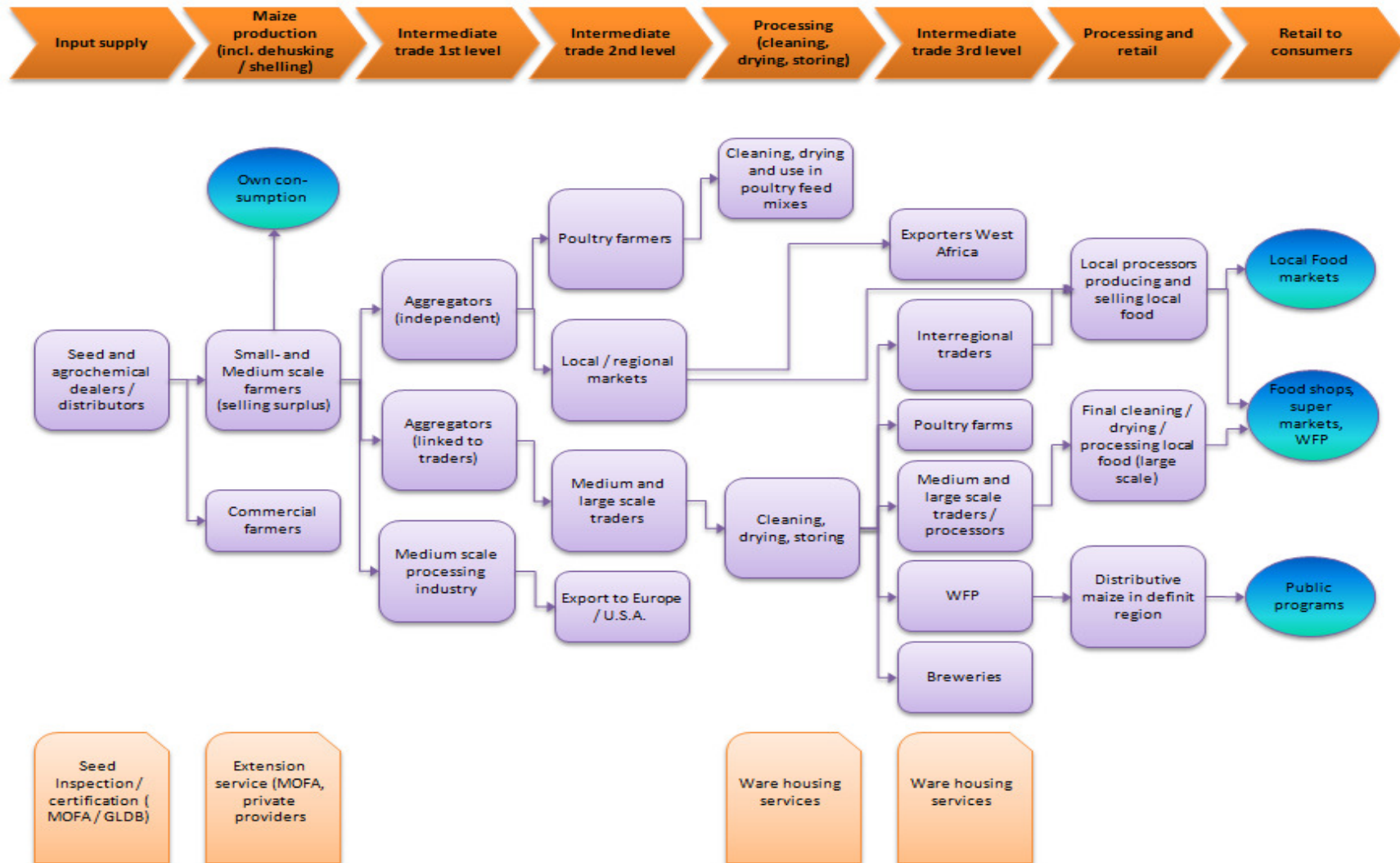


Figure 4.2. An Overview of the Entire Maize Value Chain (non-gendered)⁴³



43 Grosse-Rueschkamp et al. (2011) Economic Analysis of the Maize Value Chain with emphasis on the post-harvest part of the value chain. Study Report (October 2011).

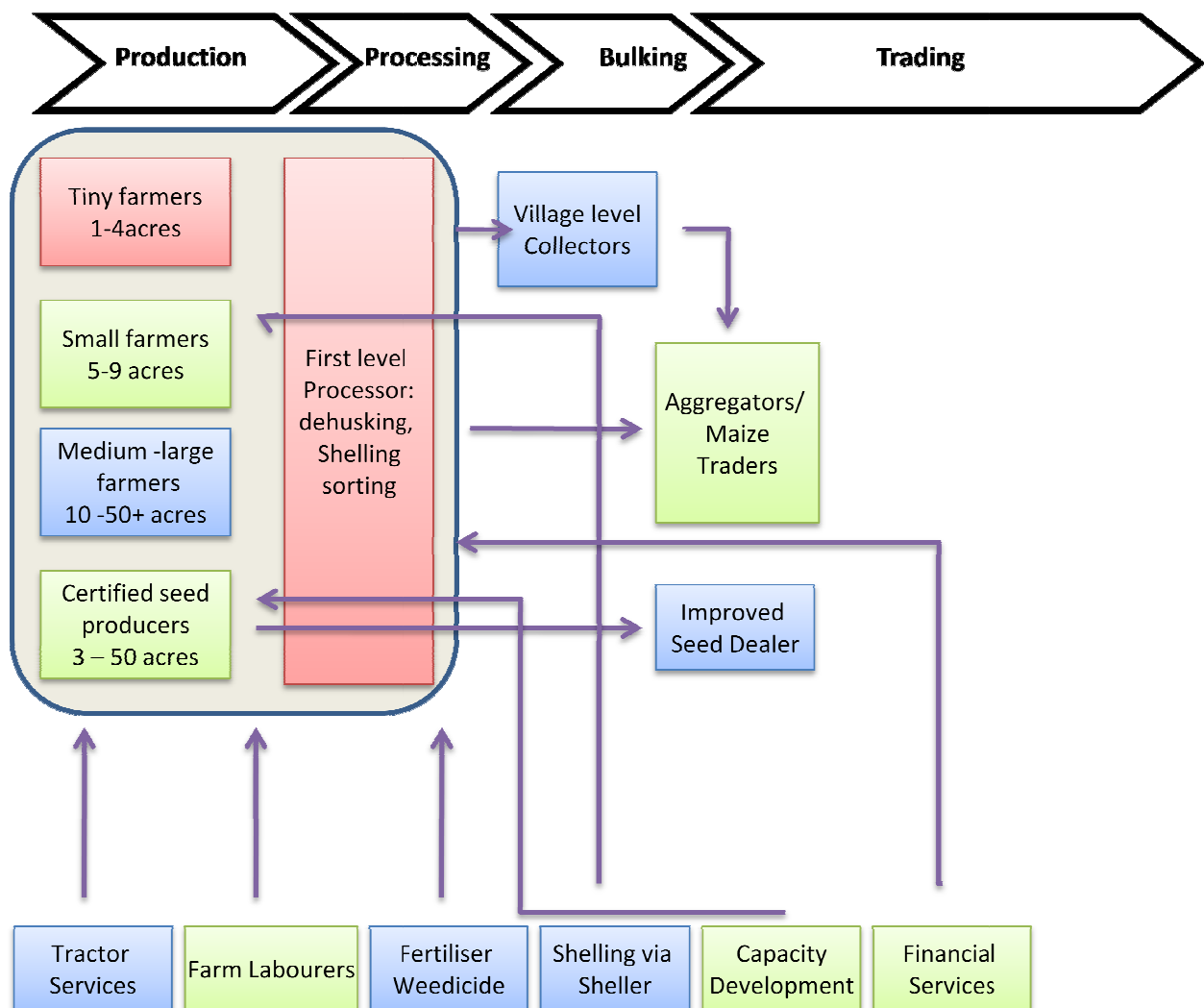
5 Findings: Gender-based Constraints and Opportunities by Primary Actor in the Maize Value Chain

This chapter summarizes key gender-based constraints for women actors along the maize value chain. For each actor a summary of findings is presented. Detailed study findings are presented in Annex 1. Recommendations for each actor are provided at the end of each section.

5.1 Producers

Figure 5.1 provides a detailed view of value chain interactions at the producer level. These interactions are explored below. Only certified seed producers reported any kind of capacity development.

Figure 5.1: Producers in the Maize Value Chain



5.1.1 Summary of Findings: Producers

The findings show clearly, in common with international studies⁴⁴, that the gender-based constraints women face at production level in Ghana prevent farming women from maximizing their economic decision-making potential and prevent them from properly treating 'farming as a business'.

Productivity levels on women-managed farms are lower than productivity levels on men-managed farms not because women are inherently less productive, but rather because of unequal intra-household resource allocations. These prevent women from maximizing expenditures on their land since they usually have less money available and women's lack of collateral for securing investment monies. Cultural norms which allow men to command women to work on men's land first before working their own often results in (i) a lack of timely work on women-managed land – late planting *etc.*, and (ii) a labour deficit on women-managed land because despite reciprocal labour arrangements men typically provide much less labour to women than women do to men⁴⁵. The strongly sex-segregated nature of farm work also means that women require male labour for certain tasks, such as ploughing and spraying. This is usually delivered after male-managed fields have been attended to. Female-headed households may have almost no recourse to male labour and may lack the cash to hire sufficient labourers. This can result in even lower productivity on farms managed by female-headed households.

Whereas women have traditionally managed first level post-harvest processing of maize, they have rarely benefited from the introduction of machinery to take over these tasks. Men typically operate dehuskers/shellers and demand a fee for their service.

Women are poorly represented in producer associations and rarely occupy leadership positions. As a consequence, women producers find it harder to participate in negotiations with other value chain actors and facilitators, such as input suppliers, aggregator/traders, and financial institutions.

The fieldwork shows:

1. There appears to be no difference in the quality of maize on women-managed farms. This is probably because women are responsible for the post-harvest processing of maize from both male and female managed farms when machinery is not used. Where it is used, quality is standardized.
2. It was widely agreed by respondents that labour input on women's fields is usually sub-optimal and less timely resulting in important yield differences to men's fields. This is because women farmers have significant personal labour constraints.
 - Women are responsible for all domestic work, which can take up many hours a day, particularly given the low level of technology in the home.
 - Women are expected to prioritize work on men's fields before turning to their own. Although men are culturally expected to work on women's fields, in practice it was agreed by both men and women that labour exchange is unequal: *'Because they are men their work*

⁴⁴ FAO (2011). The State of Food and Agriculture (2010-2011).

⁴⁵ This finding is echoed by similar findings from other countries based on more robust data. A study of maize farmers in Malawi showed that women maize farmers managed less land than men but still used 10% less labour per hectare than their male counterparts. Takane (2008). Cited in FAO (2011). The State of Food and Agriculture (2010-2011).

- is different from ours. He is looking after his own farm, so you find your own labour – if you wait for him it would not work.’ ‘Men help us in weeding but they don’t come often’.*
- Women farmers pay more for hired labour because they have to employ men to perform ‘male agricultural tasks’. However, men farmers command their women and children to perform unremunerated ‘female agricultural tasks’ on their own land and thus reduce labour costs.
3. Per acre, women apply fewer inputs such as fertilizer and they are less able to expand their field size. This affects productivity and production levels.
 - Less money is available to women than to men partly because women are largely responsible for paying the greater part of school fees and other household expenditures.
 - Women are less able to secure loans from formal financial service providers than men due to their significantly lower asset base, as well as their inability in many cases to obtain a guarantor to the loan. In practice this means that women have almost no working capital and no investment capital. They typically finance the next growing season with proceeds from the previous season. Women farmers experience a mismatch between relatively high expenditure demands, together with low and unreliable incomes from their small acreages. This traps them into a cycle of poverty which inherently limits the possibility of business expansion.
 4. The use of technology is very low in smallholder maize farming and thus farming is very labour-intensive. Where technology is used, such as sprayers and shellers, it is usually designed for, and captured by, men and has to be paid for. Women respondents asked for technology suited to women to save them hiring male labour.
 5. Women’s low production levels in both regions makes it difficult for them to secure markets, since few aggregator/traders are interested in obtaining 2-4 sacks as opposed to 50 or more on male-managed farms. Where women acquire land parcels through male kin, as in Northern Region, it is widely recognized that men tend to allocate them the less productive fields. Where women rent land or acquire land through inheritance or gifting, their gender-based constraints mean that they can generally manage only small land parcels. Overall, this results in low production.
 6. Whilst both men and women farmers rarely receive capacity building services through the overtaxed extension services (1 extension worker: 1 500 farmers in Northern Region) when training is offered it is generally targeted to men. Demonstrations are typically carried out on men’s fields. Women find it difficult to attend due to their other responsibilities, as well as the timing and location of the demonstration, and so they are often taught by their husbands. In practice information may not be delivered properly. Women lack the opportunity to interact with and shape the learning process. Single women operating female-headed households, who in Brong Ahafo Region reportedly constitute a large number of farmers, may have no one to learn from.

7. Women are weakly represented in producer associations. In some cases in Brong Ahafo women are numerically strong but do not hold decision-making roles. In Northern Region some agencies work with women-only producer associations on capacity development. Such associations tend to be much smaller than men-only associations but initial results are promising. Also in Northern Region, work has been done to strengthen women in mixed male-female producer organizations, by encouraging men to elect women to leadership roles, for example.

Despite the many gender-based constraints facing women, it is clear that some individual women are able to negotiate better personal outcomes at the household level than others. The possibility of ‘alternative’ intra-household decision-making processes and more equitable resource allocation is evident to all. Moreover, although cultural norms tend to work against women’s interests, men respondents were quick to identify and discuss women’s gender-based constraints.

The way forward is to develop and build upon these shared understandings rather than impose an external empowerment agenda. Strategies need to combine targeted actions to alleviate specific gender-based constraints, particularly those affecting productivity, alongside actions that work with women and men equally to improve the equity of intra-household decision-making processes to the benefit of all.

5.1.2 Recommendations: Producers

All the recommendations should target women in male-headed households, and female-household households as a separate category. Recommendations which directly involve value chain service providers and facilitators are summarized here and expanded upon in Chapter 7. All activities and proposed indicators should be refined by actors *in situ*.

Outcome Objective: Improved Control by Women over Land and Labour	
Outputs Relating to Improving Women’s Access to Land in Brong Ahafo Region	
Link with financial service providers to develop and offer gender-sensitive packages suited to agricultural customers to enable women (as well as men) to expand their acreage.	% increase in women negotiating long term secure leases for land (based on specified periods).
Work with local leaderships to promote long-term lease arrangements. Pay special attention to the needs of female-headed households.	% of women and men who know about this option and take it up. % of FHH negotiating long-term leases.
Work with organisations managing state forestry lands to devise packages attractive to women farmers.	% increase in women taking up the option to manage forestry land.
Outputs Relating to Improving Women’s Access to Land in Northern Region	
Establish discussion and advocacy processes with traditional leadership, and men more generally, to encourage their support for increased land allocations of good land to women by men.	% increase in size of farm (acreage) managed by women. % increase in number of women with increased acreage.
Encourage land allocations to female-headed households.	% increase in productivity on women-managed farms. % of land allocated to FHH as percentage of numbers of FHH requiring land.
Outputs Relating to Ameliorating Women’s Labour Constraints	

Facilitate access to women-centred technologies to lighten workloads & enable direct participation in hitherto 'male' tasks (such as spraying).	% increase in take up of technology by women across a range of specified tasks.
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Outcome Objective: Improved Income Levels of Women Farmers Engaged in First-level Post-Harvest Processing	
Outputs Relating to Integrating Post-Harvest Processing as a Value Chain Function (process upgrading)	
Train women farmers in improved post-harvest processing techniques and ensure they have access to appropriate technology. This will enable them to maximise value addition at this stage.	% women producers trained in post-harvest processing. % reduction in post-harvest losses (by women/men managed farm)
Train women producer entrepreneurs to manage dehuskers/shellers (together with a business plan).	% of women producers taking part in training courses % of women producers owning and operating post-harvest technology. % increase in size of women dehusker/shelling businesses vis-a-vis those of male-run enterprises.

Outcome Objective: Increased Productivity and Production on Women-managed Maize Farms	
Outputs Relating to Extension Staff	
Work with public and private sector women extension staff to identify the GBCs they face working in the field. Institute specific measures to support female field-based staff. Develop a quota system for male/female representation in the extension services. Consider innovative methods to attract women extension workers such as targeting unmarried trained women for limited duration contracts in the field – 'professional growth opportunity'.	% of women extension staff in the field.
Train village level women cadres and offer appropriate incentives. Consider using higher skilled women extension workers to mentor such workers.	% of village level extension staff who are female.
Ensure demonstrations are conducted on women-managed farms.	% of demonstrations conducted on women-managed farms/ female-headed farms.
Ensure women and men extension workers are properly trained in gender analysis, including in crop-specific GBCs. Develop checklist of expected gender outcomes. Build in accountability for gender outcomes into extension staff and managers ToR	% of women and men extension workers attending gender analysis courses. % of spot checks in which extension is found to be gender-sensitive. % of extension staff (male/female) meeting gender targets.
Create household-based extension packages (including packages suited to polygamous situations).	% of household level extension training packages conducted. Level and quality of extension training delivered in terms of relevance to all household members.
Identify underlying capacity development constraints such as low levels of numeracy and literacy. Work with partners to address these.	% of women attending functional literacy and numeracy programmes.

Outcome Objective: Producer Organisations Represent Women's Gender Interests	
Outputs Relating to Strengthening Women's Representation and Participation in Producer Associations	
Support the development of women-only farmer-based organisations and deliver gender-sensitive extension.	% of women-only farmer groups. Relevance of extension training delivered to women's needs.
Strengthen the position of women members in mixed gender farmer-based organisations (capacity building, quotas, rewriting membership criteria <i>etc.</i>)	Various indicators.

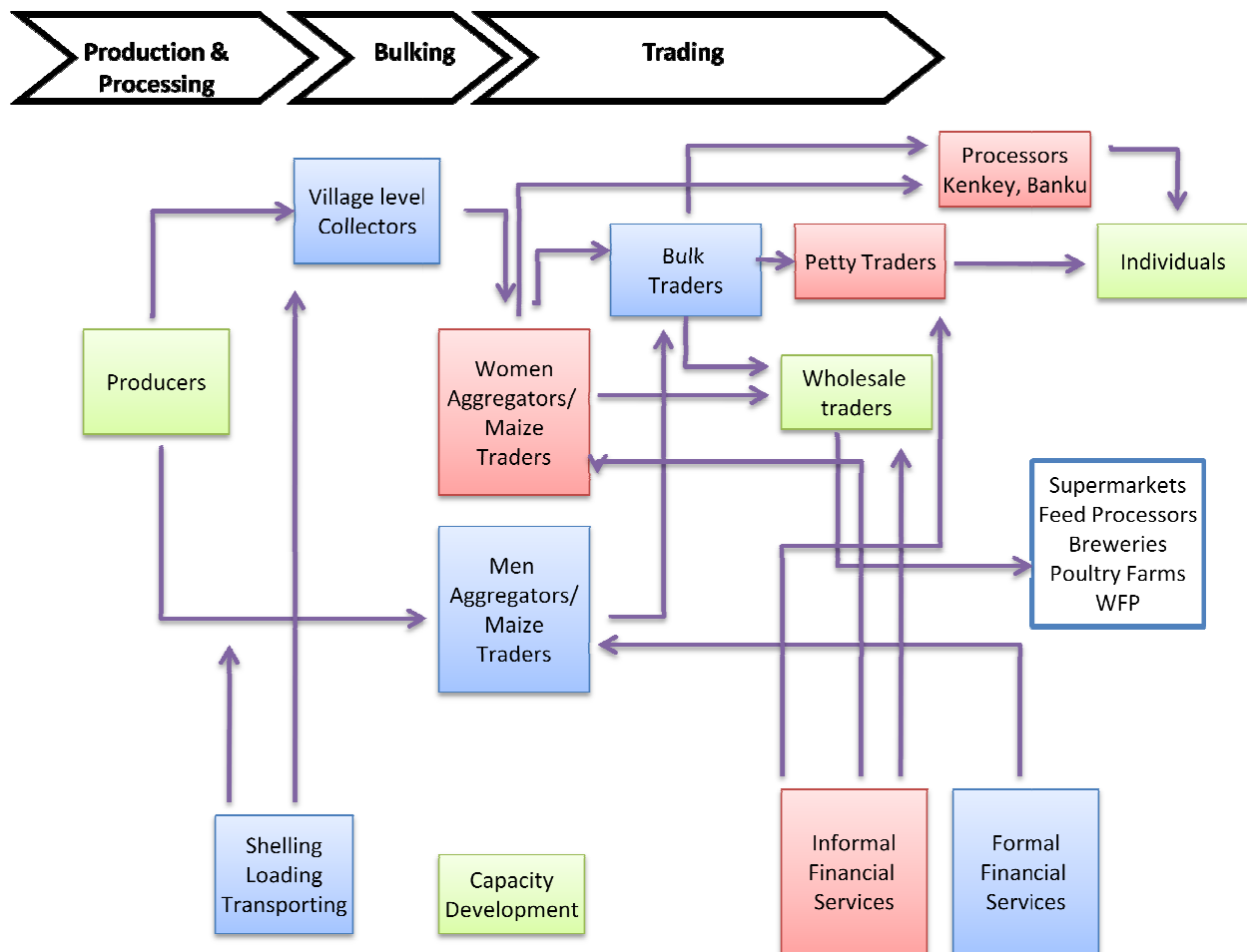
Outcome Objective: Improved Investment Capacities of Women Actors	
Outputs Relating to Women Producer Access to Formal Financial Service Providers	
Work with formal financial service providers to design innovative, gender-sensitive packages suited to agricultural clientele. Design should be based both on needs analyses conducted with users in Ghana, together with research into innovative approaches used in other countries.	% take-up of financial packages by women/men. % increases in size of loan taken up by women clients vis-a-vis baseline/ in comparison to men. % of women repayment levels.
Ensure the specific constraints faced by female-headed households are identified and addressed.	

5.2 Aggregator/Traders, Petty Traders, and Large Traders

There are three broad categories of trader active in maize markets as far as women are concerned. The first category is termed ‘aggregator/trader’ in this report. These actors source maize from farmers (directly or indirectly via collectors) and sell maize to bulk traders. The second category comprises ‘petty traders’ who buy their maize from the bulk traders for resale to individual consumers. The category, termed ‘large traders’ in this report, buy maize from bulk traders for resale to large buyers.

Figure 5.2. depicts the primary actors that women aggregator/traders, petty traders and large traders engage with, and the key relationships. The figure shows that women typically depend on women-organised informal financial services, should they take any credit, but that men have access to formal financial service providers. Women aggregator/traders typically do not deal direct with farmers but operate through village level collectors whereas men may engage in farm gate transactions directly. Capacity development is included but not linked to show that respondents to the study, whether male or female, did not report having received any formal training.

Figure 5.2. Traders in the Maize Value Chain



5.2.1 Summary of Findings: Aggregator/Traders

The major part of the maize produced by small and medium-scale farmers is sold to small-scale aggregator/ traders, an important - though unknown to the study team - proportion of whom are women. The findings presented below make it clear that women aggregator/traders face the following gender-based constraints:

1. Women have higher farm gate transaction costs than male aggregator/traders. This is due to their relative lack of physical strength with respect to bagging and loading maize, their lack of mobility with respect to sourcing maize from remote farms, and their lack of own transport. Women fear for their safety with regard to sexual harassment and theft and this is an additional reason for not travelling deep into the countryside. As a consequence of all these issues, women incur extra costs as they have to hire male baggers and loaders, hire male collectors to source maize, and they have to hire transport. Men aggregator/traders may incur a proportion of these costs but because they participate actively in the work their wage burden is reduced, and they may not need collectors at all.
2. Partly as a consequence of their higher transaction costs, women aggregators/traders tend to be small players at this level, and to stay small. Their situation is compounded by the fact that the small size of their business and their lack of working / investment capital prevents them from securing (a) large scale orders, and (b) long-term large-scale contracts. Few women respondents to this study had secured loans from formal financial service providers to increase the size of their business even though they wish to run larger enterprises. This is due to their lack of collateral and their inability to secure a guarantor to the loan. Some women also fear the consequences of taking on a bank loan should the business fail.
3. Women aggregator/traders generally did not want to become large traders (i.e. buying from bulk traders for resale to large buyers) because they find it hard to force large buyers to pay, and because they cannot afford the time delay in payment associated with supplying large businesses.
4. The majority of women aggregator/traders start up with their business with a small amount of finance from family members. They have been in the business for many years and find maize attractive because it does not rot as easily as horticultural produce.
5. A critical difference between women aggregator/traders in Brong Ahafo Region and Northern Region is that women in Brong Ahafo are not organized into maize trader groups.
 - However, women in Northern Region and women from Northern Region working in Techiman Market in Brong Ahafo Region have formed quite large women-only maize trader associations. Some of these have a formal constitution and others do not.
 - Women's maize trader associations have a social welfare orientation - contributing to the expenses of important life events such as births, marriages and deaths - as well as a market orientation. The informal safety net provided by such associations offers a vital means of (a) enabling women and their households to survive shocks which can seriously damage their

- capacity to continue functioning , and (b) may offer women in particular a means of survival given that in some areas they may lose all their assets upon their husband’s death.
- The market orientation of women-managed maize trader associations is weak. Women are generally unable to develop and exploit horizontal and vertical value chain relationships. They tend to act as individuals within the association and have not formed reliable, regular relationships to suppliers and to buyers. This is primarily due to their lack of working capital which makes it impossible for them to finance large transactions.
 - Conversely, men managed maize trader associations have high visibility and stronger value chain relationships. They compete directly with women for contracts. Female representation in mixed gender maize trader associations is very poor. An almost negligible number of women (7 women/243 men) indigenous to Brong Ahafo Region are members of the Maize Trader Association at Techiman Market and they do not occupy any decision-making roles.
 - GIZ MOAP was not aware that a women-managed maize trader association numbering approx. 100 members operated at Techiman. This points to a strong need for research into maize trading networks in the GIZ MOAP programme.

5.2.2 Recommendations: Aggregator/Traders

All the recommendations should target women in male-headed households, and female-household households as a separate category. Recommendations which directly involve value chain service providers and facilitators are summarized here and expanded upon in Chapter 7. All activities and proposed indicators should be refined by actors in situ.

Outcome Objective: Women’s Absolute Levels of Income Increased	
Outcome Indicator:	
<ul style="list-style-type: none"> • Percentage Increase in Women’s Income Above Baseline 	
Outputs Relating to Farm Gate Purchases	
Eliminate village level collectors: Investigate ways of enabling women aggregators/traders to source maize directly from farmers. Suggestions include: <ul style="list-style-type: none"> • Encourage women members of maize trading associations to travel to villages together to reduce costs and increase bargaining power. • Assist women members of maize trading associations through credit provision to own their own transport and dehusking/shelling machines. 	Measurable reduction in collection costs per bag of maize.
Outputs Relating to Financing Value Chain Relationships	
Enhance women’s working and investment capital through developing innovative gender-sensitive financial packages with financial providers. Packages should facilitate: <ul style="list-style-type: none"> • Immediate access to short-term credit to finance bulk purchasing of maize for resale (repayment could possibly be expected within 24 hours) at acceptable rates of interest. • Provision of large loans to enable women aggregator/traders to obtain storage space for 	<ul style="list-style-type: none"> % of women taking loans of various kinds from formal financial service providers. % increase in size of loan taken by women in comparison to men. % increase in women obtaining and utilizing storage space. % increase in number of transactions.

maize and to buy sufficient quantities of maize when prices are low.	
Facilitate links to buyers with reliable and regular demand requirements. Broker links between large buyers and banks to enable women to use sales contracts as collateral.	% increase in women with contracts to supply buyers. % increase in size of orders placed with women.

Outcome Objective: Maize Trader Associations Represent Women's Gender Interests

- Outcome Indicators:**
- Percentage increase of women in membership and leadership of mixed gender/ women-only MTAS
 - MTA address women's needs effectively, both as members and as value chain actors.

Outputs Relating to Strengthening Women's Representation and Participation in Maize Trader Associations

<p><u>Mixed Maize Trader Associations</u></p> <p>Develop incentives for women to join mixed trader associations. Quota schemes should be seriously discussed (e.g. 30%/50%).</p> <p>Encourage women to take up leadership positions in associations. Quota systems should be seriously discussed (e.g. 50% of management positions to be held by women).</p> <p>Work with men to enable them to see benefits to improving the position of women in the association/ inefficiencies in trade resulting from gender inequalities.</p> <p>Work with MTA to help them identify and alleviate specific GBCs facing women members (a) with regard to procedures of MTA which may hinder active participation, and (b) as women maize traders.</p>	<p>% increase in female membership in mixed gender organisations.</p> <p>% increase in women in leadership positions.</p> <p>% gender-awareness training courses attended by women and men aggregator/traders.</p> <p>MTA Action Plans to encourage women to join MTA/ to act upon GBCs facing women members in their capacity as traders.</p>
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<p><u>Women-only Maize Trader Associations</u></p> <p>Study the feasibility of forming women-only maize trader associations in areas where women traditionally have belonged to mixed associations.</p> <p>Develop the business orientation of women-only maize trader associations through improving their collective capacity to meet demand, through linking to large buyers, and through linking to value chain facilitators such as financial providers, warehouses</p>	<p>% number of women-only groups set up.</p> <p>% increase in number of orders placed with the MTA as a whole/ with individual members.</p>
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<p><u>Mixed Gender and Women-only Maize Trader Associations</u></p> <p>Develop the capacity of women members to speak confidently and articulate their views clearly.</p> <p>Develop the leadership capacity of women to support them to take up leadership positions and to perform well.</p> <p>Hold meetings at times and places convenient to women. Organise transport and childcare as required.</p>	<p>Increase in actions undertaken by trader associations to identify women's gender-based constraints and address these.</p> <p>% of women in leadership positions</p> <p>% of women attending meetings on a regular basis.</p>
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5.3 Petty Traders

Petty traders in maize in Techiman market and elsewhere in Ghana are exclusively women. They obtain small amounts of maize from male bulk traders. Typically, petty traders buy half to one maxi-bag and sell it in very small quantities called ‘alonka’ to household consumers. They lack sufficient capital to enter business as aggregator/traders. The majority of petty traders are migrants from Northern Ghana. In Techiman, they have established an association to help each other in the business and on social welfare matters. This may be the same association as the women’s maize trader association noted above – more research is needed.

5.3.1 Recommendation: Petty Traders

Outcome Objective: Improved Investment Capacities of Women Actors	
Outputs Relating to Women Petty Trader Access to Formal Financial Service Providers	
Work with formal financial service providers to design innovative, gender-sensitive packages to enable petty traders to buy larger quantities of maize perhaps <u>direct from women aggregator/traders</u> .	% take-up of financial packages by women/men. % increases in size of loan taken up by women clients vis-a-vis baseline/ in comparison to men. % of women repayment levels.
Outputs Relating to Women Petty Trader Access to Storage Facilities	
Facilitate the access of women petty traders to maize warehouse facility. Set aside a certain percentage of space for this purpose. Conduct outreach to ensure women petty traders realise this facility is available to them.	No. of women traders using maize warehouse facility to store maize against baseline.
Outputs Relating to Business Expansion	
For women interested in moving into maize aggregation and trading, establish mentoring system with women aggregators/traders.	% mentored petty traders successfully entering aggregation business

5.4 Medium/ Large Traders

Only one medium-large scale women maize trader was met with in the course of this study. However, she offered insights into a range of constraints and opportunities that are likely to be generally applicable to maize traders at this level.

In common with almost all actors met with in maize trading and processing, the medium-large trader began her business with a loan from a relative. As with some aggregator/traders, she was coached in the maize trade by a woman already in the business. With regard to sourcing, she either sources directly from farmers, or, increasingly, relies on village level collectors to source maize. Only 1/10 of her collectors are women, and she buys more often from male farmers (approx. 6 men: 4 women). She finances transactions with collectors by sending money through the bank. They send her maize using regular transport. She operates a two week trading cycle, buying between 30-100 bags a fortnight.

She is a member of the Kaneshie Market Maize Sellers Association, which is run by a market queen. Her chief customers are kenku/banku processors and poultry farmers, and a few petty traders. All buy maize

from her on credit every two weeks and have to repay before they receive new supplies. Constraints include:

- Finance: Bank interest rates are too high. The maize trade fluctuates according to supply and she cannot afford to service a loan across the year. Requires capital to expand her business to 1000 bags to store in silos to enable year-round trading. Men have more monies, are thus able to buy maize in large quantities, store in the silos, supply big poultry farmers and other industries, and make ever more money.
- Moisture Content: Since maize is usually too damp, she usually has to dry and sort maize in and around the warehouse. Needs access to warehouses with drying facilities.
- Defaulters: A number of customers default but she has no recourse to legal action. Police do not intervene. The only action she takes is to stop supplying defaulters.
- Mobility Constraints: Men have motorbikes and can source direct from farmers. She has no motorbike and is addition afraid for her personal security. She would like to purchase direct at the farm gate and at village markets to reduce costs.

5.4.1 Recommendation: Medium/Large Traders

All the recommendations should target women in male-headed households, and female-household households as a separate category. Recommendations which directly involve value chain service providers and facilitators are summarized here and expanded upon in Chapter 7. All activities and proposed indicators should be refined by actors in situ.

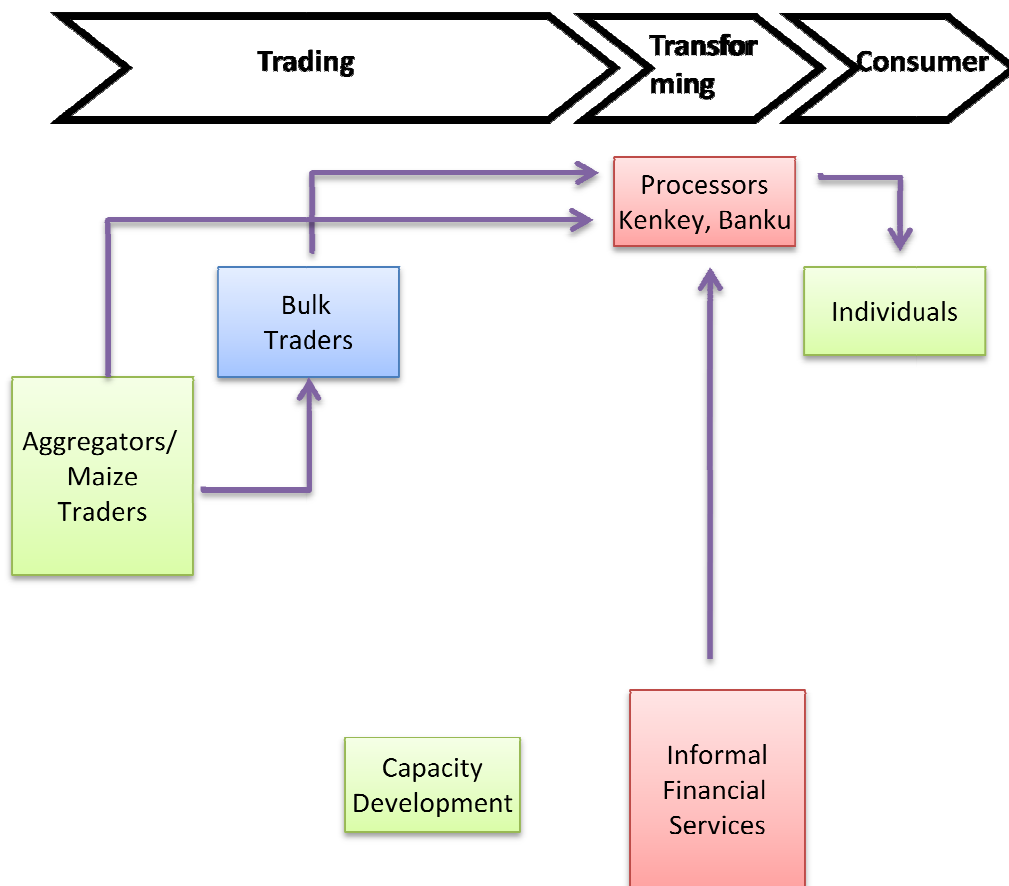
Outcome Objective: Improved Investment Capacities of Women Actors	
Outputs Relating to Women Medium to Large Trader Access to Formal Financial Service Providers	
Work with formal financial service providers to design innovative, gender-sensitive packages to enable medium to large traders to buy larger quantities of maize at favourable interest rates that acknowledge peaks and troughs in maize business.	% take-up of financial packages by women/men. % increases in size of loan taken up by women clients vis-a-vis baseline/ in comparison to men. % of women repayment levels.
Outputs Relating to Business Expansion	
Facilitate access, through favourable loans, to enable women to store large amounts of grain in maize silos with drying facilities.	No. of women traders using maize warehouse facility.
Work with police and other relevant actors such as maize trader association to find ways of punishing repeat defaulters on maize transactions. Establishment of procedures to prevent defaulting.	% defaulters punished or named in black list.
For women interested in moving into medium to large-scale maize trading, build on existing mentoring system.	% mentored women traders successfully entering medium to large scale trade.

5.5 Processors

Women are strongly represented as small-scale maize processors in the ‘kenkey/banku plus sauce’ trade. In fact this appears to be an almost exclusively female domain. Such women typically prepare kenkey/banku and sauce close to the stands from which they sell the final product. Kenkey/banku plus sauce is very much a freshly prepared, and widely appreciated, street food. The study team interviewed two kenkey plus sauce processors, one in Sunyani (Brong Ahafo Region) and the other in Tamale (Northern Region). The observations in this section are based on interviews with these respondents together with discussions held with other key informants.

Figure 5.3. shows the links between value chains from the perspective of kenkey/banku processors. Capacity development is included but not linked to show that these women rarely, if ever, receive capacity development training. Their customer base is small and based on individual transactions.

Figure 5.3. Kenkey/ Banku Processors in the Maize Value Chain



5.5.1 Summary of Findings: Processors (Kenkey/Banku plus Sauce)

The kenkey processors met with in the course of this study manage several mostly female staff who are engaged in different tasks. Some prepare the basic kenkey (maize dough balls wrapped in maize leaves)

and others focus on preparing the sauce which is usually fish with tomatoes, onions and spices. Depending on the size of the business, some staff may be responsible for boiling the kenkey and cooking the sauce as well as preparing the kenkey itself. In larger businesses women employees may spend all day just preparing kenkey or vegetables. Male staff were not seen preparing foodstuffs but were observed selling it. Staff in both enterprises comprise a mixture of family members – including very young girls. Family members are not paid, though the Tamale-based kenkey processor had opened savings accounts for her children into which she deposited 5 cedis a day per child. Other staff include non-family local or migrant women who are paid about 4 cedis a day.

Processors at this level face the following general/ gender-based constraints:

1. Lack of working capital: Women kenkey/banku processors typically lack sufficient monies to purchase maize when the price is low. They also have to contend with price fluctuations in the costs of basic sauce ingredients - tomatoes, onions, and fish). This means that their profit margins fluctuate and it is thus hard to maintain a steady income. One way of managing profit margins is to reduce the size of portions sold to the consumer. They also lack storage facilities to store maize meaning they have to buy maize from the market at least once a week. This means, again, that they are vulnerable to shifts in maize prices and also lose time going to the market.
2. Lack of investment capital: Respondents reported that family members or husbands had set them up in business through providing small, non-returnable start-up capital. However, women find it very difficult to source large loans in order to expand their business. This is because they lack collateral and lack people willing to act as guarantors to the loan. One kenkey seller said she saves regularly through a susu scheme and that she has, as a consequence of her savings and her attention to ensuring her product tastes good, been able to expand to five outlets in the city. This said, the overall lack of micro-credit and formal financial services to this sector of actor applies a real brake to business expansion.
3. Lack of business plans: Whilst respondents articulated clear ideas, and wishes, for expansion they agreed that they did not prepare detailed business plans. One woman noted that she sets aside sufficient monies from her profits each week to ensure she can buy sufficient maize for the following week. Another woman said she goes through her accounts each evening with her children. She was, in fact, rather successful and showed a lot of business savvy. However, overall it appears that a serious constraint for all women is the lack of proper SWOT (strength, weaknesses, opportunities, threats) analyses, market mapping, identification of new consumers, *etc.*
4. Restricted consumer base: The typical kenkey/banku seller relies on individual consumers. Some of these are loyal customers but many are itinerant. Due to the inherently restricted nature of the customer base due to the location of stands (only a certain number of potential customers will pass each day) it is hard for women to expand their business unless they open new outlets in new locations, or find institutional consumers who are prepared to place large orders on a daily basis.

5.5.2 Recommendations: Kenkey/Banku plus Sauce Processors

All the recommendations should target women in male-headed households, and female-household households as a separate category. Recommendations which directly involve value chain service providers and facilitators are summarized here and expanded upon in Chapter 7. All activities and proposed indicators should be refined by actors in situ.

Outcome Objective: Business Expansion through Enhanced Value Chain Relationships	
Outcome Indicator:	
<ul style="list-style-type: none"> • Greatly enhanced density and variety of business contacts compared to baseline 	
Outputs Relating to Business Development Services and Financial Providers	
Assist women through business development services (training in market analyses, consumer preferences etc.) to enable them to select best location for their stands and to develop consumer loyalty.	% increase in regular consumers Identification of new customers % increase in number of daily orders
Work with financial providers to develop innovative gender-sensitive financial services for individual and group loan packages.	% increase in loans taken by women % increase in size of loans taken by women % increase in expansion of business as a consequence of loans.
Facilitate linkages to institutions (schools, barracks etc) to enable increase in size and regularity of orders placed.	% increase in number of institutional partners.
Outputs Relating to Business Expansion through Cost Reduction	
Facilitate access to maize storage facilities, including through targeting women with gender-sensitive packages through the proposed warehouse receipts systems in urban and peri-urban areas.	Profit margins remain stable relative to costs. Profit margins increase relative to costs.

6 Household Level Gender-Based Constraints

Thus far, the study has analyzed the entry barriers to women’s participation in the maize value chain. It has noted that women have differential access to functions, services and resources, and that they are handicapped by gender-related power disparities in chain management. Various recommendations have been made to enable women to overcome these barriers.

Throughout the discussion it has been noted that the ability of women to participate, and benefit from, their participation in the maize value chain is critically shaped at household level by culturally specific divisions of labour across all tasks, differential time budgets, and differential decision-making with regard to the allocation and use of household assets and expenditure. This chapter focuses on household level constraints using data obtained through the fieldwork, and it suggests two ways of overcoming these constraints: (i) household methodologies, and (ii) working with men to empower women.

Access to, and Control over, Resources Profile

An access to, control over and ownership profile conducted with male respondents in Brong Ahafo Region shows that men consider they have access, control and ownership rights to all productive assets a household may utilize, as well as the benefits that accrue from work. Table 6.1 shows that the only asset that belongs exclusively to women are baskets, yet men also have access to these. Some assets are shared in terms of ownership and control: these are productive equipment and wellington boots.

Men consider they access, own and control all other assets: land, building sand (which is sold for construction works), all crops, bicycles, tractors, furniture, and houses. Women have access rights to all of these. However, clearly they will have to negotiate their access rights with their husbands, and their lack of ownership impacts upon the ability to offer assets such as land, houses and furniture as collateral for loans. The lack of ownership over bicycles will impact upon their mobility and thus their ability to access markets, input suppliers or training if these services are offered at some distance from home.

Table 6.1. Access to, Ownership, and Control over Key Productive Resources

Resource	Women			Men		
	Access	Ownership	Control	Access	Ownership	Control
Land	x			x	x	x
Building sand	x			x	x	x
Tree crops	x			x	x	x
Food crops	x			x	x	x
Cash crops	x			x	x	x
Equipment	x	x	x	x	x	x
House	x			x	x	x
Furniture	x			x	x	x
Bicycles	x			x	x	x

Baskets	x	x	x	x		
Wellington boots	x	x	x	x	x	x
Tractor	x			x	x	x

Source: Male Maize Farmers, St. Baasa, Chirwa, Brong Ahafo (January 12th, 2012)

It is possible that the male respondents may have overstated their relative asset endowment vis-à-vis women to the research team. They may have wished to have demonstrated their ability to command all resources as a signifier of ‘masculinity’. It is certainly possible that in individual households some women may well be able to negotiate sturdy use rights to most if not all the assets noted in the table. This said, the gender gap still remains extraordinary. This gap will affect the ability of women to invest in their businesses, secure loans, and to more generally perceive direct links between their work and their benefits. It should be noted that the respondents are all from a matrilineal system and yet this does not appear to have a strong bearing upon their ability to negotiate the use of their labour or the household of incomes coming from men’s fields. Women maize farmers in the parallel discussion group to the one which produced the access and control profile said the following:

- Some men ask women to go ahead of them when going to the farm, but then the men don’t come and then when you are finished you find them at home.
- The sad thing you assist men on their farms but often they don’t assist us on our farms. What we normally do is that we grow the cassava and plantain on the same field because the man won’t give you the money from the maize.
- For me, both my husband and myself, we farm together equally.
- The majority of couples do not do that.
- Some men show you the money they have and don’t give it to you. It is pure wickedness. They think the children will look after the mother in later years and so they don’t need to care for them. They should try and take care of the children. We don’t want children to suffer as we do so we have to take care of them.
- Some men give money for food but it is not always enough. They tell women to top up.
- Our main expenses are school fees. Men say they pay school fees but in reality it is women. We all agree [15 women approx]. At times men don’t care about taking care of the house and so even if they pay school fees they do not pay for anything else.
- My husband and I both pay school fees.

The citations make it clear that some women are able to negotiate fairly equal relationships, but that the majority feel the rewards from their labour are not commensurate with their input, and that men are not contributing sufficiently to the needs of the household, particularly those of children.

6.1 Household Approaches to Addressing Gender-based Constraints in Value Chain Development

On-going work in various countries in Sub-Saharan Africa to develop and implement household methodologies to improving economic decision-making and gender equality is demonstrating excellent results. Household methodologies are based on the understanding that there is no automatic

correlation between empowering women at one level and their ability to translate these effects into increased empowerment at another level. For example, high representation of women in national decision-making bodies does not necessarily translate into the ability of women at community and regional levels to achieve high representation in decision-making organizations. Likewise, high representation of women in community groups does not necessarily mean that they have the capacity to influence intra-household decision-making processes with regard to the creation and deployment of household assets, and expenditure decisions. 'Reaching women' at one level thus does not mean that they have been empowered in all domains. As this study has shown, gender relations at household level often constitute sites of significant gender deprivation and verifiably result in poor farm-level decision-making with knock-on effects for food security and nutrition, and the ability of smallholders to participate effectively as market actors. Box 6.1. provides three case studies.

Box 6.1. Case Studies: Household methodologies for improving household-level economic decision-making and gender equality outcomes.

1. The SIDA-funded Agricultural Support Programme (ASP) promoted 'farming as a business' in 44 000 households across Zambia. It worked with government extension staff to apply household approaches to great effect to create farmer-market linkages and diversified crop-livestock farm systems. This resulted in increased farm resilience and multiple income streams across the year. Farming households adopted strategies to manage farms as a whole, rather than operating female and male managed plots. The ASP succeeded in ensuring household food security by securing male support for the setting aside of sufficient maize to meet everyone's food needs for a year within a household. This was a major achievement in rain-fed farming areas which almost always experience a two month hungry season.
2. The Gender Action Learning Systems (GALS) was piloted by OxfamNovib with co-funding from an IFAD grant in the coffee value chain in Uganda. It led to significantly improved coffee quality and quantity because women and men actors along the chain worked together rather than separately. Women have started obtaining more secure access to land through joint titling initiatives brought into being as a consequence of the changes in community level norms kick-started by the GALS. The producer cooperative has now won a contract with Twin Trading to export the best coffee, and other export licenses with other firms for lower grade coffee have been obtained. Men and women report that men now share in productive and reproductive tasks thus freeing up women's time and creating greater well-being among household members.
3. The District Livelihoods Support Programme in Uganda, supported by IFAD, is using household mentoring approaches to lift the most poor in selected communities out of their desperate poverty by inculcating them into a culture of self-help. It enables them through a multi-pronged agenda to address their development challenges with the objective of getting them into the first rung of a market-orientated livelihood strategy.

The case studies demonstrate that working on gender relations within the 'black box' of the household can contribute significantly to gender justice objectives, as well as wealth creation at various levels in value chains. Women have more decision-making power and suffer less gender-based violence. Just as important, wider economic efficiency and development objectives can be reached because household

methodologies work to bundle the disparate livelihood strategies pursued by women and men (her farm, his farm etc) into one coherent strategy. The formation of a ‘family vision’ to which children contribute enables the family to conceptualize and work towards a shared goal. Critically, household methodologies do not seek to empower one gender (women) at the seeming expense of the other (men). They adopt a ‘power with’ rather than a ‘power to’ approach.

In Ghana, the Rural Enterprises Project (REP) is introducing the GALS into its operations and thus would be a useful first point of contact to understand more about this and similar methodologies. Contact: Cletus Y. Kayenwee (Monitoring & Evaluation Manager), Rural Enterprises Programme (REP), Grains & Legumes Board Building, Off Lake Road, P. O. Box 6841, Kumasi – Ghana (Tel. +233-243109097/268250871). Email correspondence with Mr. Kanyenwee indicates he is happy to be contacted.

Outcome Objective: Improved Levels of Personal and Financial Wellbeing for All Household Members	
Promotion through household methodologies of rational 0 rather than gender-based 0 deployment of all farm and business assets including monies, labour and technologies across the farm.	% of target population, both men and women, who are aware of women’s rights to control income, land, and agricultural products. % increase in overall household income levels as a consequence of improved productivity % reduction in women’s time budgets at household level % reduction of sex-segregated tasks at farm level % increase in men taking on domestic tasks including cooking, childcare and fuel/water collection % increase in children achieving primary and secondary schooling by attainment and retention % decrease in child morbidity and mortality. % increase in household food security and nutrition.

6.2 Working with Men to Empower Women

In many Sub-Saharan African countries, men are mobilising into networks to support women’s empowerment. They recognise that behavioural change should start with men. The MenEngage Global Alliance is an alliance of NGOs that seek to engage men and boys in effective ways to reduce gender inequalities and promote the health and well-being of women, men and children. It states that: *‘MenEngage partners work collectively and individually toward the fulfillment of the Millennium Development Goals, particularly those components that focus on achieving gender equality. Activities of the alliance include information-sharing, joint training activities and national, regional and international advocacy. We develop joint statements of action on specific areas of engaging men, carry out advocacy campaigns and seek to act as a collective voice to promote a global movement of men and boys engaged in and working toward gender equality and questioning violence and non-equitable versions of manhood.’* See <http://www.menengage.org/>

The study team recommends that GIZ MOAP considers supporting male staff and community members to work for gender equality. A first step would be to establish links to MenEngage to see if there are

local NGOs active in the alliance. A second step would be to identify and target male GIZ MOAP staff members for training in gender advocacy work at community level, with men and with traditional elders.

Box 6.2. Case Studies: Working with Men to Empower Women

1. **Working with Men and Boys:** The Zambian National Women’s Lobby has established the Men and Boys Network Project, which is run by men, in order to engage men for change. The Network has focused on developing methodologies to ‘reach men where they are found.’ It focuses on tackling gender-based violence and on encouraging men to support women for leadership positions at all levels. The Men’s Campfire Conference is proving particularly successful. It aims to develop male role models willing to work for gender equality. Traditional leaders are targeted as a first step because they exert considerable influence over their subjects, and also because such leaders work through traditional structures which are capable of mobilizing men to undertake specific activities. The Boys Network currently focuses on five schools in Lusaka and works to create safe spaces for girls through theatre and peer work with boys.

2. **Partnering with Traditional Leadership:** For many years, civil society organizations in Zambia have been working on improving the position of women in rural areas but it has been difficult for them to develop a sustainable and widely accepted strategy for change. Identifying and working with traditional leaders is more likely to succeed. For instance, Senior Chief Nalubamba of the Ila people, Namwala District, in Southern Province has established the Mbeza Royal Development Structure (MRDS) as an institution that promotes democracy, human rights, gender and development for his citizens. The chieftom is now run by committees and has a management structure which is accountable and transparent to all citizens. The current five year strategic plan was developed with multiple stakeholders. External and internal facilitators, funded by partners including OSISA, USAID, World Vision, Women for Change, and My Home Town, among others were important to this process. The MRDS has worked to promote women in various ways. Whereas the previous chieftaincy institutions were considered very oppressive to women the MRDS vigorously supports women’s rights. Many women have been appointed to leadership positions that were previously reserved exclusively for men. Indeed, it is now common to find women leading committees and owning productive assets such as land, oxen and ploughs. Due to the closeness and relevance of the traditional leadership to the people decrees issuing from them are accepted and implemented by even remote communities in the chieftom. Other chiefs are following his example.

Outcome Objective: Improved Levels of Gender Equality between Women and Men	
Pilot projects to work with (a) men, and (b) traditional leadership structures to promote gender equality.	% of target population, both men and women, who are aware of women’s rights to control income, land, and agricultural products.
Develop expertise of GIZ MOAP and other GIZ staff in working with men for gender equality.	% decrease in gender-based violence. % increase in men and women sharing household chores and productive work. % increase in women managing good quality land/ in decision-making positions etc.

7 Gender Analysis of Maize Value Chain Service Providers and Facilitators

Maize value chain service providers and facilitators in this study are considered to include tractor service providers, tools and implements, input dealers and trainers, transport service providers, extension service providers, and financial service providers. Several analysts consider input providers to be primary actors but for the purposes of analysis here it is more useful to consider them as service providers.

The gender-sensitivity of GIZ MOAP's work to foster multi-stakeholder value chain groups was not assessed.

7.1 Tractor Service Providers

Tractor service providers are typically male. They own several tractors and employ drivers who plough for farmers. Providers receive payment in cash or in kind in the form of maize after the harvest. Interviews in Northern Region with farmers, development partners, and tractor services providers showed that payment in kind constituted one maxi-bag of maize per acre (market value at least 60 cedis) as opposed to a cash payment of 30 cedis per acre. No farmer respondents to the study were offered the cash option, which seems to exist only where there is more than one potential provider of tractor services.

Farmers and development partners cited fairly high levels of illicit payments demanded by the actual tractor drivers, which in one community visited was 7 cedis per acre for 'fuel'. Other illicit payments include demands by tractor drivers for guinea fowl and chickens in order to plough the fields of particular farmers 'first'. Women farmers said they had no say in negotiating illicit payments which were negotiated with male farmers only (such as the fuel payment) yet they had to pay their share. Women also said they were not able to provide additional gifts to tractor drivers to ensure their fields were ploughed ahead of others. They also lacked the time to pursue the tractor driver to convince him to work their fields first. Typically, land allocated to women by men is ploughed last, even when it is contiguous with that of the male household head. This contributes to late planting and often, as a consequence, lower productivity. Women said: *'By the time he gets to your farm it is too late and your crop won't germinate well. They plough the man's field first. When the tractor comes to the farm, the men chase the tractor and insist he comes to their farm. The husband cannot insist his wife's field is done first. We need a tractor just for women.'*

Although women tend to have lower productivity than men per acre, it universally agreed that women meet their payment obligations to the tractor service providers. Women respondents revealed that even if their maize harvest fails they work to provide the necessary maxi-bag per acre: *'This year there was no rain so some of us did not even get one bag. Whether you get or not maize or not you have to pay him. To get the money we crack groundnuts and prepare shea nuts. If you don't pay the tractor services won't help you next time.'*

Tractor service providers agreed that women were poorly reached. The managing director of the Gundaa Produce Company indicated that he was interested in starting a dedicated tractor service for women only due to their high rate of payment in kind.

7.1.1 Recommendations: Tractor Service Providers

Outcome Objective: Increased Women's Control over Timing of Ploughing	
Outputs Relating to Women's Ability to Secure Ploughing Services	Suggested Indicators
Target tractor services to women and men's farms equally to ensure timely ploughing. This may require the development of separate tractor services for women and for men (both provided at the same time) together with measures to prevent illicit payments. These should be backed up by associated support services, such as credit provision and crop insurance to guard against crop failure.	% increase in productivity per acre of women's farms measured through percentage increases at harvest on women/men managed farms. Parallel farm activity with men's farms measured through simple time schedules.
Explore the use of animal traction with animals that can be managed by women and provide appropriate training.	% take up of animal traction methods by women and % of women attending training.

7.2 Input Dealers

Men have better access to information and have more control over productive resources than women. They are therefore more likely to be able to buy sufficient quantities of farm inputs including fertilizer, herbicides and pesticides, and the accompanying equipment needed for input application. Some men take out loans on the basis of their potential maize harvest with maize dealers, which women never seem to do. Women respondents to the study indicated deep resentment of this practice:

- At times even if you farm together the man may have borrowed money from dealers before the harvest and then half the money you get from selling the maize has to settle the debt. There is little left over.
- Some men use their money for drink and some use it on other women. They don't use it for the household.

Women find it more difficult than men to establish long-term, positive relationships with input dealers. Their access to inputs is limited for the following reasons:

- Women suffer mobility and time constraints. It is impossible for the majority of women to travel to district and regional capital to purchase inputs.
- Women lack capital and thus typically procure only small quantities of inputs. Their small business size makes them uninteresting business partners. This hinders the development of good relationships to input suppliers.
- Women are not properly trained on input use by private or public extension staff, or by input dealers. Demonstrations almost always take place on male-managed farms. Women find it

difficult due to their time constraints to attend a full session, and often learn second-hand from their husbands. Information transfer tends to be inadequate.

- Women are weakly represented in producer organizations which results in low social capital, difficulties in networking and thus difficulties in developing independent relationships to suppliers.

Respondents noted that more men take advantage of the government subsidy on fertilizer because (i) male farmers are more numerous, manage higher acreages, and are leaders of formal farmer-based organizations which helps facilitate their access, and (ii) men are more able than women to travel to local, regional and district capitals to purchase fertilizer from government agents and distributors.

Recommendations for improving women's supply of inputs are provided below. Two IFDC programmes are highlighted here for consideration by GIZ MOAP (1) the institution of seed and voucher systems for poor farmers, with separate targeted provision for women farmers, and (2) mainstreaming pro-poor fertilizer access. See Box 7.1.

Box 7.1. Case Study: Input Dealers - IFDC Examples of Good Practice

Seed and Fertilizer Voucher System

Fertilizer and seed vouchers provide incentives to invest in modern inputs and provide farmers with purchasing power support. Short-term incentives are essential because many farmers are not accustomed to using improved technologies and are unwilling to purchase agro-inputs without first experiencing the benefits of their use. A two-year input voucher pilot program began in September 2009 in collaboration with the European Union, Food and Agricultural Organization of the United Nations (FAO) and the Mozambique government. IFDC staff in Mozambique helped select and train agro-dealers and negotiated prices between importers and blenders, transporters, wholesalers and suppliers. During the second season, over 20,000 fertilizer vouchers for use on maize and rice crops were distributed and redeemed.

Mainstreaming Pro-Poor Fertilizer Access and Innovative Practices

In Ghana, Benin, Burkina Faso and Togo, the IFDC is implementing the 'Mainstreaming Pro-Poor Fertilizer Access and Innovative Practices in West Africa' (2010-2013) IFAD-funded project. The programme targets female farmers, resource-poor farmers, farmer organizations and community associations. It focuses on the following:

1. Improving access to fertilizer and organic resources for soil management.
2. Validating and scaling out approaches for site-specific fertilizer recommendations and ISFM options
3. Strengthening producer organizations.
4. Strengthening agricultural service providers.

In Ghana, IFDC is working on all these areas. GIZ MOAP should therefore consider teaming up with the programme. One very relevant activity is IFDC's Ghana Agro-Dealer Development (GADD) project. Fertilizer retail sales points in Ghana are being profiled to determine accessibility. The projects are also documenting fertilizer use and access in the maize belt in Brong Ahafo and Ashanti regions. Soil maps and decision support tools are being used to identify the nutrients needed to support increased maize productivity⁴⁶.

⁴⁶ http://www.ifdc.org/Projects/Current/Mainstreaming_Pro-Poor_Fertilizer_Access_and_Innov

7.2.1 Recommendations: Input Dealers⁴⁷

Outcome Objective: Increased Productivity on Women's Farms	
Outputs related to enhancing women's informed use of inputs	Suggested Indicators
<ol style="list-style-type: none"> 1. Target women for innovative practices and ensure training in input use is performed on their farms. 2. Improve the input distribution network in remote rural areas by bringing key inputs to local distribution centres such as maize aggregation centres and via other actors such as tractor service providers. 3. Strengthen agro-dealer networks and ensure competitive pricing through training agro-dealers on product knowledge and financial and business management. 4. Train agro-dealers to offer training in input use and encourage them to open demonstration plots. 5. Improve product knowledge among local retailers and farmers to help foster quality assurance. Target women users as a sub-group to ensure direct information delivery. 6. Strengthen access to timely and reliable market information on the availability and prices of agro-inputs and crop produce to contribute towards confidence and transparency in the input marketing system. It is critical that women are specially targeted as a sub-group for market information delivery using ICTS and other systems. 7. Facilitate linkages between women's farmers groups to input dealers to ensure regular and timely supplies. 8. Where women are members of mixed gender producer organisations ensure that they are targeted for inputs and that gender-based constraints, such as transport, are identified and alleviated. 9. Strengthen credit institutions in rural areas to enable farmers to gain access to inputs. This may involve strengthening lending institutions such as banks and creating revolving funds, village development funds, savings mobilization schemes, and farmer cooperatives. 	N/A – to be developed by the programme.

7.3 Tools and Technology for Women

The smallholder maize sector exhibits very low technology use. Men have more access to tools such as ploughs and sprayers than women, and are almost always considered the owners of tools when these are purchased at the household level. This enables them to prioritize the use of tools on their own farms. This said, women in male-headed households may benefit from implements owned by the household head, but female-headed households rarely own any technology and thus manage very small acreages. Such households usually have very little labour at their disposal as well.

Cultural norms which shape the sex-segregated task division of production combine with women's low capital base to force women farmers to hire male labourers for almost all tasks involving agricultural tools and implements, whether planters, sprayers or dehuskers/shellers. It is important to note that women prevail in labour-intensive tasks until machinery is developed to handle these.

⁴⁷ The majority of recommendations are taken from: http://www.ifdc.org/Projects/Current/AIMS_II

Women respondents to the study requested implements they could handle, in the interests of reducing the costs of hiring male labour. Tools are rarely designed with women's needs in mind, and they continue to be manufactured and purchased in the assumption men will use them. Even when suitable tools are available, women are less likely than men to know about them, and such tools may not be available in local markets⁴⁸.

- Tractor Services: Discussed separately. However, options for animal traction which can be managed by women need to be explored and piloted properly, as does the use of improved, women friendly hoes.
- Improved Planters: The Seed Growers Association of Ghana Ashanti near Kumasi actually has two improved planters on display on its premises but it does not lend them to farmers to try out, thus no one has demonstrated any interest in purchasing the planters. Farmers should be able to try out implements before purchase.
- Improved Sprayers: Both women and men respondents agreed that the weight and shape of sprayers did not suit women's bodies, since they are too heavy and the straps press down uncomfortably on women's breasts. Women request lighter, smaller sprayers.
- Dehuskers/ Shellers: Women producers are central to first-level post-harvest processing of maize. However, they fail to benefit from technologies such as dehuskers and shellers when these are introduced. These are taken over by men and operated for a fee. Such machinery is scarce and often outdated and inefficient. Product upgrading needs to be coupled with credit facilities suited to women's needs and ability to pay.
- Cleaning, Drying and Storage Facilities: The Economic Analysis of the Maize Value Chain (2011) study⁴⁹ recommends the formation of a cooperative or association of farmers, which could invest in a warehouse with adequate equipment to clean and dry the maize as a service for its members and to store it on behalf of the farmers for sale when prices are higher or when farmers require monies. If pursued, women would need equal access to these facilities. The warehouse receipt system MUST ensure that receipts are issued to couples, and that any credits taken against receipts MUST be signed and agreed by women and men. Female-headed and single households can of course receive receipts and credit in their own name.

Many agricultural implements suitable for women have been developed, particularly for farmers suffering from HIV/AIDS, and so they can be obtained and disseminated in Ghana. For larger equipment, such as ploughs and tractors, subsidized low-cost lease/hiring and hire-purchase schemes should be developed. Smaller tools such as hoes and cutlasses could be provided free in the form of a basic tools package to the most poor, provided these people have been identified carefully.

It is critical that training in input use address health and safety issues for both women and men. Women are responsible for washing pesticide-soaked clothing, and fewer women than men can read labels and

⁴⁸ IFAD (1999) African Women Farmer's Need for Suitable Tools. Downloaded from <http://www.ifad.org/gender/learning/sector/agriculture/66.htm>

⁴⁹ Grosse-Rueschkamp et al. (2011) Economic Analysis of the Maize Value Chain with emphasis on the post-harvest part of the value chain. Study Report (October 2011).

mix dosages safely and correctly. Very few farmers have access to protective equipment and very few are properly trained in pesticide/herbicide use. A South African study⁵⁰ notes that the government has fuelled unrealistic expectations among smallholder farmers about the benefits of pesticides and herbicides thus fuelling excessive use with serious effects upon health. The study recommends that:

- Government properly regulate pesticide sale and use with a view to implementing restrictions and moving towards banning WHO Hazardous Class I a/b pesticides
- Pesticide sales should be restricted to farmers who have a certificate confirming pesticide safety training.
- Integrated pest management (IPM) should be taught to farmers concurrently with training pesticide safety.

Similar measures should be considered by the Ministry of Agriculture and associated service providers in Ghana.

7.3.1 Recommendations: Tools and Technology for Women

Outcome Objective: Increased Incomes for Women through Process Upgrading at all Levels of Production	
Outputs Relating to Process Upgrading	
Source, disseminate and promote tools suited to women's needs for all agricultural tasks, either on sale or hire basis. Provide training and credit as required. Consider providing free tool sets to the most poor maize households.	Increased use by women of improved tools across all agricultural tasks.
Provide training in the safe use of pesticides and herbicides to women and men. Ideally training should result in certification of the trainee.	Provision of pesticide safety training certificates to women/men (disaggregated)
Train women farmers in improved post-harvest processing techniques and ensure they have access to appropriate machinery. This will enable them to maximise from value addition at this stage.	% women producers trained in post-harvest processing. % reduction in post-harvest losses (by women/men managed farm)
Train women entrepreneurs to operate and maintain dehuskers/shellers (together with a business plan).	% of women producers taking part in training courses % of women producers owning and operating post-harvest technology. % increase in size of women dehusker/shelling businesses vis-a-vis those of male-run enterprises.
Provide women farmers with access to storage facilities, including through GIZ MOAPS's planned warehousing facility.	% of women farmers using storage facilities
Develop receipt and credit systems at warehouses which ensure both women and men in a family receive (a) receipts and (b) agree through joint signatures to credit arrangements. Specific arrangements must be made for female-headed households /women in polygamous families.	% of women selling maize at higher prices

⁵⁰ Naidoo, S., London, L., Rother, H-A., et al. (2010). Pesticide safety training and practices for women women working in small-scale agriculture in South Africa. *Occup Environ Med* 2010 67: 823-828

7.4 Seed Production and Management

Women farmers can be trained in seed production, storage, and management, as certified seed growers and as farmers growing maize for sale and consumption. Women can also be trained to set up and manage seed banks for certified and local seeds (in order to conserve agro-biodiversity).

The Seed Growers Association of Ghana Ashanti at Asuofoah, Kumasi, provides a good case study of how women producers can be incorporated into product and process upgrading strategies, though gender-specific constraints to women's participation need to be identified and removed. Box 7.2. presents the work of the Association. The case study provides pointers on (a) how to work more effectively with women certified growers, and (b) draw some lessons on how to improve seed management and post-harvest processing for maize growers more generally.

Box 7.2. Case Study: Product upgrading strategies for certified seed growers in the maize value chain

The Seed Growers Association of Ghana Ashanti produces certified maize seed. It has 91 (17 women) members of whom 51 are active i.e. they pay their dues and attend meetings. Of the active members 11 are women and 40 are men. Three women are represented on the management committee.

Whilst men members operate acreages averaging 15-30 acres, women members operate acreages of 10-15 acres. Women respondents noted constraints to expansion as being (i) higher wage costs for them in comparison to the costs for men, since women have to employ men for weeding and spraying – this work is undertaken by male farmers themselves. Women also find it hard to supervise labour properly since they do not work alongside men on male tasks, and (ii) all lack finance in order to rent more land. They argued that they needed more land to become truly financially viable, but that school fees in particular, together with the costs of hiring labour and inputs, critically limited their ability to expand.

The membership has benefited substantial training over the years in seed production, seed technology seed marketing and in legislative issues since the privatization of the seed industry in 1990. These training programmes were organized with funding from USAID, Sasakawa Global (SG) 2000, and GTZ (now GIZ) with collaboration from the Ministry of Food and Agriculture. These courses are both residential and non-residential. Both women and men participate in training courses, but no effort has been made to date to identify and find ways to address any constraints women may face to participation. Research demonstrates conclusively that women are typically far less able to participate in training courses, and so this is an area to be investigated.

On farm training includes training on technical issues such as plant spacing, fertilizer application, field isolation, rouging, appropriate harvesting etc. At the seed station members are trained in sorting, seed conditioning, seed treatment, packaging, labelling etc.

Certified seed growers work closely with the seed inspectors on quality control, and they are provided with basic materials.

- Seed inspectors are provided with moisture metres (laboratory equipment) to test the moisture content of seed produced by the certified seed growers. This ensures that seeds produced by growers attain the safe moisture content for storage.
- At the outset of the programme, seed inspectors were supplied with 4 heat sealers which seed growers used (they were rotated among growers) to seal their poly bags containing seeds. However, as the seed business progressed seed growers have bought their own heat sealers.
- Packaging materials used by seed growers are include poly sacks - which contain between 45kg - 50kg of seed), and poly bags which come in different sizes - eg. 1kg, 2kg etc.
- Poly bags filled with conditioned seeds (shelled, dried, cleaned, treated with pesticide) are heat sealed following inspection by the seed inspector, packed into 45kg poly sacks, and tagged / certified by the inspector. They are now ready for sale by the growers.

A significant challenge faced by both women and men certified seed growers is the lack of market links and overall low demand for certified seed. This would need to be addressed by GIZ MOAP as part of its upgrading strategies, including actions to identify particular constraints faced by women in marketing.

The work of the Seed Growers Association of Ghana Ashanti is cost and labour-intensive. However, it indicates a clear pathway to upgrading the skills of women and men in seed management. They are trained to produce quality seed and provided with the necessary equipment. The work of the farmers is, critically, backed up by the expertise of the seed inspectors which helps maintain rigorous quality control. Women are more active in the Association than in any other association met with during the course of the study, and so they undoubtedly experience some empowerment effects. The management committee actively works to support women as well. It recently created an ex-officio position to ensure an extra woman on the committee. Further work needs to be done to address the underlying gender-based constraints that all women in rural Ghana face.

7.4.1 Recommendations: Seed Production and Management

Outcome Objective: Improve Income and Skills Levels of Women Seed Managers	
Outputs Relating to Improving Product Quality (product upgrading)	
Train women to set up and manage seed banks for certified and local seed at village level.	No of seed banks set up and managed.
Train women in seed management techniques and back this up through external quality control systems	% of women trained in seed management
Supply women with appropriate technology, either as a grant or through credit provision	% reduction in seed losses

7.5 Transport Service Providers and IMTs

Transport service providers are usually male-owned, managed and operated. Women rarely own or manage means of transport⁵¹ and even today typically head-load produce. Women’s weak access to transport affects the economic rents of women at all levels of the chain.

⁵¹ <http://www4.worldbank.org/afr/ssatp/Resources/HTML/Gender-RG/Source%20%20documents/Technical%20Reports/GRTI%20Reports/TEGRT7%20Country%20Report%205%20Ghana.pdf>

- Women Producers: Since women producers have smaller farms than men, they can find it difficult to attract aggregator/traders, who prefer to purchase maize in large volumes (50-100 bags) rather than the tiny volumes women tend to offer (2-10 bags approx).
- Women aggregator/traders do not have their own transport. Women who travel to the villages use public services and then call male bulk traders to arrange transport for the maize. The women pay all transport costs. Within the villages themselves, women aggregator/traders rely on male collectors to travel to farms to source maize on their behalf thus incurring further costs that many male aggregator/traders do not have. Women aggregator/traders also need to pay loaders due to the great weight of the sacks, whereas male aggregator/traders may help to load thus reducing costs. Research conducted elsewhere indicates that because women tend to have much less working capital than their male counterparts, they find themselves unable to pay for the movement of large quantities of maize from the village to marketing centres, and this is likely to be true of Ghana too⁵². They either have to repeat their visits to the villages, or purchase maize from intermediaries from marketing centres for resale. In sum, women aggregator/traders have larger transaction costs than do men due to their lack of vehicles.
- Many female maize aggregators/ traders cannot travel to villages at all due to their lack of transport/ the cost of transport and so they pay the increased prices prevailing at the main markets. This cuts into their profit margins.
- The leadership and membership of the Ghana Private Road Transport Union (GPRTU) are men. They tend to carry a baggage of gender stereotyping, and fail to tailor their services to the needs of women.

Intermediate means of transport (IMTs) remain poorly developed in Ghana despite substantial research in the country⁵³. Common constraints include the relative expense of IMTs in relation to women's income, sophisticated technical specifications, and, in many cases, ownership of transport (such as bicycles and tractors) by male household heads. As noted in the introduction, the existence of a means of transport within a household does not mean that all household members are entitled to use it. A World Bank study conducted in Northern Region showed sharp differences in mode of transport by gender (Table 7.1) and it also showed that an IMT acquired by a woman is considered her husband's property⁵⁴. Despite this, women respondents to the current study were strongly interested in improving transport options, discussing for instance the popular motorized trailer known as MotorKing.

Table 7.1: Differences in Use of Transport by Gender in Northern Region

Mode	Male (%)	Female (%)
Motorized	10	3.5
Bicycles	35	5.2
Donkeys	10	4.0
Walking	45	83

⁵² Farnworth, Cathy R., V.M. Akamandisa and M. Hichaambwa. January 2011. USAID Zambia Feed the Future Gender Assessment.

⁵³ <http://www4.worldbank.org/afr/ssatp/Resources/HTML/Gender-RG/Source%20%20documents/Technical%20Reports/GRTI%20Reports/TEGRT7%20Country%20Report%205%20Ghana.pdf>

⁵⁴ <http://www4.worldbank.org/afr/ssatp/Resources/HTML/Gender-RG/Source%20%20documents/Technical%20Reports/GRTI%20Reports/TEGRT7%20Country%20Report%205%20Ghana.pdf>

It should be noted that the apparently ‘best’ solution, namely upgrading roads, does not preclude investment in IMTs. Whilst transport costs pay a key role in determining market prices, it does not follow that expensive road improvement programmes are a precondition to reducing inefficient and monopolistic food pricing. One study⁵⁵, using data from Ghana and other African countries, estimates that replacing a footpath by a vehicle track may have a beneficial effect to the farmer of over a hundred times more than improving the same length of a poor quality earth track to a good quality gravel road. The study concludes: *Transport efficiency can be significantly increased by improvement of footpaths or the use of IMT. If markets are more than half a day's non-motorized travel, a multimodal transport system is a cost-effective solution. Trucks are unbeatable on long distances, good roads and fully loaded. IMT operate more efficiently on short distances with small loads and on bad roads making a multimodal approach the best solution for rural transport problems.*

7.5.1 Recommendations: Transport Service Providers and IMTs⁵⁶

Outcome Objective: Increase Women’s Incomes	
Outputs Relating to Reducing Women’s Transport Costs (at all levels of the chain) as a Percentage of All Costs	
<p>Small-scale actors Improve women’s access to, and control over, intermediary forms of transport including bicycles, handcarts, donkey/horse carts and motorized trailers. This will require the provision of credit to individual women and/or groups, or non-credit one-off procurement together with well-regulated access and maintenance rights and responsibilities. The World Bank’s Gender and Rural Transport Initiative provides many pointers as to how to identify women’s transport needs and develop their capacity to manage IMTs. It is critical to note that women in the maize chain require larger IMTs due to the bulkiness of maize, so donkey carts and motorized trailers are good options at village level for women farmers and aggregator/traders to help bring maize to assembly points.</p>	N/A – to be devised by programme
<p>Large-scale actors Identify and implement options for women to procure motorized vehicles. Identify and work to alleviate gender-based constraints for women involved in national and international trade (to neighbouring countries).</p>	N/A – to be devised by programme
<p>Overall</p> <ul style="list-style-type: none"> • Work closely with women's organizations to avoid socio-cultural barriers to women's access and use of IMTs. • Design IMTs to fit women's size and strength. • Train women how to maintain and repair IMTs. • Facilitate women's access to credit to purchase IMT's. • Encourage cooperative business ventures using IMTs. • Involve community leaders (men and women) and get their support for women's use of IMTs. • Design projects to benefit entire family to ensure women's participation does not generate domestic conflict. 	N/A – to be devised by programme

⁵⁵ Hine, J. L., and S. D. Ellis, (2001) Agricultural Marketing and Access to Transport Services. Rural Transport Knowledge Base.

⁵⁶ Taken from <http://www4.worldbank.org/afr/ssatp/Resources/HTML/Gender-RG/module5/index.html> and <http://www4.worldbank.org/afr/ssatp/Resources/HTML/Gender-RG/Source%20%20documents/Technical%20Reports/GRTI%20Reports/TEGRT7%20Country%20Report%205%20Ghana.pdf>

7.6 Extension Service Providers

Extension is provided by both the public and private sector in Ghana. Providers include the MOFA Extension Directorate, NGOs, and private organizations in the maize value chain business. It is critical to appreciate that extension takes place in complex environments structured *a priori* by gender relations. This affects the ability of extension staff to deliver their messages effectively. Conceptualizing extension as a technical, value-free activity is seriously mistaken. The study made the following observations:

Male-dominated extension service

Extension workers in both the government and private sectors are predominantly male. It is widely accepted that for cultural reasons male workers can find it difficult to interact with women farmers, leaving many women unreached. The extension worker to farmer ratio in Northern Region is 1 extension worker to 1 500 farmers; the female and male extension worker ratio is 1 to 150. Brong Ahafo Region suffers from an overall deficit of extension workers. It currently has 244 workers (208 male: 36 women) against a target of 530 workers.

In the private extension services female represent is low to non-existent. In Northern Region, for example, Masara N'Arziki has 35 male extension workers and has not put into place any supportive structures for women extension workers. The Presbyterian Agricultural Station in Tamale employs 6 extension staff, one of whom is female. It has, however, provided gender awareness training to all staff and is taking active measures to reach women. As a consequence women now form 60% of their clientele. It should be noted that the funding agency insists on a high percentage of female beneficiaries and that this has driven innovation.

Box 7.3. Case Study: Developing a Cadre of Village Level Women Extension Workers

In order to reduce gender imbalances in the provision of extension, MOFA in Northern Region, in association with VSO, has trained 45 extension women volunteers in 19 districts. These are women from the community who receive fairly extensive training. Whilst they are not paid they receive benefits in kind including work materials and, in some communities, livestock which they can multiply on their own farms before returning the same number of young animals into the system.

Inappropriate Extension Messaging and Targeting

- Men as a gender benefit from higher levels of education, and so they may find it easier to take on board extension messaging that assumes a basic level of functional literacy and numeracy (such as the keeping of record books, the reading of product labels, and the overall methodology used to deliver messages). Informational gaps between women and men need to be closed if the performance of women farmers relative to men is to be strengthened. GIZ MOAP needs to carefully consider how to design its messages to enable women, including illiterate women, to participate.
- Women's heavy domestic workload, which includes all childcare, cooking, sourcing of fuel and wood, together with the work they perform on their own and their husband's land means that they

have less time to attend extension training sessions. Timing and location of training must take into account gender-based constraints.

- In Northern Region, farm demonstrations are performed on male-managed farms and this is usually the case in Brong Ahafo Region. Some women attend but in many cases husbands subsequently pass on information to wives and female farm workers. This information transfer is often ineffective and also by taking women out of the loop, prevents interactive learning.
- Residential courses are particularly problematic for women given their domestic responsibilities and mobility constraints, though these are popular, for example with the Seed Station.

Box 7.4. Case Studies: Improving Gender Sensitivity of the Extension Services

The Presbyterian Agricultural Station in Tamale targets women and men in single and mixed gender farmer-based organizations (FBOs) with extension messages and training. It currently reaches 2 400 farmers organized as follows: Male FBOs (35); Female FBOs (24) and mixed FBOs(39, 20 of which have female chairs). The donor agency (ICCO, Holland) insists on a quota of 60% minimum female participation. The Presbyterian Agricultural Station trains women and men in leadership skills, marketing, and agronomy, and it links farmers to the Bonzali Bank and the Presbyterian Cooperative Credit Union. As a first step to obtaining credit, it links them to the Savannah Farmers Marketing Company. The banks require purchase guarantees if they are to advance credit. Farmers are also linked to input suppliers and tractor services.

In order to specifically address gender issues, the Presbyterian Agricultural Station has developed training modules which address gender-based conflicts in mixed groups, for instance around how to ensure accountability and regular contributions from members (women are much more reliable on both counts). Men are encouraged to permit women to become leaders and treasurers. The Presbyterian Agricultural Station recognizes that men allocate women the least productive land and is advocating that men provide women with good land, ‘so that she can support you’. It also advocates that women take out credit on their own behalf and manage it accordingly, which again is new. It recognizes that many women are illiterate and ‘keep accounts in their mind, or make marks on the wall’ and works with this. Finally, women are targeted for training in agronomic practices, particularly in those chains which women control, such as soya.

Overall, women FBOs, and women in mixed FBOs, still have much lower outputs than men. However, the combination of advocacy around gender issues and the fostering of backward-forward linkages to input suppliers, banks and marketing organizations coupled with an explicit commitment to promoting women (60% of all activities) means that real progress is being made.

7.6.1 Recommendations: Extension Services

Outcome Objective: Increased Productivity of Women-controlled Crops, particularly maize	
Outputs Relating to Improving Gender-Sensitivity of Extension	
Increase numbers of women extension personnel	
Provide incentives for women extension workers to work in remote locations.	% of women extension officers working in remote
Identify and address gender-based constraints such as fear of harassment, loss of	

reputation, loneliness and potential inability to work effectively with men by ensuring women go on short tours of duty, receive safe transport and accommodation, work in male-female teams, are provided with chaperones if need be.	areas/ meeting targets
Train and support community based women extension workers.	No of women community based extension workers trained, deployed, meeting targets.
Develop organisational capacity	
Develop women-only producer organisations and strengthen their capacity to make linkages to critical value chain actors including the extension services, input suppliers, banks and marketing agents.	% of women/men/mixed producer organisations targeted by the extension services. % of producer organisations (women/men/mixed) taking advantage of extension-service brokered links to service providers.
Improve extension methodologies	
Provide training in relevant gender methodologies and analysis to male and female extension staff.	% of spot checks where extension is found to be gender sensitive.
Apply household extension methodologies to enable the extension services to work with whole households, rather than individual members. This will strengthen the whole farm as a productive enterprise because the systemic interdependence of women and men's work will be explicitly recognised and strengthened.	% of training conducted with all adult household members
Encourage extension providers and farmers to co-create their learning platforms, as opposed to supporting information transfers. Treat farmers as people of knowledge.	Training programmes conducted with farmers as co-scientists and researchers
Address constraints to learning through functional numeracy and literacy training.	% of women attending and demonstrably learning (using internal indicators) from training
Ensure location and timing of extension training works around women's gender-based constraints. Provide support services, such as childcare, as necessary, particularly for residential courses.	% of women attending training

7.7 Financial Service Providers

Ghana has a fairly vibrant banking sector, but the majority of formal financial service providers do not meet the needs of women and men in the maize value chain, particularly at the lower levels. This forces both genders to rely on financial transactions with actors in the largely unregulated informal sector. Box 7.3. provides an overview of Ghana's financial services sector. Gaps in provision are very clear.

Box 7.5. Case Study: Ghana's financial services sector⁵⁷

The banking sector in Ghana is made up of the central bank, eight commercial banks, three development banks, three merchant banks and 133 rural banks. With the exception of rural banks, their distribution is weighted towards urban areas, and towards the south. Seven out of the thirteen districts in Northern Region have no banks and the ratio of clients to banks in northern Ghana is much higher (100,000:1) than in the country as a whole (16,000-26,000:1). The semi-formal financial sector in Ghana includes Credit Unions, Savings and Credit Co-operatives and a number of NGOs. Informal financial agents include moneylenders; susu collectors (savings mobilisers); traders, agricultural processors and input distributors; susu groups/ROSCAs (Rotating Savings and Credit Associations), and friends and relatives. Some development partners such as Action Aid work closely with Susu collectors, using them to efficiently distribute financial information and loans funded by the charity. Banks such as Barclays and Citibank are also working with the Susu and similar groups, providing them affordable credit, which in turn the Susu can loan to their customers.

Although women and men in the maize value chain face serious difficulties in financing their businesses, the study shows that women across the maize value chain face even more serious constraints to accessing financial service providers due to their lack of collateral, lack of anyone willing to act as guarantor to a loan, and lack of knowledge about terms and conditions. Several women said they 'feared' banks. Women therefore typically make use of only a small fraction of the financial services available – relying on loans or gifts from husbands and relatives, susu accounts and micro-credit groups. Even these do not seem to be used heavily. Micro-finance service providers report that women exhibit higher rates of recovery than men, yet they still have more male than female clients. The study shows:

- Producers: Financial service providers typically offer short term micro-finance packages which are not suited to farming clientele, whether male or female, because clients are generally expected to pay back regularly whereas the farming year dictates a flexible repayment schedule.
- Women aggregator/traders and processors (kenkey/banku): These actors access small amounts of credit through group-based saving schemes such as susu and sometimes micro-credit schemes. These are insufficient for business expansion. Women in this group critically require short-term monies to finance purchase of maize from sellers for resale to large buyers. They also need storage facilities so as to buy maize when it is cheap, either for resale or for use in the preparation of kenkey.
- Loans offered to men are much larger than those offered to women. This is because men are able to offer houses, vehicles and farms as collateral to access larger amounts for bulk purchases. If the business fails men are able to 'hide' and 'run away' according to banks met with during the study. The repercussions on the women left behind when banks seize collateral must be very severe. Despite their poor credit record, men tend to develop long-term relationships with financial institutions to enable them to leverage financial support for their businesses.

Women are very rarely able to increase the size of their businesses because they operate on very small profit margins, with one transaction financing the working capital for the next. Furthermore, women

⁵⁷ http://en.wikipedia.org/wiki/Susu_account

find it very hard to save because they are critically responsible for key household expenditures including food and school fees (even though cultural norms dictate that men should play a key role). Together, these factors result in risk-averse behaviours, low levels of capital accumulation and lack of monies for investment.

Case Studies of Good Practice

Ghana lags behind other countries such as Kenya in terms of offering innovative financial packages to actors in agricultural value chains. A huge number of financial transactions in Kenya are handled through innovative delivery systems, such as cellphones (MPesa) which use venues such as post offices, kiosks, petrol stations and stores. These more accessible outlets which can be found in remote areas benefit women because they do not have to travel far. A bank in Malawi issues biometric cards that permit only the card holder to withdraw money, and people can also open a bank account without an identity card. The bank has attracted large numbers of rural women to open bank accounts.

Other interesting case studies from Kenya for potential exploration include:

- The KADET micro-finance scheme in Kisumu (Lake Victoria), a subsidiary of World Vision, lends money to women in the morning to buy fish at Dunga landing beach. The women sell fish during the day and pay bank in the afternoon. The motivation is to reduce levels of HIV/AIDS through the 'Sex for Fish' trade. KADET also offers agricultural loans to women and men which take into account the agricultural cycle, loans for the purchase of business equipment, and – critical for women – loans for school fees which run alongside other loans. See http://www.kadet.co.ke/index.php?option=com_content&task=view&id=16&Itemid=108
- A micro-finance scheme at Gikomba Market in Nairobi enables male and female hawkers to obtain credit in the morning to buy merchandise for sale and pay back by evening.
- The Kenya Women Finance Trust offers comprehensive packages to women entrepreneurs with small, medium and large scale businesses, as well as offering start up loans. Packages target women in groups and as individuals, build in flexible repayment schedules, and some schemes offer business skills courses. See <http://www.kwft.org/page.php?id=23>

All such schemes require careful regulation to avoid scams and dishonest practices. Box 7.4. provides case studies based on the fieldwork. These are fairly vestigial but do offer entry points for improving loan products for women at all levels. The Credit Cooperative may offer a good starting point because GIZ Ghana is already engaged in strengthening the financial procedures of this bank.

Box 7.6. Case Studies: Promising Approaches to Loan Products in Ghana

Linking women farmers and aggregator/traders to large buyers is already being practiced on a small scale, particularly around Tamale in Northern Region. Purchase agreements are increasingly being used to obtain loans.

- The Bonzali Rural Bank agrees to offer loans on this basis through agreements negotiated between the Presbyterian Agricultural Station, their producer cooperatives, and the Savannah Farmers Marketing Company.

- Masara N’Arziki is a cooperative which likewise works closely with the Savannah Farmers Marketing Company. Member farmers obtain access to inputs - seed fertiliser and chemicals - plus technical advice. Masara N’Arziki offers farmers a guaranteed minimum price for their maize – which is raised if maize prices go up - and it takes care of all post-harvest activities to minimize losses. Farmers are able to obtain credit on the basis of their expected harvest which they repay at the point of sale to the Cooperative. Because Masara N’Arziki is a large player, sourcing 20 000 tonnes of maize per annum, it has a voice in setting the market price of maize. Unfortunately the organization has not worked to identify any gender-based constraints for women producers, which may explain why they represent only 10% of the membership, and no women are represented in decision-making bodies. However, the overall approach of Masara N’Arziki is worth emulating provided gender-aware strategies to ensure equal participation of women at all levels are developed and implemented.
- The privately-owned Gundaa Produce Company has developed a relationship with a women’s maize and rice trader group, and sometimes asks them for maize to meet large contracts. However, this relationship is ad hoc and the women involved have failed to identify other large buyers.
- The Saint Baasa Processing Company Ltd in Brong Ahafo Region has very strong links to women producers, who form around 70% of their suppliers. This is not due to a gender targeting strategy, but rather because women are the majority of farmers in the area with men entering waged employment. The manager at St. Baasa noted that for women maize farming was very much a fall-back livelihood strategy with a high proportion of female-headed households with young dependents involved. The work of the company would be improved if it could identify and ameliorate women’s constraints to production and marketing.

7.7.1 Recommendations: Financial Service Providers

Outcome Objective: Increased women’s working capital and savings	
Outputs Relating to Improving Women’s Access to Loans and Increased Saving Behaviours	
1. Work with Financial Service Providers (FSP) to design women-friendly financial packages for actors across the maize VC. GIZ MOAP to work with FSP on basic survey designs to establish women’s requirements and to feed findings back into planning of financial packages.	% increase in take-up of financial packages offered by FSP;
2. Develop schemes to supply working capital to women aggregator/traders to enable them to finance the purchase of maize from producers in cash for immediate resale to buyers. Monies may be paid back within 24 hours (or as agreed) at very low rates of interests.	% increase in credit extended to women;
3. Work with maize traders, banks and farmers to develop no-collateral loan packages suited to women as well as men (see Rueschkamp study for basic outline).	% increase in size of average savings;
4. Work with the KfW-supported <i>Outgrower and Value Chain Fund</i> (OVCF) to promote supply of medium and long-term credits to women. Ensure design is suited to women actors at different levels.	% increase in women accessing loans
5. Work with FSP to develop loan products to cover school fees.	% increase in size of women’s businesses as a consequence of securing loans.
	% increase of women able to pay school fees <u>and</u> expand business.
Training in business plans for women.	% of women trained in business planning

8 Mainstreaming Gender in GIZ MOAP's Maize Value Chain Strategy

The aim of the maize value chain study is to suggest ways of engendering indicators at all levels of GIZ MOAP's technical assistance to value chain development in Ghana.

The preceding chapters have identified women's gender-based constraints at all levels of the maize value chain. Actions to ameliorate these have been suggested along with potential indicators to track success. This chapter concludes the study by proposing modifications to the objectives and indicators already set out for GIZ MOAP, and in particular the value chain component (see Table 8.1.).

Gender-disaggregated baselines are a critical component of the gender mainstreaming strategy for the maize value chain. They should be performed in the target intervention areas of Brong Ahafo Region and Northern Region to provide data sets and to refine the analyses of gender-based constraints presented in this report. The aim should be to devise location-specific targeted strategies to improve gender equity at each level of the maize value chain and to finalise indicators.

One way forward is for GIZ MOAP gender focal points to work closely with other GIZ MOAP staff dedicated to the maize value chain to develop simple questionnaires for use with women and men actors at each level of the value chain in a particular location. These questionnaires will require the input of relevant service providers, such as banks, as appropriate. The questionnaires, which should not be long (!) can be applied by National Service personnel seconded to GIZ MOAP following training in basic enumeration and piloting of the questionnaires. First level analyses can be conducted at regional GIZ MOAP offices. The gender focal points should engage in further analyses and interpretation, and make location and actor-specific recommendations accordingly.

Table 8.1 works with the existing objectives and indicators set out for the 3rd Phase of GIZ MOAP's programming in Ghana (2012-2013). It does not include any of the objectives, strategies, and output level indicators set out elsewhere in this report. These are of two kinds:

- (1) Recommendations specific to each value chain actor. These work to ameliorate the entry barriers to women's participation in the maize value chain.
- (2) Cross-cutting recommendations to tackle the underlying gender-based constraints that hamper women's effective participation. These constraints operate at household and community levels.

Reference should be made to these to enable detailed strategy development and measurement to take place.

Table 8.1. Mainstreaming Gender in GIZ MOAP's Maize Value Chain Strategy

Module Objective	Impact Indicator	Targets
<p>Agricultural producers and other actors in the agricultural sector involved in processing, trade and services have improved their ability, regardless of gender, to compete in national, regional, and international markets.</p>	<p>Levels of income generated by actors at each level of the maize value chain.</p> <p>Difference in income levels between male-headed and female-headed households.</p> <p>Percentages of women involved at each level of the maize value chain.</p> <p>Establishment of gender-disaggregated data base and use for programme design, monitoring, evaluation and programme modification</p>	<p>An increase of 30% on average of real gross income by individual actors (NOT households) at each level by end of programme. Statistics to be disaggregated by women/men. Consider closing gender gap by setting % increase in real gross income higher for women actors (e.g. 30% increase for women; 20% men).</p> <p>Decrease by (e.g.) 20% at each level by end of programme.</p> <p>At least 30% women at each level. Suggested targets:</p> <ul style="list-style-type: none"> • Producers min. 50% (more in small-scale farm sector; equal male/female % in male-headed households). • Aggregator/traders at all levels: 50% women. • Processors (kenkey/banku): 100% women.
	<p>Export Returns</p>	<p>An average increase of 20% of export returns in the value chains with export potential. Suggested targets:</p> <ul style="list-style-type: none"> • Large women traders/men traders increase their income by 20%
	<p>Job Creation</p>	<p>An increase of 20% on average of the jobs in production, processing and marketing in the maize value chain. Potential targets:</p> <ul style="list-style-type: none"> • Women producers owning and operating post-harvest maize processing technology (number as a % of women producers worked with) • Women kenkey/banku processors increasing staff by e.g. 20%.
<p>Component 1: Promotion of agricultural value chains</p>		
<p>Component Objective: The efficiency and quality of production, processing and marketing have been improved in the maize value chains.</p>		
<p>Indicators</p>		<p>Targets</p>
<p>Maize Quality</p>		<p>The quality of maize traded by women and men aggregator/traders at the grain markets in Techiman and Tamale has improved due to reduced water content from 18% in 2011 down to 14% in 2013.</p>

Component 2: Improvement in the effectiveness and efficiency of public sector service delivery regarding agricultural/ agribusiness development	
Component Objective: Public institutions, particularly the Ministry of Food and Agriculture (MoFA) provide effective and efficient gender-sensitive support regarding agricultural/ agribusiness development.	
Indicators	Targets
<p>Guided by stakeholder consultation, the Ministry of Food and Agriculture (MoFA) has prioritized four agricultural value chains by May 2012, according to the following criteria:</p> <p>(i) Potential to improve position of women at all levels of the value chain; (ii) private sector interest; (iii) potential to contribute to income increases for women/men actors - with the aim of quick results; (iv) the potential for up-scaling; (v) feasibility for actor-led implementation; (vi) establishment of value chain committees with strong women representation; (vii) clear upgrading strategy which takes into account the gender-based constraints of women actors.</p>	<p>Levels of growth in selected value chain.</p> <p>Number of measurable gender-sensitive targets formulated in annual work plans.</p> <p>Gender-sensitive value chain design, monitoring and evaluation criteria/indicators.</p> <p>Responsibility for gender outcomes established in workplans.</p> <p>Lessons learned from gender-sensitive monitoring fed back into planning system.</p>
<p>The Ministry of Food and Agriculture (MoFA) has nominated value chain officers at national and regional levels, and has furthermore provided respective training to them by 2013 and the value chain officers to organize the regional value chains and provide advisory services to the districts in all 10 regions of the country.</p> <p>Gender training should be provided to all value chain officers to help them identify gender-based constraints and provide relevant, differentiated advisory services to women and men clients.</p>	<p>Percentage of value chain officers trained in, and practising, the key elements of the gender mainstreaming strategy in the maize value chain (and others).</p> <p>Percentage of value chain officers who are women (suggest min.30%)</p> <p>Training curricula and advisory services are gender sensitive.</p>
<p>In MoFA, an agribusiness office with at least two established positions has been set up by 12/2012 on the basis of well-defined terms of reference and „Standard Operational Procedures“ (SOP) and is being used by the private sector as point of contact and information.</p>	<p>Gender sensitive reporting procedures and accountability for outcomes.</p>
<p>Women and men producers, traders and processing companies in the maize value chain in Brong Ahafo Region, Ashanti Region, Northern Region and in Accra and Tema engage continuously in the dialogue on the maize subsector strategy.</p> <p>Ensure women’s transport and other logistical needs are identified and met to enable participation.</p>	<p>Percentage of <u>active</u> women participants in dialogue at all levels (suggest min. 30%).</p>
<p>A platform for regular dialogue between the public and the private sector in the context of METASIP has been established by May 2012; first meetings have taken place and the platform has defined a work plan and has started to implement the work plan.</p>	<p>Percentage of active women participants and decision-makers (suggest min. 30%)</p>
Component 3: Strengthening public and private service delivery in agriculture	
Component Objective: A service system has been established which ensures that service demands of the various actors in the four prioritized value chains are met.	
Indicators	Targets
<p>Based on a service survey and the analysis of service gaps for the four selected value chains five new services, which take into</p>	<p>Agreed increase (%) in use by targeted women and men of services (data</p>

account women's gender-based constraints, are developed and rendered by public and private service providers.	disaggregated by gender). Priorities for women include financial services and women-centred technologies.
End of 2013 has the number of satisfied users of existing services in all segments of the value chain increased by 20%.	20% increase in measured satisfaction by women and men clients at all levels (data disaggregated by gender).
Out of the 66 farmer organizations (FBOs) which were receiving MOAP-support in 2011, 50% have improved by one level within the 4-level classification system.	30% (e.g) of GIZ MOAP developed and supported FBOs should be women only. Of mixed FBOs, 30% of the active membership should be female. Women should hold 50% of leadership positions.
Equal numbers of women-only and mixed gender maize marketing boards should be set up, or identified and developed with GIZ MOAP support, using where possible private sector providers.	All mixed-gender FBOs and Maize Marketing Boards should increase participation of women to (suggest) 30% and set aside leadership positions for women (suggest 50%).

Annex 1. Key Maize Value Chain Organisations

ORGANISATION	ACTIVITY/PROGRAM	CONTACT PERSON
International Fund for Agricultural Development (IFAD)	Support Northern Rural Growth Program through capacity building for participation in agriculture value chain of some specified commodities.	National Office- Mr. Theophilis Otchere Larbi (Country Programme Officer) Tel: 0244 739 564 E-mail: t.larbi@ifad-org Amina Alhassan Bin Salih- Gender Specialist, NRGF, Tamale. Tel: 020 7617517
Food and Agriculture Organisation (FAO)	Developing capacity for gender analysis in Agriculture and collaborating with MOFA, WFP, UN Women in gender and maize value chain analysis.	Ms. Sophie Tadria – APO Food Security, Nutrition and Food Safety also Gender Focal Person
World Food Program (WFP)	Purchase for Progress (P4P)- Supporting capacity development through training and supply of equipment and also market access through purchase of grains for WFP school feeding and food for work program	Samuel Adjei- Programmer Officer P4P Tel: 054 375723
Asouyeboah Seed Station, Kumasi.	Building capacity of male and female seed farmers to produce certified seed	Mr. Samuel Adzivor- Cordinator. Tel: 0244 946646
Presby Agricultural Services implementing; Presbyterian Farmers Training & Child Dev't Programme, Market Access Project	Capacity building in group formation, leadership skills, improved agronomic practices and facilitating market access linkages. Covers 6 districts in Northern Region.	Mr. Dan Kolbilla, National Coordinator, Tel. 0244765079 Dkolbilla@yahoo.com Mr. Alhassan Mahama, Deputy Manager Tel. 0242131547 Mr. Moses Nindow, Market Access Project Coordinator Tel. 0207786183
Association of Church Development Projects (ACDEP)	Facilitating the implementation of the Farmers Agricultural Production and Marketing Project (FARMAR) through member Church Agriculture Stations. Also building capacity	Mr. Malex Alebikiya, National Coordinator

	of staff of member stations in areas including gender and development and initiatives for women empowerment.	
Send Foundation, Ghana Office	Focusing on Policy Advocacy, capacity building of Credit Unions and support for micro credit projects delivery. Provided gender analysis and training to partner organizations. Has a national coverage with a sub office in Tamale.	Mr. Siapha Kamara, Chief Executive Officer Tel. 0242038533
Care International	Capacity building of partner institutions and farmer groups in improved agriculture practices and marketing linkages targeting males and females	Madam Ayishetu Iddrisu, Gender Focal Person
USAID- ADVANCE Program	Implementing an agricultural development and value chain enhancement program. Developed gender integration guidelines and conducted a gender assessment of agricultural value chain on selected commodities.	
World Vision International, Tamale Sub Office	Supporting MOFA to train Extension Women Volunteers in the Northern Region to bridge the gap in availability of female extension workers. Also supporting WIAD food demonstration activities in blending local food crops for improved nutrition.	
Bonzali Rural Bank, Tamale	Provided Micro credit to farmers (709 males & 680 females) with MiDA loan facility. Established a micro credit facility for women traders.	Mr. Bashiru Iddrisu, Projects Officer Tel. 0242818485
Masara N'Arziki	Supporting farmers with training, inputs and market by purchasing their inputs. Though women participate the majority of beneficiaries are males.	Mr. Luus Smits, General Manager
Gundaa Produce Company	Providing tractor services and some inputs to male and female	Alhaji Zakariah Gundaa, Managing Director

	farmer groups for payment in kind with their produce as well as purchasing excess maize from the farmers.	
Savanna Farmers Marketing Company	Collaborates with Presby Market Access Project and ACDEP through linking with farmers and providing guarantee market for their produce. The guarantee enables women farmers access credit in the absence of the required collateral.	
Techiman Maize Traders Association	A network of traders and aggregators to facilitate trade in maize in the Techiman market	
Ghana Grain Leaders Company, Nkoranza	Facilitate training in improved agricultural practices and market access for members. Women constitute one-third of total membership.	Mr. Ebenezer Howard Manso, Managing Director Tel. 0243305557
St Baasah Processing Company, Chirah	Provide embedded services to farmers to produce and buys farmers produce to serve as raw materials for processing for local and international market.	Mr. Baah Dapaah, General Manager Tel. 0203452121

Annex 2. People Met

Accra

GIZ MOAP

Name	Position	Mobile
Dr. Paul Theodor Schuetz	Programme Manager GIZ MOAP	+233 244 312 967
Uwe Ohmstedt	Deputy Team Leader (MOAP)	0544339771

Ministry of Women and Children Affairs (Department of Women), Accra, 9th January 2012

Name	Function	Mobile Number
Patience Opoku	Director	0244263010
Mabel Cudjoe	Deputy Director	0277436749

International Fund for Agricultural Development (IFAD), Accra 9th January 2012

Name	Function	Mobile
Mr. Theophilus Ochere Larbi	Country Programme Officer	0244739564
Daniel Ekow Paos	Financial Management Specialist	0261614999

Food and Agriculture Organisation (FAO), Accra 10th January 2012

Name	Function	Mobile
Ms. Sophie Tadia	Gender Focal Person	0265406509
Benjamin M. Adjei	National Programme Assistant	0243562149

UNWomen, Accra 10th January 2012

Name	Function	Mobile
Afua B. Ansre	National Programme Coordinator	0244665252
Bright Addae Kofi	Research Officer	
Akwasi Sarpong	Research Officer	

World Food Programme (WFP): Partners for Progress (P4P), Accra, 10th January 2012

Name	Function	Mobile
Samuel Adjei	Programme Officer	0541375723
John K. Sitor	Programme Officer (M&E)	0243311174
Emma Anaman	Program Manager	0264336478

Ministry of Food and Agriculture, Accra 10th January 2012

Name	Function	Mobile
Victoria Aniaku	Assistant Director MOFA-WIAD also MoFA (WIAD) Gender Focal Point	0244756101

Large Maize Trader in Accra

Millicent Kafui Denu

Brong Ahafo Region

GIZ MOAP

Name	Position	Mobile
Matthias Plewa	Regional coordinator	0244319127
Christina Amoaka	Junior adviser	0244858701
Asare Baffour	Consultant	

Asuoeyboah Seed Station, Kumasi, 11th January 2012

Name	Position	Mobile
Samuel Adzivor	Seed Coordinator	0244946646

Women Certified Seed Growers

Name	M/F	Status	Acreage
Lydie Ansaah	F	Widow	2
Janet Boatemaa	F	Single	3
Akua Nantie	F	Married	7
Mariamah Abdula	F	Married	10
Ama Asantewa	F	Single	5

Men Certified Seed Growers

Name	M/F	Status	Acreage
Francis Cudjo Asempa	M	Married	30
Alhaji Bawre Fuseini	M	Married	25
Andrews Osei Mensah	M	Married	15
Richmond Nti	M	Married	15
Stephen Menu	M	Married	20
Mallam Dramani	M	Married	35

Women Itinerant Workers (seed cleaning etc) at Seed Station

Paulina Muwatey	F	Single
Comfort Amaadu	F	Single
Janet Baaba	F	Single

Men Itinerant Workers (seed cleaning etc) at Seed Station

Name	M/F	Status
Kofi Kwao	M	Single
Menu Agyepong	M	Married

Ministry of Food and Agriculture, Sunyani 12th January 2012

Name	Function	Mobile
Mr. E. Osei - Adade	Regional Director	0209385947
Mr. Oppong Danquah	Regional M&E Officer	0208190692

Techiman Maize Traders Association, Techiman Market 12th January 2012

Male Traders (Members)

Name	M/F	Status
Mallam Issahaka	M	Married
Seidu Mohammed	M	Married
Obiri Yeboah	M	Married

Women Traders

Name	M/F	Status
Margaret Acquah	F	Single
Mariama Mohammed	F	Married
Adjoa Ajara Adam	F	Divorced
Esther Twenewaa	F	Married

Petty Traders (women)

Adama Abubakari
Rashida Seidi
Mariama Sisala

Women Farmers Nyame Bekyere Group, Ayigbe 12th January 2012

Name	M/F	Status	Acreage
Nafisa Haruna	F	Married	4
Agnes Pokuwa	F	Married	1
Lydia Gyewaa	F	Widow	½
Zenabu Nuhu	F	Married	

Men Farmers, Nyame Bekyere Group, Ayigbe 12th January 2012

Name	M/F	Status	Acreage
Daniel Amissah	M	Married	6
Kweku Nene	M	Married	4
Fuseini Domatselina	M	Married	10
Kwesi Baah	M	-	-

Ghana Grains Leaders Company, Nkoranza 13th January 2012

Name	M/F	Function
Mr Ebenezer Harward Manson	M	Manager Director
Francis Aboagye	M	Site Manager

Men Farmer/Traders Ghana Grains Leaders Company, Nkoranza

Name	M/F	Status	Acreage
Kofi Domfeh	M	Married	4
Kudjo Baffoe	M	Married	8
Nana Kobina Adjei	M	Married	50
Martin Achempong	M	Married	30
Nyamekye Stephen	M	Married	50
Benson Baffour	M	Married	20
Akwesi Adjei	M	Married	20
Ahmed Dawuda	M	Married	30

Women Farmer /Traders Ghana Grains Leaders Company, Nkoranza

Name	M/F	Status	Acreage
Benedicta Domfeh	F	Widow	?
Baffouwua Rosina	F	Divorcee	4
Yaa Asuah	F	Married	6
Akua Pokuwa	F	Married	8
Amobeaa Akosua	F	Married	4
Victoria Asantewaa	F	Married	2

St. Baasah Processing Company, Chirah 13th January 2012

Name	M/F	Position
Mr Baah Dapaah	M	General Manager, St Baasah Processing Company

Male Farmers, St. Baasah Processing Company

Name	M/F	Status	Acreage
Kwesi Ray	M	Married	10
Mohammed Zulai	M	Married	5
Joseph Frimpong	M	Married	5
Yekeli Mohammed	M	Married	5
Sumaila Kweku	M	Married	6
I.K. Appiah	M	Married	10
Thomas Adu	M	Married	8
Ahmed Abu	M	Married	4
Kofi Asare	M	Married	4
Peter Gyenfi	M	Married	6
Atta Donjinah	M	Married	8

Female Farmers, St. Baasah Processing Company

Name	M/F	Status	Acreage	Crops
Ayisata Kavim	F	Married	6	Maize, chilli
Ama Animoah	F	Widow	4	Maize, cassava, plantain
Niiianii Agyeiwaa	F	Married	2	Maize, cassava, plantain
Aljaco Abu	F	Married	4	Maize, cassava, plantain
Georgina Kyeremeah	F	Married	8	Maize, cassava, plantain
Adwoa Amado	F	Widow	2.5	Maize, cassava, plantain
Yaa Yeboah	F	Widow	2	Plantain, cassava
Comfort Adomah	F	Widow	6	Maize, cassava, chilli
Abana Konama	F	Widow	Does not know	Maize, cassava, plantain
Yaa Asantewaa	F	Married	2.5	Maize, groundnut, chilli, onion
Afia Mintaa	F	Married	2	Maize, cassava, plantain, onion
Vida Amponsah	F	Married	2	Maize, cassava, plantain, okra, chilli

Migrant Workers from Northern Region working and living at Chiraa near St. Basaa Processing Plant (two women were met separately, but their names were lost)

Dagomba line male migrant farmers Chiraa

Name	M/F	Status	Acreage
Abdul Ganiyu	M	Married	
Malam Sumaila	M	Married	
Issifu Abdulah	M	Married	
Yahaya Abu	M	Married	
Osmanu Adam	M	Married	
Phideelis Wanwaana	M	Married	
Seidu Mahama	M	Married	
Issahaku Amidu	M	Married	
Salamatu Yahaya	F	Married	
Ayisha Sumaila	F	Married	

Women Kenke Processors, Sunyani 4th January 2012

Name	M/F	Status
Frimpongmaa Nkrumah	F - Owner	Married
Rose Dzidzo	F	Married
Azumah Amoabili	F - Paid migrant labourer	Married

Milling operator, Odumasi 14th January 2012

Name	M/F	Status
Ebenezer Joseph Amoah	M	Single

Northern Region**GIZ MOAP**

Name	Position	Mobile
Anne Poetter	Anne Poetter Northern Regional Coordinator Market Oriented Agriculture Programme (MOAP) Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH	233 (0)543 952 435
Fadila Ahmed Tijanii	Junior Technical Officer	+ 233 (0) 244 850640
Mohamed Abdul Rashid	Junior Technical Officer	

Ministries and Development Partners**Presbyterian Farmers Training and Child Development Programme, Tamale, 16th January 2012**

Name	Function	Mobile
Alhassan Mahama	Deputy Manager (M&E)	0242131547
Mosses Nindow	Market Access Project coordinator	0207786183

Ministry of Food and Agriculture (WIAD) Tamale, 17th January 2012

Name	Function	Mobile
Bridget Parwaa	Regional WIAD Officer	0246321144

Care International, Tamale, 17th January 2012

Name	Function	Mobile
Ayishetu Iddrisu	Gender Focal Person	

Masara N'Arziki, Tamale, 16th January 2012

Name	M/F	Position	Mobile
Luus Smits	M	General Manager	

Bonzali Bank Tamale

Name	M/F	Position	Mobile
Bashiru Iddrisu	M	Project Officer	024464601546
Abdulai Ishau	M	Central Accounts Officer	0242818485

Ministry of Food and Agriculture, Tamale 17th January 2012

Name	Position	Mobile
Mr. Joe Faalong	Regional Director	0244764206
Kweku Dae Antwi	M&E Officer	0243612023

International Fund for Agricultural Development (IFAD), Tamale 17th January 2012

Name	Position	Mobile
Felix Darimaami	M&E Officer	
Sharif Yakubu	Management Information Systems Officer	

Maize Value Chain Primary Stakeholders

Tiyumtaba Farmer Group, Diare, 16th January 2012 (Male farmer group working with Alhaji Gundaa)

Name	M/F	Status	Acreage
Abubakari Fuseini	M	Married	
Masawudu Fuseini	M	Married	
Yakubu Abdulrahman	M	Married	
Somaila Abubakari	M	Married	
Abukari Fuseini	M	Married	
Abramani Fuseini	M	Married	

Tiyumtaba Farmer Group, Diare, 16th January 2012 (Female Farmer group working with Alhaji Gundaa)

Name	M/F	Status	Acreage
Salmu Iddrisu	F (Vice Chair)	Married	2
Asia Yahaya	F (Treasurer)	Married	2

Gundaa Produce Company, Tamale 16th January 2012

Name	M/F	Status
Alhaji Zakari Gundaa	M	Employee
Alhassan Musah	M	Employee

Gbamanga Wuni Song group, Datoyili Tamale 17th January 2012

Male Farmers

Name	M/F	Status
Alhassan Mahama	M	Married
Alhassan Alhassan	M	Married
Iddrisu Adam	M	Married
Nashiru Alhassan	M	Married

Women Farmers

Name	M/F	Status	Acreage managed by women	Acreage (Husbands inc women acreage)
Balkisu Alhassan	F	Married	1	5
Abiba Mahama	F	Married	1	6

Sanatu Alhassan	F	Married	1	5
Fatimata Ibrahim	F	Married	1	5
Maria Fuseini	F	Married	1	5
Rukaya Alhassan	F	Married	1	3
Andaratu Abdul Razak	F	Married	1	4
Meri Zakaria	F	Married	1	5
Lasike Busagri	F	Married	1	4
Ayishetu Ziblila	F	Married	1	4
Suweba Tahiru	F	Married	1	4
Nimatu Issah	F	Married	1	6
Fatimata	F	Married	1	6
Sanatu Seidu	F	Married	1	5
Mariama Muniru	F	Married	1	5
Jemila Abdul Rahman	F	Married	1	4
Mariama Ibrahim	F	Married	1	5
Sanatu Zakaria	F	Married	1	5
Munira Lansah	F	Married	1	5

Corn and Rice Sellers Association (women traders), 17th January 2012

Name	M/F	Status
Huashetu Alhassan	F	Married
Rakia Yahaya	F	Married
Bintu Nashiru	F	
Habiba Karim	F	

Kenkey Seller (Processor), Tamale 17th January 2012

Name	M/F	Status
Adama Goodman	F	Married

Annex 3. Schedule

Date	Time	Activity	Venue	Respondent
Monday 9/1/12	08:30	Meeting with GIZ-MOAP	PPMED Accra	Paul/Kofi/Uwe
	09:30	Visit MOWAC	Accra	Patience Opoku/Mabel Cudjoe
	11:30	Visit IFAD	UNDP Accra	Theophilus Otchere Larbi/ Ekow Daniel
Tuesday 10/1/12	08:00	Visit to FAO	Accra	Sophie/Benjamin
	10:00	Visit UNwomen	Accra	Afua/Bright/Kwasi
	11:30	Visit WFP	Accra	Adjei/Emma Anaman
	15:00	Visit WIAD	Accra	Victoria Aniaku
Wednesday 11/1/12	06:30	Departure to Kumasi		
	12:00	Visit to seed station: meeting with seed growers and workers at the station Accommodation in Kumasi	Asuoyeboah	Sammuel Adzivor MoFA /members
Thursday 12/1/12	06:00	Departure to Sunyani		
	09:30	Arrival at Sunyani; briefing session BAR	MOAP SUY	Mr. Matthias Plewa, MOAP Coordinator /Mr. Asare Baffour (AB)/ MOAP consultant, Christiana Amoaka
	10:00	Meeting RADU MoFA (preparation with director 10/01)	MoFA Sunyani	Mr. Danqua/Mr Adae RADU MoFA, M&E MoFA
12/1/12	12:30	Visit Techiman market, meeting TTCS trader, women aggregator/traders – local & from Accra and Takoradi	Techiman	Executives TTCS
	15:00	Meeting with African Women in Agriculture Development (AWiAD) Ayigbe NGO Accommodation in Sunyani		Members
Friday 13/1/12	07:30	Departure from Sunyani		
	09:00	Trader & Farmer interview.	Nkoranza	Mr. H.I.Manson
	13:30	Women, men farmer/trader Meeting St. Baasa, Processing company with outgrower scheme, women and men farmer Accommodation in Sunyani	Chiraa	Asare/Baah Dapaah

Saturday 14/1/12	08:30	Miller, small scale processors Accomodation Sunyani	Sunayani/ Odumasi	Christiana Amaoko
Sunday 15/1/12	08:00	Trip to Tamale		
Monday 16/1/12	09:00	Presby Agric Station (Private Extension Workers)	Tamale	AEAs, FBO desk officer
	10.00	Diare maize farmer group	Diare	Maize Association members
	13.00	Maize trader/retailer in Aboabo Market	Tamale	Members
	15.00	MoFa (Regional Director)	Tamale	Mr. Joe Faalong
Tuesday 17/1/12	08:00-	Datoyili Maize Farmer Group	Datoyili	
	09:30	WIAD at MoFA Regional Office	Tamale	Bridget GF/MOFA
	09:45	NRGP (IFAD)		Amina Bin Salih
	10:00	Care International		Ayeshetu Iddrisu
	10:00	Bonzali Rural Bank		Bashiru/Abdulai
	12:00	Kenkey seller		Adama Goodman
	14:00	Women Maize Traders Association in Aboabo Market		Members
Wednesday 18/1/12		Return to Accra		
Thursday 19/1/12	8:30	Preparation of Debriefing		
Friday 20/1/12	9:00	Presentation of Findings to MOFA and other key stakeholders		

In some cases meetings were held in parallel with different team members, hence overlapping timings.

Annex 4. Acroynyms

BA	Brong Ahafo / Brong Ahafo Region
FASDEP	Food and Agriculture Sector Development Policy
FAO	Food and Agriculture Organisation
GADS	Gender and Agricultural Development Strategy
GBC	Gender-Based Constraint
GDP	Gross Domestic Product
Ghc	Ghanaian New Cedi (1 Ghc = 0.59 USD/0.44 Euro on 27.02.2012)
MDGs	Millennium Development Goals
MOAP	Market Oriented Agriculture Programme
MoFA	Ministry of Food and Agriculture
MTA	Maize Trader Association
OVCF	Outgrowers and Value Chain Fund
UNICEF	United Nations Children's Fund
VC	Value Chain
WFP	World Food Programme
WRS	Warehouse Receipt System