

# Gender integration in value chains: Good practices from analysis to action

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## Abstract

*It is widely recognized that women are significant actors in crop-livestock, pastoralist and fish systems. However, there are few agricultural development projects which deliberately work towards gender equity in livestock and fish value chains. Research insights into gender roles and responsibilities along fish and livestock chains on how gender relations at household and community level may affect women and men's access to resources for livestock production, and their relative benefits from value chain development, are often poorly integrated into development planning and practice. In order to redress the balance a number of research and development partners are working to develop analytic frameworks and implementation guidelines to enable gender equity in livestock and fish value chains. This paper examines recent and on-going work to develop tools for effective gender analyses in value chains and how these are being fed into project design. Case studies are taken from Zambia, Kenya and Egypt.*

**Key Words:** gender; gender-transformative; value chain analysis; fish; livestock; agricultural development projects; Zambia; Kenya; Egypt.

## 1 Introduction

Gender relations are an important variable in the efficacy of livestock systems at all levels, from livestock keeper and fisher, to policy maker. Yet, in contrast to crop production, gender relations in livestock systems remain poorly analyzed and weakly understood by development planners, apart from a range of excellent, often academic studies (Mullins *et al.* 1996; Bayer-Waters, 1988). Overall, few agricultural programmes are based on gender analysis, incorporate gender-responsive measures, or obtain outcome and impact data on women and men. The ways in which the realization of programme objectives is affected by locally prevailing gender relations is still not well understood.

Moreover, the actual functions women and men play in fish and livestock systems is often not properly assessed and verified. For instance, whilst it is widely held that women are responsible for the care of small ruminants and poultry, with men being responsible for large animals, this appears too simple in some cases. Frequently women and men exercise complex rights and responsibilities across a single livestock species. These can include gender-differentiated responsibilities for ensuring the supply of fodder and water, arranging mating, identifying the symptoms of ill-health, soliciting veterinary care and applying treatment, as well as differential rights to the use and distribution of animal products. These products may be used in the home and in social exchanges, and there may be differing rights to proceeds from the sales (Kristjanson *et al.* 2010; Flinton, 2007, Bayer-Waters, 1988; Bayer-Waters, 1985). This evidence notwithstanding, the majority of gender-responsive programming in the livestock sector has focused on specific species, such as poultry or goats, and has typically been directed at women (Kristjanson *et al.* 2010).

Targeted or not, it is clear that all interventions will impact in some way upon gender relations. A study by the Gender, Agriculture, and Assets Project (GAAP, led by IFPRI and ILRI) of the 'gender-blind' Land O'Lakes' Manica Smallholder Dairy Development Program (MSDDP, 2008-2012) in Manica Province, Mozambique showed mixed impact on gender relations. At the end of the programme, both women and men participants had increased their income from dairy (previously women had no income at all from this product). However, men controlled the majority of dairy income

and largely decided how to spend it, and they had come to own more and higher value assets than women. At the same time, women reported higher participation in household decision-making due to recognition of their technical skills, acquired through training, by their husbands. Women, men and children all experienced increased workloads, with women delegating household responsibilities to other household members, particularly children. More milk appears to have been consumed within the household (GAAP, 2013). This example hints at the great number of missed opportunities, potential harms, and positive gains created in a single project due to the lack of forward thinking on gender analysis and planning. Many more wins could be achieved and critically sustained for women and men if their gender roles, responsibilities and rights are properly analyzed and addressed within the context of a broader value chain analysis. Moving towards gender equality requires more than analysis; it demands a deliberate attempt to level the playing field. Sabetes-Wheeler (2006) notes inequalities tend to reproduce inequalities: this is not only crippling for the people involved, but also for the achievement of programme outcomes.

This paper highlights emerging methodological best practices for gender analysis in fish and livestock systems. The first part reviews some of the gender issues which may need to be addressed when analyzing a particular system. The second part of the paper provides case studies of innovative, recent and on-going work to develop gender-equitable value chains. The examples are drawn from Kenya, Zambia and Egypt. They are based on the authors' on-going research practice in these countries, and on evaluations conducted by the authors for development partners. The studies were selected according to their innovative contribution to the emerging field of gender analysis in value chains.

## 2 Gender Considerations in Value Chain Analysis and Action

Best bet tools for gender analysis need to be sustainable, have proven results, be adaptable to a wide range of situations and be demonstrably associated with delivering effective outcomes (Maarse *et al.* 2007). They need to provide good quality information on gender opportunities and constraints in the existing system to enable planners to design gender-equitable value chains. A proper mapping of actual practice, as well as an understanding of cultural norms, is essential since they may diverge (Dyson-Hudson, 1972). Work will involve technical as well as socio-economic and socio-cultural appraisals. However, superb planning may achieve very little unless the tools themselves kick start empowerment processes leading to the behavioural changes necessary for women and men to benefit equally from the intervention. Design teams should deliberately create - on the basis of the gender-based constraints and opportunities identified - interventions aimed at systematically strengthening women's efficacy, presence and voice in livestock and fish value chain development. In this light, the gender toolbox should be seen as part of a wider schedule of work aiming to facilitate the empowerment, improvement of capabilities, and organization of poor women and men active in livestock and fish value chains (Maarse *et al.* 2008). This section highlights a small sample of considerations for gender analysis in livestock and fish systems that should be considered when analysing livestock and fish chains.

**Gender Roles and Responsibilities.** The majority of livestock value chains are very different than crop value chains. Animals usually require constant attention, with care comprising a range of activities including looking after livestock during their life-cycle; obtaining their products during their lifetimes or following their slaughter (including fibres, feathers, skins, dung, milk, eggs, and meat); processing these products as appropriate for sale, and marketing - frequently via a number of intermediaries, to the final consumer. At each of these points, women and men tend to be involved in

different ways with different levels of authority and responsibilities (Kristjanson *et al.* 2010). Importantly, women often do not own the means of production - land, water, feed resources, yet they may be central to livestock management (Russo, 2012).

Women and men are likely to have different objectives for keeping animals, and different abilities to access and use new technologies and information. In turn, these differences may lead them to prioritize different technologies and practices (Kristjanson *et al.* 2010). Understanding these differences in terms of gender-based opportunities and constraints around decision-making, ability to take risks, ability to source productive assets - including, where relevant, access to communal grazing areas, and women's ability to engage in horizontal (e.g. producer groups) and vertical (e.g. with input suppliers and buyers) relationships along value chains is critical to developing effective livestock value chains. Women are much more likely to sell livestock products or livestock inputs such as fodder at the farm gate with very few taking their products to traders or large markets (Russo, 2012).

Fish value chains can be somewhat different since they include wild capture as well as aquaculture. If fish are caught wild, human interaction with them will be very limited, unlike the complex care requirements of fish species in aquaculture systems. From the moment of capture, however, many of the same issues that affect women's effective participation in livestock value chains will apply.

**Household Form and Functioning.** Analytic work is sometimes confounded by a simplistic understanding of how households function. Empirical and conceptual work has definitively established that many households in Sub-Saharan Africa cannot be treated as a single economic unit which makes a single set of production and consumption decisions (Njuki and Mburu, 2013; Njuki *et al.* 2011; Doss, 1999; Sen, 1999; Udry, 1996) to the equal benefit of all household members. Failure to recognize this can result in project interventions that unintentionally 'do harm'. A study of the Fulani in northern Nigeria demonstrated that women fully control earnings from dairy whereas men control monies from the sale of livestock. However, due to the development of livestock markets, men took over milking to ensure that calves receive enough milk. This impacted negatively on the ability of women to care for their matrifocal households under polygamous relationships (Waters-Bayer, 1985; Waters-Bayer, 1988).

**Complex Ownership Rights.** 'Gender-neutral' value chain development may serve to progressively exclude women, particularly in cases where ownership rights are fuzzy or discriminatory towards women, or where women have limited rights to livestock products (Kristjanson *et al.* 2010). At the same time, there are plenty of opportunities to build upon existing favourable cultural norms and market opportunities. Livestock, particularly small livestock, are 'portable' and highly suited to small and vulnerable households, because initial investments can be low. Women in particular can find it easier to obtain livestock than fixed assets such as land (Bravo-Baumann, 2000). The births of chickens, sheep and goats into existing flocks and herds are a key way for women to increase their livestock holdings (Russo, 2012). Acquisition may be through inheritance, markets or collective action processes (Rubin *et al.* 2010). However, particularly under customary systems, women's rights to livestock and their products can be very 'fuzzy', making careful analysis and planning a pre-requisite to any value chain programme. Indeed, ownership does not necessarily equate with decision-making authority over livestock (Njuki and Mburu, 2013). In Zambia, for instance, cattle-keeping ethnic communities such as the Lozi of Western Province, the Tongas of Southern Province and the Ngonis of Eastern Province have created strongly gendered networks of rights and responsibilities around cattle. Tonga women, traditionally, are not permitted to enter the cattle kraal or pass through a herd of grazing cattle. However, such women may actually own some of these cattle through inheritance. Despite this, women owners do not necessarily benefit from the manure, draught power, milk or sale of their animals. There have been many cases of animal sales by male relatives

without the woman's permission. In other cases, men have refused to sell cattle on a woman's behalf even though she may need to realise her assets. A number of court cases brought by women have failed because women have not been able to identify the markings on their cattle. By way of contrast, Lozi and Ngoni ethnic communities traditionally have encouraged newly-married women to go to their husbands' village with their animals. Such women tend to accrue high levels of respect from their husband and in-laws for strengthening the household economy (Akamandisa, pers.comm, 2014).

**Social Capital.** Animals and their products are not only sold or used for home consumption. They can play an important role in creating and maintaining social capital, and can help to ensure a safety net when times are hard. A study of dairy goat chains in Tanzania demonstrated that gift-giving and barter is an important livelihood strategy and means of maintaining social capital in the project villages (Farnworth, 2013). Interviews with women and men showed that both engage in gift giving to maintain social relations and to ensure sufficient food in times of hardship. Women said: *'Giving gifts to each other is our natural behaviour. We give gifts if we feel pity for someone, for example if they do not have enough food. We also give gifts so that no one calls us selfish. We want to maintain social relations. We don't want to be alone. Both women and men give gifts. We don't expect to get anything back directly, but we do expect to be helped when we need help.'* Male respondents particularly emphasized the importance of barter. It is interesting to note the respective values given to different livestock species. Barter rates in February 2013 were: 5 local goats for one 1 cow; 10 hens for one 1 goat or 1 sheep; 1 small cow and 1 sheep for one big cow.

**Men.** Women in Development' (WID) approaches have often been interpreted by men as seeking to empower women at their expense in terms of asset accumulation and in decision-making at all levels. This has led in some cases to resistance and sabotage of such projects. Bringing an analytic focus to bear upon gender *relations* allows researchers to develop a complex, dynamic, and multi-faced understanding of how power is expressed in gendered ways, and across social groups. This avoids the creation of a simple male-female conceptual dichotomy which bears little relation to the way in which people experience gender. It also enables strategies to be developed to bring men on board in their own right, and as supporters of strategies to strengthen women in value chains.

### 3 Selected Best Practices

This section highlights recent and emerging good practice in gender analysis in value chain development in Kenya, Zambia and Egypt. The four examples show that obtaining the contextual data information just outlined helps to 'make sense' of behaviours in the value chains being analyzed, provides explanations for the locations and relative percentages of women and men in different sectors of the value chain, and can also suggest entry points through building on positive norms and behaviours whilst challenging negative ones.

#### 3.1 Methodological Iteration: Fish in Zambia

The CGIAR Research Program on Aquatic Agricultural Systems (AAS) adopts a research-in-development approach in which the agenda is shaped by stakeholder priorities. In the Barotse floodplain of western Zambia, communities identified improved access to markets as a priority, with an emphasis on markets for fish, rice and cattle. In 2013, WorldFish and its local partners initiated a participatory value chain development process with a ten-year time-frame. The starting point was a five step gendered fish value chain study: 1) selection of project site, partnerships and joint planning, 2) value chain analysis, 3) designing options for chain development and understanding their potential impact, 4) facilitating the chain development process, and 5) assessing performance and options for

scaling up. Each of the steps involves iterative processes that rely on continual learning and adaptation.

The fish value chain analysis (step 2 in the above) was implemented over an eight month period, involving three rounds of data collection to capture the seasonal aspects of the fish value chain. The study team comprised five supervisors and twenty women and men enumerators from four partner organizations, the Department of Fisheries, two Non-governmental organizations, and one community-based organization. A Fish Value Chain Working Group of 25 members was established, comprising value chain actors, service providers, local authority representatives, government and non-governmental players. During the study phase, the Working Group met five times, providing inputs to the study design and feedback on the preliminary findings from each round of data collection. Towards the end of the study phase, a participatory planning workshop was held, facilitated by the study team and representatives of the communities where data were collected members of the Working Group and other stakeholders. It was agreed that the Working Group would be transformed into an “innovation platform”, loosely structured around three interest groups based on priority areas identified by workshop participants for fish value chain development.

Prior to each round of data collection, members of the study team were trained in the data collection tools. Following data collection, the data were written up and entered into databases. For data analysis, the study team convened a 4 day analysis workshop, culminating in a presentation to the Working Group. Members of the study team thus enhanced their capacity for data collection and analysis, and the insights from the Working Group contributed to in-depth analysis and interpretation of the findings. Some members of the study team benefited from separate training in gender-transformative approaches conducted by the AAS gender team.

By having three rounds of data collection and analysis, it was possible to capture seasonal issues in the value chain. Equally important was feedback of preliminary results from the previous round of data collection to the communities and involving them in participatory data analysis to explore specific issues in greater depth. Much of the analysis of gender dynamics was compiled in this way. For example, activity clocks were used for separate groups of men and women in the first round of data collection to gain understanding of how men, women, boys and girls spend their time on a regular day. The results were synthesized and presented back to the communities in the second round to explore the underlying reasons for differences in workloads between women and men within the same community, and also between different communities. One of the findings highlighted by the multiple rounds of fieldwork was that women dominate trade at the start of the season but that men become increasingly involved in the peak season. This has implications for the types of fish traded at different times, and the types and cost of transport according to the level of flooding. These factors influence the profits made by women and men respectively.

Summary of gender findings:

- An estimated 99 per cent of **fishers** are men. Women only participate in own-account fishing when the water is receding. This is because they use fishing baskets that can only be used in these conditions. Women assist their husband, or other relatives, to manage the larger nets which require a boat - typically owned and paddled by men - and team work.
- Roughly half (44 – 63 per cent) of fish **traders** are women. The intensity of their involvement depends on the type of fish traded and the season. Women traders are concentrated in the lower value fish (dried and small fish) chain segments. Their relative participation also shifts during the season with more women, percentage-wise, active earlier in the season. This seems to be related to

the profitability of the activity (higher at peak season) and thus attracts more men. It may also be linked to the types of fish being caught at different times.

- Women trade smaller volumes of fish per week than men.
- Women have a higher margin on dried fish than men, but for fresh fish this is reversed. The reason remains unclear, but it may be related to women's relative lack of access to transportation for fresh fish and even their negotiation skills, since women tend to take more time over negotiations than men, which is harmful to the quality of fresh fish. Conversely, men prefer quick transactions.
- Women stay in fishing camps longer and are considered firmer negotiators; hence the buying price is lower for female traders. Low buying price may also be linked to 'sex for fish', the prevalence of which is unknown but is undoubtedly a factor in some cases. It is likely that women are stricter on securing a good buying price since they typically have to provide for their whole household, and margins matter acutely when overall income is low.
- Women overall earn a lower profit from fish trading than men mainly due to the lower volumes they trade.
- Roles of men and women vary across:
  - Geographical location due to different methods of fishing in different ecologies within the floodplain (e.g. main river channel, lagoons, canals); different social norms and by-laws in different communities), and distances from markets.
  - Season: Value chain roles shift with more male traders from distant communities in the peak season.
- Gender roles are based on:
  - physical strength (ability to cycle/ paddle long distances)
  - access or ability to use transport
  - access to capital to buy larger volumes
  - cultural norms of what is an accepted role for women; e.g. women rarely paddle canoes because this is not socially accepted.

Placing these findings into context assists with interpretation. Zambia was ranked by the latest Global Gender Gap Report as one of the most gender unequal countries in the world (113 out of 136) (World Economic Forum, 2013). Livelihood activities performed for income and food show distinct gendered patterns (Kwashimbisa and Puskur, in press). Gender inequality in rural areas of Zambia stems from social and cultural norms that restrict women's access to land and other natural resources, including fish (Cole *et al.*, 2013). Distinctions between men's and women's roles are culturally justified by perceptions of differences in physical strength, security concerns, transfer of knowledge from father to son and from mother to daughter, the remunerative nature of enterprises/activities, and religious beliefs (Kwashimbisa and Puskur, in press). These gender inequalities perpetuate rural poverty (Cole *et al.*, 2013) which is particularly high in Western Province (80.5%). Western Province also has the highest proportion of women-headed households in Zambia (Zambia Central Statistical Office, 2005).

It is in this context that the AAS programme in the Barotse floodplain is now designing interventions for gender transformative development of the fish value chain. One of the three priority areas identified at the participatory planning workshop was improved post-harvest processing to reduce wastage and lengthen the shelf life of fish. An interest group has been established to conduct participatory action research on salting fish. The group will calculate profits for salted fish separately for women and men traders and explore the underlying reasons as to why their profits may differ. This has been recognized by members of the group as part of a gender transformative approach. By creating spaces for group members to reflect upon, question, and redress the underlying factors that create and perpetuate gender inequalities, it is hoped that gender-equitable benefits will follow through shifts in mindsets, practices and institutional changes.

### 3.2 Engendering Quantitative Tools: Informal Fish Retailing in Egypt

Egyptian aquaculture has seen steady growth over the last twenty years. It provides work for around 100,000 full time equivalents, and provides around 65 percent of the fish eaten by Egyptians. This is by far the cheapest farmed animal protein source in the country, making the sector particularly important for the country's 21 million poor people. Informal fish retail is the main, if not only, segment of the farmed fish value chain where women are found (Macfadyen *et al.* 2011). Continued, sustainable growth of aquaculture has the potential to lift people out of poverty and to improve poor people's food and nutrition security through increased supply of nutritious protein and essential micro-nutrients. Achieving this depends on how the growth is achieved and how inclusively its benefits are shared. The SDC-funded project 'Improving Employment and Incomes through the Development of Egypt's Aquaculture Sector' (IEIDEAS) is implemented by WorldFish and CARE in five governorates in Egypt (El-Mineya, Fayoum, Kafr el Sheikh, Sharqiya and Beheira). It works with women fish vendors to improve their work conditions and earnings.

To help guide future strategy, a quantitative study was carried out by WorldFish in 2013 to analyze the conditions and outcomes of retail work and identify whether gender interacts with characteristics of the employment itself - particularly its informality, scale and quality of trader relations that may result in different outcomes and conditions of work for women and men. To implement the analysis, a consulting firm collected quantitative and qualitative information on the current situation of women and men fish retailers in the IEIDEAS project locations, with emphasis on quantitative survey data. The information will be used to design gender-specific interventions to overcome any gender-based constraints identified, and to develop gender-responsive approaches to engage both women and men in addressing shared constraints.

The quantitative survey questionnaire focused primarily on individual fish retailers. It included questions on household characteristics, such as household members, housing and economic conditions. The issues addressed in the survey included: fish-related and non-paid activities of fish retailers, species and qualities of fish bought, prices, sales volumes, wastage, trader relations, transport-storage and point of sales conditions, and questions centred on attitudes to gender and decision-making. The questionnaire was translated from English into Arabic and field tested in two governorates before being finalized for field implementation.

The study was implemented in the five IEIDEAS project governorates: Fayoum, Mineya, Sharqia, Beheira and Kafr el Sheikh. Women and men fish retailers were identified for sampling in different ways. Women project participants were identified through the partner NGO CARE; non-project participant women and men were identified through random sampling.

The findings are complex. Key findings include the fact that women and men work in the fish retail sector within a social context in which women's roles in child care and homemaking are primary and in which seclusion is viewed as an ideal. However, economic need has loosened norms around seclusion thus legitimizing women's highly visible engagement in fish retail. At the same time, norms around women's homework and caring roles form a significant gender-based constraint to their work in the fish value chain. On average, women work fewer hours per day in fish retail than men and more hours than men at home. Their vending enterprises tend to be smaller - they tend to sell a narrower variety of fish species, and they often deal in lower volumes. Women's overall lower rates of profit lead them to rely more heavily on credit than on existing capital to forward fund purchases of fish. Since women have less time, they are more prone to sell fish at cut prices in higher volumes than men so as to return home quickly to attend to their other duties. This results in lower profits for most women compared to men. There are exceptions. Women in Kafr el Sheikh, where volumes of farmed

fish produced are highest in Egypt, experience similar rates of profit to men while women in El-Mineya have higher profits than men which may be related to the fact that the women were project beneficiaries, while the men were not. Women and men vendors share key critical constraints. These include a lack of affordable transport services, a lack of secure vending sites, the cost of sitting fees and commissions for the spaces vendors can access, lack of/high cost of ice, and a lack of basic services in markets. Neither group has the legal status and representation through which to claim such rights.

In being able to reach a large number of respondents quickly, the quantitative survey was able to create a high volume of useful data which can be used to improve programme design. It was able to fill information gaps on the scale of enterprises, types of fish sold, and profits and losses by gender. It provided good data on constraints both women and men faced and the areas in which they are prepared to cooperate for mutual benefit. It also provided guidance for further qualitative exploration, for example on trader relationships. The questions on attitudes to gender provided more nuanced information than expected. In particular the survey highlighted differences in gender attitudes and relative profitability in business between governorates which now require further exploration.

It proved difficult to create a robust sampling design since respondents were based in the informal economy and not listed or registered in any way to assist in developing a sampling frame. The instrument focused primarily on women and men as retailers and so little information was obtained on how household and market roles interact. Further work needs to be done on this, and ideally on interviewing spouses to understand how they view each other's roles, on how decisions are taken, and whether they assist each other. The quantitative survey should be seen as a valuable starting point, capable of generating useful information for gender-transformative gender programming in value chains. It needs to be complemented by targeted qualitative work in order to test and build on the information obtained.

### **3.3 Getting Girls on Board: Poultry Chain in Kenya**

Cardno Emerging Markets Group implemented the Value Girls Program between 2008-2012 on behalf of the Nike Foundation and USAID Kenya through the Global Development Alliance. It targeted young women aged 14 to 24 years around Lake Victoria in Kenya and trained them in proven, high growth value chains: poultry and vegetables. A specific aim of the programme was to provide young women with alternatives to the 'sex for fish' trade. Women stated that there is a daily threat of sexual, physical, and verbal abuse particularly from employers or someone at work, with far more gender-based violence reported in the fishing sector than in other agricultural sectors. Male partners sometimes spend months away on fishing trips leaving women with no income. Many women said that if they needed money to pay for emergency needs they would provide sexual favours to men in order to get money.

The Value Girls Program contributed to the Nike Foundation's learning agenda by being methodologically innovative, and by documenting and responding to learning experiences throughout the process (Farnworth *et al.*, 2012; Cardno Emerging Markets Group, 2009). For instance, rather than develop a comprehensive feasibility study, Value Girls worked with a basic analysis of the gender issues and developed a first draft programme. It was only *after* piloting that a thorough baseline study was conducted. The purpose was to facilitate programme redesign as necessary by (i) assessing early experiences from the first batch of participants, (ii) obtaining a deeper understanding of the target groups, and (iii) developing pathways for replicating and scaling out the programme. Three methods were used to identify gender and youth-based constraints to full integration into the selected chains: qualitative focus group discussions, quantitative structured questionnaires, and informal feedback



reviews with a sample of respondent groups to gain deeper insight into the findings from the first two methods. Value Girls used the results to develop programme targets per quarter and over the lifetime of the project. Tracking these not only enabled progress to be documented, it also enabled warning signals to be picked up and acted upon. For instance, it became increasingly apparent that engaging constructively with men was vital. This led to the targeting of men mid-way through the programme by offering them advice on market linkages and activities to encourage them to support women on the programme. Private sector suppliers, buyers and service providers as well as a cadre of local partners and local financial service providers were selected and engaged to provide market-driven solutions to integrating young women. Older businesswomen resident in the communities each mentored five young women on their selected business. Specialized capacity development provided by the programme included training in savings management, business planning, and record keeping. Matching funds rather than grants were offered to facilitate independence and entrepreneurship (Cardno Emerging Markets USA, Ltd., 2102).

The Value Girls Program is distinctive in that the programme mobilized local expertise to support the girls. The safety girls and young women felt by being addressed within their age group was important. Like many value chain projects, Value Girls considered itself an economic strengthening programme. However, its gender-responsive baseline study highlighted key socio-cultural constraints in the immediate environment which impacted directly upon the willingness and ability of girls and young women to be successful entrepreneurs. Enrolling men to support economically active women, providing safe spaces in the community for girls suffering violence, and the creation of social and market networks all worked to enhance the girls' economic effectiveness.

### **3.4 Learning throughout Implementation: Dairy Intervention in Kenya**

The Kenya Dairy Sector Competitiveness Program (KDSCP), implemented by Land O'Lakes on behalf of USAID Kenya, aimed to improve the productivity and competitiveness of the dairy sector across the country. The objective of the programme was to increase the incomes of smallholder dairy farmers through the sale of quality milk. USAID Kenya did not set any specific gender targets. However Land O' Lakes took its own initiative to develop a detailed understanding of gender issues in the dairy sector. First, the Land O'Lakes KDSCP team was trained on gender issues and provided with reference materials. The team then conducted a rapid gender assessment and developed gender-responsive M&E indicators.

Implementation proved a multi-speed process. In some communities relative flexibility in gender norms enabled swift progress on ensuring female inclusion to be made, whereas in others progress was slower. In every case the team did not come with a gender 'blueprint'. Rather, it worked to understand and work with the issues seen as important to local people before nudging them slowly towards more gender-equitable behaviours. Accompanying dairy farmers in their move towards commercialization proved vital. It became apparent that many farmers had significantly underestimated the amount of time and money it would take to succeed and to derive an income. Women felt particularly unhappy at the low returns to their hard work. The KDSCP team therefore made a special effort to communicate costs to women. At the same time, they learnt it was necessary to train women and men as couples for the training to be effective. Improving dairy production can be a large investment and had to be a family decision. This said, cold chain investments in some communities benefited men much more than women, since it allowed evening milk to be sold into the chain. Hitherto, women had been able to use evening milk for home consumption, benefiting their children by providing them with micro-nutrients, for sale within the community, for payment in kind for work provided by neighbours, and as gifts (Farnworth *et al.* 2012).

To help combat such scenarios in the KDSCP, the testimonials of successful couples proved an important mechanism for demonstrating the benefits of collaboration. The team gave informal advice to women on how to influence spouses with regard to decision-making in technical key intervention areas, including breed improvement, fodder establishment and management, linkages to markets and services, participation in farmer field schools and exchange visits. To underpin this 'behind the scenes' work, the KDSCP worked more broadly to institutionalize gender-responsive, pro-poor mechanisms by urging Common Interest Groups and Self Help Groups to form legal entities: cooperatives. The purpose was to protect them should a partner default on an agreement, and other chain actors felt more comfortable dealing with registered entities. Women had to form at least 30 per cent of cooperative membership. To specifically support poor, and female-headed, households the KDSCP suggested (i) the addition of a clause to cooperative membership agreement that funds for shares could be raised over time, (ii) that the cooperative pay the same amount per litre regardless of delivery size, and (iii) that it sell all inputs at the same price regardless of size of order. To prevent male capture of income, the creation of a cooperative store was encouraged to enable payment in kind for milk. Goods for exchange included school books, basic food items, seedlings, and inputs. To ensure men's agreement, some cash was provided to men for each sale. Men were also encouraged to allow women to apply for women-friendly loans at lower interest rates. Loan diversion into male-owned businesses was not possible since the collateral was the item purchased. Finally, capitalizing on cultural relativity was important. For example in Central Province, where gender norms are generally favourable to women's entrepreneurship, unmarried mothers were encouraged to buy a cow to provide for children, and male and female youth were like encouraged to buy cattle.

The KDSCP process was powerful because it was highly attuned to gender norms in each location through having conducted rapid baseline surveys and through having technical staff trained in gender analysis. This enabled on-going gender analysis and swift responses. Organizational commitment from the top gave staff confidence to adapt their inventions as appropriate throughout the process. Care was taken not to openly challenge cultural norms and privileging male decision-making power. Rather, these were addressed by ensuring men and women were trained together, and by providing successful couples with a role as change agents. On-going, informal work on a day to day basis to strengthen the position of women was underpinned by developing simple structural measures in the ways milk producer cooperatives worked to ensure that poor households, female-headed households, and women, were not disadvantaged by the small size of their operations and low purchasing power. A significant knowledge gap in this programme is on nutritional outcomes. The proportion of milk retained for household consumption, and intra-household distribution of any milk consumed, was not measured.

## 4 Conclusion

Engendering value chain analysis tools is only the first challenge to designing and implementing interventions that enhance opportunities for women in value chains. Frequently this involves not only modifying existing survey questionnaires, but also rethinking whether existing analytic tools are fit for purpose. Quantitative surveys may either give rise to further questions, or it may be necessary to complement them by convening small group discussions or using other participatory methods to gain more insight into gender issues. Some organizations may wish that the process of creating data itself be part of an empowerment process and thus work to engage respondents actively in data collation, analysis and interpretation. Whilst it is evident that a thorough gender-based constraints and opportunities analysis needs to be conducted along the selected value chain as an integral part of a broader value chain analysis, it is important to be aware of wider gender and other cross-cutting issues

in the targeted communities such as women's levels of confidence, their social networks, and gender-based violence. These may not appear to have an immediate bearing on the value chain, yet gender-based violence, for example, can be a major brake on women's willingness to engage in what is perceived as a risk-taking behaviour (PLAN, 2005).

The results of any gender study need to be acted upon. Guidance on how data should be used to develop gender equitable interventions in the value chain is often missing from existing manuals on value chain analysis. 'Equitable' projects cannot be implemented unless there is a determination throughout the organization to tackle power inequalities. Addressing power inequalities does not necessarily imply embarking on conflict, but it does require creating win-win situations so that key stakeholders feel empowered in different ways. It is important to create a planned project trajectory that ensures gender equity from analysis through the development of recommendations into implementation, adaptation, and measurement of impact and outcomes. Funding and implementing organizations must be committed to implementing and seeing through recommendations for gender equity. Staff need to be trained in gender analysis, as well as in the development of gender-sensitive interventions in the value chain, and to have the skills to work sensitively with different target groups at different speeds and in different ways. They also require the capacity to recognize and respond to gender issues arising as a consequence of the project. This may demand the involvement of new stakeholders, such as male partners or commercial partners, or new actors, such as gender and value chain coaches. New tools may need to be developed or applied to properly understand what the issues are. Carefully documenting the learning process, and capturing good practice, is fundamental to replicating and scaling out the project.

## 5 References

- Cole, SM, R Puskur, S Rajaratnam, & F Zulu. (2013). Sorting cause from consequence: Examining poverty from both sides of the 'equation' with gender research in an aquatic agricultural system (AAS) in Zambia. *Paper presented at the American Anthropological Association annual meeting*. Chicago, Illinois, USA.
- Bravo-Baumann, H. (2000). *Capitalization of experiences on the contribution of livestock projects to gender issues*. Working Document. Bern, Swiss Agency for Development and Cooperation.
- Cardno Emerging Markets Group (2009) *Monitoring and Evaluation Plan*. Value Girls Program.
- Cardno Emerging Markets USA, Ltd. (2012) *Value Girls Program: Quarterly Report April 2012*. Prepared for USAID.
- Doss, C. R. (1999). Twenty-five years of research on women farmers in Africa: Lessons and implications for agricultural research institutions. *CIMMYT Economics Paper No. 99-02*.
- Dyson-Hudson, V.R. (1972) Pastoralism: Self-Image and Behavioural Reality. *Journal of Asian and African Studies*, Volume 7, pp. 30-47.
- Farnworth, C.R. (2013) *Gender-Responsive Recommendations for the Project: Integrating Dairy Goat and Root Crop Production for Increasing Food, Nutrition and Income Security of Smallholder Farmers in Tanzania*. ILRI Kenya.
- Farnworth, C.R., Nzioki, A., Muigai, S., Kimani, E.N. Olungah, C. and Monyoncho, K. (2012) *Gender Analysis and Action Plan*. Prepared by dts for USAID Kenya.
- Flinton, F. (2007) *Gender & Pastoralism. Vol. 2: Livelihoods & Income Development in Ethiopia*. Addis Ababa. SOS Sahel Ethiopia.
- Kristjanson, P., Waters-Bayer, A., Johnson, N., Tipilda, A., Njuki, J., Baltenweck, I., Grace, D. and MacMillan, S. (2010). *Livestock and women's livelihoods: A review of the recent evidence*. Discussion paper No. 20, ILRI.
- Kwashimbisa, M. and R. Puskur. *Forthcoming*. *Gender situational analysis of the Barotse Flood Plain*. CGIAR Research Program on Aquatic Agricultural Systems. Penang, Malaysia. Working Paper: AAS-2014-XX
- Maarse, L., Dhamankar, M., Krishnagopal, G.V., Pica-Ciamarra, U., and Dhawan, M. (2008) *Concise Guidelines for Drafting a 'Good Practice Note' in the context of Pro-Poor Livestock Development: Version one*. South Asia Pro-Poor Livestock Policy Programme. A joint initiative of NDDDB and FAO .
- Maarse, L., Patil, B.R., Saleque, A., and TashiSamdup (2007). *Guidelines for Identifying and Documenting Good Practices for Pro-Poor Livestock Development: Version one*. SOUTH ASIA Pro Poor Livestock Policy Programme. A joint initiative of NDDDB and FAO.
- Macfadyen, G. et al. (2011). *Value-chain analysis of Egyptian aquaculture*. Project report 2011- 54. The WorldFish Center. Penang, Malaysia. 84 pp.
- Mullins, G. Wahome, L., Tsangari, P., and L. Maarse (1996) Impacts of Intensive Dairy Production on Smallholder Farm Women in Coastal Kenya. *Human Ecology*. Vol. 24, N. 2. 1996.
- Njuki, J. and Mburu, S. (2013) Gender and Ownership of Livestock Assets. In (eds) Njuki, J. and Sanginga, P.C . (2013) *Women, livestock ownership, and markets : bridging the gender gap in Eastern and Southern Africa*. Routledge and IDRC.
- Njuki J., Kaaria, S., Chamunorwa, A., and Chiuri, W. (2011) *Impacts of commercialization of crop and livestock products on women's decision making and income management in Uganda and Malawi*. A powerpoint presentation provided to the Gender and Market Oriented Agriculture (AgriGender 2011) Workshop Addis Ababa, Ethiopia. 31st January–2<sup>nd</sup> February 2011.
- PLAN (2005). *Gender Based Violence A Situation in Chadiza, Chibombo, Mansa and Mazabuka*. Study conducted by Pathfinders Consultants.
- Rubin D, Tezera S, Caldwell L. (2010). *A calf, a house, a business of one's own: Microcredit, asset accumulation, and economic empowerment in GL CRSP projects in Ethiopia and Ghana*. Global Livestock Collaborative Research Support Program.
- Russo, S. (2012) *Report for Livestock Climate Change CRSP*. Gender Analyses of the LCC CRSP Portfolio. LCC CRSP Report No. 1: Gender.
- Sabates-Wheeler, R. (2006). *Asset inequality and agricultural growth: How are patterns of asset inequality established and reproduced?* WDR Background Paper on Asset Inequality and Agricultural Productivity. Washington, DC: The World Bank.

- Sen, A.K. (1990) Gender and Cooperative Conflicts. In Tinker, I. (ed.) *Persistent Inequalities*. Oxford University Press, Oxford.
- Udry, C. (1996). Gender, agricultural production, and the theory of the household. *Journal of Political Economy* 104, 1010-1046.
- Waters-Bayer, A. (1985). Dairying by settled Fulani women in Central Nigeria and some implications for dairy development. *ODI Pastoral Development Network Paper 20c.*, London. Overseas Development Institute.
- Waters-Bayer, A. (1988). Dairying by settled Fulani agropastoralists: the role of women and implications for dairy development, s.l.: Vauk Wissenschaftsverlag, Kiel.
- World Economic Forum. (2013). The global gender gap report 2013. Geneva: World Economic Forum.
- Zambia Central Statistical Office (2005). *Living Conditions Monitoring survey Report*. Lusaka, CSO Printing Press