Tools for Providers

Cathy Rozel Farnworth¹ and Kathleen Earl Colverson²

(Corresponding author: Dr. Kathleen Earl Colverson)



¹ Pandia Consulting. email: cathyfarnworth@hotmail.com

² Senior Scientist, Livelihoods, Gender, Impact and Innovations International Livestock Research Institute|ilri.org BOX 30709, Nairobi, Kenya| Tel: 254 20 422 3822

Abstract 1

Extension and advisory service providers in much of East Africa find it difficult to reach women and

the poorest smallholders. Since extension operates in environments structured a priori by gender

relations, simply improving access will not suffice. Women's access to productive resources and

decision-making power within the household, and their participation in community level decision-

making bodies, in value chain networks, and in innovation platforms is often weaker than men. This

makes it difficult for them to implement their ideas and to act on the recommendations of the

extension and advisory services. What must change if women are able to not only access, but work

effectively with the extension and advisory services? Tackling the underlying gender relations that

hamper access and implementation is a priority. To achieve this, it is useful to think of the extension

and advisory services as a facilitation system rather than a service and to reconfigure it accordingly.

Work in progress on transformative gender conceptual frameworks can be taken further to help

create such a system. Existing 'best bet practices' should be captured, replicated and scaled up to

help build an empowering extension and advisory facilitation system.

Key words: Extension; Gender; East Africa; Gender Transformative Methodologies

Systemic Biases in Extension and Advisory Services 2

Introduction 2.1

Gender is an organising principle in almost every farming system, with women and men taking on

distinct responsibilities for particular tasks and particular crops and livestock within a farming

system. Any intervention in the sector by the extension and advisory services will be shaped by,

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 improving agricultural and

development outcomes.

2

Researchers and practitioners working on gender and gender relations contend that empowered women and men are better, more successful farmers able to make the most of the opportunities around them. They argue that there is a causal relation between more equal gender relations in the household and in the community, and better agricultural and development outcomes (OECD, 2010). A study of 40 agricultural intensification projects in 20 African countries showed that one of the seven common lessons for successful replication and scaling up is to properly invest in women's agricultural technology, education and micro-finance needs (Pretty et al. 2011). However, there is no point in continuing business as usual – more extension, better information, more fertilizer, better machinery - unless women and men are equally enabled to act as rational economic decision-makers unhindered by gender norms that place limits on what is 'appropriate' for women or for men to do, or to be. Empowering women as decision-makers in all areas of their lives is challenging and exciting. It is a central element of poverty reduction. Transforming gender relations will help to make smallholder agriculture and associated agricultural development more effective and efficient, with knock-on effects for a variety of development outcomes. The FAO's State of Food and Agriculture Report (FAO, 2010) provides substantial empirical data which shows that 'if women had the same access to productive resources as men, they could increase yields on their farms by 20 - 30 percent ...'. This claim is partly predicated on the assumption that women and men in male-headed households will continue to manage their plots more-or-less separately (which is a significant feature of farming in many parts of Sub-Saharan Africa). For women and men in households where this occurs, partnership between women and men based on equal gender relations is arguably likely to result in higher productivity and other gains than that posited by the FAO. This is because the figures cited assume male productivity will remain unchanged whilst female productivity will increase. However, female productivity cannot increase unless there are massive changes in gender relations around access and control over critical resources - which will not occur unless men consider themselves partners and beneficiaries of gender equality and asset sharing. The argument can be made that gender inequalities also contribute to low male productivity in smallholder systems, since farming systems are inherently a social construction.

2.2 The Problem: Conceptual Lock-In

Extension provision in many developing countries remains at a low level for both women and men. However, women access even fewer extension and advisory services than men (Manfre et al. 2013; Kristjanson et al. 2010). Globally, many programmes still engage primarily with men, and with better off socio-economic groups. A trawl through websites indicates that increasingly development partners are speaking of the 'active poor' and 'economically active poor' without, in many cases, clearly defining what this term actually means, or who is included, and excluded, and why. This is a particular concern given the increasingly female face of farming in East and Southern Africa. In East Africa, the female share of people economically active in agriculture currently stands at about 51 per cent (FAO, 2010) though there is national variation, with 70 per cent of agricultural labour provided by women in Kenya, for example (Ellis et al. 2007). At the same time, Sub-Saharan Africa continues to face serious development challenges in the agricultural sector, with production and productivity remaining low across the continent (African Development Bank Group, 2011). Production data per capita (of the total population) show that the amount of food grown on the continent per person rose slowly in the 1960s, then fell in the mid-1970s and has only just recovered to the 1960 level today (Pretty et al. 2011). Low production and productivity is partly a consequence of strong male outmigration from rural areas – both within countries and across international borders, the impact on labour availability and productivity caused by chronic illnesses like HIV/AIDS coupled with an increasing care burden for elderly women, the increasing moneterization of the economy, and difficulties in integrating youth into farming initiatives (Gabrielsson and Ranasar, 2012; Dodson et al. no date).

Despite evidence of increased attention by governments, NGOs and bilateral and multi-lateral agencies to securing access for women to extension and advisory services (Manfre *et al.* 2013;

Ragasa et al. 2013; Kristjanson et al. 2010; FAO, 2010; IAASTD, 2008; World Bank 2008a; World Bank 2008b) universal coverage remains stubbornly out of reach. A conceptual 'lock in' continues which results in inappropriate targeting and thus ineffective messaging. In the Sub-Saharan African context, despite all the available evidence accumulated over several decades on women's multifaceted roles in farm-based livelihoods, men are still considered the lead farmer with primarily commercial interests with women trailing a poor second as subsistence farmers primarily interested in feeding their household. Agricultural research is often conducted according to this assumed dichotomy. Pretty et al. (2011) note simply that women are under-represented in research and governance systems, women are the primary farmers in many contexts, and women are routinely ignored by external agencies. Conceptual lock in is hard to escape, yet escape one must if women as well as men are to be reached, and if the most poor are to be included.

Conceptual lock in continues because policy makers and many extension and advisory services implicitly or explicitly characterize their target groups according to features such as 'head of household', or 'cash crop/ subsistence crop farmer' (Manfre et al. 2013). Characterizing men in these ways has a number of real world effects. These characterisations can serve to create, reinforce and indeed exacerbate gender inequalities and power hierarchies by marginalising women from crops and livestock where they may previously have played a significant or lead role, which in some cases results in excluding women from the benefits these generate. Many ministries of agriculture and development agencies continue to develop and implement gender-insensitive programmes that fail to tackle the structural constraints to women's full participation in agricultural development, and which continue to marginalise women from discussion processes in food and farming. Partnerships with Ministries for Women are often weak. The emphasis in the Comprehensive African Agricultural Development Programmes (CAADP) and national policies on the commercialization of the smallholder sector tends to privilege male investment capacity (Akanji, 2012). The author's personal experience of working on Kenya's 'Agriculture Sector Development Support Programme' over a

number of years has vividly demonstrated the challenges of including and maintaining a focus on gender, despite Kenya having one of the most progressive Constitutions in respect to women's rights on the continent. The male farmer remains the conceptual norm, however outmoded this may be in terms of the relative numbers of women and men in farming and in terms of what men and women actually do on the farm (Farnworth, 2010).

2.2.1 Men Farm and Women Garden

Biases in extension and advisory services often arise as a consequence of the unexamined assumption that men manage livestock and crops destined for the market, with women operating largely outside the market economy, or in very limited parts of it. In Ethiopia, the Women's Development and Change extension package assumes that women garden rather than farm, and thus provides advice related to home gardens and poultry (Cohen and Lemma, 2011). In Zambia, the Conservation Farmers Union assumes men are responsible for cash crops and key decision-makers and designs its extension work accordingly (Nyanga, 2012a; Nyanga, 2012b; Maal, 2011). However, empirical research shows that male/female distinctions in terms of crop and livestock management are not necessarily clear-cut. A study conducted in Ghana concluded that, despite cultural perceptions about men's and women's crops, no crops are grown exclusively or predominantly by women, and only a few are grown exclusively or predominantly by men (FAO, 2010; Doss, 2002). Another study searching for the gaps that may exist between the 'ideal' and the 'actual' - between what people say and what they actually do - followed up on a prior study conducted among Karamajong male household heads in a semi-nomadic pastoral area in Uganda, where pastoralist households also farm. The first study suggested that women and girls worked in agriculture, whilst men and boys looked after the cattle. Closer study of 'who does what', however, revealed that men accounted for 35% of the labour in planting sorghum, 50% of the labour in planting millet, a third of the labour in weeding millet fields, and over 50% of the labour during harvest (Dyson-Hudson 1972). Studies like these have been verified by more recent research (FAO, 2010). Research into gene flows tends to suffer from similar biases, assuming that women's interests in improved genetic material relate solely to the domestic needs of the household, rather than to characteristics of interest to commercial markets - even in areas where women are self-evidently the main traders in informal markets and have substantial interests in processing crops for formal market sale (Farnworth and Jiggins, 2002).

At the same time, it is well established that crops and livestock associated with women can indeed become 'male' following commercialization. A study of trends in pastoralist societies showed that when marketing led pastoralists to shift from large to small stock, women's role in managing small stock diminished (Sikana and Kerven, 1991). Loss of female control occurs frequently when livestock enterprises scale up, with decision-making, income and sometimes the entire enterprise shifting to men. This is largely due to women's limited access to land and credit (FAO with Doss, 2011).In many countries, women have traditionally been largely responsible for marketing traditional crops such as sorghum, cassava, and leafy vegetables in local markets. However, in countries where urban markets for these traditional crops are expanding rapidly, such as Cameroon, Zambia, and Kenya, it is proving difficult for women to retain control over production, processing, and marketing. In Uganda, instance, strong demand for leafy vegetables - traditionally a woman's crop - in Kampala resulted in men taking over their sale (Shiundu and Oniango, 2007). Groundnuts have traditionally been considered a female crop in many parts of Africa because of its centrality to the family diet. However, when groundnuts become attractive in the market, ownership often switches to men. This is happening in Eastern Province, Zambia, where groundnuts are now the second most important cash crop (USAID Zambia).

In this discussion, it is important to note that attributes like 'male' and 'female' do not necessarily mean that a particular gender is responsible for the whole production cycle. Indeed, most crops and livestock are produced in a collaborative process. Rather, the term 'women's crops' and 'men's crops' refers to who has ultimate control over the sale or disposal of the product and the use of the

income derived. In many parts of Kenya, for instance, maize is considered a 'male' crop yet women work on almost all aspects of maize production, except the final marketing (Farnworth *et al.* 2012). The research area of "gendered access and control in the agricultural value chain" is of particular importance to the CGIAR gender program as it is significant determinant in family food security.

2.2.2 Male Household Heads are the Main Farmers

One of the most pernicious conceptual "lock ins" is the assumption that the household head is also the main farmer (Manfre *et al.* 2013; Jiggins *et al.* 1998). This frequently means that survey questionnaires developed by extension services are administered only to men in the assumption that they are the lead farmer and key decision-maker. This can result in the subsuming of the agricultural interests of women in male-headed households, and indeed ignorance of the fact that women in the household may be the lead farmers. At the same time, extension workers in the field often remark upon the reality of the gender relations they observe, and their inability to act effectively. Extension officers in Kenya said (Farnworth, 2010):

- 'The husband talks to us about maize. The woman wants our help with the kitchen garden, but is blocked by the man.'
- 'Women are the main farmers but often they cannot come to the training forums. There is a gap between who receives the information and who implements it.'

Findings like these are important because the majority of extension packages are 'gender neutral' and are based on the assumption that women and men can 'opt in' to certain elements freely. This is emphatically not the case in many locations. Such packages ignore the fact that men can often control, or largely control, their wife's labour, and that access to and control over land and other productive assets, including information and investment capital, is usually strongly skewed towards men. In Cameroon, for instance, Jones (1983) found that labour was not allocated efficiently across men's rice fields and women's sorghum fields. Udry (1996) showed that plots managed by women in

Burkina Faso have significantly lower yields than similar plots managed by men planted with the same crop in the same year. The yield differential is attributable to much higher labour and fertilizer inputs per acre on plots controlled by men. A number of other studies show that lower labour and fertilizer inputs, as well as late planting, can result in significantly lower yields (Haggblade &Tembo, 2003). Furthermore, since the access of women to productive resources is generated through male kin in many parts of Sub-Saharan Africa, women are at risk of losing all access to such resources in the event of marital breakdown or death of the husband. This has implications for the ability and willingness of women to engage in the long-term investments required to properly reap the benefits of agriculture and value chain investments.

Another common assumption is that all female-headed households are poor, so no effort is made to discriminate among different types of female-headed household and their agricultural needs. These can be very different. Bean research in Malawi and Rwanda pinpointed women farmers (both within male-headed and in female-headed households) as the key producers of beans, as the custodians of bean seeds and seed selection, and as the most knowledgeable about the target crop and associated agro-ecosystems (Ferguson 1992; Sperling *et al.* 1993), with further research revealing important regional and socio-economic differences among different categories of women with respect to preferences and selection criteria (Farnworth and Jiggins, 2002).

It has been established for a long time that majority of households cannot be treated as a single economic unit which makes a single set of production and consumption decisions, and it is therefore mistaken to include the interests of women and men, and of household heads with the interests of other household members. Many types of household exist across Sub-Saharan Africa. Female headed households, *de facto* and particularly *de jure*, are widespread. Orphan headed households are increasingly common. Some people are choosing not to marry, or to engage in sequential or concurrent relationships. Wider kinship based relationships can be important. Doss (1999) observes

'the African farm household is a diversified and multifaceted economic entity. It pursues numerous agricultural and non-agricultural enterprises and operates within elaborate networks ... households include people with competing goals and objectives, cooperating fully on some issues and less so on others'. In some cases, production and consumption units are not the same. A study of the impact of commercialization among the Fulani in northern Nigeria demonstrated that women fully control earnings from dairy whereas men control monies from the sale of livestock. As livestock markets have developed, men have taken over milking to ensure that calves receive enough milk. This has impacted negatively on the ability of women to care for their matrifocal households under polygamous relationships (Waters-Bayer, 1985, 1988). Failure by the extension and advisory services to understand the complex access and use rights to animals and their products can exacerbate tensions between women and men and may have a negative impact upon human development indicators, since research demonstrates that women often spend considerably more of their income upon ensuring household food security, child education and health, and upon themselves than do men (OECD, 2010).

Female headed households are important for extension and advisory services because they form a significant proportion of rural households in many areas, with southern Africa having very high proportions. In Zambia, for instance, women head slightly under one quarter (23.5%) of the 1.6 million small-holder farm households in the country (Government of Zambia, 2008). In Samburu District, Kenya, female-headed households account for almost 80 per cent of all households (Government of Kenya, 2006. The majority of female-headed households are *de jure* (divorced, widowed, separated) and are nearly always disadvantaged in terms of access to land, credit and other resources including labour because they have fewer male members. They often have a high dependency ratio, supporting in particular older family members (FAO with Doss, 2011). A study (Ragasa*et al.* 2013) conducted in Ethiopia showed that female-headed households, *and* women plot managers, are less likely to receive extension services through various channels than their male

counterparts. Male heads are more likely to be visited, to attend community meetings, and to visit demonstration plots and research centres. Interestingly, female-headed households with more males are more likely to be visited, and to participate in various extension events. De jure female heads of household have significantly less access to community meetings and radio than de facto(where the man has emigrated for work) female heads. Both male and female respondents discuss agricultural issues within networks, but female heads have fewer networks than male heads to discuss with. Gender differences in size of land-holding and lower access to extension explain lower technology adoption by women household heads. However, all things being equal, female household heads and plot managers are equally willing to adopt as men. The Ethiopian findings points to the efficacy of the relative autonomy in decision-making experienced by female household heads; they also underline the relative disadvantages in terms of asset ownership and networks faced by femaleheaded household. Statistical analysis of production using Government of Zambia (2008) CSO/MACO/FSRP Third Supplemental Survey data in seven key crops and livestock in Zambia showed that female-headed households are less productive in all crops due to lower access to inputs of all kinds, lower levels of production, and weaker access to markets (Government of Zambia, 2008; Farnworth et al. 2011). This data is supported by FAO analyses of the share of crops produced by female-headed households in relation to the proportion of female-headed to male-headed households which shows lower output due to lower access to resources (Raney et al. 2011).

2.2.3 Gender-Blind Research

Over the past forty years or so, considerable gender analysis has been conducted which highlights the significance of gender relations to agricultural productivity and production. However, there is an absolute paucity of gender research in some critical technologies. Research into conservation agriculture in Sub-Saharan Africa is a case in point. A vast number of studies exist (Andersson and D'Souza, 2013; Tshuma *et al.* 2012; Baudron *et al.* 2011; Giller *et al.* 2009) which seek to analyze the determinants of farmer adoption, and dis-adoption, of conservation agricultural practices. Yet conservation agriculture interventions, and conservation agriculture-related practices, are hardly ever

discussed in terms of their impact on women, and even less in terms of whether women can manipulate such interventions to change various aspects of gender relations in their favour. Nyanga (2012a; 2012b;), who has conducted relatively small-scale longitudinal studies in Zambia, is the only researcher on conservation agriculture in Sub-Saharan Africa publishing in peer reviewed journals who has consistently addressed gender in his work. This is despite the fact that the introduction of conservation agriculture will inevitably involve a reallocation of women's resources, including their time and their labour, as well as having an impact upon their ability to realize their gendered interests and aspirations. For instance, many studies note 'family labour' as a constraint - particularly when zero tillage is not complemented by the application of herbicides, without mentioning the gender of the person who is not managing to labour sufficiently (Umar et al. 2012; Arslan et al. 2012; Giller et al. 2009). Almost no studies acknowledge that labour comprises of the work of boys and girls, women and men; that rural women almost everywhere have considerably less time than men for unpaid farm work, waged work and marketing, etc. due to their responsibility for household food preparation, child care and household chores, water and wood collection (Raney et al. 2011), or that women's labour is rarely interchangeable with men's labour. Evidence from gray literature, and anecdotal evidence, suggests that gender relations may well be a critical determinant of adoption and dis-adoption. The CGIAR gender research program on Livestock and Fish (led by ILRI) is exploring the introduction of agricultural technologies into the value chain, and their effect on women and men farmers.

2.2.4 Extension and Advisory Service Modalities: Compounding Structural Inequalities

The biases reported above almost inevitably coalesce in gender-biased extension in the field. In Zambia, for example, the majority of conservation agriculture training is disseminated through the CFU (Conservation Farming Union). The CFU has no expertise in gender although many of the farmers it works with are women (Maal, 2011). This contributes to a failure to overcome institutional

biases which distorts outreach, and hampers the ability of women to participate effectively in training. At camp level farmers are identified through camp level selection committees. The members of the selection committee need to be land holders, and given the fact that women rarely hold land in their own right, members are almost always men. The selection committee selects 28 lead farmers, who each receive a bicycle to help them recruit a further 15 farmers and visit them each fortnight. Lead farmers must themselves be land holders. They are trained by the CFU in conservation agriculture for one year before they start teaching other farmers. In effect, this means that men end up teaching men. Sometimes, even if women are recruited, husbands prevent them from attending conservation agriculture training sessions. Furthermore, farmers need to own land to be eligible for membership in farmer associations and cooperatives. This entitles them to a range of government subsidized inputs such as seed, fertilizer, and lime. However, women farmers, even if they own land, can find it difficult to pay the 80,000 kwacha joining fee, and then the additional 30,000 kwacha transport cost for such inputs. The situation arises whereby extension advise and physical inputs are directed almost entirely to men and men-managed plots (ibid.).

Continuing failure to properly understand gender relations and the power relations they embody can mean that the promise of exciting new extension and advisory methodologies may not be fully realized. Innovation Platforms, (IP's), are an increasingly popular methodology, based on creating multi-stakeholder platforms and foregrounding co-learning. The aim is to create a common vision, for example around a value chain or on natural resource management, and to work collaboratively towards its realization. Excellent, unbiased facilitation is required to ensure that actors (with often very divergent interests) can be persuaded to work together to create a 'win-win' situation for all (Swaans *et al.* 2014). Whilst it is widely recognised that less powerful actors may require special support, or advocacy, to participate effectively and hold their ground in asymmetric power relationships, less attention has been paid to date to ensuring that women as a gender can participate effectively. They are often underrepresented in IP processes in terms of absolute participation as well as in terms of effective voice. This is because women may face logistical constraints related to the

timing or location of the meeting, or have insufficient time to attend. In some locations women may not be able to, or feel able to, express their opinions freely in a public space. This can result in IPs prioritising issues to work on that either do not reflect women's interests and concerns, or which could even impact upon them negatively (Swaanset al. 2014). A project conducted in South America(Sarapura, 2001) reviewed the gender implications of IP's and recognized that gender analysis and female farmers' active involvement in assessing innovation processes and systems are central to developing sustainable, profitable agricultural market chains that are well integrated into the wider innovation system. In turn, this system-level integration is important for gender equality and the empowerment of resource-poor women and their families. Investment strategies that establish networks of information and knowledge sharing can increase the impact of locally developed and innovative practices and strengthen the abilities of women and their communities to meet their agricultural and economic needs in a culturally appropriate and environmentally sensitive manner.

2.2.4 Interim Conclusions to Take Forward

The discussion and evidence cited here shows that conceptual lock in can result in extension and advisory services failing to target and support women and men farmers appropriately. As a consequence, they can even cause measurable harm to those societies through weakening cooperation, and, in some cases, sparking gender conflict, as well as failing to secure the productivity gains expected. It is not only a matter of more and better research, of mapping and working to alleviate gender-based constraints, and of targeting women more effectively (Sarapura, 2001). It is also a matter of dissolving the tired conceptual frameworks that have been used so long, such as "head of household", "male and female crops", and so forth. More responsive, dynamic extension and advisory services which reframe the question of access and use differently are needed, and which are able to keep pace with, and to an extent manage, the fast pace of change in agricultural livelihoods in East Africa. Rather than finding yet more ways to improve outreach, it would be more

productive to examine and challenge the deep structures which hinder effective engagement by all parties.

3 Towards a Gender-Transformative Extension and Advisory Facilitation System

Rather than thinking of creating an excellent, gender-responsive extension and advisory service as a goal in itself, it is preferable to consider such a service as a means to a different, broader end. Let us agree the end goal is gender equality. This is a plausible goal because the majority of African governments have signed the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) and most development agencies subscribe likewise. What would gender equality mean for extension and advisory services? In programme terms it implies empowered men and women farmers and business that people able to participate actively in discussion processes around agricultural technologies, are able to work together with formally trained scientists to co-develop the kinds of knowledge and technologies required for managing increasingly challenging situations. They would have the ability to select knowledgeably from a palette of possible technologies in any given situation to improve their livelihoods. It implies rational decision-making unencumbered by the grip of unequal gender relations.

To arrive at this end state particular processes have to be set in motion. A lack of independent access to productive resources, a lack of ability to participate in discussions, a lack of ability to form a goal and implement recommendations – or relative lacks of these - are intrinsic conditions of powerlessness. Powerlessness is underpinned by cultural norms, which differ from place to place. One way of understanding why much work on gender to date has been ineffective is to note that it has tended to respond directly to visible gender inequalities by attempting to create the inverse situation. For instance, if women are considered to have low incomes, then income-generation schemes are introduced. If women are considered to have a low understanding of food security and nutritional needs, then they are trained in vegetable growing, post-harvest processing, storage and nutrition skills. Many such initiatives have failed because they have not challenged the underlying

reasons why women may have a low income, or why they may be poor at managing household food security. Indeed, at times these initiatives have resulted either in male capture of benefits, or male challenge, or simply an inability for women to succeed against the odds.

For change in the underlying norms and power structures which create and reproduce gender inequalities to occur, an extension and advisory *facilitation system*, rather than an extension and advisory service, is required. A facilitation system emphasizes not only the creation of knowledge products, such as agricultural technologies, for dissemination to end users, but also the process itself of creating knowledge with those users. To move towards the creation of such a system, an effective conceptual framework is required in order to map assumptions, provide a checklist of key issues to consider and suggest ways these link to each other. Through visualization, they draw attention to core processes, and they highlight interactions. The robustness of links and interactions can be easily tested. Frameworks are not intended to model reality, nor are they linear. Rather, they aim to stimulate a structured and coherent discussion among stakeholders about different factors of development, their relative importance, and how they interact. In so doing they should assist in identifying and building on – or creating, entry points for creating an effective, gender-responsive extension and advisory facilitation system.

The use of participatory methodologies, including participatory action-research (PAR), and the impact of such approaches on farmers, male and female, and their access to resources have been widely documented in research-for-development (R4D) interventions as highlighted in the works of Chambers, Pretty, and Cornwall. The CGIAR implemented a program, the Participatory Research and Gender Analysis Program (PRGA) from 1997 to 2011that supported CGIAR System-wide approaches to mainstream gender and participatory research across CGIAR Centers, national agricultural research systems. Two case studies were reviewed by Biermayer- Jenzano (2011) for the lessons learned. In all cases, when women farmers were consulted and given the opportunity to discuss their needs, evaluate their opportunities and select the most appropriate options for

themselves, they embraced the process with an open mind and a unique perspective, providing important insights about how to adapt these new participatory techniques, to benefit not only themselves but also their households and communities.

ILRI, the World Fish Centre, CARE, and other organisations are working on a variety of conceptual frameworks which can be broadly termed 'gender transformative'. Such approaches consider the social context not just as something to understand and work within, but rather as something to act upon (Kabeer and Subrahmanian, 1999). They thus work explicitly to change gender norms and relations in order to promote more equitable gender relations between women and men, and a more socially enabling environment. Interventions need to work at multiple levels – to enhance women's agency, to change the norms which frame gendered interactions and expectations and to alter the institutional arrangements which create and maintain gender inequalities through their operation (CGIAR 2013).CARE has developed several useful empowerment frameworks. The 'Women's Empowerment SII Framework' is one of these. It takes into account formal and informal processes which can support or prevent women's participation in development processes. It specifically focuses on developing and strengthening women's voice at a range of levels, including within the household. Critically, it argues that women's participation is only effective if efforts are made across a number of domains ranging from individual empowerment (increasing voice or 'agency'), to the formal and informal structures and processes which affect women's access and control over assets of all kinds ('structure'), and to the networks (or 'relations') which enable women to interact effectively with development actors such as bilateral and multi-lateral agencies, government departments, civil society, and the like. Empowerment is thus a process (means) as well as an outcome (end). Figure 1 is based on CARE's 'Women's Empowerment SII Framework'.

Agency Self-image & self-esteem; skills; education; mobility in public spaces; equal decision-making power in household over livelihood planning, risk management strategies, & expenditure decisions. Structure

Information about, and participation in innovation platforms, producer groups, onfarm trials; access to climate-smart, ICTs and other technologies; access to/control over assets, inputs, food, markets.

Tackling underlying norms through facilitated dialogues with traditional /religious leaders; men's groups; etc.

Relations Women's active part

Women's active participation in coalitions and networks. Women actively engaged in decision-making at all levels with development partners.

Figure 1: Creating an Empowering Extension and Advisory service

The interlinked domains are:

- 1. **Agency** the ability to make our own choices and act upon them; a woman's own aspirations and capabilities.
- 2. **Relations** our ability to create, participate in, and benefit from networks; the power relationships through which women negotiate their rights and needs with other development actors; and
- 3. **Structure**, the locally specific environments which surround and condition women's choices. Structure has two sub-dimensions.
 - a. First, the political, cultural, economic and social structures within which women and men live. These have recognizable forms, such as how households are organized (monogamous, polygamous *etc.*), access to and control over key productive resources, producer groups, development agencies, government institutions, laws, and so forth.

b. Second, structure refers to the values, assumptions and ideologies that perpetuate and legitimize these visible entities. These invisible norms underlie and 'justify' the way organizations are set up, how societies are organized, and how laws are written. In many agrarian societies, for instance, sons rather than daughters tend to inherit land (invisible norm). The laws of the land may support this practice through acknowledging customary law (visible expression of the norm).

It soon becomes clear that there are strong associations between visible and invisible structures, and that is very likely that a specific visible structure, such as a producer organization or innovation platform, is likely to be strongly shaped by the underlying cultural norms of the society in which it operates. These norms will affect the ability of women to speak effectively, to set out their gender interests, to ensure organizations act on their concerns, as well as affect the formal decision-making functions they take on. A gender transformative extension and advisory facilitation system will need to work on *strengthening women's agency, on working on structure at both levels, and on developing women's social capital* effectively to improve their relations with other actors. Once the basic domains of activity for an empowering system are understood and agreed upon, work can commence on planning specific work with the direct beneficiaries (smallholder women and men) as well as the institutional relationships which are needed to make this work effective.

The CGIAR Research Program on Aquatic Agricultural Systems (AAS) is working to ensure all its work is gender-transformative (AAS, 2012). Getting gender integration 'right' is part of its overall research approach which focuses on overcoming past constraints and obtaining a deeper understanding of the multi-dimensional nature of poverty. The AAS Gender Strategy aims to generate an evidence base to inform replication and scaling up through systematically testing different AAS suites of interventions which marry 'technical' interventions delivering better access to markets, new technologies and assets with interventions that direct target the norms, values and attitudes which underpin the gender and wider inequalities identified in each location. To achieve

this, the AAS is developing partnerships at local, hub, national and global levels to work together on strategies for the effective integration of gender in agricultural programmes and to enable scaling up. A monitoring and evaluation system is being developed to enable learning and anchor the gender transformative action approach within the AAS.

ILRI's gender strategy (CGIAR, 2013) distinguishes between 'gender accommodating approaches', and 'gender transformative approaches', seeing these as lying along a continuum. ILRI's work on gender transformative approaches is similar to that of the AAS. ILRI recognises that gender accommodating approaches do not challenge the underlying norms which create gender inequalities, but considers that such approaches may be warranted in specific situations. KIT *et al.* (2012) also see work on gender in value chains as lying along a continuum. They characterize value chain interventions supportive of women as falling into the following groups: (1) mitigating resistance by building on tradition, (2) creating spaces for women, youth and other disadvantaged groups, (3) organising for change, (4) standards, certification and labels, and (5) gender-responsible business. Gender accommodating approaches include 'mitigating resistance by building on tradition'. This involves professionalizing women's traditional activities and creating new opportunities within those activities.

Gender accommodation/mitigating resistance approaches could be construed as new language for old wine. Rather than lapse back into the largely discredited 'Women in Development' (WID) approach, it would be useful to deliberately consider how to create a gender-transformative extension and advisory facilitation system in apparently highly conservative locations. This will require innovative methodologies and new partnerships. The nominal entry point may well be through *professionalizing women's existing work*. However, at the same time *work to challenge cultural norms* which will continue to limit women's economic and personal freedoms, and thus the success of economic empowerment, should be considered. For this, it may be necessary to look beyond the existing repertoire of most agricultural extension services by turning to other work on gender relations. For

example, the GIZ has developed a behavioural change methodology for ending female genital mutilation, which aims to overcome the fear of stigma associated with not cutting daughters, called Intergenerational Dialogue. This has been successfully applied in many Sub-Saharan African countries and involves close work with the entire community, including religious and traditional leaders (GIZ, 2011). Similarly, in Zambia an increasing body of work is being conducted with, and by, chiefs to empower women as decision-makers within traditional structures. Worldwide, including in East and Southern Africa, very innovative work is being conducted through men's groups for gender transformation (Farnworth *et al.* 2013; MEGEN, 2013).

Creating a gender transformative extension and advisory facilitation system involves considering all the actors which need to be involved, together with a clear understanding, based on rigorous gender analysis, of the challenges which need to be addressed in each location. It will be necessary to develop an explicit cause and effect empowerment framework, such as one of those discussed earlier. A good understanding of 'power' is critical. Figure 2 sets out a visualisation of this process. The idea is that the extension and advisory facilitation system would continue to work on core areas of expertise, such as agronomic research and training, but would also liaise closely with other stakeholders to create a wider enabling environment for the necessary transformation in gender relations required if extension is to be effective. Of course, the idea in itself is not new. In many countries, the extension services are taking on a multitude of new roles. The difference here is related to the orientation and coordination of this work for gender equality. Empowerment pathways, created by closer cooperation between actors, need to be mapped in advance and adjusted as time moves on and iterations become necessary.

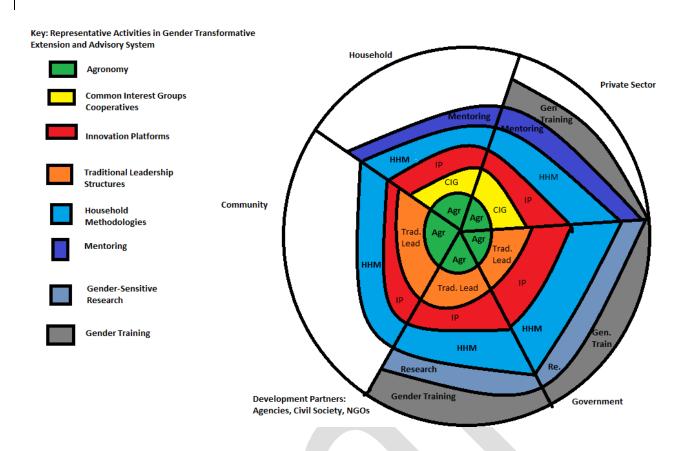


Figure 2: A Gender-Transformative Extension and Advisory Facilitation System

3.1 Integrating Innovations

Much existing work conducted by the current extension and advisory services in partnership with other stakeholders is exciting and innovative. The challenge is to capture, replicate and upscale these to help create the content of a gender-transformative extension and advisory facilitation system. This section therefore highlights excellent practices verified to have had a positive impact on gender relations. The discussion opens by presenting overarching considerations for any systemic approach. These include *linking interventions for maximum effectiveness, ensuring better gender research, training staff in gender, and mainstreaming innovative approaches in the ministries of agriculture.* The discussion continues by highlighting a few excellent gender responsive or gender transformative interventions which have been implemented in the region over the past few years.

3.1.1 Systematizing Gender

Linking interventions: A UN Foundation/Exxon Mobile Roadmap to Women's Empowerment Report (Doss *et al.* 2012) examined 100 projects aiming to specifically support women farmers. It

found that the following measures were key: membership of farmers' groups as a source of social and economic empowerment; empowering women financially through loans, savings and asset ownership; improving harvesting and post-harvest technologies, and providing accessible training. The report shows that using these tools in combination to create integrated approaches worked best. For instance, working closely with local businesses, governments, and community structures for implementation is essential. Targeting women as a member of the household and community, rather than in isolation, and working closely with men and with male community leaders is important. Linking technical interventions is also critical, for example by promoting access to savings and loans to buy improved inputs and then training women in the use of those inputs. The report notes that implementing agencies need to clearly understand women's multifaceted roles in agricultural value chains and in rural society more broadly. Organizations working with women should see them as farmers, buyers, sellers, community leaders, wives, mothers, processors, and innovators. Projects that targeted women in more than one of their roles proved the most effective (Murray, 2013; Doss *et al.* 2012).

Gender Research: The Government of Kenya, with financial support from the World Bank, is implementing the Kenya Agricultural Productivity and Agribusiness Program (KAPAP). KAPAP aims to increase the agricultural productivity and incomes of participating smallholder farmers by improving agricultural technology systems, empowering men and women stakeholders, and promoting the development of agribusinesses. To obtain the gendered data required for successful programme design and interventions, three questionnaires were developed: household, individual, and community questionnaire. The *household questionnaire* was primarily designed to obtain information about household farming and non-farm activities in which all household members engage, as well as to collect information about the respondent's personal experiences on specific issues. The *individual questionnaire* solicited information about farming and non-farm activities for which the individual was responsible, and his/her specific views on specified issues. The two

questionnaires were similar in structure and content and partly overlapped, but in some areas they differed in the scope of the information collected, since the individual questionnaire focused on the individual experience. Two respondents in each household were interviewed: the 'primary farmer' in the household answered the household questionnaire. The second respondent, usually the spouse, completed the individual questionnaire. The *community questionnaire* focused on information about services within the community and was administered to a selected group of community members. To maximize the benefits of the undertaking, collaboration with other ministries was established to enable them to piggy-back on the survey. Modules on water and sanitation, energy, and climate management were developed and integrated into the survey, thus generating much-needed gender-disaggregated data for these sector ministries. Much valuable data was obtained and analyzed. The distinction between a 'primary farmer' and a 'head of household' proved to be relevant because women in most cases were the primary farmers in their households, but seldom headed the household (World Bank, 2012).

Gender Training: To achieve improved understandings of women and men's roles and responsibilities and how to act effectively to work with or modify these, effective training of agronomists and other staff in gender is essential. In Kenya, staff in three implementing organizations – the Kenya Dairy Sector Competitiveness Programme (KDSCP), the Kenya Horticulture Competitiveness Programme (KHCP), and the Kenya Maize Development Program (KMDP)(all working with USAID Kenya) underwent significant gender training in 2008 through the GATE-INGIA program. The training led to a very high level of gender expertise in each organization, with in-house gender specialists conducting gender training with partners, staff and managers, farmer groups and group leaders across all regions of operation (Farnworth *et al.* 2012).

Mainstreaming innovative gender programming in government structures: In addition to offering gender training to staff, innovative gender transformative programmes needed to be

embedded in the everyday work of the extension services. In Malawi, the IFAD-funded Household Methodology for Gender and HIV/AIDS mainstreaming has been successfully mainstreamed (Nzioki, 2013). The purpose of the programme is to empower all economic members of the household in the farming business; to address predisposing factors for HIV, and to ameliorate the impact of AIDS. This is done through identifying the districts and sites for implementation. One selection criteria is active farming organisations. Zone and district staffs are then briefed in the methodology through Ministry headquarter staff. Training is then cascaded by zone and district staff to front line staff through a five day training programme which includes fieldwork. Special interest groups/farmer organizations are identified by frontline staff and meetings held with them and local leaders. These meetings explain how the methodology works, the importance of addressing gender and HIV/AIDS issues, and household selection criteria. The farmer group/interest group then brief members with the assistance of local leaders and frontline extension staff. Active implementation then commences.

The biggest risk facing work on gender is that the gender focus will simply be lost during implementation as more stakeholders are drawn in. Creating gendered indicators is an important step in ensuring implementation. A 'gender-responsive', 'gender-sensitive', or just 'gender' indicator measures gender-related changes over time. Gender indicators can refer to quantitative indicators based on sex disaggregated statistical data - which provides separate measures for men and women on literacy, for example. Gender indicators can also capture *qualitative* changes— for example, increases in women's levels of empowerment or in attitude changes about gender equality. Measurements of gender equality might address changes in the relations between men and women, the outcomes of a particular policy, programme or activity for women and men, or changes in the status or situation of men and women, for example levels of poverty or participation (Demetriades, 2007). Agreeing and then continually revisiting progress towards the gender justice or gender equality goals of each organisation is part of measuring this. Gender equity measures to ensure that

the gender needs of boys and men, as well as girls and women, should be developed, implemented and updated on a rolling iterative basis.

3.1.2 Examples of Gender Responsive and Gender Transformative Interventions

Working with Communities: Figure 1 illustrates the importance of working at two levels on structure. First, the visible manifestations of gender norms as expressed in, for example, the membership criteria for producer groups (which may include the need to hold land title, for example). The staffing structure of such organisations also needs to be examined and adjustments made (if necessary) to enable women to join, participate effectively, and to take on leadership roles.

An important part of ensuring 'buy in' is to identify and build on local community norms which support equitable development. Communities are never homogeneous. In addition to understanding gender inequalities, other inequalities based on age, ethnic affiliation, dis-ability, religious affiliation etc. need to be understood and considered carefully. One way of addressing the exclusion of women and poorer members is to include the community in the identification of partner organisations and individuals (Farnworth and Jiggins, 2002). In Ward 21 of Chivi District, Zimbabwe, researchers were seeking people to work with on participatory plant breeding. There were a large number of varied local organisations, such as those associated with traditional leaders, churches, village community workers and co-ordinators, extension workers, farmers' clubs, garden groups, village development committees, and ward development committees. The researchers and community members agreed that important criteria for selection included: the organisation engaged in activities related to food production; that these activities did not conflict with local customs; that the leadership was democratic and representative of the membership; that women were active decision-makers, and that the marginalised ethnic groups were included. The community itself identified the farmers' clubs and the gardening groups as best meeting the criteria. Whilst the farmers' clubs had a mostly male membership and leadership, the gardening groups' membership and leadership consisted mostly of women, including significant numbers of female household heads. These were acknowledged to be among the poor in this particular Ward (Win, 1996).

Given that many community level dialogue processes are male-dominated, women often request women-only spaces to strengthen their voice and learn effectively. When mixed groups are envisaged, facilitators need to be trained on how to create space for women to speak, learn and be respected.

Working with Traditional Leadership: Across Zambia, traditional leaders are widely respected and very powerful, particularly in rural areas. Innovative chiefs in Zambia are encouraging community level institutions to change. Some chiefs have started providing customary land tenure certificates to women as well as men following interventions by the Zambia Land Alliance and other organizations. 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 equality and development for his citizens. The chiefdom 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 all stakeholders. The MRDS has worked to promote women in various ways. Whereas the previous chieftaincy institutions of the Ila 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, women now lead committees and own 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 even by remote communities in the chiefdom (Farnworth et al. 2013). The Government of Zambia is actively involved in the MRDS and in many other chiefdoms. It has formed a Ministry of Chiefs and Traditional Affairs, headed by a woman. The new ministry is responsible for the social economic activities of chiefs and their subjects. It has requested all chiefs to submit a list of five economic industries per chiefdom, from which two will be selected for government funding. One suggestion under consideration is to target interventions to female farmers especially those in female-headed households. Challenges remain since, even where women chiefs are in place, the council of elders remains male dominated and tends to favour male interests (V Akamandisa, pers.comm. 2013).

Household Methodologies: One of the most innovative methodologies to emerge over recent years is the household methodology. Methodologies have been developed independently by a range of development partners including IFAD, USAID, SIDA, Send a Cow, and OxfamNovib. All work to change gender relations within the 'black box' of the household. When extension services work with the whole household, rather than with individuals in that household, the whole farm is strengthened as a productive enterprise. This is because the systemic interdependence of women and men's work is explicitly recognized and strengthened. Farmers are viewed as managers and change agents, rather than as beneficiaries. Building household rather than individual capacity also builds household and intergenerational resilience, enabling families to survive when someone dies or leaves. A strong message from women is that when the extension services work with the household, this results in their personal empowerment. This is because women trained at the group level can find it difficult to convince their husbands of the validity of extension methods, and when only men are trained they often fail to pass on messages properly to their wives. Two related household methodologies are discussed here.

The SIDA-funded Agricultural Support Programme in Zambia (ASP, 2003-2008, targeting 44,000 households) aimed to stimulate attitudinal change amongst smallholders and ensure that both women and men took on responsibility for 'farming as a business' and for food security. No formal gender awareness-raising was carried out; other measures/ incentives were used. At the community level these included a rule for meetings of 30 per cent female attendance; otherwise the meeting would be cancelled. Women were asked to sit with the men – instead of apart –of which traditionally does not happen, and the facilitators were trained to ensure women spoke. The household approach aimed to

reinforce extension messages initially communicated at the community level. It described a process whereby individual meetings between ASP-coded households and camp facilitators took place over a period of three years. All adult household members (husband, wife and older children) participated in setting the household vision and preparing an action plan, worked together during implementation, and shared the benefits. Children were important because they were sometimes the only literate people in the household and thus important to proper accounting. The power of the ASP household approach lay in its ability to bundle the often disparate and competing livelihood strategies of household members together to form a shared goal, or 'vision' in ASP terminology. Its force came from the treatment of farmers as farm managers rather than as beneficiaries. This work continued alongside a classic extension programme which promoted mixed crop/livestock production systems to help ensure a steady flow of income across the year. Household food security was attained by training households to calculate their calorific needs for the year using FAO measures. They were also trained to set aside sufficient maize for the household, with some further maize set aside for visitors and events. Evaluations (Farnworth and Munachonga, 2010; Bishop-Sambrook and Wonani, 2009) show that both men and women believe that agricultural output has increased and household food security improved. There has been a shift in decision-making over assets, and they are now understood to belong to the whole household rather than any one individual. ILRI and World Fish are initiating research on "gendered perspectives related to ownership of agricultural assets", as this strongly influences the ultimate control of resources in the household, and differs significantly between countries. The attitudinal changes with respect to the cultural norms governing 'male' and 'female' roles and responsibilities have been rapid. For example, the division between 'male' and 'female' crops is starting to disappear with men no longer asserting sole ownership over 'female' crops that have become lucrative, as has happened in many places across sub-Saharan Africa. Women are able to market these in important quantities in their own right, or if men market them, everyone in the household is seen to benefit. Both men and women feel empowered because intrahousehold relationships are less tense and more productive. Critically, empowering women has been seen in a positive way by men, rather than as a threat to their masculinity. Men not only appear to have better relationships with their wives; they appear to have forged closer relationships with their children and can speak to them more freely. Furthermore, the emphasis of ASP on working with the entire farming household has increased the resilience and coping strategies of many households. This is because all family members understand their farm system and have been actively involved in shaping it.

In Uganda, the ASP household methodology was tailored by the government extension services to reach the most poor. The District Livelihood Support Programme (DLSP) mentors households, selected by the community, which are normally beyond the reach of mainstream programmes. They do not belong to farmer groups so do not benefit from agribusiness development initiatives. They have no surplus to sell so they do not benefit from improved market access, and they self-exclude themselves from community meetings so their views are not reflected in planning activities. Household mentoring based on the same vision, action plan, and implementation format as the ASP, has started to bring these very poor households into the economic mainstream. They undertake modest investments to make use of the resources they have available - including under- or unutilized land - and gradually household food security improves. Household members start connecting with on-going initiatives – such as adult literacy classes, and accessing services – in particular health services. Household mentors also benefit by gaining status in the community. The change occurs as a result of the mentoring process. There is a new level of trust, transparency and motivation between household members built around their common vision. As a result of engaging both with women and men in a household, joint land titling is increasing. Women are gaining a voice both within the home and outside, and violence against women has been dramatically reduced. To date 18,000 households have been mentored with approximately 60 per cent now self-reliant (Nzioki, 2013).

Mentoring: In Kenya, the Value Girls Programme (2008-2012) was implemented by Cardno, (a large engineering, multi-national organization). It was co-funded by the Nike Foundation and

USAID through the Global Development Alliance. It was not a household methodology but it was, like the ASP and DLSP, based on close mentoring. In this case, an older village woman mentored five young women aged 14-24 on horticultural and poultry business management through land leasing and joint parcel farming. Value Girls targeted young women aged 14 to 24 on the shores of Lake Victoria around Kisumu by training them in horticultural and poultry rearing enterprises. A specific aim of the programme was to reduce the risk of girls engaging in the 'sex for fish' trade which in some locations is one of the only livelihood options open to young women. The programme reached 2,400 women in total and was committed to methodological innovation. Start-up involved developing a pilot programme, discussing the outcomes of the pilot with beneficiaries, redesigning the programme accordingly, and finally scaling up. The older women mentors were technical experts. Back up was provided by the programme itself, including helping to link the young women to markets as well as training in savings management, business planning, and record keeping. At the same time it encouraged independence by providing matching funds rather than grants. The programme learned that it was important to invoke male support for the women, and thus provided young men with T-shirts with slogans like 'I support a Value Girl', and other incentives.

Private Sector: In Kenya, Mace Foods realised women were refusing to harvest bird's eye chili because men demanded all the money despite the fact that women grow the crop. Mace Foods, faced with a serious procurement issue, instituted a number of measures which fall into the 'gender accommodating' sphere of activity. These included instituting partial payment in sugar (1kg sugar: 15kg chili) and changing delivery and payment schedules. Mace Foods initially held an open producer meeting which is typically attended by a large number of men. At the second meeting typically only women come. At this time Mace Foods takes cellphone numbers and agrees to pay women through Mpesa direct to their cellphones, 'since this is secret'. Minimum delivery quantities and schedules have been changed. Women can bring very small quantities of chili on a daily basis to a general store in the course of their daily shopping routine. One chili grower with a cellphone represents all women growers. When the amount of chili collected reaches 20kg Mace Foods sends

payment via Mpesa and she is responsible for disbursing to all producers. Other measures include advising women to spend most of the money they earned before getting home, planting chili along a fence to make quantities appear small, and sending children to sell chili so that men do not take the business seriously (Farnworth *et al.* 2012). These steps underscore the challenges women face in retaining control of resources they have produced.

Cooperatives: The Kenya Dairy Sector Competitiveness Programme (KDSCP) urges all Common Interest Groups and Self Help Groups to form legal entities. This approach should protect them should a partner default on an agreement. This shift ensures that dairy becomes a family business because of the high investment required in the dairy business. Women must form 30 % of cooperative membership and they are trained to articulate themselves effectively. Under KDSCP, support is provided to poor and female-headed households as follows: (i) suggesting the addition of clauses to cooperative membership agreements that funds for shares can be raised over time, (ii) paying the same amount per litre regardless of delivery size, (iii) ensuring the cost of inputs is the same regardless of size of order, (iv) encouraging men to allow women to apply for women-friendly loans at lower interest rates. Loan diversion is not possible since the collateral is the item purchased, (v) instituting payment in-kind for milk through the addition of a cooperative store through which school books, basic food items, seedlings, inputs can be obtained. Some cash is provided to the man of the family to secure his agreement to this payment modality, (vi) In Central Province, unmarried mothers are encouraged to buy a cow to provide for children. Youth in Central Province are encouraged to buy cows.

Nutrition-focused Initiatives: Implemented through the International Potato Centre (CIP), Malawi, the Irish Aid funded 'Rooting out Hunger in Malawi with Nutritious Orange-fleshed Sweet Potato' (OFSP) project aims to improve vitamin A and energy intake for at least 70,000 rural households. The programme also aims to ensure that at least 20% of households growing OFSP earn at least US\$100per year from OFSP sales, and increase their average sweet potato yields by

50%. Agricultural researchers, NGOs and farmers pooled knowledge /resources to develop, distribute and promote new vitamin-enriched and drought-resistant sweet potato varieties. The OFSP programme in Malawi focuses on women, particularly pregnant women, and young children. It recognizes that men play an important role in household decision-making and thus includes them in all aspects of intervention from training, the establishment of decentralized OFSP vine multipliers and the dissemination of vine cuttings. The OFSP programme embedded itself by creating explicit links to the Government of Malawi's policy on gender, the Agriculture Sector Wide Approach, and the SUN 1000 special days initiative. Working with both women and men in the household proved effective. In2011-12, two thirds of the 24,000 farmers supported through the vine cuttings voucher scheme were women. Overall, of the more than 4,000 agricultural extension workers and lead farmers trained by the project, 43 per cent are women. Phase II of the project will support women's empowerment along OFSP value chains (Murray, 2013; Sindi et al., 2013; Nyekanyeka et al., 2013)

Farmer Field Schools: A study conducted by IFPRI (Davis *et al.* 2012) in Tanzania, Uganda and Kenya demonstrated that Farmer Field Schools (FFS) worked better for female-headed households than for male-headed households. The results suggest that FFS could serve as a key strategy to provide agricultural extension services to women farmers and female-headed households while still reaching men. Women demonstrably obtained significant benefits in terms of income and crop and livestock production. Another study conducted in Kakamega District in Kenya (Friis-Hansen *et al.* 2012) examined the impact of collective action in Kenyan Farmer Field School groups on household gender equity. Qualitative fieldwork revealed significant changes in household division of labour and decision-making, in gendered customs and traditions, and in men's work ethics and their view of women. The study concludes that Farmer Field Schools generate gender impacts not only because they empower women but also because they provide opportunities for men to change their perceptions of women. This suggests that equity in household gender relations may be improved through the active engagement of both women and men in non-formal adult education within mixed collective organizations (Friis-Hansen *et al.* 2012). Finally, a study conducted in Mozambique

(Gallina and Chidiamassamba, 2010) showed that FFS improved women's self-esteem and social capital and strengthened their knowledge and capacity to use new farming practices and technologies, which in turn resulted in increased productivity and income. Participation of women in FFS was slightly higher than that of men partly because women spend most of their time on the farm where training activities take place and partly because the issues discussed as part of the 'special topic' sessions (health, use of medicinal plants, preparation of healthy food) are usually more attractive to women than men. FFS also became a forum for discussing gender issues and the importance of achieving mutual respect within the family.

4 Conclusion

Conceptual lock in has resulted in the failure of the agricultural extension and advisory services to properly serve women in agriculture over many decades. It is essential to dissolve the rigid conceptualizations of what women and men do in farming to see what they actually do. Focusing on access is not enough - ensuring women as well as men can implement what they learn requires a conceptual model that posits the extension and advisory services as a facilitation system (EAFS). That is to say, they need to become an active change agent, engaging in partnerships for change. The final part of the paper has highlighted a few of the many innovative practices that have loomed large for a few years in various locations before, in some cases, subsiding almost without trace. Others are still in process. One of the main tasks of a gender-transformative EAFS is to capture, record, replicate and upscale such methodologies.

5 List of Abbreviations

AAS- Aquatic Agricultural Systems

ASP- Agricultural support program

CADDP- Comprehensive African Agricultural Development Program

CEDAW- Convention on the Elimination of all forms of Discrimination against Women

CFV- Conservation Farmers union

CGIAR-Consortium of International Agricultural Research Centres

CIP- International Potato Centre

DLSP- District Livelihood Support Program

EAFS- Extension and Advisory Services as a Facilitation system

FAO- food and Agriculture organisation

FFS- Farmer field schools

GIZ- German Society for International Cooperation

IAASTD- International Assessment of Agricultural Knowledge, Science and Technology for Development

IFAD- International Fund for Agricultural Development

IFPRI- International Food Policy Research Institute

ILRI- International Livestock Research Institute

IP- Innovation Platforms

KAPAP- Kenya Agricultural Productivity and Agribusiness Program

KDSCP- Kenya Dairy Sector Competitiveness Program

KHCP- Kenya Horticulture Competitiveness Program

KIT- Royal Tropical Institute

KMDP- Kenya Maize Development Program

MEGEN- Men for Gender Equality Now

MRDs- Mbeza royal Development Structure

NGOs- Non-govenmental organisations

OECD- Organisation for Economic Co-operation and Development

OFSP- Orange fleshed sweet potatoes

PAR- Participatory Action Research

PRGA- Participatory Research and Gender Analysis

R4D- Research for Development

SIDA- Swedish International Development Cooperation Agency

UN- United Nations

WID- Women in Development



6 Works Cited

- African Development Bank Group. (n.d.). *Africa Infrastructutre Knowledge Program*. Retrieved from African Development Bank Group: http://infrastructureafrica.org/key-msg/sector/africa%E2%80%99s-agricultural-productivity-lowest-world
- Akanji, B. (2013). Structural Transformation and Gender Rights in African Agriculture: What pathways to Food Sovereignty and sustainable Food Security? *International conference on Food sovereignty: A Critical Dialogue*.
- Andersson, J. and D'Souza, S. (2013). From adoption claims to understanding farmers and contexts: A literature review of Conservation Agriculture adoption among smallholder farmers in Southern Africa. *Journal of Agriculture, Ecosystems & Environment*, In press.
- Arslan, A., McCarthy, N., Lipper, L., Asfaw, S. and Cattaneo, A. (2013). Adoption and intesnsity of adoption of conservation farming practices in Zambia. *Journal of Agriculture, Ecosystems & Environment*, In press.
- Baudron, F., Andersson, J., Corbeels, M and Giller, K. (2012). Failing to yield? Ploughs, Conservation Agriculture and the problem of Agricultural Intesification: an example from the Zambezi valley. *Journal of Development Studies*, 393-412.
- Biermayer-Jenzano, P. (2011). The Use of Participatory Methodologies to Increase women Farmers' access to productive resources. *Expert Group Meeting, UN women.* Accra: UN.
- Bishop-Sambrrok, C. and Wonani, C. (2009). The household apporach as an effective tool for gender empowerment: A review of the policy, processes and impact of gender mainstreaming in the Agricultural support Programme in Zambia.
- CARE. (2009). Strategic Impact Inquriy: A Place to Grow. Empowering Women in CARE's Agricultural Programming. Retrieved from CARE gender wiki:

 http://gender.care2share.wikispaces.net/Strategic+Impact+Inquiry
- CGIAR Research program on Aquatic Agricultural Systems. (2012). *Gender Strategy Brief- Agender Transformative Approach to Research in Development in Aquatic Agricultural Systems*. Penang: CGIAR.
- CGIAR Research Program on Livestock and Fish. (2013). *Gender strategy of the CGIAR Research Program on Livestock and Fish.* Nairobi, Kenya: ILRI.
- Chambers, R., Pretty, J., and Cornwall, A.,. (n.d.). *Institute of Development Studies, Sussex, England,* . Retrieved from www.ids.ac.uk
- Cohen, M. and Lemma, M. (2011). Agricultural Extension Services and Gender Equality: An Institutional analysis of four districts in Ethiopia. Washington DC: International Food Policy Research Institute.
- Dazis, K., Nkonya, E., Kato, E., Mekonnen, D., Odendo, M., Miiro, R. and Nkuba, J. (2010). *Impact of farmer field schools on agricultural productivity and poverty in East Africa*. IFPRI.
- Demetriades, J. (2007). BRIDGE"s Gender and Indicators Cutting Edge Pack. IDS.

- Dodson, B., Simelane, H., Tevera, D., Green, T., Chikanda, A. and Fion de Vletter. (n.d.). Gender migration and remittances in Southern Africa. *Migration Policy Series No. 49*.
- Doss, C. (2002). Mens crops? Women's crops? The gender patterns of cropping in Ghana. *Journal of world Development*, 1987-2000.
- 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*.
- Doss, C., Bockius-Suwyn, Z. and D'Souza, S. (2012). *Women's Economic empowerment in Agriculture:* Supporting women farmers. UN Foundation.
- Dyson-Hudson. (1972). Pastoralism: Self-Image and Behavioural Reality. *Journal of Asian and African Studies,* 7, 30-47.
- Ellis, A., Cutura, J., Dione, N., Manuel, C. and Thongori, J. (2007). *Gender and Economic Growth in Kenya: Unleashing the power of women.* World Bank.
- FAO. (2010). The State of food and agriculture 2010-2011: Women in Agriculture-closing the gender gap for development. Retrieved from Gender in Agriculture:

 http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTARD/EXTGENAGRLIVSOUBOOK/0,,content MDK:21348334~pagePK:64168427~piPK:64168435~theSitePK:3817359,00.html
- FAO. (2011). The State of Food and Agriculture 2010-2011: Women in Agriculture Closing the gender gap for development. Rome: FAO.
- Farnworth et al.,. (2013). Manual on householdmethodologies (work in progress). IFAD.
- Farnworth, C.R. (2010). Gender-aware approaches in agricultural programmes: a study of SIDA-supported agricultural programmes. *Sida Evaluation 2010: 3*.
- Farnworth, C.R. and Jiggins, J. (2006). *Participatory plant breeding and gender analysis. PPB monograph 4:*System-wide program on participatroy research and gender analysis. Cali: Consultative Group on International Agricultural Research.
- Farnworth, C.R. and Munachonga, M. (2010). Gender Aware Approaches in Agricultural Programmes, Zambia Country report: A special study of the Agricultural Support Programme (ASP). SIDA.
- Farnworth, C.R., Nzioki, A., Muigui, S., Kimani, E.N, Olungah, C. and Moyoncho, K. (2012). *Kenya gender analysis and action plan*. USAID Kenya.
- Fergusson, A.E. (1992). Differences among women farmers: Implications for African agricultural research programs. *A workshop on social science research and the CRSP's June 9-11, 1992* (pp. 47-62). Lexington Kentucky: INTSORMIL.
- Friis-Hansen, E., Duyeskog, D. and Taylor, E. (2012). Less noise in the household: the impact of farmer firled shools on gender relations. *Jopurnal of research in peace, gender and development, 2*(2), 44-55.
- Gabrielsson, S. and Ramasar, V. (2012). Widows: Agents of change in a climate of water uncertainity. *Journal of Cleaner Production*, 60, 34-42.

- Gallina, A., and Chidiamassamba, C. (2010). *Gender aware approaches in agricultural programmes:*Mozambique country report- a special study of the National Agricultural Development programme.

 SIDA.
- Giller, K.E, Witter, E., Corbeels, M. and Tittoneel, P. . (2009). Conservation agriculture and smallholder farming in Africa. The heretics view. *Journal of field crops research*, 23-34.
- GIZ. (2011). Intergenerational dialogue: a big step towards ending female genital mutilation. Eschborn: GIZ.
- Government of Kenya. (2006). 2005/2006 Kenya Household survey Report. Nairobi: Government Printers.
- Government of Zambia. (2008). Targeting challenges: using Zambian rural household data sets to inform the process of categorsation of resource poor smallholder farmers. *Kafue Gorge ACF sponsored workshop, August 20-22, 2008.*
- Haggblade, S. and Tembo, G. (2003). *Conservation farming in Zambia: EPTD discussion paper No. 108.*International Food Policy Research Institute.
- IAASTD. (2008). *International assessment for agricultural science and technology for development*. Retrieved from IAASTD: http://www.unep.org/dewa/agassessment/index.html
- Jiggins, J., Samanta, R.K. and Olawoye, J.E. (1998). Improving women farmers' access to extension. In Swanson, B., Bentz, R.P. and Sofranko, A.J, *Improving Agricultural Extension: A reference manual*. Rome: FAO.
- Jones, C. (1983). The mobilization of women's labor for cahs crop production: A game theoretic approach.

 American Journal of Agricultural Economics, 1049-1054.
- Kabeer, N. and Subrahmanian, R. (1996). Institutions, relations and outcomes: Framework and tools for gender-aware planning. *IDS Discussion paper 357*.
- KIT., Agri-ProFocus and IIRR. (2012). *Challenging chains to change: Gender equity in agricultural value chain development.* Amsterdam: KIT publishers.
- 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*.
- Maal, B. (2011). Report from a fact finding mission: women, gender and conservation Agricuttrue in Zimababwe. NORAD.
- Manfre, C., Rubin, D., Allen, A., summerfield, G. Colverson, K., Akeredolu, M and MEAS project. (2013).

 Reducing the gender gap in agricultural advisory and extension services: How to find the best fit for men and women farmers. MEAS Discussion paper No. 2. MEAS Discussion paper series on good practices and best fit approaches in extension and advisory service provision.
- MEGEN. (2013). Against Patriarchy! Tools for men and boys to further gender justice. Men for gender equality now (MEGEN) Kenya.
- Murray, U. (2013). Sourcing examples of policy and programming practice for empowering women in a arural context. Retrieved from Evidence on Demand: Informing development practice:

- http://www.evidenceondemand.info/sourcing-examples-of-policy-and-programming-practice-for-empowering-women-in-a-rural-context
- Nyanga, P. (2012a). Factors influencing adoption and area under conservation agriculture. *Journal of Sustainable Agricultural Research*, 1(2).
- Nyanga, P. (2012b). Food security, conservation Agriculture and pulses: Evidence from smallholder farmers in Zambia. *Journal of food Research*, 1(2).
- Nyekanyeka, T., Kapalasa, E., Chipungu, F., Botha, B. and Abidin, P. (Improving food security, nutrition and gender empowerment). 2013. Blantyre: International Potato Center (CIP).
- Nzioki, A. (2013). A Study of IFAD Supported Household Methodology in Malawi and Uganda. IFAD.
- OECD. (2010). Gender inequality and the MDGs: what are the missing dimensions? *At Issue*, pp. 1-8. Retrieved from http://www.oecd.org/social/poverty/45987065.pdf
- Pretty, J., Toulmin, C. and Williams, s. (2011). Sustainable Intesnification in African Agriculture. *International Journal of Agricultural sustainability*, *9*(1), 5-24.
- Ragasa, C., Berhane, G., Tadessa, F. and Seyoum, A. (2013). Gender Differences in Access to Extension Services and Agricultural Productivity. *The Journal of Agricultural Education and Extension*, 19(5), 437-468.
- Raney, T., Doss, C., Anríquez, G., Croppenstedt, A., Gerosa, S., Lowder, S., Matuscke, I. and Skoet, J. (2011). The role of women in agriulture: ESA Working Paper No. 11-02. Rome: FAO.
- Sarapura, S. (2001). Gender analysisi for the Assessment of Innovation Processes: The case of Papa Andina in Peru. In *Agricultural Innovation Systems: an Investment sourcebook.* World Bank.
- Shiundu, M. and Oniang'o, R. (2007). Marketing African Leafy Vegetables: challenges and Opportunitites in the Kenyan context. *African Journal of Food and Agriculture Nutrition and Development, 7*(4).
- Sikana, P. and Kerven, C. (1991). *The impact of commercialisation on the role of labour in African pastoral societies.* London: Overseas Development Institute.
- Sindi, K., Kirira, C., Low, J., Sopo, Wo. and Abidin, P. (2013). *Rooting out hunger in Malawi with nutritious orange-fleshed sweetpotato: A baseline survey report*. Blantyre: International Potato Center (CIP).
- Sperling, L., Loevinsonn, M.E. and Ntabomvura, B. (1993). Rethinking the farmer's role in plant breeding: local bean experts and on-station selection in Rwanda. *Journal of Experimental Agriculture*, 509-519.
- Tshuma, N., Maposa, M., Ncube, G., Dube, T., and Dube, Z.L. (2012). The impact of Conservation Agriculture on food security and livelihoods in Mangwe district. *Journal of sustainbale Development in Africa*.
- Udry, C. (1996). Gender, agricultural production and the theory of the household. *Journal of Political Economy*, *104*, 1010-1046.
- Umar, B.B., Aune, J.B., Fred, H., Lungu, I. and Obed. (2012). Are smallholder Zambian farmers economists? A dual-analysis of farmers' expenditure in Conservation and conventional Agriculture systems. *Journal of sustainbale Agriculture*, 908-929.

- 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. Vauk Wissenschaftsverlag, Kiel.
- Win, E. (1996). *Our community Ourselves: Serch for food security by Chivi's farmers.* Harare: Intermediate Technology.
- Word Bank. (2008b). World Development Report: Agriculture for Development. World Bank.
- World Bank. (2008a). Gender in Agriculture sourcebook. WorldBank.
- World Bank. (2012). Filling the data gap on gender in rural Kenya:. *Agricultural and rual Development joint notes, No. 64*.
- Zambia, U. (2012, December 03). *Mitigation of aflatoxin in Maize and Groundnuts in Zambia*. Retrieved from http://www.aflasafe.com/c/document_library/get_file?uuid=714ca030-7b93-4153-a769-a9f76e5d75cc&groupId=524500

7 List of figures

Figure	1:	Creating an Empowering Extension and Advisor	sory service18
Figure	2:	A Gender-Transformative Extension and Advis	sory Facilitation System