

Critical Gender Issues with Regard to Food, Land, and Water

A Compendium for Policy-makers, NGOs, and Researchers

Kristina Lanz Sabin Bieri Lilian Fankhauser

NCCR North-South Dialogue, no. 40 2012

dialogue

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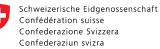
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Women working in a field near Kasongo Lunda, Kongo. (Photo courtesy of Martin Egli, Mission21)

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Contents

1	Introduction	7
2	About this compendium	9
3	Critical Issues: Gender and Food	11
3.1	Introduction	11
3.2	Glossary	12
3.3	Policy recommendations	30
3.3.1	General	30
3.3.2	For government agencies	31
3.3.3	For international and national development actors, CBOs and	
	women's groups	32
3.3.4	For researchers	35
3.3.5	For businesses	36
3.4	Concluding remarks	37
4	Critical Issues: Gender and Land	39
4.1	Introduction	39
4.2	Glossary	41
4.3	Policy recommendations	54
4.3.1	General	54
4.3.2	For government agencies	54
4.3.3	For international and national development actors, CBO's and women's groups	56
4.3.4	For researchers	58
4.4	Concluding remarks	58
5	Critical Issues: Gender and Water	61
5.1	Introduction	61
5.2	Glossary	62
5.3	Policy Recommendations	81
5.3.1	General	81
5.3.2	For governments	82
5.3.3	For international and national development actors, CBOs and women's groups	83
5.3.4	For researchers	84
5.4	Concluding remarks	85
Biblio	ographies for the three glossaries	86
About the Authors		95

Figures

Figure 1: External and insternal factors influencing women's access to land and housing. (Source: FAO 2002)

40

1 Introduction

It has been widely recognised in the development community that gender is a major determinant of people's access to and control of resources such as land, water and food. Unlike sex, which is the biological distinction between men and women, gender refers to socially and culturally created differences between the two sexes. According to a classical definition coined by the historian Joan Scott, gender denotes an analytical category for questioning attributions of identity and examining their premises and exclusions (Scott, 1986). A gender perspective therefore accounts for the implications of belonging (or not belonging) to a particular social category – in this case either male or female. These implications encompass, among other things, the division of labour, the chances of finishing secondary school, access to services such as adequate health care or improved sanitation, the probability of being elected to public office and included in decision-making processes, and the chance of becoming a victim of violence. In other words, gender, in combination with other social categories, is closely related to an individual's capabilities. Broadly speaking, a gender analysis can take two directions:

- 1. Gender as something that we *do* (perspective on gender relations and gender identities on an individual level)
- 2. Gender as something that is *done to us* (structural approach addressing social organisation, norms and cultural values and corresponding power relations)

In other words, what is at stake is the question of what the categories of 'man' and 'woman' signify at a given moment in time, which social realities and cultural attributions are described and contained therein, and how they combine with other determinants of social positioning such as ethnicity or class/caste in a given context.¹

Development practitioners, policy- makers and researchers are faced with a number of gender challenges in their everyday work. How to address the dynamics of a gendered social reality in a transcultural context is less than obvious in many professional situations. While it is important to be aware of gender stereotypes and to draw on gender-disaggregated data for project development and policy, it is particularly crucial to think beyond those stereotypes and to address gendered needs as well as gendered capabilities. With regard to land, food, and water, gender categories or combinations of them play out in different ways – some of which will be outlined in the present glossary. Even though women are in charge of the majority of agricultural work in the world, as well as of food preparation, water collection and management at the household level, their work often goes unrecognized and they often face difficulties in accessing, let alone controlling these resources. They are also often more vulnerable to the effects of climate change and land grabbing. This is not due to their sex, but rather to a complex set of traditions, values and norms, which ascribe certain roles to women and others to men. Development projects and interventions that focus on households

¹ For more information see also the SDC gender toolkit as well as the NCCR gender guidelines: http://www.sdc. admin.ch/en/Home/Themes/Gender/General_and_thematic_tools/Gender_Tool_Kit (last accessed February 21, 2012); http://www.nccr-north-south.unibe.ch/publications/Infosystem/On-line%20Dokumente/Upload/Gender_Guidelines_ PAMS_final.pdf (last accessed February 21, 2012).

or simply assume that all people, regardless of their gender, will benefit equally, may have unintended side effects, reinforcing traditional gender roles that usually work to the disadvantage of women. It is therefore of utmost importance to analyse power relations within households and societies and to include men and women in project designs, implementation and evaluations. Essentially, a gender perspective refers to a comprehensive approach, identifying the gendered implications at all stages of a programme, be it in research or implementation (Chant 200?). This contrasts with including "gender aspects" or "a gender dimension" as rather isolated and particular efforts, let alone "women's issues," which indicates instrumentalist initiatives to take account of women for their capacities and as efficient service providers, rather than "as people with rights, agendas and needs" (Bradshaw and Linneker 2001, 207).

Unfortunately, much of the so-called "gender-sensitive" literature in development research focuses on women only, rather than on men and women and on gender relations per se. While it is certainly true that women face many disadvantages and are often more vulnerable than men, men also face their own vulnerabilities related to traditional gender roles (e.g. pressure to fulfil the breadwinner role), which also need to be taken into account. Furthermore, the roles women play in maintaining and reinforcing traditional gender roles and stereotypes should also be analyzed. While this paper tries to include the role of men as much as possible, it is also biased in favour of women, which is a reflection of the available literature.

The three glossaries below aim to provide entry points for professionals and researchers working in the respective sectors to consider the gendered nature of issues relating to food, land and water.

2 About this compendium

Critical Gender Issues with regard to Land, Food and Water aims to highlight important gender issues that should be considered by policy- makers, NGOs and researchers whose work relates to land, food and water. Each topic is represented in separate glossaries. Since all three issues are interlinked, with research fields like agriculture touching on all three, there will be overlaps between the glossaries. Some issues might be discussed thoroughly in one glossary and only mentioned in the others (always with a reference to the more detailed glossary). The glossaries aim to provide brief, up-to-date information that can serve as entry points for professionals in the development community. They are not intended to deliver exhaustive comments. For more in-depth and detailed information, users should refer to the bibliographies at the end of the document.

All the glossaries have the same structure. They focus on 2-3 important sub-categories, which are introduced in an introductory section. The glossary then provides an overview of important developments, as well as the constraints, threats and opportunities women and men face within the particular sub-categories. Small case study sections are included in order to highlight certain issues. Finally, some practical gender-sensitive policy options for development practitioners, government officials and researchers are provided. The concluding remarks summarize research findings across the different domains and highlight shortcomings and future areas of interest. Each glossary is followed by its own bibliography.

The glossary on land discusses important and upcoming gender issues in the areas of land rights and land grabs. The section on gender and food focuses on agriculture, food security and food value chains, and the section on water discusses issues surrounding water, sanitation and hygiene (WASH), as well as the water-related aspects of climate change (e.g. rainfall variability, droughts, floods etc.).

3 Critical Issues: Gender and Food

The aim of *Critical Issues: Gender and Food* is to highlight important and upcoming gender issues in the domains of food security, agriculture and food value chains. Hopefully this will be of help to policy-makers, NGO workers, researchers or government officials who intend to make their interventions/research more gender-sensitive.

Several journal articles, books, reports and policy papers dealing with these issues that have appeared in the last few years have been compiled and analyzed. While both men and women are important actors in the fields of agriculture, food security and food value chains, a large portion of the gender-sensitive literature unfortunately focuses only on women, which is reflected in this glossary.

3.1 Introduction

In the light of population growth, climate change, desertification and recurring droughts, the issue of food security is becoming more and more pressing. Nowadays big firms and multinationals are buying up more and more land for commercial agricultural production – this is not only detrimental to the livelihoods of small-scale farmers, who currently account for over 90% of agricultural production in Africa (most of whom are women), but also has a negative effect on soil quality and biodiversity and threatens food security for many people. While women produce a large share of the world's food supply, they are in many contexts the ones who suffer most from food insecurity and malnutrition. In order to combat hunger and malnutrition worldwide, the position of small-scale farmers needs to be strengthened; women and men need to work together and traditional gender relations need to be challenged. But while some recent development reports have begun to recognize the role of small-scale farmers and especially women in ensuring food security, women are still often seen as home producers or assistants in farm work and not as farmers in their own right, who produce not only subsistence crops but also cash crops. Most agricultural extension services and programmes that offer farmers training and credit still target men, ignoring the fact that 70% of the world's farmers are women. Decades of research have documented the importance of women in providing food to their families and communities; nevertheless, gender relations have often been absent from policy interventions. This glossary aims to highlight why gender is an important determinant of world-wide food security.

Agriculture is crucial to achieving food security worldwide, but because it is becoming less and less profitable for people in developing countries to engage in small-scale agriculture, many men migrate and move out of the agricultural sector into more profitable sectors, leading to a "feminisation of agriculture". Nevertheless many women in developing countries do not own the land they farm and are unable to buy or lease land in their own name – this is a serious problem which will not be discussed here, but is examined in detail in the glossary on land and gender. While industrialized commercial agriculture is being pushed by donors and investors in developing countries and is more productive in the short run, it is small-scale agriculture that can have the greater and more sustainable impact on food security worldwide in the long run, as many recent studies have found. Most small-scale farmers are women. FAO (2007) estimates that Southeast Asian women provide up to 90% of the labour involved in rice cultivation and that sub-Saharan African women produce up to 80% of basic foodstuffs for household consumption and sale. But while women contribute much to agricultural productivity, their labour often goes unrecognized and unpaid. In much of the mainstream literature, as well as in the eyes of many governments and traditional societies, women are not seen as farmers in their own right but rather as household labour. Data on women's participation and roles in agriculture, as well as on their ownership of land and other productive assets, is scarce. These and other issues that are important for men and women in agriculture will be discussed here.

Global agriculture has changed in the last few decades – exports of traditional crops have declined, while non-traditional crops are now increasingly exported. This change has not only been accompanied by a very small number of commercial actors and supermarkets dominating global food systems, but has also led to an increasing number of women working in the agricultural export sector, especially in high-value industries such as fresh fruits, vegetables, flowers, poultry and seafood, where they are usually found at the lower end and in the lower paid jobs of food value chains. Markets often build on or exploit existing social norms, values, customs and beliefs that discriminate against women. Not much research has been devoted to examining the gendered nature of food value chains. Here an overview of the existing literature will be provided.

3.2 Glossary

Agricultural productivity: The yield gap between men and women averages around 20-30%, but most studies find that this gap is due to differences in resource use. These differences in turn are due to women's lack of access to assets such as land, credit, education and technology. FAO has found that if yields on land farmed by women could be brought up to the levels achieved by males, agricultural output in developing countries could be increased by 2.5 to 4% and the number of undernourished people in the world could be reduced by 12-17%. *See also: Chapter 4, Gender and Land*

Biofuels: The EU and the US are increasingly aiming to reduce greenhouse gases through the usage of biofuels. The worldwide increase in hunger is one of the consequences of the boom in biofuels. Large corporations acquire more and more land in developing countries to grow crops for biofuels, evicting farmers from their land. Access to land is often restricted for women, so that once evicted from their land, they find it harder to access new land, and due to restrictions on their mobility they often have no chance of earning a living other than in subsistence agriculture. Even where the crops produced for biofuel are not in competition with food or feed production, the production of these crops depletes the soils of their nutrients and therefore stops them from regenerating. The growing demand for biofuels was also partly responsible for the global food price crises, as the growing demand for corn for fuel put pressure on other crops, leading to a rise in the price of staple foods. Women, who are generally in charge of feeding their families, have been hit particularly hard by soaring food price;

e.g. in Indonesia, the price of cooking oil has been going up since the beginning of the biodiesel boom due to the rapid rise in world market prices for palm oil. *See also: Food price crisis, and Chapter 4, Gender and Land*

"Papua New Guinea has been the target of large palm oil producing corporations to produce agrofuel. With the support of the World Bank and other international institutions, land which was formerly used to grow food crops has been purchased for oil palm crops. Rainforests have been cut or burned down to create space for these crops. The indigenous populations have been robbed of their livelihoods. Small farmers (exclusively male) have to farm oil palm crops and hand them over to the large corporations for incomes so small that they are practically unable to cater for their basic needs. Women are simply ignored and forgotten. The massive conversion of indigenous land into farmland for the large corporations means that it is now even more difficult for women to access land, thus reducing their possibilities of producing food for their families and of looking after them. To ensure greater gains, the corporations set up the Mama Lus Frut scheme. Women can collect the oil fruit dropped by the men during the harvest and receive a small amount of money for this task. The corporations have seen their profits grow by 14 % thanks to this scheme. Furthermore, women are often employed to spray the crops with agrochemicals without receiving any information beforehand about the effects of these products on their health. Food prices have gone up due to lower supply, and because women are unable to grow staple crops themselves anymore, they have to spend their little hard-earned money on food. The lack of opportunity for women to earn money is also linked to prostitution. In Papua New Guinea, women have lost their social position as the family food provider because of agrofuel production, and they have been relegated to simple gatherers of dropped oil palm fruit."

Source: FIAN Österreich (Food First Information and Action Network – Austria) (2009) cited in: Klaffenböck, G. & Lachkovics, E. (2011). Agrofuel Production: The World Food Situation, the Right to Food and the Impact on Women. WIDE, Vienna.

Care: Apart from being in charge of food security, women are also generally in charge of caring for children, the elderly and the sick. Several studies have found that women's care-giving has a negative impact on their agricultural labour. Especially where HIV/ AIDS is concerned, women's care burden negatively affects their ability to produce food for the family. Where women enter the wage labour force through participation in food value chains, their time burden is increased, often with negative consequences for the care of children. In order to really benefit women, development interventions must take women's care burden into account. *See also: Child labour; HIV/AIDS, time burden*.

Child labour: The time women spend in productive work can have a negative impact on child care, increasing the incidence of child labour or children dropping out of school to take over their mother's domestic work or care. Women sometimes also take their children along to work, in which case they are often co-opted to work on the plantations or in packaging firms. Women seem to make use of their options to control their children's labour. Studies of Ghanaian cocoa plantations have indicated higher productivity of women-led plantations – a fact which is most likely related to child labour. *See also: Care*

Commercial agriculture: There is evidence that men tend to favour cash crops over food crops, while women prefer to grow food crops in order to guarantee food security for the household. The change from subsistence to commercial agriculture therefore often comes at the expense of women's food crops. Available data show that women make substantial contributions in terms of labour. *See also: Subsistence agriculture*

"For instance, in snow pea production in Guatemala, where 90 percent of the crop is produced by smallholders, women contributed one-third of field labour and 100 percent of processing. In Uganda, women vanilla producers cultivate their own plots as well as their husbands'."

Source: Mehra, R. & Rojas, M.H. (2011). Women, food security and agriculture in a global market place. ICRW, p.9

Conditional transfer programmes: This type of programme transfers cash or other assets to poor households on the condition that the household undertakes certain human capital investments for its children. Generally cash is given to women, as they are more likely to prioritize child nutrition (see for example PROGRESA in Mexico).

Consumption patterns: When economic shocks, climate-related changes or ill health affect a household, family members often cope by changing their consumption patterns, eating fewer meals a day or eating less nutritiously balanced meals. Women and girls have different nutritional requirements and in some cultures are expected to eat only after all the men have eaten - therefore they tend to be most affected by these changes in diets. There is evidence from many countries that women are usually the first ones to change their dietary patterns, making sure that other (especially male) family members get enough to eat.

"During the 1997-98 Indonesian drought and financial crisis, the response of mothers of poor families was to reduce their own consumption of dietary energy to be able to better feed their children, which led to an increase in maternal malnutrition. Households reduced their purchases of more high-protein foods in order to buy their main staple, rice, which increased the prevalence of anaemia in both mothers and their children. These effects were particularly serious in the case of children conceived and weaned during the crisis."

Source: Villareal, M. (2011). Gender and hunger in the context of the recent crisis: underlying factors. In: Verschuur, C. (2011). Du grain à moudre. Genre, développment rural et alimentation. IHEID, Geneve, p.128

Contract farming: As part of the trend of growing non-traditional export crops, smallscale farmers commit their land, household labour and other resources to supplying agricultural products to processing and/or marketing firms under forward agreements. There is evidence that women are largely excluded from modern contract farming arrangements, due to their lack of control over land, family labour and other resources. While men control the contracts, women perform much of the farm work as (often unpaid) family labour, frequently at the expense of producing their own crops. **Contractors:** The use of contractors to hire (often female) agricultural and processing labour is a growing concern internationally. Workers are often unclear who their employer is and what his/her responsibilities are. This can lead to a diluting of responsibilities when there are accidents, illegal actions or abuse of workers. Working conditions of sub-contracted labourers are often very precarious due to contractors' widespread non-compliance with labour laws.

Credit: Women often face institutional discrimination in credit markets. Private and public lending institutions either do not lend to women at all or grant women smaller loans than those granted to men for the same activities. Fixed assets, such as land, are often needed to obtain loans. Legal barriers and cultural constraints also often bar women from opening bank accounts or from entering into financial contracts in their own right. In Africa women access only 1% of the available credit in the agricultural sector (while as mentioned above they produce 80% of all food). Microfinance schemes often target women. Micro-credits supposed to help women buy farming inputs can be helpful in some instances, but there is evidence that once women have received the credits, it is men who take charge of the money and the decisions of what should be bought. *See also: Chapter 4, Gender and Land*

"Evidence from Bangladesh suggests that even when programmes succeed in improving the access of women to credit, they may not retain control over the assets: White (1991) found that about 50 percent of loans taken by women were used for men's productive activities; Goetz and Gupta (1996) reported that, on average, women retained full or significant control over loan use in only 37 percent of all cases; while Chowdhury (2009) reported that credit to women from the Grameen Bank was positively and significantly correlated with the performance of male-managed micro-enterprises but not those managed by females."

Source: FAO (2011). The state of food and agriculture 2010-2011, FAO, Rome, p.34

Crop diversity: In order to ensure household food security and to build up food stocks for coping with times of shortage, small-scale women farmers often use crop and genetic diversity. Crop diversity is a risk-management strategy, as it reduces the risks of crop failure due to draught or pests. It also allows women to spread labour, such as weeding, over time and provides adequate and culturally appropriate nutrition. The role of women in maintaining agro-biodiversity is increasingly being threatened by the commercialisation of agriculture. *See also: Seed-saving practices, Commercial agriculture, GM seeds*

Decision-making: Women are under-represented in decision-making bodies in agricultural institutions at the international, national and local levels, meaning that their priorities and needs are barely reflected in these institutions. Women's lack of economic decision-making in the household often deprives them of their choice of food and control of purchases. Several studies have found that women are more likely than men to buy food if provided with additional income. Unequal intra-household power relations also have an impact on women's ability to farm the crops they prefer and thereby can negatively affect a households' food security. Furthermore, they can negatively impact women's benefits from engaging in value chains, e.g. if women are forced to provide unpaid labour on farms managed by their husbands or male relatives. This can also undermine their incentive to engage in value chains as paid agricultural workers. **Drought:** Drought can have major impacts on gender relations, as the lines between typically male and female work blur (e.g. water might need to be fetched at night, so men will do this typically female job). There is evidence that as the capacity of house-holds to cope with drought declines, domestic tensions rise as men are seen and see themselves failing to meet the responsibility of providing for the family. Since drought is a major cause of death of draught animals, which provide a large part of farm labour, their labour has to be substituted by human labour, which often comes from already overburdened rural women. *See also: Chapter 5, Gender and Water*

Environmental degradation: Agriculture has been the main driver of biodiversity loss, as more and more wetlands and forests are converted to agricultural land. At the same time the industrialization of agriculture (heavy use of pesticides, monocultures etc.) has led to severe soil degradation, increasing pressure on arable land. There is evidence that women tend to farm a variety of crops on their land in order to minimize risks and guarantee food security, while men often prioritize monocultures in order to maximize profits, therefore increasing environmental degradation. Soil enrichment, terracing and other practices to protect land can be promoted by strengthening women's land rights and providing them with the necessary resources and incentives. *See also: Chapter 4, Gender and Land*

Extension services: The provision of agricultural extension services can lead to significant yield increases. But there is a double male bias with regard to agricultural extension services: 1. Most extension agents are male; 2. Most extension services address males, as they are seen as the heads of the household and are more likely to be educated and willing to adopt modern technologies. Women receive only 5% of agricultural extension services worldwide.

Fair trade: Fair trade requirements limit participation to "family producers", who do not need to hire labour. Women's labour is often the major source of family labour, but despite this women do not have a major say in agricultural decision-making within the household. While women's empowerment is one of fair trade's ten key areas of impact, certification requirements do not address how this is to be encouraged. A number of studies indicate that fair trade has failed to adequately promote gender equality. Many small-scale farmers do not have the financial resources needed to buy inputs necessary for compliance with fair trade standards and to pay for certification. Nevertheless fair trade has offered an increasing number of women the chance to move into and benefit from formal markets. Fair trade and organic coffee sales provide significantly higher incomes than traditional coffee sales – this can lead to women's economic empowerment. While more women are participating in fair trade coffee production, the managerial staff and boards of directors of fair trade associations remain largely male. This is due to cultural biases, time constraints and lack of skills needed to fill these positions. *See also: Organic*

Famine: There is evidence from recent famines that women and children are hardest hit by famine. According to the UNHCR, the majority of refugees fleeing from famine in the Horn of Africa (2011/2012) are women, as men often stay behind to try and save whatever crops and livestock they may have. Women and children travelling on their

own to refugee camps are particularly vulnerable to rape and violence. Tented refugee villages also tend not to provide adequate security to women. Often water and sanitation services also do not cater for women's needs. *See also: Food aid*

Farmer associations: Many agribusinesses prefer to work through farmer associations, rather than dealing with individual farmers. Farmer groups tend to be maledominated and few women are members and/or leaders. This is a missed opportunity for women to engage in international value chains.

Female-headed households: The focus on female-headed households as the most vulnerable in much of development literature and practice not only overlooks the wide variety of women that are heads of households, but also neglects the majority of women who live in male-headed households and frequently provide a great deal of unpaid work and often suffer more from food insecurity than their male household members. Analyses should account for the different realities female-headed households are faced with. Some might benefit from remittances sent by a migrant husband; others have chosen their current situation over a frequent exposure to humiliation and violence. Depending on the geographical and cultural context, female-headed households may indeed struggle with extremely precarious conditions. This is the case for most widows and elderly women without sons in India. In fact, female-headed households. They often do not have male members who can work on the farms and they also lack the cash needed to hire labour. Therefore, female-headed households generally cultivate smaller plots and achieve lower yields.

Feminization of agriculture: The term "Feminization of agriculture" has been used since the 1990s and refers to women's increasing presence (or visibility) in the agricultural labour force, either as agricultural wage workers, especially in non-traditional agro-export crops, or as unpaid family workers in households engaged in commercial agriculture or as independent producers, usually in smallholder households. While the number of women in agriculture is actually declining, their actual share of the agricultural labour force has been rising. Migration is often cited as one of the main reasons for the increased presence of women in agricultural sector as an opportunity for empowerment, emerging evidence of wage differentials between male and female agricultural workers, their different placement in the labour hierarchy, and women's reduced decision-making compared to subsistence farming suggest the opposite. Generally, women workers remain more dependent on agriculture than men, as they have more difficulties accessing jobs outside the agricultural sectors. *See also: Modern value chains, migration, contractors*

Financial crisis: The financial crisis is felt by poor households through the contraction of the labour market. Export-oriented businesses, such as agri-food, flowers and garments, which employ high proportions of women, have been particularly affected by the crisis. At a time when households are suffering from the combined effects of the food and financial crisis, job losses lead to a direct decrease in the welfare and food security of households. Rural women's unpaid work burdens are likely to further intensify and they are more likely than men to be offered precarious employment with poor prospects.

Food Aid: The World Food Programme's "women only" policy is used in many countries and is based on the idea that women distribute food more equitably within their household than men. It is also believed that this policy will lead to women's empowerment. But there is evidence from Haiti that the "women only" policy applied after the 2010 earthquake led to a marginalisation of men, and consequently to increased violence against female beneficiaries. There were many incidences where women were robbed of their food at collection points or forced to engage in sexual acts in order to receive food. There was an obvious disconnect between strategic assumptions and field-level realities. The exclusion of women's voices (e.g. women's groups) led to the impression of a homogenously needy female population and an effective feminisation of the issues of food security and food needs in the wake of disaster.

Food price crisis: As a result of increasing financial speculation in commodities, an increasing demand for biofuels, severe weather events, etc. food prices soared between 2007 and 2008, causing a severe worldwide food price crisis. As a result, the number of hungry and undernourished people did not fall as envisioned in MDG 1, but actually increased to over 1 billion. Across countries, female-headed households were among the worst affected by the crisis, as they lacked access to assets such as land, credit and information to respond to the crisis. *See also: Biofuels*

Food production: Development literature now often acknowledges that women literally "feed the world". They are the main participants in every step of food production, owing to their engagement in agriculture (it is estimated that more than 50% of all food grown for consumption is cultivated by women). They are also mainly responsible for food processing, cooking and serving. *Also see: Subsistence agriculture, gender roles*

Food sovereignty: The concept of food sovereignty emerged in Latin America in 1996. Its focus is on people's rights to define their own food, agriculture, livestock and fisheries systems, rather than have international organisations and market forces define them for them. One of its main assumptions is that rural men and women have equal rights. Several women's organisations in Latin America are now using this concept to challenge unequal ownership and access to land and other productive resources, as well as the unequal time burden of men and women with regard to agricultural activities, food preparation and production and care responsibilities. *See also: Food production, gender roles*

Food Value Chain: See definitions below. *See also: Traditional value chain, modern value chain*

"Definitions

A **'value chain' in agriculture** identifies the set of actors and activities that bring a basic agricultural product from production in the field to final consumption, where at each stage value is added to the product. A value chain can be a vertical linking or a network between various independent business organizations and can involve processing, packaging, storage, transport and distribution. The terms "value chain" and "supply chain" are often used interchangeably.

Traditional agricultural value chains are generally governed through spot market transactions involving a large number of small retailers and producers.

Modern value chains are characterized by vertical coordination, consolidation of the supply base, agro-industrial processing and use of standards throughout the chain."

Source: FAO (2010). Gender and rural employment policy brief 4. Agricultural value chain development. Threat or opportunity for women's employment? FAO, Rome, p.3

Foreign aid: Even though governments, donors and development practitioners now recognize that agriculture is central to economic growth and food security, less than 6% of foreign aid directed to the agricultural sector goes to women. Gender received virtually no attention in the agricultural negotiations of the DOHA round. Even though farming is a central source of livelihood for women in many developing countries, they are often not even recognized as farmers in their own right, but are seen as non-working or as housewives. Their post-harvest contributions, as well as informal marketing and local exchange are usually not taken into account by projects focussing solely on agricultural productivity.

Foreign investors: Growing numbers of investors and fund companies are acquiring large parcels of land in the developing world for commercial production or long-term investment. Often the land is simply taken away from local farmers, or the farmers may remain on the land but with no say over what is grown and for whom. This development threatens to have negative impacts on small-scale farmers and especially on women who often have no say in the political and trade decisions around their land. *See also: Chapter 4, Gender and Land*

Forest foods: An estimated 350 billion of the world's poorest people are dependent on forests for their living, including for animal grazing and food production. Women not only often depend on forests for fuelwood, but in many countries they also gather food from the forests, which provides an important supplement to diets and hence food security. As forests are in decline (due to deforestation) and are often degraded and/or women lose access to common pool resources, the availability of these supplements is diminishing, which has an impact on people's diets, especially in poor households. *See also: Chapter 4, Gender and Land*

Free trade: Neoliberal economists argue that free trade increases food security; if imported crops are cheaper than locally produced ones, food security is increased. But the reality of heavy subsidies in developed countries often leads to situations where world food crop prices are lower than the costs of producing food locally. This means that many African smallholder farmers are driven out of local markets, losing both income and food security. Since women are heavily present in the small-scale sector

and in local markets and often find it hard to access jobs outside agriculture, they are also hit the hardest by free trade policies.

Gender roles: All over the world women's and men's actions correlate with certain gendered roles, which are shaped by cultural norms and traditions. In many developing countries, and especially in rural areas, these gender roles are particularly strong. While women are responsible for caring for children and frail adults and providing food for the family, men are generally seen as the breadwinners, in charge of any cash income. Agricultural work also follows gendered patterns, which may vary from country to country. Usually men are responsible for the more physical work, such as ploughing the fields, while women are responsible for harvesting and processing of foods. Large livestock is usually the domain of men, while small livestock such as chicken may be women's responsibility. While much agricultural work is done by women, decisions about what to farm, which livestock to keep etc. are usually taken by men. *See also: Care, decision-making*

GlobalGAP: In response to growing pressure to demonstrate corporate social responsibility, in 2001 major European food retailers established GlobalGAP. GlobalGAP members require their fresh produce suppliers to meet a broad array of food safety and quality standards, as well as labour and environmental standards. Although it is voluntary, anyone who wants to export fresh produce to Europe has to become GlobalGAP certified. Unfortunately, GlobalGAP standards only apply to permanent workers, who are generally male and constitute a minority of the work force. The issue of subcontracted labour is not addressed by GlobalGAP. Since growers themselves are expected to absorb the additional costs GlobalGAP creates, they are encouraged to use (often female) flexible labour arrangements. The effect of GlobalGAP is therefore a significant improvement in health, safety and labour conditions for a few permanent workers, and a deterioration of conditions for a majority of the flexible, temporary workforce. *See also: Contractors*

"Squeezed within the global supply chain, one of the few spaces left for Chilean growers to reduce their costs is labour, since labour accounts for up to 70 percent of production costs. The pressure to meet the rigorous quality and delivery demands of retailers while reducing costs encourages producers to use flexible labour arrangements, including temporary, seasonal, and subcontracted labour."

Source: Bain, C. (2010) Structuring the flexible and feminized labour market: Global GAP standards for agricultural labour in Chile. In: Signs vol.35, iss.2, p.362

GM seeds: US development policy increasingly advocates biotechnology. GM crops tend to be designed to achieve an increase in productivity, while certain aspects that are relevant to women, such as the quality of crops for food processing or handicrafts are often overlooked. While the introduction of GM crops can have benefits, such as increased resistance to pests or drought, the increased proliferation of GM crops might also lead to a collapse of women's seed-saving and production systems and to a general loss in ecological and agricultural diversity as GM varieties spread. Farmers will increasingly have to transfer their food and farming decisions to global corporations and might eventually be driven off their land as they cannot afford the expensive inputs, e.g. the GM seeds that industrial agriculture demands. *See also: Seed-saving practices*

Green revolution: The green revolution technologies have bypassed most small-scale women farmers. Locally produced crops of national and regional importance (which are generally important to women) have been undervalued, as the attention of the green revolution focuses on high-yielding cereal monocultures. Some studies even link the green revolution to the phenomenon of "missing girls": in some areas in India, where the Green Revolution has successfully been implemented, the child sex ratio has decreased considerably, indicating a growing preference for sons. This is explained by the modernisation of agriculture in which women's work is not needed anymore, and therefore women are of no economic use to families anymore. On the other hand there is evidence that in those areas where women provide a great deal of agricultural labour in India, excess female mortality is lower than in other parts of the country.

Group farming: Pooling owned land or jointly leasing land can lead to increased productivity and social empowerment for female farmers compared to single family production units. It can help women to overcome constraints that they face when working individually, such as lack of control over land and other assets, resources and financial limitations in input purchase and capital investment, social restrictions on mobility and public interaction, and vulnerability to market swings and climatic shifts.

"In India working together has enhanced women's ability to survey land, hire tractors, share labour, meet government officials, buy inputs and market the produce. Collective cultivation allows them flexibility in labour time, cost sharing, and the pooling of their differential skills in farming, accounting, and public dealing. The groups are voluntary in nature, socio-economically homogenous, constituted of women who know each other, small sized in both membership and production units, participatory in decision-making, and equitable in the distribution of the produce. Group members report improvement in family diets, healthcare and children's education; a reduction in spousal desertion and violence; and enhanced social status in the community."

Source: Agarwal, B. (2011). Food crises and gender inequality. DESA Working paper NO. 107, pp.19-20

Higher education: The number of women in agricultural science and technology, as well as in agricultural research remains very low in most countries, even though women participate heavily in the agricultural workforce. There is also a lack of focus on gender analysis in the curricula of agricultural universities in developing countries but most often also in developed countries.

HIV/AIDS: HIV can lead to food insecurity, as many rural households experience labour shortages for farm work. Apart from caring for ill family members, which is generally women's work, they - in addition to their domestic work – also have to attempt to maintain farm production. Occasionally they receive help from relatives or are able to hire male farm workers, but in many cases they have to do the work themselves, including tasks that are usually performed by males (such as ploughing). Very often cash crops are abandoned in such cases. Women's abilities to work in off-farm employment are also severely restricted. Widows often come under pressure to leave the land to the husband's relatives, severely constraining their ability to work as independent farmers and restricting their ability to meet their households' consumption needs. Children also suffer, as girls in particular are often taken out of school to care for sick relatives or to work on the farms.

Food insecurity also increases the risk of exposure to HIV/AIDS, as women who are unable to provide food for their families may resort to risky activities such as transactional sex (in exchange for food) and are at higher risk of gender-based violence and sexual exploitation and abuse. Irregular intake and poor quality of food also accelerates the development of HIV into AIDS. *See also: Care, time burden*

Human Rights: The International Covenant on Social, Economic and Cultural Rights acknowledges that everyone has the right to be free from hunger. The main interpretation of this right to food stresses "the importance of guaranteeing full and equal access to economic resources, particularly for women, including the right to inheritance and ownership of land and other property, credit, natural resources and appropriate technology; measures to respect and protect self-employment and work which provides a remuneration ensuring a decent living for wage earners and their families." Women can and should use a rights-based approach to lobby for access to resources in order to guarantee food security and decent working conditions in food value chains. *See also: Modern value chain*

Irrigation agriculture: Irrigation agriculture is often advocated as a means of increasing crop production and guaranteeing food security. While irrigation advocates usually focus only on productivity increase, farmers who switch to irrigation agriculture also need to be aware of the increased labour input needed. While irrigation plots are often allocated to men and they control the allocation of outputs, it is usually women who have to provide the extra labour at the expense of other activities. Irrigation agriculture is also more cost-intensive than traditional dryland farming. *See also: Chapter 5, Gender and Water*

"Among women, the extra labour involved in irrigation increased their relative poverty, unless the proceeds from the irrigated crop were shared fairly. In Zimbabwe, Matshalaga reported that women complained that they weeded conscientiously but saw none of the profits when the crop was sold. Long hours and year-round cultivation draw women's energy away from other family livelihood activities such as basket and beer making. However, because household or farm incomes rise, women's relative poverty goes unnoticed."

Source: Chancellor, F. (2005). Enabling women to participate in African smallholder irrigation development and design. In: Coles, A. & Wallace, T. (2005). Gender, water and development. Berg, Oxford, p.159

Labour unions: Generally women workers do not belong to labour unions and thus have little opportunity to fight for their rights to decent pay and working conditions in agroindustries. Labour codes in agroindustries typically do not apply to non-permanent workers and do not cover reproductive rights, such as maternity or paternity leave, protection for pregnant women and child care. *See also: Modern value chains*

Land grabs: See: Chapter 4, Gender and Land

Landlessness: See: Chapter 4, Gender and Land

Land rights: In many countries women do not have access to land in their own right. This also negatively affects food security. If women have access to their own land, they are more likely than men to grow food for household consumption and to spend money from food sales on child and household welfare. Furthermore, granting women the right to own or lease land in their own names helps them to better support themselves outside marriage – this is particularly important for divorced women and widows, who otherwise often face difficulties in accessing enough food to ensure food security for themselves and their dependents. *See also: Chapter 4, Gender and Land*

Large-scale development projects: Large-scale development projects, such as the construction of dams, often come with severe and gendered social consequences. People may have to be resettled and often lose their land, which is their main asset and guarantees their food security. Where compensations for the loss are given to local people, e.g. in the form of money or food aid, these usually go to male household heads, who decide what to do with them. Women's ability to provide food for their families is therefore threatened. Women often rely on social networks in times of food scarcity – resettlement means a loss of this safety net as well. *See also: Social networks*

Literacy: About two thirds of illiterate people worldwide are women; stark gendered differences in literacy rates exist in Southern Asia and sub-Saharan Africa. Female literacy has been found to be an important determinant of a household's food security, since women are generally in charge of maintaining dietary standards and food hygiene and inadequate information can lead to malnutrition. *See also: Malnutrition*

Livestock: Livestock is a major agricultural asset and an importance source of resistance to shocks. While men are usually responsible for larger animals, women are often in charge of the smaller animals, especially poultry, as well as of processing and marketing animal products. When livestock enterprises scale up due to changing consumption patterns and accompanying pressures of commercialization, control over decisions and income often shifts to men.

Malnutrition: Women are most vulnerable to malnutrition for cultural as well as physical reasons, e.g. women need more dietary iron than men and they need more protein during pregnancy and breastfeeding. But women are also in a unique position to combat malnutrition, as they are generally responsible for growing, purchasing, processing and preparing most of the food which is consumed.

Malnutrition is not only brought on by a lack of food, but also by an improper selection of food, due to inadequate information about healthy nutrition. Clinics often find that mothers of malnourished children are able to grow enough vegetables and fruits at home, but sell most of them to earn cash for medicine, school fees and other foods. Malnutrition in mothers, especially in those who are pregnant and breastfeeding, can set off a cycle of deprivation, increasing the likelihood of low birth weight, stunting, child mortality, serious disease, poor classroom performance and low work productiv"In India, women's lower status within family and society, and perceptions of women's labour as being of less worth, leads to unequal distribution of resources within the family, including food. Examples of **social practices** which demonstrate this include women being expected to eat less than men, or to eat leftovers after others in the family have eaten. These practices potentially leave women vulnerable to malnutrition."

Source: Neogy, S. (2010). Gender inequality, mothers health and unequal food distribution: experience from a CARE project in India. In: Gender and Development vol.18, iss.3, p.480

ity. See also: Consumption patterns, literacy

Market access: Women often operate in domestic informal markets, which frequently render them invisible and unrecognized in interventions that aim to upgrade producers in the value chain. Their access to more lucrative export markets is generally restricted, as firm managers prefer to sign export contracts with men, because of women's lower access to land, credit, inputs and access to family labour. Women also often face difficulties in accessing local or regional markets, due to constraints on their mobility. This may be due to cultural limitations on their mobility, but also due to a lack of appropriate sanitation or child care facilities in market places. Therefore women are often forced to sell produce at a substantially lower price.

Migration: The effect of male migration on the well-being of those left behind and on agricultural productivity is ambiguous. Women often need to take on more tasks (including traditionally male tasks) in order to ensure farm productivity. When there is no male labour available in the household and women do not have the cash to hire male labour, cash crops are often abandoned. On the other hand, remittances might facilitate on-farm investment and relieve credit constraints. Even though women are increasingly in charge of farming activities, they often still have to consult their absent husbands for major farming-related decisions, e.g. sale of livestock. But women also increasingly migrate in order to find work in food value chains. Very often the women who work temporarily on the fields or in agricultural processing plants have migrated from other countries. Their insecure residence status makes them even more vulner-

"A study in Gambia found that generally remittances were not sent to the wives, but to the elders, e.g. to a father or uncle who distributed the money to the wife and children. Only a small amount of remittances were typically spent on agriculture. The women in the interviews had different experiences from the rice fields with regard to their husband's migration. In the most negative scenarios, if a woman lacks a husband or other male relatives present in the village, and she does not receive sufficient remittances, she may lose her harvest because she cannot afford to hire labour and machines that compensate her for the absence of a husband. Respondents who did not get sufficient remittances, either because husbands did not send much or because their male relatives controlled the remittances, told me that they suffered because of the loss of their husband's labour power, and the fact that they were not able to invest in additional inputs for agriculture. They reported that they would be delayed and may not finish planting before it was time for harvest, so they did not have time for other activities."

Source: Gunnarson, B. (2011). The influence of male migration on female resources, independence and development in three Gambian villages. In: Gender and Development vol.19, iss.1,p.123-124 able to exploitation and abuse.

Modern value chain: In modern value chains, men generally tend to be concentrated in the top-tier of the agricultural labour market, where they are more likely to hold better paid, permanent jobs with employment benefits, while women are found in the bottom tier with precarious working conditions, low pay, and no benefits. Their low status also makes them vulnerable to discrimination and abuse. Men's jobs often involve using machinery, while women are mainly hired for very labour-intensive, relatively unskilled manual tasks. Where women work along the food value chain, they generally work in jobs that require no technical skills. Due to the often casual and temporary nature of their work contracts, they do not get opportunities to acquire new skills. The

"Undermining pre-existing sources of gender parity among subsistence cultivating communities in the southeastern region of Sri Lanka, the introduction of a gender-stratified labor hierarchy at Pelwatte Sugar Corporation has led to the emergence of hitherto nonexistent forms of gender disparities. The power relations inscribed in such a hierarchical gender division of labor have let to the erosion of practices like complementary division of labour, joint decision-making, exclusive assignment of household fund management to women etc. that served as sources of women's autonomy. One mechanism that has permitted this process is the official status and relative power held by members of the PSC administration as representatives of the state and bearers of national development agendas. Their social location vis-a`-vis local communities invested them with a certain salience and credibility as the forces of modernity through which hierarchical gender norms and roles gained currency. This in turn placed a tacit pressure on local settlers to acquiesce to these gender norms and practices, lest they be branded as socially backward, a stigmatized caricature of the more socially conservative rural populations, often portrayed as hesitant to embrace the trappings of modern attire and social conventions."

Source: Gunewardena, N. (2010). Bitter Cane: Gendered fields of power in Sri Lanka's Sugar economy. In Signs vol.35, iss.2, pp. 384-385

risk of their being made redundant when their jobs are automated is therefore high. **Non-traditional export crops:** International trade agreements and loan repayment policies have pushed many countries in the Global South into the production and processing of non-traditional export crops. Corporate employers often prefer women labourers for these new crops, as they can pay them less and hire them with less stable conditions of employment. Their employment conditions remain largely invisible and they can easily be replaced with other women who are seeking supplementary income.

Organic: Organic certification standards unintentionally have a great impact on women farmers. Because the certification requirements for receipt verification, farm inspections and farmer accreditation require the presence of the farmer, many absent (migrant) husbands cede farm operator registration to women household members. The recognition of women as farm operators may allow them to change practical aspects of farm management. But both organic and fair trade practices exclude many women farmers who can not afford the costs of individual registration. Organic standards applying to farming practices generally affect labour that is traditionally done by men in Mesoamerica and can in some instances increase their work burden. *See also: Fairtrade*

Pesticides: While the majority of victims of pesticide poisoning are women, who work

as temporary labourers on fields that have been sprayed with pesticides, international certification standards (see Global Gap) often only require those directly involved in the spraying of fields to wear protective gear. Through their interactions with children and the elderly, which are part of their reproductive work, women sometimes transmit agrochemicals to their homes and their families. In addition, most temporary workers only earn the minimum wage and do not have health insurance, which severely constrains their access to health care.

Producer organisations: Membership in producer organisations is often dependent on land ownership. Due to women's weak land rights, they are often excluded from these organisations. As a result, women's voices remain largely excluded from policy

"While women's membership in informal groups is relatively high in sub-Saharan Africa, their membership in formal cooperatives, which are an important mechanism for marketing, input, and credit supply, is quite low. In East Africa, a study of membership and registration patterns in dairy cooperatives indicated that only 27.6 percent of households who had registered in cooperatives had registered a female member; in Rwanda it was only 3.1 percent, and no females were registered as members of a dairy cooperative in Uganda. In most of the cases in Kenya and Rwanda where females were registered, they were in female-headed households."

Source: EADD (East Africa Dairy Development) (2008). East Africa dairy development project. Baseline Report No 6. Gender, Dairy production and marketing. East Africa Dairy Development/ International Livestock Research Institute, Nairobi

debates.

Quality standards: Female and male farmers face difficulties in meeting the rigorous quality standards and deadlines of contractors, especially for perishable products, which need to be very fresh. Women are even further constrained by the competing demands on their time.

"West African women growing perishable vegetables often harvest late in the morning, after their domestic and child care work, with negative impacts on quality."

Source: FAO (2010). Gender and rural employment policy brief 4. Agricultural value chain development. Threat or opportunity for women's employment? FAO, Rome, p.2

Seed saving practices: In most Asian communities women save seeds at the household level and also engage in local seed exchanges. Poor female-headed households have been found to be especially active in non-monetary seed exchange at the community level. They provide small seed loans to other farmers and receive double the amount in return. The commercialisation of agriculture goes hand in hand with the introduction of commercial seeds, especially hybrid seeds which cannot be re-sown. This development leads to the gradual collapse of the localised seed systems and thereby to the disappearance of rural cultures and traditions controlled and maintained by women farmers. *See also: Crop diversity, GM seeds*

Self Help Groups: Membership in informal self-help or women's groups is especially high in Asia and Sub-Saharan Africa. Apart from being a means of building social capital, these groups also function as production cooperatives, savings associations and marketing groups. They provide women with a means to access institutional power centres – this in turn can help them develop the capacity to negotiate within the household. Experience has shown that self- help groups often collapse in times of crisis. Poor women might be excluded from these groups if they lack the cash to pay the membership fees. They might also face serious time constraints because of their various other obligations.

Smallholder agriculture: With the commercialisation of agriculture, smallholders now have to compete with highly subsidized and capital-intensive production systems, while they are often left out of policy dialogues. Nevertheless, 90% of the world's farms are less than 2 ha and half of the world's food supply comes from small-scale agriculture. In Africa, small-scale farms account for over 90% of agricultural production. Women provide a majority of the labour on small-scale farms (even when their husbands are registered as the farm owner). It is also more difficult for small-scale farmers to take advantage of international value chains, as they often lack information about the standards that are required by buyers for export markets. Even if they manage to meet all quality and other standards, small-scale farmers are generally not equipped to deliver the large quantities required by buyers. A fact that is often ignored by policy-makers is that small-scale farms tend to be the most productive in terms of output per unit of land and energy. Recent reports and studies see investments in small-scale agriculture as a key to solving the current food and environmental crises. See also: Subsistence agriculture

Social networks: Social networks are especially important for women in developing countries. While men often pursue other coping strategies, such as migration, women rely on friends and neighbours to provide labour or food in times of shortage. Many women in cities also rely on their social networks in rural areas for food remittances in order to guarantee their family's food security.

Social restrictions: In many societies women face considerable social restrictions, for example with regards to their mobility or public participation, thereby effectively restricting their ability to function as farmers in their own right.

Subsistence agriculture: Women tend to be in charge of growing food for home consumption. Climate change and the increasing commercialisation of agriculture threaten their ability to produce enough food for their families. Government-supported initiatives, which often depend on external funding, usually ignore the small-scale sector, thereby effectively ignoring the needs of women, who are generally engaged in small-scale subsistence agriculture. Commercial farming methods often prioritize monocultures and apply fertilizers and pesticides heavily, leading to soil erosion and soil degradation, which have a very negative impact on future food security. Malnutrition is increasing in areas where cash crops replace local food crops. But the focus of mainstream development cooperation on women only as subsistence farmers ignores the reality that many households grow food for consumption as well as for the markets, and that women provide much of the unpaid labour to produce food for markets. This bias reinforces women's disadvantages in accessing credit, land, markets and technology and services. *See also: Commercial agriculture, smallholder agriculture*

Technology: There are gender gaps in access to several technologies, such as machines and tools, improved plant varieties and animal breeds, fertilizers, pest control measures and management techniques. The use of these inputs depends on complementary assets, such as land, credit, education and labour, all of which tend to be constrained for women. Women might also face cultural restrictions in using certain tools, as there is a clear gendered division of farm labour. Women are generally found to be more risk-averse than men when it comes to the adoption of new technologies. The diffusion of labour-saving technologies can in some instances replace female labour, with positive (more time freed for other activities) or negative (women confined to households, increased abortions of female foetuses) impacts. Also, in areas where women (and men) are reliant on wages from agriculture, the introduction of such labour-saving technologies can reduce employment opportunities. *See also: Green revolution*

Temporary work: While women form only a small percentage of the permanent agricultural workforce, they often constitute a majority of the temporary, casual and seasonal workforce. Maintaining women in casual, informal employment with less pay (or paying them through their partners) has often been justified by their roles in social reproduction. Women are generally the first ones to lose their jobs during economic

"A study on an irrigated rice project in the Gambia found that less than 1 percent of women owned a seeder, weeder or multipurpose cultivation instrument, compared to 27 percent, 12 percent and 18 percent, respectively, of men. Similar differences were found in Kenya and Zambia. Research in Burkina Faso on men and women who grew the same crop on individual plots showed that most inputs, such as labor and fertilizer, went to the men's plots."

Source: Mehra, R. & Rojas, M.H. (2011). Women, food security and agriculture in a global market place. ICRW, Washington DC, pp.6-7

downturns. See also: Modern value chain

Time burden: In most countries women are in charge of most household and childrearing activities. A lot of their time is spent fetching water, carrying wood and processing food by hand. With a lot of men migrating to cities or to other countries, women are increasingly in charge of maintaining farm production. More and more women are also engaged in low-paid farming or processing work, increasing their time burden. The combined time burden of household and agricultural work is especially severe for women in Africa. Due to this time burden, women are often not able to perform farming activities, such as ploughing, on time, leading to lower productivity and constraining their ability to access markets. *See also: Care*

Traditional value chain: Even though men often move back into food crops as the returns on export crops diminish, women still remain the main drivers of traditional value chains in local markets, where the returns are generally low. A growing export demand for certain food crops that are traditionally produced by women often results in men taking over these crops (e.g. groundnuts in Zambia). There is evidence that independent female producers experience more constraints than males in accessing

international export markets, and therefore often remain confined to local markets. **Urbanisation:** With more and more people moving to cities, their food security becomes dependent on access to wage labour. Generally, women's work is less well-paid and well-protected and they are more reliant on part-time and casual work. As a consequence women and children usually form the majority of those seeking assistance from so called "safety net" programmes, such as food-for work projects, food voucher or food stamp schemes. Where these safety nets are not in place women and girls are at increased risk of sexual exploitation. But at the same time urbanisation has also opened up opportunities for women to bring in their food processing, trading or entrepreneurial skills, mainly in the informal sector, where they operate food stalls or engage in house-to house sales. *See also: Urban agriculture*

"For example, a study in Nepal found that women and men peri-urban farmers shared many types of agricultural tasks, unlike rural farmers, who excercised a stricter division of labour. Some taboos of gender behaviour in agriculture were thus changing in the case of peri-urban farming as it became increasingly commercial, and both women and men in these farming households were benefiting economically and in terms of social status. But gender analysis showed that men had complete control of the marketing of the produce and controlled all commercial transactions; they also owned and controlled all land and property, while women had the additional burden of household work (Sapkota, 2004).

In another example, while almost equal numbers of women and men poultry entrepreneurs were found in Gaborone, Botswana in 2000, gender analysis revealed that the men had larger enterprises and were supplying more of the market. Even deeper investigation revealed that the women had less education and were more often heads of household. The men who headed households generally had wives assisting them with extra income as well as labour – which put them at an advantage over women-headed households. Moreover, the men had larger plots with more secure tenure. It was suggested that the women entrepreneurs were likely to be forced out of business as the market became more competitive, and that the reasons for this were mainly the structural factors of discrimination which disadvantaged them: women had less education, less land, less access to capital, and fewer property rights (Hovorka, 2005)."

Source: Hovorka, A.et al. (2009). Women feeding cities. Mainstreaming gender in urban agriculture and food security. Practical action publishing, Warwickshire, pp. 11-12

Urban agriculture: About 50% of the world's population now lives in urban areas. The food and economic crises have pushed many people in urban areas into poverty and food insecurity. There is a lot of potential in cities to become more self-reliant and to buffer their dependence on wage labour by producing their own food. While the greatest changes will come through deliberate engineering and architecture that caters for cities' food needs, some small-scale initiatives, such as using unused land for city gardens can provide food for many of the cities' poor and help to empower women, who often take a lead role in such initiatives. There is evidence that traditional gender roles in agriculture tend to be somewhat blurred in urban contexts, e.g. men and women both performing all agricultural activities. But while most urban farmers are women, they tend to predomi-

North-South dialogue

nate in subsistence agriculture, while men tend to be predominantly engaged in commercial food production. Nevertheless, urban agriculture can provide an important stepping stone for women to opening up their own business of selling surplus production. It is not unusual to find women earning more through urban agricultural production than their husbands earn in formal wage work. *See also: Gender roles, urbanisation*

Wage labour: While some authors argue that the inclusion of women in supply chains for export-oriented food crops and agroprocessing has created better-paid employment opportunities for women than have existed before, it is a fact that there are generally large wage gaps between women and men in those agro-industries and that women often work under precarious conditions. There are some modern value chains where women's wages are similar to men's, e.g. in the French bean and tomato industries in Senegal and in Thailand's Sun Valley poultry company. Some studies suggest that nevertheless women greatly value their employment in high value agriculture, as it gives them a sense of autonomy and "empowerment", allows them to make investments in land, agriculture or small businesses and sometimes permits them to send remittances to their home villages.

3.3 Policy recommendations

3.3.1 General

- Investment in agriculture, especially small-scale farming, should be increased and **diversity farming** promoted in order to achieve food security in a changing climate. This includes models of agro-forestry, intercropping, reduced or minimum tillage, and crop rotation. For centuries women farmers have used these techniques to minimize their risk of crop failure. With modernization and the industrialisation of agriculture, these techniques are being increasingly replaced by large monocultures.
- It is important not to treat women as a homogenous category. While some wom en may benefit from certain programmes, others may be disadvantaged.

"Local women farmers may benefit from school feeding programmes that give preference to purchases of local food production. The programmes may seek to 'cut out the middleman' by issuing purchase contracts directly to farmers. In Ghana, where the food trader is more typically female, these efforts have been contested and rendered ineffective by the powerful female traders who feel their interests have been threatened."

Source: Jiggins, J. (2011). Science Review SR 48. Gender in the food system, p.14

• Women's **care burden** needs to be recognized, especially in areas with high incidences of HIV/AIDS, and programmes developed to guarantee food security for women giving care and sick individuals. • In countries where agriculture is a major source of employment for women, education and skill building should provide relevant skills, with a focus on extension services and vocational training. Women should also be provided financial literacy training, in order to effectively compare products and make decisions. Training times must be adjusted to accommodate women's multiple productive and reproductive responsibilities.

3.3.2 For government agencies

- **Structural features**, such as unequal access to land, technologies, information, education or agricultural extension need to be taken into account by policy makers if the problems of hunger and malnutrition are to be addressed effectively.
- The collection of **sex-disaggregated data** in the agricultural sector in all countries needs to be improved, especially with regard to access and ownership of productive resources such as land, water, equipment, input, information and credit. These data can then be used as a baseline to formulate appropriate policies.

The Beijing Platform for Action acknowledges that women's work is specifically undervalued and under-recorded in agriculture and sets the following strategic objective:

'(i) Improving data collection on the unremunerated work which is already included in the United Nations System of National Accounts, such as in agriculture, particularly subsistence agriculture, and other types of non-market production activities'.

Source: http://www.un.org/womenwatch/daw/beijing/platform

- Governments must ensure that women are not discriminated against by law regarding their access to land, credit or extension services. Furthermore, women have to be educated about their rights and be able to claim their rights. *See also: Chapter 4, Gender and Land*
- Local and regional **food banks** and improved systems of public distribution could be set up through women's groups in order to enhance food security and promote women's empowerment.
- **Extension services** need to be made gender-aware, e.g. by being made available at times and places that are convenient for women. Technology can also be used to aid women in accessing extension services (e.g. mobile phones or call centres). In some contexts it is also culturally more acceptable for female extension agents to interact with female farmers.
- Specific **national policies** can be designed to help establish women in value chains.

The Liberia Agriculture Sector Investment Programme has launched a "special women and youth initiative" with a specific budget line of 10 million US\$.

"The objective of this initiative is to 'empower women as agricultural producers and value chain producers and value chain creators and increase youth involvement in agricultural related activities by 50 per cent by 2015'. In order to achieve this, it has a number of related activities, the first three of which focus on women:

- (i) Support women's role as a gricultural producers and participants in the creation of rural value chains;
- (ii) Promote women's participation in new economic areas;
- (iii) Strengthen the institutional framework to address gender issues in rural policies and programmes and remove social barriers that limit the contribution and participation of women."

Source: ActionAid (2011). Farming as equals. How supporting women's rights and gender equality makes the difference, Action Aid, Johannesburg, p.14

3.3.3 For international and national development actors, CBOs and women's groups

Several studies have found the **attitudes and beliefs of project staff** to be of utmost importance when addressing malnutrition and food security issues, e.g. a study in India found that some health care workers who were counselling women to eat three meals a day would not necessarily eat themselves before their husbands had eaten. Group exercises and training with all staff from toplevel managers down to field workers and beneficiaries to critically address their own gender stereotypes can therefore help to not only significantly improve nutrition and food security, but at the same time to address deeply rooted gender inequalities. Engaging staff in social research in the field not only provides a good baseline for intervention, but can also build opportunities to interact with "the other" and to understand their experiences of inequality.

"During a recent two-day gender training with all HKI mid- and upper-level staff, the participants were engaged in debates about contested gender issues, had a chance to role-play gender terminology concepts, act out and analyse media messages, and play 'gender jeopardy', which presented global and Bangladeshi trivia on gender disparities. The approach throughout the training was fun, but not tentative. Participants were continually challenged to relate contested gender norms and practices to their own house-holds, and secondly to answer the question: 'Is this practice right? Is this the way you want it to be?'. The aim was to challenge the staff perception that gender inequality is foremost a 'beneficiary problem', and to infuse gently a political edge, challenging participants to take a stand on inequity. The participants-many of them agriculturalists -were perhaps most impressed by the factual data on women's role in agriculture. They were shocked to learn that women own so little land and yet produce so much of the world's food. In at least one feedback form, one participant vowed: 'We will recognise women as farmers'."

Source: Hillenbrand, E. (2010). Transforming gender in homestead food production. In: Gender and Development, vol.18, iss.3, pp.422-423

- **Innovative approaches**, such as puppet shows, film screenings, street theatre and magic shows can help to address and challenge cultural issues, such as women eating last or skipping meals in order to provide enough food for male family members.
- **Perceptions of women** as farm helpers and not as farmers in their own right need to be changed, so that farming-related services and assets are also directed to women and not only to men. NGOs and media can play a critical role in achieving this change.
- The **village-level farmer (VMF) method** can be used in a gender-sensitive way to combat food insecurity. The method relies on one community member who is willing for his/her farm to be developed into a model farm. This model farm then operates as a demonstration plot for improved growing techniques, as well as a resource centre for beneficiaries to receive seeds and training. It is important to include female VMFs in the project and to adequately reflect and address gender stereotypes with regard to food production and processing in the training modules provided.

"A VMF programme in Bangladesh until recently only targeted men as VMF's, since women often do not own land. The programme reflected many existing gender norms about farming and food production. The agricultural training component was delivered by all-male field staff, while nutrition education was delivered by all-female staff. Inadvertently or deliberately, men were not allocated responsibility in the nutritional side of food production, reinforcing existing beliefs about men's and women's roles. On the other hand, the agriculture technology transfer in the model was delivered in a way which reinforced the stereotypes that men are capable of 'farming' (large-scale, commercially oriented), while women are suited for 'gardening' (domestic, small-scale) and food preparation. Inadequate reflection was probably given to choosing technologies and assets that could give support to women in terms of extending their agency and bargaining power within their households. Because rice is popularly seen as a 'male crop', training on rice seed generally excludes women, despite their critical role in rice production, and in particular in seed selection and storage and seedling production; this can negatively affect the potential productivity from new rice varieties. On the other hand, rice threshing machines may be distributed as part of post-harvest value-addition processes, without considering the implications for women and men, in terms of labour, time, and asset control. With technologies such as threshers, women are expected to contribute the additional labour, while realising no significant share in the income earned from the male-controlled crop. Often unwittingly, this type of asset transfer reinforces women's relegation to invisible and unpaid food production processes."

Source: Hillenbrand, E. (2010). Transforming gender in homestead food production. In: Gender and Development, vol.18, iss.3, pp.414-417

• Projects that **involve the whole household in food security decisions** could help reduce gender stereotypes and devolve responsibility for food security to both husband and wife.

"The Agricultural Support Programme in Zambia, largely funded by the SIDA "aimed to stimulate attitudinal change amongst smallholders and to encourage women and men to take responsibility for household food security. (...). At a household level, extension workers met regularly with all adult household members and older children. They would discuss and agree a vision for the household and prepare a joint action plan. Farmers were discouraged to sell produce on the market unless they had set aside enough food (maize) for home consumption for the entire year. Farmers were also trained to diversify away from growing just maize to develop mixed crop and livestock production systems. Men and women believe that agricultural output have increased and that food security is better. The household approach has started to create a shift in decision-making concerning assets: household members understand that assets belong to the whole household rather than one individual. These attitudinal changes to the cultural norms governing 'male' and 'female' are said to have been astonishing''."

Source: Farnworth, C.R. (2011). Engaging the whole family in food security planning in Zambia. In: IDS (2011). Food security. Research findings for development practicioners. Insights, iss.82, p.6

• **Cash-for work programmes** can be used not only to help people to get through times of food shortage, but they can also challenge gender norms if women and men are working side by side.

"In Bangladesh ultra-poor men and women were destitute, and readily accepted the conditions bout gender in exchange for the high daily wage and humane working conditions. However, over the course of the project, interviews with the participants confirmed that the experience transformed their view of gender relations and the women's selfregard. During the training period, men and women were observed chatting equally vocally in their small working groups. Both women and men were astonished to find that women worked equally hard as men, and some men claimed to have new-found respect for the household labour that their own wives performed at home."

Source: Hillenbrand, E. (2010). Transforming gender in homestead food production. In: Gender and Development, 18:3, p.420

- **Rural institutions**, such as producers' organisations, labour unions, trade groups, farmers' organisations and other membership-based groups need to be strengthened and made aware of gender issues. Institutional mechanisms should enable women to become members of such groups, e.g. by allowing non-house-hold heads and non-landowners to become members and soliciting women's feedback in project monitoring and evaluation.
- Women's time burden could be substantially reduced through investment in wells, water pumps, modern fuel sources, grain mills or other labour-saving technologies. When introducing such new **technologies** socio-cultural norms and conceptions need to be kept in mind.

"In Nigeria, a pedal-operated, bicycle-mounted rice thresher was rejected by female processers because using the thresher exposed women's thighs, and wearing trousers was not a culturally appropriate alternative in the region."

Source: Meinzen-Dick et al. (2010). Engendering agricultural research. IFPRI Discussion paper 00973, p.45

"A case study in Burkina Faso, Senegal, Uganda, Zambia and Zimbabwe showed that long-handle hoes could ease the burden of the work for women compared with traditional short-handle hoes, but they were not acceptable in some of the countries because standing up was associated with laziness."

Source: FAO (2011). The state of food and agriculture 2010-2011, FAO, Rome p.57

• Development assistance should encourage and support women to join mixedgender **farmer groups** (these need to be made more gender-sensitive and obstacles that keep women from joining need to be removed). Furthermore, women's associations should be strengthened in order to successfully engage with agribusinesses.

"The opportunities for agribusinesses to engage directly with women farmers groups are growing. For instance, the Lumbia Women's Self-help Association (LWSHA) Multi-Purpose Cooperative in the Philippines runs a cashew processing plant that produces nuts for the domestic market including large food processing firms in Cagayan de Oro where it is based, Cebu and Manila. The cooperative has 254 women members, 90 percent of whom are directly involved in the plant's activities from procurement of raw material to product marketing."

Source: Mehra, R. & Rojas, M.H. (2011). Women, food security and agriculture in a global market place. ICRW, p.15

3.3.4 For researchers

- Rather than focussing primarily on how to increase yields of staple crops, **agricultural research and development** should increasingly also focus on fruits and vegetables grown in home gardens and on post-harvest processing methods, since these are crucial for household consumption and nutritional status. Furthermore, R&D efforts would be more effective if they worked with an understanding of women's farming systems, including multicropping practices.
 - There is an urgent need for a **greater representation of women in agricultural research**, especially in sub-Saharan Africa, where women are heavily present in the agricultural workforce. This could also enhance the development of female-friendly technology.

- Often women do most of the work on small-scale farms, but the benefits of value chain interventions go primarily to their husbands. With a proper understanding of **intra-household relations and division of labour**, gender-friendly interventions that render women's work more visible can be developed.
- **Value-chain analyses** should always take the roles of women into account and obtain sex-disaggregated data. Through gendered value chain analyses the constraints women face can be addressed and their roles in activities in which they are under-represented (e.g. marketing) can be supported through appropriate actions. Monitoring and evaluation frameworks should also become more gender-sensitive in order to fine tune projects and address possible adverse impacts.

3.3.5 For businesses

- Agribusinesses and other commercial actors should commit to **directly contract with women and men** (either through joint contracts or individual contracts for women), so that women also benefit from payments made and do not need to provide their labour free of charge. They should furthermore value women's labour contributions by making provisions for **compensating house hold labourers**.
- Companies should be encouraged to compensate local men and women appropriately and to provide them with fair working conditions and to adopt gender-friendly **employment policies**, such as maternity leave, childcare facilities, opportunities for promotion, health care services, etc. This could happen through the establishment of certificates that testify to companies' fair and gender-friendly policies and working conditions or by publishing a list that ranks investors according to their fairness and attention to gender.
- **Certification** can lead to more gender-equitable value chains if gender indicators, with regard to landownership, representation and benefits are included in the requirements.

"Café de Mujer, a woman-only coffee certificate and label developed in Guatemala, formally recognizes women's contribution in coffee production and enables them to benefit from and become visible in the production process. The main principle of Café de Mujer states that women must be owners or managers of the coffee farm on which they work. Salaries are paid directly to women. The majority of indicators explicitly focus on women's skills and knowledge related to managing their land and the coffee production process. Further indicators take the local context into account, such as the very high female illiteracy rate and therefore stimulate women's attendance at schools. The certification process not only visualizes and recognizes women's work in the community and the household, but also provides them with increased responsibilities, access to knowledge, participation in capacity building and a sense of pride and dignity."

Source: Verhart, N. & Pyburn, R. (2010). The rough road to gender equitable growth: The case of Café de Mujer Guatemala. In: Development, vol.53, no.3, pp.356-361

3.4 Concluding remarks

An analysis of literature, policy briefs and development reports highlights the failure of governments, development actors and also researchers to take into account the gendered nature of fields such as food security, agriculture and food value chains. Where gender is taken into account, the focus is predominantly on women. They are mostly seen as a homogenous group that is disadvantaged with regard to access to food, jobs, technology education and other assets. While this is certainly true in many cases, there are also many women who do not fit this stereotypical view – they are farmers or entrepreneurs or they might simply be content with their roles as food providers and family labourers and not feel disadvantaged at all. In order to really make a difference in disadvantaged women's lives, local women of all strata need to be included in development research and project planning. Only local women themselves can know how the introduction of a new policy or a particular technology will affect their lives. Unfortunately, almost none of the material considered for this study inquired into how men are affected by the above-mentioned changes. Men are generally seen as discriminatory, patriarchal and advantaged by development programmes, policies and general changes in agricultural systems.

While it is important to strengthen and empower women, by ensuring that they have equal access to resources and equal opportunities to use these resources, as well as to challenge gender relations that disadvantage women (e.g. making them more prone to malnutrition and hunger), it is equally important to put a spotlight on men and on gender relations per se. How are men affected by food insecurity and changes in agricultural systems and food value chains? What leads them to adopt exploitative practices and discriminatory behaviour at the expense of women? How do women and men contribute to the perpetuation of or change in gender relations?

4 Critical Issues: Gender and Land

This section aims to highlight the most important issues and developments in the areas of land rights, as well as large-scale land acquisitions (or land grabs). Hopefully this will be of help to policy-makers, NGO workers, researchers and government officials who intend to make their interventions/research more gender-sensitive.

Several journal articles, books, reports and policy briefs that have appeared in the last few years on these issues have been compiled and analyzed for this glossary. While much has been written on the lack of women's land rights in many developing countries, the issue of large-scale land acquisitions has not yet been widely illuminated from a gender perspective. The few case studies and journal articles that exist are cited again and again. There is certainly a need for gender-disaggregated data on the impacts of this phenomenon, as well as in debt case studies. With regards to land rights, the areas that have been under-researched are the impacts of land reform and land titling schemes on women, and the impact of HIV/AIDS on women's land rights.

4.1 Introduction

Land rights are important for food security, poverty alleviation and welfare. While women perform most of the world's farm labour and account for a large share of the world's food production, their access to the land they farm is largely dependent on their male relatives. Different figures are cited in the literature regarding women's share of land titles. Globally, only about 30% of all land is registered, and while there are no comprehensive statistics on women's landholdings, the numbers cited indicate that women hold only between 2% and 20% of land titles. The situation is particularly bleak in Western and Central Africa, the Near East and North Africa, where generally less than 10% of landholders are women. Where women do have access to land in their own right, it is often of inferior quality and on smaller plots and their ability to use, lease or sell it, or use it as collateral is often restricted.

Generally speaking, access to, ownership of and control over land are fundamental for a secure livelihood and also determine the quality and quantity of investments. Not only does land provide a place to live and to grow food, it can be used for several economic and social activities and can also provide collateral for credit. In many contexts access to land determines inclusion or exclusion from decision-making processes. Owning land empowers women in many ways. There is now a large amount of literature documenting women's weak land rights, which has led many governments to pass laws to increase women's access to land. Unfortunately, these laws alone are not enough to strengthen women's rights, as they are often in conflict with customary law and many cultural and social constraints need to be overcome. However, it is important to remember that women are not a homogenous category, and their ability to access land differs according to age, ethnicity, their position in society, etc.

The following diagram (next page) serves to introduce the different aspects that affect women's access to land.

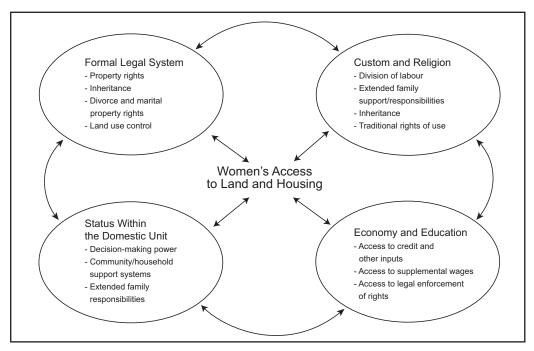


Figure 1: External and internal factors influencing women's access to land and housing. (Source: FAO 2002. Gender and access to land. Land Tenure Series 4. Rome, Italy.)

The world is experiencing the biggest surge in land expropriation and sales since the colonial era. The food price crisis and the economic and financial crises have led wealthy countries, corporations and individuals to acquire enormous amounts of land in poorer, developing countries (especially in sub-Saharan Africa), mainly in order to grow food for their populations, as well as to grow biofuels to secure their energy supply. According to IFPRI, some 15 to 20 million hectares of farmland have been subjected to negotiations over the past few years, with over 50% of the deals affecting sub-Saharan Africa. While governments are largely in favour of these deals, local populations and the social and economic consequences of such deals are often overlooked - a fact that led to the adoption of the term "land grabs" in much of the literature (here both terms will be used interchangeably). While these deals can have positive impacts for the host countries, e.g. enhanced agricultural technology and enhanced yields, improved local employment and investment in infrastructure, they also pose large risks, such as the export of valuable resources in contexts where much of the local population is food and energy insecure or where there is degradation of land and resources. While there is not yet much literature on this new wave of land grabs, the existing literature recognizes that women and smallholder farmers are among the most vulnerable when it comes to large-scale land deals. But apart from this recognition, the gendered nature of large-scale land deals is rarely discussed in the literature and there is hardly any gender-disaggregated data on this phenomenon. Generally, when it comes to land grabs, women are most vulnerable due to their lack of ownership rights to the land, their lack of a voice in decision-making processes, their relative poverty in terms of income and difficulties in finding decent wage labour, and their vulnerability to gender-based and sexual violence (see Daley 2011, p.viii). It is therefore critical to examine commercial pressures on land through a gender lens.

4.2 Glossary

Access: Through their male relatives, women often have access to land, but no independent rights. While they perform a great deal of the farm work, major decisions are generally taken by men. When a man dies, the land typically goes to his male sons or other male relatives and women may or may not retain their access rights. Women are also heavily reliant on common property resources for water, firewood or forest foods. Where their right to access these resources is taken away from them due to privatisation or land grabs, their workload is often increased drastically due to extended travel distance to fetch water/firewood. *See also: Inheritance, female headed households; Chapter 5, Gender and Water*

Biofuels: See: Chapter 3, Gender and Food

Climate change: Land changes due to climate change have led to an increase in competition over and degradation of arable land, resulting in increased violations of women's land rights. Climate change mitigation strategies have led to the commercialisation of productive land, which exacerbates women's insecurity with regard to access and control over natural resources and products. *See also: Degradation, commercial agriculture, land deals; Chapter 5, Gender and Water*

Collateral: The use of land as collateral in order to obtain credit is being promoted by institutions such as the World Bank. Because women rarely own land, which they could use as collateral, they find it more difficult to access credit. Moreover, the gendered nature of risk, where women as guarantors of food security are particularly hard hit if the land is lost, is usually ignored by policy-makers and lending institutions. There is evidence that even where women own land, they are less likely to mortgage it than men, as they tend to be more aware of the risks for themselves and their families if they are unable to pay back their credit.

Collective gardens: While women in many countries have not yet obtained individual rights to own or co-own family land, they have in some circumstances gained the right to farm and manage collective gardens. Access to this land is residence-based rather than family based, so women can keep it even in case of divorce or widowhood. While their access is relatively secure, the individual plots are usually tiny.

Commercial agriculture: Most often, investors convert the land they purchase into large-scale commercial agricultural ventures, which not only tend to deplete soils of their nutrients and use up large amounts of freshwater, but also change household dynamics, income- generating activities and the property rights of local populations. There is evidence that men are more likely to choose to plant cash crops, while women tend to prefer planting food crops. Power usually shifts to men, as land gains in commercial value. While the increasing commercialisation of agriculture often provides women with income-earning opportunities (usually in low-paid, precarious positions), their land rights and access to water may be further weakened, challenging their ability to provide food to their families. *See also: Land deals; Chapter 3, Gender and Food*

Common property lands: Many governments claim that the land they intend to sell is unused, ignoring the fact that local women often use these so called "wastelands" to collect water, fuel, wild food or material to build homes. Owing to commercial pressures on this land, they often lose access to these resources and have to walk further to obtain them. In other cases, land that is common property is used to graze livestock. Loss of access to this land leads to overgrazing in the surrounding areas and often to a reduction in the number of livestock kept. In some cases, local women also use raw materials from common land to produce local handicrafts, in which case loss of access to the land may mean that their businesses are no longer viable. One aspect that is often neglected is that marginal lands may have important cultural, ancestral or religious significance. Women, who are often the practitioners of healing and traditional medicine, are commonly affected by the loss of medicinal and spiritual plants. *See also: Pastoralism, land deals*

"The Bechera Agricultural Development Project has reduced local people's access to important housing construction materials, which were previously gathered in the formerly common property wetlands of the Bako Plains that are now leased to Karuturi Global Ltd. Local men and women must now walk further to obtain the reeds and grasses that are collected annually to renew their roofs. These wetlands were also of vital importance to livestock grazing, a local livelihood activity in which women and children typically play a much greater part than men, and from which women produce butter for sale for cash income that they use to meet their household expenses. Moreover, none of Fisseha's sample survey respondents reported receiving any cash (or other) compensation for the loss of their common property grazing lands, despite their high dependency on these lands for their livelihoods. (...)

Families in the project area have mainly relied on access to local pond and river water to meet all their needs for themselves and their livestock, and it is their access to the ponds in the wetlands that is no longer assured since the land was leased for the project. Community members and local government officials reported that the project was not allowing local people to graze livestock even on the stubble of its farmed land, nor had it demarcated any livestock corridors to allow for local access to watering points in the wetlands; instead one deep well had been dug for the local community to use but it was not functioning."

Source: Fisseha (2011), cited in Daley, E. (2011). Gendered impacts of commercial pressures on land. International Land Coalition, Rome, p.29

Compensation: Some large-scale land deals come with compensation packages for the affected population. Where money is paid to farmers who lost their land, it usually goes to male household heads. *See also: Land deals, production sharing agreements*

Concession contracts: Under this type of contract the government grants the investor the right to run operations on the land and exploit resources for a certain amount of time in exchange for royalties, taxes or fees. This monetary compensation generally bypasses people who have been using the land before and they usually lose their right to use the land for their own purposes. They are evicted, resettled or (formally or informally) allowed to continue living on the land. The loss of the right to use the land is

particularly unsettling for women, who are used to getting their food from the land and now have to find alternative ways to provide food for their families. *See also: Land deals, compensation, resettlement*

Contract farming: See: Chapter 3, Gender and Food

Conflict mediation: Where there are conflicts over land, women tend to be in a weaker position, as they often lack formal land titles. Even where they do possess such titles, they are often discriminated against. There is evidence that many women, whose rights with regard to access to land or land inheritance have been violated, do not take any action to assert their rights. Often they do not have the necessary resources to access the relevant institutions (which are often located in cities and take a long time to resolve land issues), but they also fear retribution from their relatives or communities. In many instances, women are also not aware of these institutions or might lack the relevant education to access them.

Customary tenure: While many countries have laws that grant women equal access to land, they are often ineffective as much of the land, especially in sub-Saharan Africa, is held under customary tenure. Under customary tenure, land belongs to traditional chiefs, who hold it as custodians for local people. Land rights belong solely to men, while women have access to the land through their husbands. While they often work on the fields that their husbands control as unpaid family labourers, many women are also allowed to control some of what they produce. In the case of divorce or the death of their husbands, or under the pressure of labour-intensive agrarian modernization, women generally lose these rights. Local chiefs often also play an important part in the negotiation processes that lead to land deals. While they still tend to subscribe to traditional local norms and only engage in discussion with male members of the community. Local women's needs and interests tend to be neglected. *See also: Inheritance, statutory land rights*

Degradation: Land degradation often undermines local livelihoods and narrows livelihood options, creating increasing stress for both men and women. There is evidence of mounting abuses of women's customary land rights, as competition over arable land increases and men try to hold on to as much land as possible. Climate change and commercialised agriculture, which prefers monocultures and relies on heavy usage of pesticides and fertilizers, will lead to an increase in environmental degradation in many regions, which is likely to lead to further erosion of women's land rights. The loss of forests, which is a consequence of increased investment in large monocultures, hits women particularly hard, as they use forests to collect firewood as well as edible forest fruits. *See also: Climate change, commercialisation of agriculture, common property resources; Chapter 3, Gender and Food; Chapter 5, Gender and Water*

Deforestation: See degradation

Ecosystem services: Concerns about equity and equality have not been high on the agenda of ecosystem service providers. Studies increasingly demonstrate that owing

to lack of knowledge of context-related factors, rural communities tend to be excluded from decision-making processes. This tendency is exacerbated by the increasing prominence of market-led programmes for ecosystem services. While it is not popular to discuss the trade-offs of market-led development strategies and to go beyond an instrumental inclusion of marginalised actors, women are targeted as an important actor group, making programmes not only more inclusive, but also more effective. Moreover, the development focus inherent in these programmes often gets diluted in the course of upscaling such programmes. Households with little property are often excluded from the benefits of a carbon sequestration programme, as they lack alternatives for their subsistence-oriented activities. Communal and intra-household conflicts over priorities of land use emerge as a result of the pressure to commercialise land, and the conflicting outcomes all too often reflect the gendered power relations within a household and/or a community.

Employment: Investors often do offer employment opportunities to local residents, in particular to women. But generally they are only offered temporary, low-paid and insecure jobs. They are also vulnerable to abuse and in some instances to forced pregnancy tests. In addition they now face the dual burden of wage labour and unpaid care work. *See also Land deals, joint ventures; Chapter 3, Gender and Food*

"FIAN (Food First Information and Action Network) records a case of particular dangers for women in a large-scale investment by the American-owned Dominion Farms Ltd in the Yala Swamp wetlands on the North- Eastern shore of Lake Victoria in Kenya: "In the rice fields, women can be seen armed with sticks to chase away the birds which prey on the cereal. According to villagers, they have to stand in the mud from dusk to dawn for a miserable pay and even remain there when the plantation is sprayed with pesticides. Neighbors suspect it is DDT as fowl and plants have died after the spraying."

Source: FIAN (2010). Land Grabbing in Kenya and Mozambique: A report on two research missions – and a human rights analysis of land grabbing, FIAN International Secretariat, Heidelberg, p.23

Empowerment: Granting women land rights empowers them in many ways. Most importantly it increases their ability to support themselves outside marriage. Not only the situation of widows and divorcees, who otherwise often lose all rights to land, is radically improved, but it also becomes economically possible for women to leave abusive marriages. It has also been proven that women who own or co-own land are less prone to be involved in domestic violence. Furthermore, women who own their own land are often better able to resist their husbands' demands on their labour time. Independent access to land can also encourage women join to farmers' organisations and to lobby collectively for their interests as farmers.

Exclusion: Women are often unaware of the policies and laws that affect their rights to land. This is to a large extent due to their exclusion from the public sphere and their status in the household, which assigns them certain roles and responsibilities. Due to cultural or time restrictions, they are often unable to attend public meetings where such issues might be discussed.

Extreme weather events: See: Chapter 5, Gender and Water

Farmers' associations: In some cases foreign investors consult directly with local farmers' associations over the use of titled and privately held land. These negotiations usually lead to contract farming agreements. The interests and preferences of local women tend to be ignored, as they are usually not members of farmers' associations. *See also: Land deals; Chapter 3, Gender and Food*

Female-headed households: The land rights of female-headed households are often particularly insecure, especially in areas where customary law prevails over statutory law, as any male relatives can easily expropriate a woman's land. Widows often find it particularly difficult to retain access to land after their husbands have passed away. Land grabs by male relatives are a common occurrence in many countries. In many sub-Saharan African countries women may marry their husband's brother in order to retain their access to land – a very risky practice in times of HIV/AIDS. In other cases, women who lose access to their husband's land end up working in insecure, low-paid jobs in cities or working as prostitutes. Unfortunately, there is virtually no quantitative evidence of the phenomena of land grabs from widows. Some qualitative studies show the influence of local traditional authorities in affecting the extent to which widows are able to guard their access to land. *Also see: Customary tenure, HIV/AIDS, inheritance, statutory land rights; Chapter 3, Gender and Food*

"In Nepal family property usually goes to the son, and if the son dies to the widow. Especially young widows find it difficult to assert their rights over the property of their husbands, because other family members fear that the might remarry and take their share of the family property to another man. Therefore other family members create problems in sharing the family property. These women often run away and end up in Kathmandu working in some degrading job, especially in the "Entertainment" industry."

Source: Adhikari, J. (2010). Food insecurity, conflict and livelihood threats in Nepal. In: Upreti, B.R., Müller-Böker, U. (eds.) Livelihood Insecurity and Social Conflict in Nepal. Kathmandu: South Asia Coordination Office, p. 112

Food price crisis: See: Chapter 3, Gender and Food

Food security: See: Chapter 3, Gender and Food

Free trade: Free trade in a situation where Northern farmers are heavily subsidized, but African farmers are not, puts great pressure on African governments to improve the competitiveness of their crops. Some authors argue that one way of reducing the labour costs of African exports is to deprive women of enough land to make their own farming decisions, thereby forcing them to work on their husbands' land for no or low returns. *See also: Chapter 3, Gender and Food*

Gender roles: Land ownership is often in conflict with traditional gender roles. While men are often seen as the breadwinners in charge of agricultural decisions, the woman's role is more confined to the household. Even though women are in charge of most of the agricultural work, they are not seen as farmers in their own right, but rather as household labour; therefore they do not need to have independent access to land. Ownership of land often comes with public visibility through membership in farmers' cooperatives, etc., a role which is in conflict with the traditional role of women. *See also: Farmers' associations, exclusion; Chapter 3, Gender and Food*

Governance: In many countries institutions that administer land, as well as those that resolve land-related conflicts, are biased against women for cultural reasons. Women are also generally seriously underrepresented in these institutions, making it more difficult for them to claim their rights. They are often located in cities and are therefore difficult to access for resource-poor women. Poor institutional governance has been found to be a major obstacle to the implementation of women's rights to land. *See also: Conflict mediation*

"In Rwanda and Tanzania, legislation mandates that local land committees throughout the country and local government management committees be composed of at least 30 percent women, which has increased the voices and visibility of rural women throughout land reform projects in the country."

Source: Behrmann, J. et.al. (2011). The gendered implications of large-scale land deals. IFPRI Discussion Paper 01056, p.21

HIV/AIDS: The HIV/AIDS epidemic has increased the plight of women with regard to land. Discriminatory inheritance practices are exacerbated, as many more women are widowed at a younger age (which makes them more vulnerable, as they often lack the resources to fight for their rights or to reconstruct their livelihoods). In several countries, women who are themselves HIV positive are denied their rights to land and inheritance of property due to the stigma attached to the illness. Women also tend to be in charge of caring for relatives suffering from AIDS. Their access to land therefore influences their ability to provide adequate nutrition for the family and thereby indirectly influences the survival of the sick people they look after. Their own vulnerability to infection is also increased where they do not have access to land. *See also: Inheritance, Female-headed households; Chapter 3, Gender and Food*

Human rights: The right to land is not codified as such in international law, but is a crosscutting issue linked with many other rights, such as the right to an adequate standard of living, the right to food, housing and water, etc. which depend on the right to access and control land. Several international human rights conventions protect women's land rights (e.g. Beijing Platform for Action, CEDAW, ICAARD), but they are often at odds with national legislation or local practices and are therefore difficult to enforce. While there is some recognition in academic and NGO circles that large-scale land acquisition poses a threat to human rights, there is little recognition of the gendered nature of this threat. *See also: Land deals; Chapter 3, Gender and Food*

Infrastructure: Infrastructure developments that sometimes come with foreign investment can be beneficial for locals and especially for women, if they result in a saving of their time and labour and an increase in mobility. In other cases, however, the

opposite has been reported, where foreign investors block access to roads that have been used by women to collect water and firewood and women then have to make a detour in order to access these resources.

Inheritance: In many customary societies, it is against cultural practices to write a will and when a man dies, the family land automatically goes to his sons or other male relatives. Women may or may not keep their rights to access the land. The reason for this bias against women lies in the perception that women move away when they get married, while sons (and therefore the land) remain in the family. Several African countries have equalized their succession laws in order to grant women and men the same rights (e.g. Rwanda, Uganda). Nevertheless preliminary evidence suggests that customary law is still strong in these societies and often prevails over statutory law. But there is also evidence from Mexico and India that shows an increase in asset ownership after provisions in inheritance laws are equalized. *Also see: Female headed households, customary tenure, statutory land rights*

"In Zambia land and other property and productive assets are normally inherited by the deceased man's male family members. "Family" in a patrilineal (matrilineal) society is defined by the blood line of the father (mother) to his (her) male children. Women entering the family through marriage acquire use rights to land through their husbands. Focus group discussions of men from the region indicate a perception that they do not feel that the land is individually "theirs". It is the family's land and that of the ancestors of the family. If a man arranges to transfer his family's ancestral land out of the family to someone outside the family bloodline (e.g., to his wife), this would be a taboo, and he invites retribution by the ancestors. These traditions and perceptions introduce psychological, religious, and social constraints on transferring land to women."

Source: Opiyo (2001) cited in Chapoto, A.(2011). Widows land security in the era of HIV/AIDS. In: Economic Development and Cultural Change, Vol. 59, No. 3 (April 2011), p.513

Joint ventures: This type of investment is often seen as the most equitable option in large-scale land deals. Investors contract either with governments, local elites, community associations or groups with the aim of running a business venture together. They usually take the form of contract farming, with an agreed-upon rent going to the farmers (monetary or in the form of crops produced). Women are often left out of the consultation and negotiation processes leading to such joint ventures, and might therefore lose their right to produce their own crops or be obliged to provide their labour to the venture.

Land concentration: Privatisation of land and the sale of large areas of communal land or land that is under customary tenure lead to the concentration of land in the hands of a few powerful (usually male) individuals. As women often do not have individual access to land, they usually do not benefit from any land sales and also tend to suffer disproportionately from the loss of land, due to their responsibility to provide food to and collect water for their families. *Also see: Privatisation, land deals, custom-ary tenure*

Land deals: The global food and economic crises brought about an unprecedented rush by private investors and developed countries to acquire land in the developing world. According to IFPRI, some 15 to 20 million hectares of farmland have been subjected to negotiations over the past few years, with over 50% of these deals affecting sub-Saharan Africa. Large-scale land deals are often characterized by a lack of information and transparency (therefore the name "land grabs"). Where the local population is informed, positive impacts of the transaction are usually emphasized (such as job creation or resettlement) and negative impacts are scarcely discussed. This lack of information is also gendered. Men are often the ones who benefit predominantly from the perceived benefits (e.g. job creation) while women tend to be worst hit by negative ramifications (e.g. increased difficulty in accessing water and fuel, loss of social networks through resettlement).

Landlessness: Women from landless households often have to work harder and longer than women from landholding households because their households have to pay for the costs of renting or sharecropping the land they farm.

Land management: There is evidence that even in cases where men and women share joint titles to their land, land management decisions are still mainly taken by men. Female-headed households, who have access to land, often face problems with regards to land management, as certain tasks are traditionally performed only by men. Where possible, these women rent out much of their land or hire male labour. Where their access to land is not secure, they often face the risk of expropriation by male relatives. *See also: Emerging issues: Chapter 3, Gender and Food*

Land reform: Land reforms can take the form of privatisation, registration of traditional land holdings and purchased land or redistribution. There is evidence that all of these mechanisms tend to be biased against women. While privatisation generally leads to the concentration of land in the hands of a few individuals, registration initiatives tend to register household heads only and redistribution programmes tend to distribute land by household and see women only as dependents of male household heads. There are, however, examples of gender-sensitive land reforms. Adequate enforcement mechanisms, as well as the mobilization of broad support among the population but also among major stakeholders such as village chiefs, are important in order to achieve real change in the situation for women. There are few rigorous studies of the gendered impact of land reforms. *See also: Privatisation, land registration*

Land registration: Land registration in regions that are under customary tenure can help advance gender equality goals, avoid conflicts over land, prevent illegal land grabs and encourage investments in land productivity. Formal land titles can be a point in bargaining and negotiation in cases where the land has been sold without consulting the people who own it, as is often the case when national governments negotiate directly with foreign investors. Nevertheless, land registration with the aim of turning land into a market commodity (privatisation) tends to lead to the accumulation of large amounts of land in the hands of rich individuals and corporations. Where land is registered in a gender-blind manner, by simply registering it in the name of the household head, this can also have negative side-effects on women. Men are more likely to sell their land than women, thereby facilitating the phenomenon of land grabbing and undermining women's customary access rights. A good way of securing women's land rights is through mandatory joint land titling – issuing land titles with the names of both spouses. Sometimes, little steps like providing space for two names on registration forms can have great effects, with more women being officially registered as land holders. Some countries also have spousal consent clauses that regulate any land related transactions or the usage of land as collateral. They can be used as a means to prevent husbands from selling or mortgaging land without their wives' consent. Furthermore, common property land could also be registered in the name of communities who use it but without any possibility of selling it. *See also: Privatisation, commercialisation, collateral, common property land*

"The Rwandan government has taken far-reaching measures to overcome a history of often land-related conflict and tribal division, end gender discrimination in land access, and provide a framework to make optimum use of available land resources so as to contribute to social and economic development. In this context, the country has launched a program of land tenure regularization (LTR) which, after extensive piloting, is now being implemented nation-wide. This program constitutes probably the most thoroughly designed and quantitatively ambitious program of its nature in Africa. We find that, in the short time since its implementation, the intervention has led to a doubling of the change in investment in soil conservation, with an even larger increase for females. (...) Clarification and documentation of rights reduced uncertainty over who would inherit land, with substantial benefits for female children who might otherwise have been discriminated against. This program also provided large additional gender benefits. Legally married women were significantly more likely to have their informal ownership rights documented and secured after registration. But women who were not legally married saw diminished property rights, in accordance with the law. And girls residing in female headed households were less likely to be designated as heirs."

Source: Ayalew, A. et al. (2011). Environmental and gender impacts of land tenure regularization in Africa: Pilot evidence from Rwanda. World Bank Policy Research Working Paper 5765, p. 2 & 15

Land use: In the face of land grabs locals are sometimes allowed to stay on their plots and cultivate cash crops or biofuels for the investor. They are either paid in cash or kind. Changes in land use due to large-scale land acquisitions can have different consequences for women and men, as men are more often in favour of replacing subsistence crops with cash crops and reap most of the benefits from these changes. Women have been shown to be more risk-averse and prefer to plant a variety of crops to feed their families. Generally, women do not have much of a say when it comes to changing land use, even where local farmers are involved in the decision-making process. *See also: Commercial agriculture; Chapter 3, Gender and Food*

Literacy: In many developing countries women still lag behind men with regard to literacy. This means that they are often not informed about their land rights and unable to read official documents and can thus be easily deceived when it comes to land-related transactions.

Legal framework: Few countries have a legal framework in place that deals with land deals and protects local interests and rights. Women, who often have only customary access to land are generally the most vulnerable, as their rights are not enshrined in any statutory laws and they are the least able to effectively protest against expropriation. Where there is a regulatory framework dealing with large-scale land deals, it often does not adequately represent women's voices and choices, as they are largely absent from the decision-making structures that develop these frameworks. *Also see: Human rights, land deals, customary tenure, statutory rights*

"For example, where such guidelines refer to **'free, prior and informed consent'**, such as those of de Schutter (UN 2009) and the International Food Policy Research Institute (IFPRI) (Von Braun and Meinzen-Dick 2009), the question to be asked – if women's voices and choices are not heard and they do not participate politically – is 'whose consent'? As Nhantumbo and Salomão have observed in Mozambique, any community consultations that take place on proposed land deals currently "tend to be gender biased. Despite being the majority of the workforce in rural lands, women are rarely involved in the consultation processes and they almost never sign the respective reports/documents" (2010, 35)."

Source: Daley, E. (2011). Gendered impacts of commercial pressures on land. International Land Coalition, Rome, p.viii

Marriage: Women's marital status tends to have a great impact on their land rights. Unmarried women generally tend to have access to land only through their fathers. When they get married, their access to land is through their husbands. The land rights of women and children in polygamous marriages tend to be even more constrained, as the first wife is often preferred over the others. Land reforms which do grant women the rights to own and inherit land usually focus only on legal, monogamous marriages and exclude women living in polygamous or other types of traditional marriages. *See also: Inheritance, access, customary tenure*

Migration: There are cases of men selling land to investors and then migrating in search of employment, leaving their wives and children behind. This usually results in very difficult situations for women, who now have to make ends meet without having access to land. *See also: Chapter 3, Gender and Food*

Pastoralists: Pastoralists are among the most affected by the increasing commercialisation of land. As communal lands shrink, more and more pastoralists are reducing their movement and starting to rely more on crop production rather than traditional livestock keeping. This trend is accompanied by overuse and degradation of available communal land. Women often play central roles in pastoralist communities as livestock keepers and natural resource managers. But they also rely on communal lands to collect firewood, fodder, medicinal plants, etc. *See also: Common property lands*

Poverty: Women's lack of land rights is both a cause and a consequence of poverty. Because of their relative income poverty, women often find it difficult to claim their legal rights to land. On the other hand, their lack of independent access to land keeps them in a situation of poverty. Much evidence points to the link between women's land rights and poverty reduction. Female-headed households are better able to support themselves; women, who are generally in charge of providing food for their families are better able provide adequate nutrition to their families; economic pressures on women to have more children so that they can gain access to land via male heirs is reduced. But in order to successfully fight poverty and hunger, women also need to have access to tools, technologies and credit to effectively use their land. *See also: Female-headed households*

Protected areas: Protected areas and conservation policies have proven to have a profound impact on gender relations, all the more so as traditional approaches have targeted men as the primary actors in social change while neglecting women and their interests altogether. Discrimination against women and devaluation of their resource use has been the result in a number of conservation efforts in Sub-Saharan Africa, while from Central America evidence exists that women successfully organised outside the official campaigns. Other studies have documented the active involvement of women's groups in conservation initiatives. Such initiatives are promoted as "triple-win-situations" (for the environment, the economy and the women), where women have been instrumental not only in the effectiveness of conservation programmes but have become indispensable for a convincing marketing strategy. This is currently the most prominent line of argument, and it is also reflected in the 2011 Human Development Report on equity and sustainability.

Privatization: The shift from customary to statutory property claims (or privatization), usually through land titling initiatives, often disadvantages women. In many cases privatization has led to the concentration of land in the hands of a few powerful men, often to the detriment of poor rural women, who lose their rights of access and use of the land. Often privatization goes hand in hand with market-led agricultural modernization, which tends to marginalize women even more. There is evidence that men are more likely to sell land than women, as women tend to be more concerned with keeping their land in order to secure food for their families. Where privatisation projects do not grant women independent or even joint rights to land, their customary access is threatened. Laws that mandate the agreement of both husband and wife (or wives) in order to sell land might prevent this. *See also: Land registration, land concentration, commercial agriculture; Chapter 3, Gender and Food*

Production-sharing agreements: Under this kind of agreement the government usually provides land to the investor, who in turn commits to share the resources produced by the deal (frequently where oil or fuel are produced). As with concession contracts local populations are often bypassed and lose their rights to use the land. Where resources produced are shared with local populations, they are generally shared with heads of households, leaving women out. *See also: Concession contracts, compensation*

Productivity: Substantial evidence shows that where women have independent access to land, they have the incentives and the resources to maximize investments in land and productive inputs. They can thereby substantially raise their productivity and out-

put and thus make significant contributions to household incomes and food security. *See also: Chapter 3, Gender and Food*

Resettlement: Large-scale land deals often result in resettlement of the local population. Investors and governments in charge of resettlement tend to view the household as a unit that will equally share the losses and benefits of resettlement. Titles to the new land are often issued in the name of the male household head only and compensation tends also to be paid to the household head (if at all). Apart from the loss of land that might have partly been under their control, women also tend to be more affected by the loss of social connections to neighbours and community members. *See also: Social networks, compensation*

"Mehta and Srinivasan (2000) review resettlement following the building of a dam in the Narmada Valley in India and find a number of gender effects, including erosion of female influence in household and land matters due to exclusion from official consultations; loss of land rights due to reallocation of land to male heads; and loss of livelihood as skills, including those involved in basket weaving, pottery, and herbal remedies, were made redundant at resettlement sites."

Source: Mehta & Srinavasan (2000) cited in Behrmann, J. et.al. (2011). The gendered implications of large-scale land deals. IFPRI Discussion Paper 01056, p.13

Small-scale farming: Small-scale farmers commonly lack the political voice to have a say in any land deal decisions and are often not organized. Furthermore, they often lack the resources or collateral to access credit. Women are found predominantly among small-scale farmers. In addition to the problems mentioned above, they also lack the legal recognition of their land rights and can therefore not take legal recourse in case of expropriation. *See also: Chapter 3, Gender and Food*

Social networks: There is evidence that rural women tend to be more engaged and reliant on their social networks (women's groups, neighbours, self-help groups) than men. Social networks are sometimes used to make up for inadequate land rights, e.g. through the use of collective gardens. *Also see: Collective gardens*

Soil conservation: There is evidence that where people have legal rights to their land, they are more likely to invest in soil conservation measures, leading to greater productivity of the land. A case study in Rwanda found that land registration led to a doubling of investment in soil conservation, and this change was even more pronounced for women (Ayalew Ali et al).

Statutory rights: While in most countries statutory law does not discriminate against women, there are some countries which do not allow women to own land independent of their husbands (e.g. Burkina Faso). But even where statutory law grants women equal rights, they often do not know how and where to claim their rights (or they do not have access to the relevant institutions). Their statutory rights are therefore in effect often overruled by customary practices that clearly disadvantage women. *See also: Customary tenure, conflict mediation*

"Many governments have attempted to strengthen women's tenure rights within marriage and as individuals, but these efforts are often frustrated by a combination of legal and cultural practices that still favour men. In Latin America, for example, inheritance is the most frequent source of transfer of ownership of land, but daughters are much less likely than sons to inherit land. Many countries in the region have instituted legal reforms that have strengthened married women's land rights, but land-titling efforts have not always facilitated the practice of including both husbands' and wives' names. In Asia, women typically have legal rights to land ownership, but often struggle to assert them. In the parts of sub-Saharan Africa where customary property regimes prevail, community leaders tend to favour males over females in the allocation of land, both in terms of quantity and quality. Where private property prevails, cultural norms generally dictate that men own and inherit land while women gain access to land through their relationship with a male relative."

Source: FAO (2011). The state of food and agriculture 2010-2011. FAO, Rome, p.46

Technological improvements: Some studies suggest that women's land rights have eroded due to the introduction of new crops, improved transportation and agricultural development, as individual men and corporations challenge women's rights, because they are better able to take advantage of the economic opportunities these changes bring about.

Traditional knowledge: With the exclusion of women from their land due to largescale land deals or the commercialisation of agriculture, their knowledge of seeds, land management practices and techniques that have been safeguarded for centuries and are crucial for the integrity of land, water and soil is being lost.

Violence: In rural areas many women who live in abusive relationships are unable to leave their husbands because they have nowhere to go. Some studies have found that women who own land are less likely to face domestic violence. There is a link between loss of land through land grabbing and gender-based violence. Not only have evictions in certain cases been very violent and included rape and violence, they are often also followed by increasing domestic violence due to the disempowerment and frustration of local male farmers who have lost their land and livelihoods. In some areas land grabs have led to increased alcoholism and suicide rates. Women are also vulnerable to HIV/AIDS and other sexually transmitted diseases as a result of significant inmigration of foreign, male workers.

As reported in Daley and Englert (2010, 97), a field force unit of the Tanzanian police together with private guards from the Otterllo Business Cooperation (OBC – owned by a member of the United Arab Emirates royal family) allegedly burnt houses and evicted villagers, destroyed property and raped a woman, all in an effort to chase villagers from land on which the OBC had bought hunting rights.

Source: Daley, E. (2011). Gendered impact of commercial pressures on land, p.20

Water: Land grabs in most cases also constitute "water grabs". The fencing off of corporate land often denies women not only access to land but also access to water.

Furthermore, commercial agriculture is very water-intensive and certain exotic trees and plants introduced by investors also draw down the water table. As a result, women might have to walk a lot further in order to fetch water and therefore face additional pressures on their time. *See also: Chapter 5, Gender and Water*

4.3 Policy recommendations

4.3.1 General

- While all discrimination against women should be eliminated from statutory law, this is not enough to secure women's land rights. **Customary rights** need to be recognized and traditional chiefs and community leaders need to be involved in land reforms and awareness raising campaigns in order to make women's access to land more secure. Consultations, gender workshops and public awareness campaigns can all help to overcome discriminatory practice. Where traditional beliefs are deeply entrenched in customary systems, it might be easier to try to secure land rights for women in the form of **group rights for women** at first (e.g. through collective gardens). Women can also be encouraged to mobilize and organize collectively to campaign for equitable land rights.
- Informal, gender-sensitive **conflict mediation centres** that effectively address conflicts over access and rights to land should be established with the help of NGOs. They could also take the form of mobile legal centres (e.g. buses) that drive through the villages and therefore eliminate the need for people to travel to conflict resolution institutions and reduce bureaucracy. In order for these institutions to be effective, they need to be sanctioned and respected by the state. Gender should be an important aspect in the training of all staff and an adequate number of women should be represented as mediators.
- It is important to develop **national and international legal frameworks** to deal with corporate pressures that explicitly include gender issues, to obligate investors to appropriately inform and compensate local men and women, and to make the approval of communities (men and women) mandatory for any transactions to take place, also with regard to common property resources. Where deals do take place, local women and men need to be compensated appropriately and their access to common property resources guaranteed. It is also important that women and men know about these provisions and that proper enforcement mechanisms are in place. International donors and aid agencies can help to put pressure on governments to make sure the interests of local men and women are protected by investors.

4.3.2 For government agencies

• In order for **land-related policies** to be effective, they should involve a multistakeholder approach, including governmental and non-governmental organizations, as well as representatives of local women's and self-help groups. Any land reform or land titling initiatives should ensure that women make up at least 50% of land holders. In the face of increasing large-scale land deals that do not take local populations into account at all, initiatives to support customary land rights by **providing legal land** titles to locals can provide them with increased negotiation and bargaining power with foreign investors. Here it is important to provide land rights jointly to husband and wife and to make sure single women, widows, divorcees and women who live in different types of marriages (e.g. polygamous marriages) are not left out of the process. Making space for two or more names and photos on registration papers can have a big impact on the numbers of women who register land in their names. A requirement that any sale or mortgaging of private property must have both husbands' and wives' consent might help to prevent men from selling land without their wives' consent. It is also important that common property be registered in the names of communities, without a possibility of selling or mortgaging these lands.

"For example, in an Ethiopian land certification scheme, land administration committees at the kebele level (the smallest administrative unit in Ethiopia) were required to have at least one female member, and land certificates were issued after public registration for transparency. In regions where a photo, in addition to a name, was required for certification, females were considerably more likely to have their names on a deed for two notable reasons: (1) photos made it more difficult for husbands to sell or rent out land without a wife's consent and (2) photos are a useful form of identification in a society with low literacy rates. The Ethiopian experience of a low-cost, rapid, and transparent community land registration process increased the confidence and tenure security of female heads of household and subsequently increased their ability to rent out land for profit."

Source: Behrmann, J. et.al. (2011). The gendered implications of large-scale land deals. IFPRI Discussion Paper 01056, p.21

- In order to strengthen national statutory laws and land reforms that promote women's access to land, legislation should be supported by **gender-specific rules and guidelines** (e.g. any land sales or land rentals need to be authorized by both husbands and wives). Collecting **sex-disaggregated data** should be mandatory, and gender targets for access and tenure security should be introduced and officials held accountable for meeting them. Monitoring offices that monitor the implementation of laws need to be established.
- **Land administration institutions** should be decentralized in order to make them easily accessible for all. Everyone from local land officials to agricultural ministries should be sensitized to women's legitimate demands for land. Gender-balanced employment in these institutions should be promoted and relevant training offered. Affirmative action, such as quotas for women in land administration institutions, might be necessary.

"In Rwanda, the President made pronouncements in support of women's land entitlements and the whole cabinet received gender awareness training. This mobilised support from the traditional gate-keeping institutions like bureaucrats, men and traditional leadership."

Source: Paradaza, G.G. (2011). Policy Brief 3 (March 2011). Securing women's land rights in Eastern Africa. Time for a paradigm shift, p.4

- Land rights alone are not enough. Efforts also need to be made to provide women with the necessary training to claim their rights and make use of their land. Women's access to extension services and to financial and technological resources needs to be promoted and enhanced. Furthermore, other socio-economic rights need to be addressed, e.g. the right to health and the right to education, in order for women to be able to make the most of their rights.
- Foreign investors should be mandated to directly negotiate with local communities to reach fair and accountable deals, in which users of the land are compensated appropriately. Particular attention should be paid to the role of women (e.g. their reliance on the land to collect water and fuel). Any deals concluded should be transparent and open to monitoring. Governments should take the responsibility to monitor and assess whether investors are complying with their contracts made with local people. Where investors do not comply, expropriation should be possible.

4.3.3 For international and national development actors, CBO's and women's groups

- Awareness of the importance of granting women equal rights to land should be strengthened. This can be done through the media, through awareness raising campaigns executed by local women's organisations or NGOs, and through government action. Land rights education that specifically takes up the issue of women's land rights could be made mandatory in school curricula for primary and secondary education. Education about women's land rights could also be integrated into HIV/AIDS interventions, as one of the consequence of HIV/AIDS is an increasing number of landless widows and orphans.
- Women's **legal literacy** needs to be promoted. Women need to know about their rights and where and how they can claim them. Where women are deprived of their rights, they need to be able to seek judicial recourse. Awareness raising campaigns and workshops with the involvement of paralegals and local women's organisations can be useful. Information on laws needs to be accessible to local people this can be achieved among other ways by non-verbal forms of communication, e.g. through the use of the radio, posters, images, cartoons, theatres, songs or cultural performances.

"Several innovative pilot interventions have been used throughout Africa to build awareness about women's property rights. In Zambia, the Justice for Widows and Orphans Project, a network of NGOs, has established community-level advice groups for women and trains them on property law and the writing of wills. In Zimbabwe, Women and Law in Southern Africa trains community-based paralegals on inheritance laws. And in Rwanda and Kenya, NGOs are promoting marriage registration, oral and holographic wills, and memory books because lack of identification cards and low literacy rates among women constitute a major impediment to acquiring land title. In Uganda, the International Center for Research on Women and the Uganda Land Alliance have launched a pilot program that will strengthen the capacities of grassroots paralegals to aid women in asserting their property rights."

Source: Behrmann, J. et.al. (2011). The gendered implications of large-scale land deals. IFPRI Discussion Paper 01056, p.21

• Women's organisations can be encouraged to interact with and mobilize local women to voice their demands and find common causes for which to struggle. They should then be provided with training to enhance their leadership qualities and their abilities to voice demands made by community members to the local authorities, as well as to the media, and to sensitize the broader community to the plight of local women.

To raise women's awareness of their rights and the positive consequences of securing women's land rights for themselves and the community, UDRT (Uganda Rural Development and Training Programme) carried out visioning exercises that documented women's aspirations on land in Kibaale and helped them formulate strategies to achieve those aspirations. The visioning exercises were also aimed at building women's confidence and encourage them to claim their rights.

Source: URDT (2011). Policy Brief 4 (May 2011). Voices over women's aspirations over land and land matters: the case of Kibaale district, Uganda. International Land Coalition, Rome

- So-called **"watchdog groups"** made up of local women and men could be established at the local level to monitor implementation of and respect for women's land rights. Cases of violations of these rights could be referred to the appropriate authorities or institutions.
- Companies should be encouraged to compensate local men and women appropriately and to provide them with fair working conditions and to adopt genderfriendly employment policies, such as social security, maternity leave, childcare training, opportunities for promotion, healthcare services, etc. This could be done by means of **certificates that testify to companies' fair and genderfriendly policies and working conditions** or through the publishing of a list that ranks investors according to their fairness and attention to gender.

A **global women's alliance** to press for fair and transparent land deals could help raise the issue internationally, put pressure on governments and investors, and make local women's voices heard. The media can also play a crucial part in raising awareness about gendered issues relating to land grabs.

Tandon (2010) tells the case of a Maasai woman from northern Tanzania, where Maasai pastoral lands are under threat from large-scale investments in land:

"When asked what it is that the women really need, Kooya does not hesitate, 'We need our voices to be heard at different levels, by our own government but also by networks of women around the world who will support us. We are being marginalised by our government but also by the men in our communities – and yet we women are the majority in our communities. We need a big movement to hold government accountable."

Source: Tandon, N., 2010, 'Land investments are wholesale sell-outs for women farmers', Pambazuka News, 3 June 2010, Issue 484. Available: http://www.pambazuka.org/en/issue/484. (Last accessed: 10.1.2012)

4.3.4 For researchers

- Further research is needed to assess how women are able to claim their land rights, in cases where land reform processes have granted them equal rights to land, and how these new laws affect traditional power relations and decision-making structures. The effects of land reforms on food security, as well as on different groups of women (divided by class, marital status etc.) need to be explored. Another area that is currently under-researched is the phenomenon of land-grabs from HIV/AIDS widows and orphans.
- Studies are needed that quantify the impact of different kinds of land deals on women and men. In order to understand the diverse impacts, an in-depth understanding of the local context is needed (comprising the land tenure and production systems, roles and responsibilities), as well as an understanding of land use beyond "agricultural" land uses (e.g. for water and fuel collection, medicinal plants, cultural rites etc.). It is important to collect **sex-disaggregated data** on the impacts of large-scale land deals.

4.4 Concluding remarks

This glossary demonstrates that land rights do matter in an era of increasing strain on food and the environment due to climate change, population growth, increasing market pressures, and HIV/AIDS. With rich companies and individuals buying up more and more land in developing countries, be it to feed their own growing populations or to produce energy in the form of biofuels, small-scale farmers, and especially women without secure land rights are being threatened. Resettlements, evictions and increased production of commercial crops at the expense of traditional food crops are threatening the food security and livelihoods of many. While many international organisations,

governments, NGOs and researchers reiterate the importance of securing women's land rights and laws are being passed to protect them, there is little systematic investigation into how these laws actually benefit women. Very often laws and projects that deal with women's land rights are overruled by customary land tenure systems and traditions. It is therefore important to challenge traditional values and beliefs and to include men in all initiatives that deal with women's land rights. Furthermore, more research is required on how land grabs affect men and women differently. Comprehensive legal frameworks need to be put in place to deal with large-scale land acquisitions and impose conditions that protect and involve local women and men, if the current wave of "land grabs" is to be turned into a wave of "land investments" that is sustainable and beneficial for all.

5 Critical Issues: Gender and Water

"Critical issues: Gender and water" aims to highlight the most important issues and developments in the areas of water and climate change and WASH (Water, Sanitation and Hygiene). Hopefully this will be of help to policy- makers, NGO workers, researchers and government officials who intend to make their interventions/research more gender-sensitive.

Several journal articles, books, reports and policy briefs that have appeared in the last few years on these issues have been compiled for this glossary. The different impacts that climate change will have on people, and on their differing roles in adaptation to climate change and mitigation, are only slowly being recognized by the international community. While there are some documents that focus on the gender dimensions of climate change, this glossary is mainly concerned with the different experiences of men and women with water-related issues of climate change, such as droughts, floods, etc. In the areas of water, sanitation and hygiene (WASH), several policies and documents highlight women's special role, but often without looking at the gender and power relations that lie behind women's "special" contributions in these domains. Where these insights are translated into practice at all, it is often on a merely instrumentalist basis. As access to clean water and improved sanitation are human rights, it goes without saying that the commitment of the international community should be stronger.

5.1 Introduction

Worldwide, around 1.1 billion people do not have access to safe water and around 2.6 billion have no access to sanitation. Women usually bear the brunt of these shortfalls, as they are responsible for caring for their family members who fall ill due to unsafe water, inadequate sanitation, and hygiene (WASH). Furthermore, in most developing countries women are mainly responsible for collecting water –according to UNDP women in sub-Saharan Africa spend 40 billion hours a year collecting water, which is equivalent to one year's labour by the entire workforce of France (UNDP 2006). But international and national water and sanitation committees and institutions are still predominantly male. While for a long time water and sanitation challenges in developing countries were approached from a purely technical side, it is now becoming clear that the gendered realities of water and sanitation needs and uses must be considered if projects are to be successful. Adequate access to water and sanitation has recently been recognized as a human right; it is therefore an obligation of governments and the international community to make sure women can exercise their rights too. Nevertheless, simply asking women what they want and need is not enough; gendered power structures within the household need to be considered. Hygiene is the only WASH issue that is seen as a predominantly female area, but a focus on men and women could help to ensure that hygienic behaviour is adopted consistently.

Climate change will affect global water sources in 4 ways: the availability of water will change, as droughts become more common; the timing of rainfall will become

more erratic with the occurrence of more severe weather events; the quality of the available water will change due to higher temperatures (more algae), more severe weather events (leading to silt) and rising sea levels (salt in the groundwater); and the demand for available water (especially for agriculture) will increase. All these changes will lead to rising uncertainties for men and women alike. It is estimated that by 2025 about 2/3 of the world's population will experience some kind of water stress, while for 1 billion people the water shortage will be severe. Women are likely to be more affected than men as they constitute the majority of poor people in the world and the majority of people working in agriculture with a primary responsibility for assuring food security for their families. They also tend to face greater difficulties in accessing paid employment. Nevertheless, women tend to know less about climate change and access less information that could help them adapt to and mitigate the impacts of climate change. Important international organs dealing with climate change are slow to recognize the importance of viewing climate change through a gender lens, and there is little research on gender and climate change.

5.2 Glossary

Access: Despite being a human right, women's access to water and adequate sanitation services is often restricted, even where projects have been implemented to provide water supply or sanitation services. Men often make the main decisions about where water or sanitation projects are to be located. Often their priorities differ from women's priorities and needs. Water is frequently preferentially directed to fields for irrigation, curtailing women's access to water for household needs. Sanitation services might be located in places lacking privacy or security, therefore making it difficult or impossible for women to access them. *See also: Decision making, sanitation, water management, human right*

"Because of the scarcity of water in rural Brazil, there, men's and women's interests in relation to water are polarised. Women's role is focused on the home and reproductive responsibilities, whereas men are primarily focused on activities outside of the home, including the care and sale of cattle, other commercial farming activities, and a role in local governance. Although men also experience a need for water in the domestic context, according to local norms and customs, it is not their responsibility to provide it. These polarised differences in men's and women's needs and interests in relation to water mean that the provision of water becomes intensely competitive. Gender inequality in accessing water sources is enshrined at the local level, because men in Brazil maintain economic power and also control how laws and regulations are implemented (Almeida and Chalub-Martins 2008)."

Source: Leite, M. (2010). After the summit: women. In: Gender and Development, vol.18, iss.1, p.71

Adaptation: Women are often lauded for their indigenous knowledge about the environment and their skills in detecting and dealing with changes in the natural environment, which can be used to reduce the impacts of climate change on whole communities. Many strategies that women use in order to guarantee the wellbeing and food security of their family members can be regarded as adaptation strategies, such as intensifying their efforts in homestead production and engaging in off-farm incomegenerating activities, e.g. basket weaving, selling baked goods, etc. There are also several case studies that document women's activities in building dams to prevent flooding or building canals to retain water. At the same time, women's adaptive capacities are restricted due to their lack of land rights and their lack of assets, such as education, credit, technology, etc. Many adapted agricultural and livestock practices require training, which women are less likely to receive due to their social exclusion and lack of access to extension services. *See also: Information, Vulnerability, Social Exclusion; Chapter 4, Gender and Land*

"Adaptation aims to reduce vulnerability and improve resilience of people to climate change. It is the strategies and actions that different people take in response to, or in anticipation of, climate change to adjust to and cope with impacts, moderate damages, and take advantage of opportunities."

Source: Fajber, L. Gender, water and climate change. Gender Water Alliance, p.1 Available: www.genderandwater.org (Last accessed: 10.1.2012)

Agriculture: Agriculture is the main consumer of water in rural areas. In many instances water schemes or boreholes are preferred by men for agricultural activities; this undermines women's access to these water sources. *See also: Access, rural water supply; Chapter 3, Gender and Food*

Bargaining power: In certain parts of India with a high masculine sex ratio, women increasingly use their bargaining power to demand that their suitors install a toilet before they get married. In the Indian press this demand is described as "No loo? No I do!"

Business opportunities: Water management, supply and transportation offers profitable business opportunities, e.g. collecting, transporting and selling water, especially in urban areas. Generally, men tend to monopolize such businesses once their profitability is assured, while women are the ones who need to find the money to pay for these services, but there is also evidence of women running profitable water businesses. Where there is no adequate water supply, women's abilities to run a business are severely constrained, due to the large amounts of time usually spent on water collection. Furthermore, inadequate sanitation services can also delimit women's abilities to engage in business opportunities, e.g. if there is no toilet in a market space, women might be discouraged to go there. Unlike men, they cannot easily urinate openly, or they might engage in dangerous practices in order not to have to urinate, leading to dehydration. *See also: Dehydration, water collection, open defecation* "At the time when piped water was introduced, women in Lagos were selling goods (including water) at market as well as being responsible for domestic water collection. What is interesting is that over the years as urban growth and development proceeds, the responsibility for gathering water for the household has remained with women, while the source of that water now comes from new actors (door-to-door vendors, sachet producers, private water works, and others) involved in the business of selling water. This transformation of women's position with respect to household water supply illustrates how urbanisation and urban migration have reduced African women's traditional power and autonomy, and increased their dependence on men (Bay 1982; Hollos 1991)."

Source: Acey, C. (2010). Gender and community mobilisation for urban water infrastructure investment in southern Nigeria. In: Gender and Development, vol. 18, iss.1, p.14

Care: In most countries, women are responsible for the care of children, the sick and the elderly. A lack of adequate water and sanitation facilities leads to higher incidences of diseases such as diarrhoea, increasing women's care burden. The greater their care burden, the more water that is needed to effectively perform their care duties. In countries where women have to care for HIV-positive people and AIDS orphans, the time and effort needed to collect water is increased manifold. See also: Health

Community-based sanitation: Community-based sanitation (CBS) aims to improve sanitation conditions in urban areas (often slum areas) by involving all relevant stakeholders. CBS projects not only rely on technical solutions but also take into account broader hygiene behaviour and sustainability. In 2011 the concept was integrated into community-led urban environmental sanitation, which also relies on involving all stakeholders and finding the best sanitation solution in a common agreement, pursuing a holistic approach based on human dignity and health. These approaches harbour the possibility to really meet communities' and also women's demands. Therefore, it is important to interview women and men separately and to use and develop methods to elicit information on the sensitive topic of sanitation. *See also: Taboos*

Community-operated water schemes: Community-owned and operated water schemes, such as rainwater harvesting, solar pumps and spring protection are especially popular in rural areas where water supply tends to be neglected at the expense of urban water supply schemes. These schemes are based on communities constructing, maintaining, operating and repairing their own water schemes. Women are often specifically targeted as the main beneficiaries (in terms of time saving, improved hygiene, and health). Nevertheless, they are often under-represented in water user associations (WUAs). Some very poor women might also find it difficult to gain access to the money to pay for the use of water schemes. *See also: Rural water supply, rainwater harvesting*

"The nine-year IFAD-supported Central Dry Area Smallholder and Community Services Development Project started operation in Kenya in 2001 with the objective of reducing poverty through the provision of social and physical infrastructure. The project relies on community-based action to ensure sustainability, and water user associations (WUAs) have been established that own, operate and maintain water supply facilities. Women have been major beneficiaries. The amount of time they spend in collecting water has been reduced from about half a day to only minutes through schemes such as construction of protected springs close to the village. Water quality is also much improved. Time is spent instead on kitchen gardens and rearing of cows and goats for milk that is sold for cash, and women no longer have to withdraw their daughters from school to help them fetch water. One problem is that the contribution requirements set up by the WUAs are often too high for the poorest women, who are then excluded. In addition, women make up only 29 per cent of the members of the WUAs, mainly because membership is registered in the name of the male head of household who owns the land."

Source: Carr, M. & Hartl. M. (2010). Lightening the load. Labour-saving technologies and practices for rural women. IFAD & Practical Action Publishing, p.12

Coping strategies: Men and women have different coping strategies for dealing with water shortages due to climate change. While women are more likely to rely on social networks or to engage in off-farm income generating activities, such as hairdressing, basket-weaving, selling food, etc., men are more likely to migrate and to try to find paid employment. Coping strategies are usually dictated by gender roles. *See also: Gender roles, social networks, migration, livelihood diversification*

"In the face of climate change in rural Namibia, when agricultural activities could no longer support their livelihoods, men and women developed different coping strategies that influenced the extent to which they were obliged to migrate or not. Women tended to be more flexible in adapting and engaging in a range of informal activities from basketry, nut processing or rearing of chickens and other small animals. The fact that women lacked the technical skills to participate in formal employment led them to diversify into small local activities, whilst men tended to search for work further afield, often in small-scale mining. Consequently men and women's income-generating capacities differed, with men tending to have greater socio-economic security and therefore being better placed to deal with climate shocks."

Source: Angula, M. (2010). Gender and Climate Change: Namibia Case Study, Cape Town. Heinrich Böll Stiftung, Southern Africa. In: BRIDGE(2011).Cutting edge pack. Gender and Climate Change. BRIDGE, Brighton, p.32

Decision-making: Even though women are mainly responsible for water collection, water management and hygiene practices, decisions about water allocation from water schemes or participation in sanitation projects often lie with men. This bias in decision-making is also represented at institutional level. Men usually fill the leadership positions in water user associations and other communal, national and international water and sanitation agencies. Also within households, economic and social power is usually concentrated in men's hands, making it difficult for women to lobby for im-

proved water supplies for domestic use or sanitation facilities. Similarly with regard to climate change, participation in decision-making bodies for adaptation, mitigation and disaster management, as well as the funds available for these programmes – whether at community, national or international level – tend to be unequal for men and women, meaning that gender-specific priorities are rarely included in policies and national adaptation planning. *See also: Masculinities, community-operated schemes, adaptation, mitigation, access*

"The latest IPCC report (2007) recognizes women as one of the most vulnerable groups from the climate change impacts. Nevertheless, the issue of gender equality and women's participation get little attention in the climate change policy regimes. The little participation or in some cases exclusion of women from climate change decision-making processes present a real challenge to women empowerment, fail to uphold human rights principles and deprives society of many skills, experiences and capacities unique to women."

Source: Baten, M.A. & Khan, N.A. (2010). Gender issue in Climate Change discourse: theory versus reality. Unnayan Oneshan – The Innovators, Dhaka, p.9.

Dehydration: Several case studies suggest that due to a lack of adequate and private sanitation facilities women often risk dehydration – they do not drink during the day-time in order not to have to urinate in an open space where they can be seen. They wait until night time in order to urinate outdoors without being seen. This is also a strategy for market women who have no access to an adequate public toilet in the marketplace. *See also: Open defecation, privacy*

Drought: Climate change is responsible for greater rainfall variability and more extreme weather events. In many areas, drought is expected to increase in the coming years. Over 130 million people worldwide are already exposed to drought. According to the International Panel on Climate Change (IPCC), crops that depend on rainwater could decline as much as 50% by 2020 in some African countries and as much as 30% by 2050 in Central and Southern Asia. Women will have to walk further to fetch water for domestic use, and possibly engage in off-farm income-generating activities. Drought can have major impacts on gender relations, as the lines between typically male and female work blur (e.g. water might need to be fetched at night, so men will do this typically female job). *See also: Rainfall, water collection; Chapter 3, Gender and Food*

"My wife works more than I do. During non-drought periods, she wakes up at 3 am to collect clean water, prepares children for school, goes to farm with me and works for a few hours, and leaves for home with foodstuffs and firewood while I remain on the farm. On market days she goes to Kpeve market to sell fish after she returns from the farm, but on non-market days she sews dresses for people to earn income. She engages in the same activities during the drought periods, except weeding the farms. In fact, she sleeps for only 4 hours daily during the drought periods unless she is sick. I wish rain falls every farming season so that I can grow crops which would significantly reduce her workload."

Source: Arku, F. (2010). 'I cannot drink water on an empty stomach.' A gender perspective of living with drought. In: Gender and Development, vol.18, iss.1, p.120 **Education:** Improved water supply and sanitation services have a marked effect on girls' school attendance. Through improved access to water, the time that they often need to spend helping their mothers collect water is freed for school attendance and homework. Several studies also found a link between improved sanitation services in schools and girls' school attendance, as many girls do not attend school during their menstrual period due to a lack of adequate and private sanitation facilities. The dropout rate for girls also increases sharply once menstruation sets in. This can be partly attributed to inadequate sanitation facilities. *See also: Menstruation, privacy, water collection*

Empowerment: Access to adequate water and sanitation facilities can lead to women's empowerment in many ways. Women can use the time saved collecting water or finding safe places to urinate and defecate to study or engage in income-generating activities. Adequate sanitation facilities in market places can greatly increase women's market access, providing an opportunity for empowerment. *See also: Access, business opportunities*

Extreme weather events: Extreme weather events are increasing owing to climate change. Several studies have found that the death toll during natural disasters such as floods and tsunamis is much higher among women than among men. This is largely due to their care burdens and confinement to the private sphere, as well as their lack of ability to save themselves by swimming, climbing trees, etc. While men are often out at work and are more likely to access information on time, many women are at home and caught unaware when disasters strike. Some research shows that men often feel pressured to take heroic actions, thereby risking their lives. Women also suffer disproportionately from the consequences of severe weather events, as they are the ones responsible for the additional care burden during the rehabilitation period. Disaster relief measures can also put women at risk of prostitution and rape. *See also: Care*

"An Oxfam (2005) report on the impact of the 2005 Asia Tsunami reported that the majority of those killed and least able to recover were women (many drowned simply because they had never learnt to swim). In Aceh, Indonesia's largest city, located in Sumatra, for example, more than 75% of those who died were women, resulting in a male-female ratio of 3:1 among the survivors. As many mothers died, there were major consequences with respect to infant mortality, early marriage of girls, neglect of girls' education, sexual assault and trafficking in women and prostitution."

Source: Tandon, N. (2007). Biopolitics, climate change and water security: impact, vulnerability and adaptation issues for women. In: Agenda 73, p.10.

Famine: See: Chapter 3, Gender and Food

Food Security: See: Chapter 3, Gender and Food

Gender roles: All over the world women's and men's actions correlate with certain gendered roles, which are shaped by cultural norms and traditions. While women are responsible for caring for children and frail adults, collecting water and providing food

for the family, men are generally seen as the breadwinners, in charge of cash income as well as representing the household in public. Climate change has a big impact on these gender roles: Women have to walk further to access safe water, their care responsibilities increase due to an increase in water- and vector-borne diseases, and their ability to provide food for the family is threatened by rainfall variability and drought. Men increasingly find it difficult to play the role of breadwinners, which in many cases leads to high levels of stress and anxiety, substance abuse and increased domestic violence. *Also see: Health, care, drought*

"In the local context, gender role reversal, far from signifying equality, indicates socioeconomic impoverishment and hopelessness. It is the poor amongst men, like Kim Singh in Chuni, who sometimes carry water for richer households. In contrast with women, men are paid cash and kind for such work; yet it is still considered demeaning and Kim Singh would never carry water for his own home, so great is the pressure to restore what is left of his 'masculinity'."

Source: Joshi, D. & Fawcett, B. (2005). The role of water in an unequal social order in India. In: Coles, A. & Wallace, T. (2005). Gender, water and development. Berg, Oxford, p.51

Groundwater: Sinking groundwater levels and increased soil salinity due to climate change increase pressure on arable land, leading to increased conflicts over land, migration, and greater pressure on women to ensure food security for their families. *See also: Water scarcity, migration*

Health: Important health issues are related to water and sanitation. Apart from the high number of water-borne diseases in many developing countries and women's related care burdens, women also often suffer from backaches, headaches and bodily deformities as a result of their responsibility for collecting and carrying large amounts of water. They also tend to have less access to health care than men. Climate change contributes significantly to the spread of vector-borne diseases (e.g. Malaria), as well as water-borne diseases (e.g. Cholera), leading to an increase in women's work loads at times when disease breaks out. *See also: Care, water collection*

Human right: In 2010 the UN Human Rights Council affirmed that access to safe drinking water and sanitation is a human right. Providing safe water and sanitation thus not only meets people's needs but also guarantees their rights. Women's groups can now organize around their right to water and sanitation and hold governments accountable if they do not guarantee their rights. *See also: Access, sanitation, water campaigning*

Hygiene: In most countries women are traditionally responsible for domestic water supply and for maintaining a hygienic home environment. Therefore they are often targeted by programmes that intend to ameliorate hygiene behaviour. Men are usually not targeted by these programmes, even though there is evidence that men are important role models in households, and all family members are more likely to adopt hygienic practices if men are involved. This bias by development programmes also reinforces traditional gender roles. *See also: Gender roles, WASH*

"In Senegal, women play a central role in caring for the family, and their hygiene habits are strongly correlated to reducing or transmitting fecal contamination within the household. However, as heads of household, men allocate financial resources for household items such as soap or a hand washing station. Thus, while WSP's global scaling up hand washing project initially focused on women in Senegal, a lesson emerged through field observations and discussion: the project team would also need to consider men as a target audience. Involving Men in Hand Washing Behavior Change Interventions in Senegal (Koita, 2010), a WSP Learning Note discusses the steps taken by the project team to target both women and men. It shows that, as heads of households, Senegalese men play several key roles as gatekeepers, protectors, and role models. In these roles, men can allow or deny access to new information and necessary resources (such as soap or a hand washing station). They can enable, reinforce, and sustain behaviour change. It was also learnt that when men are engaged early on in the discussion they are more likely to take an active role in getting their families to adopt hand washing behaviors."

Source: Water and Sanitation Programme (WSP) (2010). Gender in Water and Sanitation. World Bank, Nairobi, p.30

Improved sanitation: According to the WHO, improved sanitation includes the following: connection to a public sewer, connection to a septic system, pour-flush latrine, simple pit latrine, and ventilated improved pit latrine. Service or bucket latrines, public latrines and open latrines do not qualify as improved sanitation. Unfortunately, characteristics such as privacy and safety or adequate menstrual facilities, which are of major importance for women, are not included in this definition. Furthermore, in some cases public latrines for use by women only could be preferable to private latrines, as private latrines are in some cases used by men to curtail women's movement and confine them to the household. *See also: Social networks, social exclusion*

Improved water sources: Improved water sources are defined by the technical conditions of the water source (e.g. pumps, standpipes, boreholes etc.). Urban areas are much more likely to have access to an improved water source than rural areas. But this view of improved water sources ignores the social conditions of accessing water. Even where there is an "improved" water source, women often have to queue for hours to get their water. They might be exposed to violence from other people waiting to get their share of water, they might have to pay bribes in order to access the water source, or the source might be contaminated by human waste due to lack of adequate sanitation facilities. *See also: Urban water supply, rural water supply, access*

Information: Information about climatic variability is crucial for farmers to help them prepare for and mitigate the impacts of drought, floods, etc. Generally, women have less access to early warning systems or climatic forecasts. This is due to lower levels of education and widespread illiteracy, but also to their household duties and customs that confine them to the private sphere, impeding their access to institutional support such as extension services. The main source of information for most women tends to be their social networks. *See also: Literacy, adaptation, mitigation, social exclusion, social networks*

Infrastructure: In many developing countries, the main problem with water is not scarcity, but inadequate infrastructure owing to underinvestment and poor maintenance. Women are the ones who suffer most from breakdowns of water pipes or contaminated drinking water, as they have to walk further or pay more (often including bribes) to access safe water sources. *See also: Urban water supply, rural water supply, maintenance*

Irrigation agriculture: See: Chapter 3, Gender and Food

Land rights: See: Chapter 4, Gender and Land

Land grabs: Land grabs in most cases are also water grabs, as countries with few water sources buy up land with water in order to grow highly water-intensive food crops or biofuels. For a more detailed discussion of the phenomenon of land and water grabs, *see: Chapter 4, Gender and Land*

Livelihood diversification: Livelihood diversification is an important coping strategy for many small-scale farmers in times of climate change, with women and men pursuing different income-generating activities in order to guarantee food security. While men are more likely to migrate in order to find paid employment, women often sell food, fuelwood or local crafts in order to generate income. *See also: Coping strategies*

Literacy: About two thirds of illiterate people worldwide are women; stark gendered differences in literacy rates exist in Southern Asia and sub-Saharan Africa. This means that women are less likely to be able to read leaflets or other information sources used to inform people about climatic variability, severe weather events or adaptation and mitigation strategies. *See also: Information, extreme weather events*

Maintenance: Maintenance and operation of water and sanitation facilities often pose a larger challenge than the actual construction of toilets, water pipes, etc. When constructing a toilet, it is therefore important to negotiate and regulate who will empty and clean it, as in some cases, women might be burdened with this extra work without compensation. Many projects deliberately target women for these tasks, as they are mainly responsible for fetching water and emptying latrines. Receiving adequate compensation for their services can lead to empowerment and a higher standing in their communities. See also: Infrastructure

Masculinities: The water and sanitation sectors as well as the climate change sector are predominantly male. This is reflected, for instance, in conferences on these subjects, where there is usually a marked discrepancy in attendance between women and men. The technical nature of most water and sanitation projects has only recently been supplemented by a more social view of the issues at hand, as many projects that did not take account of the social, cultural and gendered nature of water and sanitation were unsuccessful (e.g. toilets were built but never used due to cultural issues or specific gender-related needs that were not taken into account). Nevertheless, the social aspect of water and sanitation projects is still often regarded as less important than the technical aspects. Climate change adaptation and mitigation are still perceived in technical

and economic terms, while the social and gender dimensions of climate change are ignored. Technical competence is still widely regarded as an important aspect of masculinity, while social professions tend to be more associated with femininity.

MDG 7: A specific MDG target to cut by half the proportion of people without access to drinking water and basic sanitation was agreed at the World Summit on Sustainable Development in 2002. In 2008 UNICEF declared that these targets "cannot be met without the full participation of women – as care-givers, workers, beneficiaries of services and decision-makers in homes, communities and at national levels – and without addressing the inequities suffered by girls". Nevertheless, gender disparities are not accounted for by the MDG monitoring system, meaning that the target might be met without necessarily improving the situation for men and women alike. For example, water sources may be built in unsafe places or far from the women who need to use them. They may be inadequate for community needs or they may quickly fall into disrepair. Lack of consultation with local men and women may mean that water sources and sanitation facilities do not adequately meet the needs of local women and men. Important issues such as menstruation are rarely included in the planning of water and sanitation projects. *See also: Menstruation, access, improved water sources*

Menstruation: Women have particular water and sanitation needs during menstruation. In many developing countries the prevalent form of protection during menstruation is cloth rags that soak up the blood. These rags need to be washed, dried and exchanged. Therefore a private room with a supply of water is needed, as well as a place to dry washed rags, so that they cannot be seen. There is much evidence that girls start to miss school once they begin menstruating, and school drop-out rates increase. This can partly be attributed to the lack of adequate sanitation facilities that also cater for girls' special needs during menstruation. Some case studies suggest that many girls suffer from urinary tract and genital infections due to inadequate menstrual hygiene.

"The vast majority of women and girls in Bangladesh use rags- usually torn from old saries, instead of sanitary towels/napkin. Rags are washed and used several times. There is no private place to change and clean the rags and often no safe water and soap to wash them properly. A culture of shame and embarrassment forces them to seek for well hidden places even in their homes to dry the rags. These places are often damp, dark and unhealthy. This practice is responsible for a significant proportion of illness and infection associated with female reproductive health. Rags that are unclean, cause urinary and vaginal infection. Very often serious infections are left untreated. This is the common picture in urban slum and rural Bangladesh.

With just one latrine in a school, the experience is that this sole latrine tends to be locked and reserved for the exclusive use of the teachers only. Where there are two latrines, one is locked and reserved for use by the teachers and the other is used by both boys and girls. In such cases girls, especially, during their menstrual period are often unwilling to use the latrines and make their own (often unhygienic) arrangements or simply skip school."

Source: Nahar, Q. & Ahmed, R. (2006). Addressing the special needs of girls. Challenges in schools. WaterAid, Bangladesh, p.3

^(...)

Migration: One of the coping strategies of men in times of increased droughts or floods is migration. This leads to increased workloads for women. Remittances do not always reach women, as there is qualitative evidence from many countries that many men who migrate send little or no money to their families. In other cases, money is sent to male relatives who are then in charge of distributing it to women and children. But there is also evidence that where droughts are more severe, women and men migrate. Gender roles often change due to migration when, for example, women have to perform male tasks, e.g. irrigation of agricultural fields. Sometimes they also take up leadership roles in water committees and associations. *See also: Coping strategies; Chapter 3, Gender and Food*

"Yes, my husband travelled to Accra last year for seven months to work because the rains did not come during the farming season. But when he returned he used the money on his concubines and bought us (our two children and I) a bag of maize. Travelling to the city is not a coping strategy for the entire household: it is a coping strategy for men."

Source: Arku, F. (2010). I cannot drink water on an empty stomach. A gender perspective on living with drought. In: Gender and Development, vol.18, iss.1,p.120

Mitigation: While extensive funding is available for climate change mitigation, there is hardly any recognition of the gendered nature of mitigation policies and practices, and the money available tends to benefit mainly technical projects. Energy consumption differs between men and women – while women need fuel for cooking (often unwillingly aiding deforestation and land degradation), men are more likely to need energy for agriculture or income-generating activities. More research needs to go into directing mitigation technologies to the specific needs of women and men, and consequently mitigation funding should be allocated in a more gender-equitable fashion.

"Mitigation is the reduction of emissions of greenhouse gases, for example from fossil fuels or deforestation, with a view to decrease or at least stabilize current GHG concentration in the atmosphere."

Source: Fajber, L. Gender, water and climate change. Gender Water Alliance, p.1 Available: www.genderandwater.org (Last accessed: 10.1.2010)

Open defecation: 2.6 billion people, many of whom live in rural areas, have no access to sanitation. These people must resort to open defecation. This practice is much more risky for women than for men. In many cultures it is not appropriate for women to be seen urinating or defecating outdoors. Therefore, women often have to walk far in order not to be seen, sometimes risking violent attacks. In other cases, they do not drink during the day in order to wait until nightfall to urinate, so they will not be seen. *See also: Safety, violence, dehydration*

Privacy: Privacy is an important aspect for women when it comes to using sanitation facilities. Many sanitation projects have failed because they have not taken this aspect into account. For example, building a latrine without roofs in hilly areas might expose women to the view of men standing at a higher elevation, or a latrine built in a family's courtyard might mean that whenever a woman wants to use it she has to pass by male visitors sitting in the courtyard. In some cultures it is also taboo for women to share toilets with their male relatives. These situations may lead women not to use the latrines or only to use them at night, when nobody can see them. Privacy is also of utmost importance for menstruating women. There is evidence that where toilet and washing facilities are separate, women might not use the washing facilities during menstruation, but rather re-use dirty clothes, as they do not want to be seen to "need" washing. Where washing and toilet facilities are integrated it is not obvious to outsiders that a woman is menstruating. *See also: Menstruation, Open defecation*

Privatisation: International support for water privatisation programmes has been growing since the 1990s. Water privatisation schemes have often been criticized for limited public discussion and marginalizing the voices of those most affected by them. Where water is treated as an economic good, water for uses that generate income, such as agriculture, is often prioritized over "non-productive" uses of water, usually to the disadvantage of women who need water for their domestic responsibilities. Several studies describe how women spend a large amount of their income on water, since their social role as water collectors also makes them responsible for paying for this amenity. When water becomes a priced good, women usually suffer the most, as they have to find a way to pay for it. This is probably the main reason why women can be found at the forefront of anti-privatisation movements all over the world. *See also: Water campaigning*

Rainfall: Rainfall is of central importance to most small-scale farmers in the developing world. Erratic rainfall due to climate change leads to poorer harvests and reduced crop yields, directly impacting food security and household income. An FAO Report (2010) highlights the different perceptions of the main impacts of reduced and erratic rainfall. Men were more likely to report that bore-wells and ponds had dried up and that there was less fodder, while women were more likely to report that health was affected. These findings might indicate that men are more preoccupied with securing income (through livestock), while women are more preoccupied with the health of their family members. Where rainfall is erratic, people tend to diversify their livelihoods. *See also: Livelihood diversification, health, car, coping strategies*

Rainwater harvesting: Rainwater harvesting can be used by women in order to assure women's water supplies for household needs, especially where existing water sources are mainly used for irrigation. *See also: Community-operated water schemes*

"Rainwater harvesting: In Kusa village in the Nyando District of Kenya's Lake Victoria Basin, the village government worked with women's groups to construct domestic rainwater harvesting units, and develop springs, shallow wells, earth dams and sand dams. This project was supported by the Regional Land Management Unit (RELMA) of ICRAF, and tanks were provided with subsidies and revolving credit. With assured supply of domestic water at the homestead, women's lives changed dramatically. Labour, time, and harassment experienced in collecting water was dramatically reduced."

Source: Fajber, L. Gender, water and climate change. Gender Water Alliance, p.3. Available at: www.genderandwater.org (Last accessed: 10.1.2012)

Rural water supply: Rural water supplies are often inadequate, as most infrastructure is located in cities. This means that women in rural areas use less water (e.g. for hygiene) and need to travel further to collect water. Also, water is often prioritized for agricultural use, as this is an important livelihood for rural people. *See also: Agriculture, water collection, infrastructure, access*

"Access to water in rural communities has lagged behind urban improvements, and little if any effort has been made to improve access for poor rural women. As of 2005, 80 per cent of the population of Tanzania lives in rural areas. Studies from rural areas of Tanzania show a much lower rate of water consumption than in urban areas, which is a direct consequence of affordability and distance required to collect water (Tanzanian Gender Networking Programme [TGNP] 2005b). Consumption plummets even further during the dry seasons, where in many regions women are walking four to seven hours a day to collect water or are resorting to unimproved sources nearer to home. Making matters worse for women, in a number of cases where new boreholes have been dug or water schemes developed, water use has been prioritised for brickmaking or agricultural activities, supporting men's ability to generate income, but undermining women's access to clean water near to the home, which would then liberate them to engage in income-generating activities as well."

Source: Brown, R. (2010). Unequal burden: water privatisation and women. In: Gender and Development, vol. 18, iss.1, p.61

Safety: Inadequate sanitation and water supply raises important safety issues for women. The further and more remotely they have to travel in order to access water, the more they are in danger of being assaulted. Inadequate sanitation facilities mean that women need to find safe and private places to urinate and defecate. There are many stories of women drinking less during the day and waiting until nightfall to urinate and defecate in nearby bushes or fields where they can't be seen by men. *See also: Violence*

"For example, due to a lack of local toilet facilities in one of the slums, women rise at 4:45 am, and begin a half hour early morning walk to find a relatively uninhabited forest area to urinate and defecate in. Joining the women on their walk one morning, I was told that the particular location of "jungle" had been chosen, despite being quite distant from the slum settlement, because of safety concerns and the fear of attack in locations that were closer to home. Specifically, women recount stories of harassment, abduction, and rape, while traveling to closer (but less protected) sanitation points. Having no access to toilets in their own slum cluster, they resort to traveling together each morning in large groups for an approximate one hour return journey. One woman describes, "We can never go to the latrine [jungle] alone, even in the day, or in any time, because there is always a fear of outsiders, truck drivers and some other bad people in the area. We are always worried about these bad people. That is why we never go alone.""

Source: Yaffa, T. (2011). (Re-)conceptualizing water inequality in Delhi, India through a feminist political ecology framework. In: Geoforum, vol.42, iss.2, p.148

Sanitation: Women face particular challenges when it comes to sanitation. Due to their different physiology and to cultural norms and traditions, they have particular sanitation needs. Toilets for women should be private (protecting them from being seen by men) and safe (they need to be able to lock the doors of sanitation cubicles), and they should include adequate washing facilities for washing rags used during menstruation. Even though women face particular safety and privacy challenges, sanitation decisions tend to be taken by men. Due to the highly sensitive nature of this topic, development practitioners often find it difficult to elicit information on sanitation needs and demands from local people, and especially from women. This often leads to a mismatch between development planning and actual needs on the ground. In the sanitation sectors stories abound of toilets that have been built but never used. Special interviewing techniques need to be developed to make sure the users of sanitation facilities (especially women and girls) get the sanitation, *taboo, WASH*

"Motivated by a desire to increase women's social capital within their households, project staff began insisting that latrine packages be put in women's names. The empowerment objective behind this decision was that if women rather than men were eligible to acquire latrine subsidies (by filling out the paperwork in their names), it would convey status upon women within their households by making them the necessary link to latrine subsidies. But even when a woman did bring the subsidy into her home, placement of latrines in the front of a family's courtyard prohibited their use by women, because that space was used primarily by men and guests. Eventually an effort was made to encourage women to decide on the location of the household's latrine, so that they could choose a place that allowed for discreet access at any time. However, staff had no control at the household level, and could only suggest that families let women take these decisions."

Source: O'Reilly, K. (2010). Combining sanitation and women's participation in water supply: an example from Rajasthan. Development in Practice, vol. 20, iss.1, p. 52

Social exclusion: In many societies women are mainly confined to the private sphere of the household, and cultural limitations limit their interactions with the outside and the public space. This exclusion from the public, and therefore from important information, makes them more vulnerable to the effects of climate change (e.g. rainfall variability, drought and extreme weather events). Climatic disasters often catch women unaware and unprepared, leading to a significantly higher death toll among women during floods, tsunamis or other extreme weather events. In some cases, the installation of a private water tap or a private toilet can exacerbate women's exclusion, as they then no longer need to go out to collect water or use a public toilet. Therefore in certain cases, installing a communal toilet for women only, or building a communal washhouse where women can meet, might be more beneficial for women than a private toilet or private water access. *See also: Extreme weather events*

Social networks: Social networks are especially important for women in developing countries. While men often pursue other coping strategies, such as migration, women rely on friends and neighbours to provide labour or food in times of shortage. With severe weather events, such as floods and droughts on the rise, social networks often

break down. In some instances interventions that aim to improve women's access to water and sanitation at the household level might actually curtail women's networking possibilities, confining them to the household. Therefore in certain cases, installing a communal toilet for women only, or building a communal washhouse where women can meet, might be more beneficial for women than a private toilet or private water access. *See also: Improved sanitation, coping strategies, social exclusion*

Subsistence agriculture: See: Chapter 3, Gender and Food

Taboos: Many societies have taboos relating to water and sanitation. Menstruating women, for example, are often seen as impure and their access to water is restricted. Most people find it difficult or even shameful to talk about their sanitary practices and needs, and this is even more pronounced where women are concerned. Even development actors and governments often share this unwillingness to talk about (and consequently do something about) sanitation. Many development practitioners still find it a lot more glamorous to dedicate a well rather than a latrine. Nevertheless, it is important that development interventions improve sanitation services for those 2.6 billion people who do not have access to adequate sanitation services, and that these services also meet people's needs. Special techniques need to be developed and used to elicit this sensitive information. It is also important to talk to women and men separately in order to determine their special needs and wishes. *See also: Community-based sanitation*

Fawcett and Black (2008) acknowledge that we need to find ways to "build real political commitment behind sanitation, both in the local government and national institutions of the developing world and in the international development community. And that in turn requires that the squeamishness that surrounds the subject with silence and taboo is tackled head on. In the same way that the global epidemic of HIV and AIDS has brought us to talk about hidden forms of sexual behaviours, today's sanitary crisis requires that we dismantle that last great taboo, and learn to talk about ...shit."

Source: Black, M. & Fawcett, B. (2008). The last taboo. Opening the door on the global sanitation crisis. Earthscan, London, pp.9-10

Technology: There are labour-saving technologies that could lessen the time women spend on water collection and also reduce the incidence of health problems related to carrying water. For example, using a wheelbarrow instead of carrying water on their heads could help women to transport larger amounts of water. However, socio-cultural traditions and views often prevent communities from adopting these technologies. *See also: Health, water collection*

Time burden: Inadequate water and sanitation facilities in many developing countries and especially in rural areas increase the burdens on women's time considerably. The Human Development Report 2006 estimates that women in sub-Saharan Africa alone spend about 40,000 hours a year on water collection. Inadequate sanitation facilities mean that women often have to walk far in order to find a private place to urinate and defecate. Furthermore, where water and sanitation are inadequate, water-borne diseases are common, increasing women's care responsibilities. Water scarcity associated with climate change also increases burdens on women's time. See also: Care, water collection, sanitation, diseases, water scarcity

Urban sanitation: Many urban slum areas lack adequate sanitation facilities. Often many households share one latrine, and others need to use communal latrines. Lack of maintenance and emptying often leads to overflow. At night it is often dangerous for women to use public or communal toilets and they therefore rely on so-called "flying toilets", meaning that they urinate and defecate into bags, which are then thrown out the window. This practice obviously constitutes a health hazard, as streets become littered with faeces. *See also: Community-based sanitation*

Urban water supply: Urban households access their water from different sources, e.g. household taps, community standpipes, purchase from water vendors, communitybased organisations or kiosks, or collection from a natural source. Poor urban neighbourhoods often use municipal standpipes that frequently experience water shortages. Women (and sometimes girls) therefore often have to get up very early and queue for several hours at water collection points without a guarantee of success. Sometimes they have to pay bribes in order to receive water. There are also many reports of contaminated water sources or fights breaking out over scarce water sources. *See also: Violence, water contamination, infrastructure, maintenance, improved water sources*

Violence: Many women experience violence due to inadequate water supply and sanitation facilities. There are many reports of violence experienced by women while collecting water or by women who had to go to the bush in order to urinate or defecate or had to use a public toilet in an unsafe neighbourhood. A considerable amount of violence also seems to be occurring between women queuing up at urban water points. *See also: Urban water supply, urban sanitation, safety*

Vulnerability: Many international climate change reports now recognize the greater vulnerability of women with regard to climate change. This vulnerability arises from their greater involvement with the natural world (e.g. through agriculture), their domestic responsibilities (water collection) and their care responsibilities (which will increase through an increase in water-borne and other diseases related to climate change). Furthermore, women are made more vulnerable through their lack of access to land, credit and other assets and their difficulties in obtaining paid employment. Nevertheless, an often one-sided focus on women's vulnerability can entrench gender stereotypes and ignore women's agency and their role in adaptation and mitigation. *See also: Water collection, literacy, extreme weather events, adaptation, mitigation, care*

WASH: Due to the close links between access to water, sanitation and hygiene, these three topics are generally grouped and discussed together as WASH. The gender dimension of these three subjects has only recently been recognized, but there is now a lot of rhetorical support to include gender in assessments and planning in the water and sanitation sector. In practice, hygiene is often feminized, while the water and sanitation sectors are still very male-dominated and often only discuss problems and solutions in technical terms. The main international agencies and global groups responsible for

data compilation still do not collect sex-disaggregated data on water or sanitation. An important issue for women still almost absent from WASH discourse is menstruation. *See also: Masculinities, sanitation, hygiene, menstruation*

Water campaigning: Due to their many water-related responsibilities, women are often at the forefront of movements that lobby for the establishment of water sources in their villages or areas. They are also often found participating in great numbers in anti-privatisation movements. The recognition of access to water and sanitation as a human right is bound to strengthen these women's movements. *See also: Privatisa-tion, human right*

"Despite women's widespread lack of political voice, there is considerable evidence of women's organizing around water. Searches (in 1999 and 2007) of the Associated Press data base of news photos reveals massive women's demonstrations demanding access to safe water in Patna and Mumbai, India in 1998, Dhaka, Bangladesh in 1999 and 2006, Basra, Iraq in 2003, Bolivia (several cities) in 2000 and 2005 and Nicaragua 2005. Bennett (1995) in a classic study of an extraordinary era of protest in the city of Monterrey, Mexico argued that water provides opportunity for women to organize across class lines. James et al. (2002) and Panda (2007) described large-scale organizing by rural women around access to water in Gujarat, India, and suggested that time saved from water collection can be used to increase women's cash incomes. Andujar (2005) described the dramatic social improvements brought by women organizing for water and sanitation in a shantytown in Buenos Aires, Argentina. Were, Roy, and Swallow (2008) described the consequences for women's work of community organized household connections in rural Kenya."

Source: Crow, B. & McPike, J. (2010). How the drudgery of getting water shapes women's lives in low-income urban communities. In: Gender, technology and development, vol. 12,iss.1, p.58

Water Collection: In most developing countries women (and girls) are responsible for the arduous task of collecting water for drinking, cooking, washing and sanitation, as well as for agricultural use. The Human Development Report 2006 estimates that women in sub-Saharan Africa alone spend about 40,000 hours a year on water collection. This represents a severe limitation on the time available for other activities, such as child care, education or income-generating activities. Nevertheless, women also use the time spent on water collection for social networking. In places where they are mainly confined to the household, women might also enjoy the autonomy of being able to leave the house in order to collect water. Climate change is bound to create additional hardships for women, as they will have to travel further to collect clean water. Some studies show that where water sources have been improved, the time previously used for water collection is used for income-generating activities and school attendance. But some case studies also suggest that where water sources are installed in the households, women lose the autonomy and networking opportunities associated with water collection and remain more confined to the household. See also: Time burden, health, social networks

Water governance: There is agreement in policymaking circles about the need for women's participation in water governance, and it is generally recognized that by ensuring that women and men are equally involved in negotiations about water allocation, as well as in the management of water sources, women can be empowered and gender equity promoted. Some research papers suggest that women's participation in water governance will lead to better enforcement potential and to improved and more sustainable resource conditions. Nevertheless, most water governance structures, such as water user associations, are still male-dominated. There are external reasons for this; for example, many women do not have the time to join water governance structures, but there are also internal reasons - the prevailing masculine professional culture and identity of the water sector. The general under-representation of women in water governance structures can mean that only men's priorities are reflected in terms of location and use of water supplies (e.g. water sources might be mainly allocated to irrigate fields, rather than for household needs). But even where there is an equal number of women and men, the principles of good governance do not always work out in practice, as more powerful individuals shape governance arrangements to their advantage. Complex cultural norms and traditions also sometimes interfere with equitable governance structures (for example, when younger women are discouraged from taking a lead role in negotiations due to the presence of older women). It is also important to provide women with the necessary tools and skills to fulfil their roles and responsibilities in water governance structures; otherwise, they might quickly become disempowered rather than empowered. See also: Community-operated water schemes, masculinities, water management, WASH, access

"For example, in a case of a village water supply project in Tanzania, the implementing non-government organisation (NGO) worked intensively with the pastoralist community to improve their water supply scheme, and to increase women's representation in governance structures. The project was partially successful in increasing the number of women on the village council and water committee, and women themselves felt that they had been empowered in relation to men in some ways (including in their domestic relationships). However, the community-designed mechanisms for the operation and sustainability of the water pump reinforced gendered inequalities of access. Use of the pump depended on payment (for diesel, to operate it). In the pastoralist village economy, only the men had command over cash. Men's ability to make such cash payments meant that women had to continue to defer to men in water collection. Men took priority in watering their cattle, while women waited, often for hours, to collect domestic water when they had finished (Tukai 2005). The cash payment mechanism clearly had different effects for men and women. The framework can thus help to highlight the ways in which gendered inequalities can be reduced, or reproduced through localised water governance arrangements."

Source: Cleaver, F. & Hamada, C. (2010). 'Good' water governance and gender equity: a troubled relationship. In: Gender and Development, vol. 18, iss.1, p.32

Water management: Due to their primary responsibility in collecting water, women usually have a great amount of knowledge about the locations of water sources, water quality and water storage methods. They also make the primary resource-use and consumer decisions for their families. Unfortunately, this knowledge is rarely used by water projects or projects that deal with climate change. Women are rarely found in management positions in institutions concerned with water. This can be partly attributed to their time burden and their generally lower levels of education, but it is also due to the prevailing masculine identity of the water sector. *See also: Masculinities, water governance, community-operated water schemes*

Water scarcity: Higher temperatures and droughts lead to more evaporation of groundwater and a drying up of rivers, boreholes, etc. Where water is scarce, women often have to walk further to fetch water and the pressure on available water sources increases, leading to (often violent) conflicts over water and migration. Water scarcity can also be a consequence of privatisation projects, which leave many households unable to pay for water supply. *See also: Climate change impacts, coping strategies, privatisation, groundwater*

Water quality: Since women are responsible for collecting water, but also for caring for the ill, they are likely to be the first ones to notice changes in water quality. Contaminated water sources are especially common in urban areas. Boiling or treating water before drinking it contributes to already considerable burdens on women's time, and there are many reports of women using contaminated water for cooking, gardening or even drinking.

"For many of the men interviewed, having a red (contaminated) tubewell in their homestead (that they erstwhile could use but now cannot) means that women and girls from the household have to venture out into public spaces to get water, which was a major concern for the men. Most women identified the main concern of having a red tubewell to be having to travel further to get water or to having to use someone else's source, followed by a concern that they do have to go into public spaces to access water. Furthermore, collecting water in the dark when the water source is outside the bari, as well as sense of social insecurity in travelling longer distances, are concerns that both women and men have in dealing with the water crisis. In some instances, women face restrictions from their own family members in venturing too far to get safe water and may thereby be forced to fetch unsafe water for their family from a closer source. As one teenage girl said 'My father said we'll have to drink this water [from the red tubewell] and that we shouldn't go to the bazaar to get water from the green tubewell. It is not allowed.' Such sensitivities often result in entire families continuing to consume contaminated water in a trade-off between safeguarding family honor and taking the risk of consuming unsafe water (especially as the health impacts of arsenic poisoning are not immediately felt but develop over time)."

Source: Sultana, F. (2009). Fluid lives: subjectivities, gender and water in rural Bangladesh. In: Gender, place and culture (2009), vol. 16, iss.4, p.431

5.3 Policy Recommendations

5.3.1 General

- Treating water, sanitation and hygiene as an analytical entity shapes programme planning, technology development and implementation. For programmes this implies that values such as dignity, safety and shame and their gendered quality are an integrative part of the planning process that should be tackled with partners in a participatory approach. With regard to sanitation infrastructure more specifically, this refers to participatory planning and probably to facilities which integrate sanitation, washing and bathing activities.
- Women's participation in decision-making bodies in water- and sanitationrelated institutions and projects, as well as in climate change adaptation and mitigation bodies, needs to be increased. This can be achieved through quotas. It is however important to also increase women's skills through training and capacity building in order to provide an incentive and to empower them beyond mere participation.

"Thus, the adequate provision of a safe and reliable source of domestic water, alongside participation in decision-making on water and sanitation, and in community management institutions, leads to the possibility of women's empowerment: they are able to control a key resource, and this leads to increased levels of confidence (Ahmed 2005). For example, in a rainwater-harvesting project in Sítio Colônia, Pernambuco state, women were able to develop new capacities beyond water management, and gain a small income from cultivating vegetables or fruits, or from breeding animals. This meant that in some cases, women participants were able to overcome social barriers, to take on leadership positions, and to negotiate for their interests in the public decisionmaking bodies for water supply- and sanitation-related issues. In another project in the municipality of São João D'Aliança, 'women's political participation was strengthened and public perceptions regarding their capacity to take on leadership positions were changed' (GWA 2006a, 1)."

Source: Leite, M. (2010). After the summit: women's access to water and policy making in Brazil. In: Gender and Development, vol.18, iss.1, p.73

• Since men often make decisions about water and sanitation, they need to be sensitized to women's specific needs when it comes to water- and sanitation-related issues (especially about specific needs during menstruation and the dangers of inadequate menstrual hygiene). This can be done through **awareness raising campaigns and workshops that deliberately target men and women**. Headmasters and teachers at schools also need to be sensitized to the need for adequate sanitation for girls in order to prevent them from dropping out of school.

- Climate change as well as water and sanitation projects need to move away from purely technical approaches. It is important to recognize the social and gendered needs of people, as well as to understand social and gender implications of projects. It is therefore vital to **include social scientists in projects** for planning, implementation and evaluation.
- It is important to collect **sex-disaggregated data on the impacts of rainfall variability and drought due to climate change**. Therefore, existing gender indicators, e.g. on enrolment levels, literacy, involvement in agriculture, etc. could be integrated into climate change adaptation and mitigation monitoring.

"A United Nations Environment Programme (UNEP) analysis of vulnerability to climate change in Algiers showed how existing gender-disaggregated data could be integrated into climate models to illustrate how underlying social, political and economic factors affect women and men's differential exposure to climate change impacts and levels of vulnerability. The study found that there was only sufficient gender-disaggregated data in certain categories (adult literacy, primary school enrolment, income differences, economic activity and decision-making). These factors were, therefore, incorporated into exposure models, showing that, far from being equally exposed, as disaggregated population data indicated, women were over five times more vulnerable to changes in climate conditions due to their lower education and literacy rates, weaker influence on decision-making and lower income (Singh, Svensson et al. 2010). This case study illustrates the importance of gender-disaggregated data in challenging the assumption that climate change is gender neutral by highlighting how vulnerability is affected by underlying inequalities."

Source: Singh, A. et al (2010). Gender-disaggregated data for assessing the impact of climate change. In: Dankelmann, I. (ed.). Gender and climate change: An introduction. Earthscan, London. Cited in: BRIDGE (2011).Cutting edge pack. Gender and Climate Change. BRIDGE, Brighton, p.37

5.3.2 For governments

• National water, sanitation and climate change strategies must include the needs of both women and men. Baseline surveys should be conducted and policies formulated through a multi-stakeholder approach, including men and women from different segments of society. Monitoring data should be disaggregated by gender.

"In 2009, the Kenyan Ministry of Water and Irrigation, with the support of the gender ministry, introduced incentives and boundaries for gender mainstreaming, through staff performance contracts. Through this, government officials are, for the first time, contractually responsible for implementing gender goals and are evaluated on this annually. Within one year, up to US\$ 100,000 was allocated by various government agencies (in a resource constrained sector), for gender mainstreaming activities, baseline studies and awareness raising activities. The availed resources worked as an incentive to staff in that decision makers supported their individual and collective gender mainstreaming mandate."

Source: Water and Sanitation Programme (WSP) (2010). Gender in Water and Sanitation. World Bank, Nairobi, p.13

- Anonymous citizen report cards are used in several parts of the world to give feedback on projects implemented by government agencies. They can be useful in distinguishing complaints and feedback by women and men and might be used to improve water and sanitation projects and make them more gender-friendly. This kind of project could also be scaled-up in order to produce a database on gender-related water and sanitation needs that could be accessed by other governments and international organisations.
- It is important that **information about climate change and climatic variability** also reaches women. Institutional services such as extension services need to be made more gender-friendly, e.g. by employing female extension agents and by adjusting the time and places of service to women's daily lives. Earlywarning mechanisms must consider gender-specific access and use of information and technologies. Women's groups or other social networks could be used to disseminate information to their members.

5.3.3 For international and national development actors, CBOs and women's groups

- International agencies and donors should hold their partner countries accountable for including gender in all WASH interventions. Furthermore, they should critically examine their own structures and make sure that not only men are represented on committees and in decision-making boards. The number of women working in water and sanitation projects should be actively increased, e.g. by promoting an increase in the number of women in technical education programmes but also by including more social scientists in WASH projects, e.g. to conduct baseline studies about the needs of women and men and to monitor the impact of projects, etc.
 - The notions of what constitutes **improved sanitation and improved water sources should be redefined** in order to include women's specific needs, such as location of water sources close to households, equitable allocation of water to households and agriculture, safe and private sanitation facilities for women only, adequate facilities to deal with menstruation, etc.

- In order to be sustainable, **WASH interventions** need to include local women and men in the planning process. People should be given a choice with regard to which water or sanitary technology they would like to adopt. Working with local NGOs, women's groups, etc. can be beneficial in ensuring a follow-up of the intervention through awareness raising, addressing gender stereotypes, etc.
- Women and men need to receive **training in natural resource management** strategies that will enable them to deal with climate change. Community efforts or efforts by women's groups to harvest rainwater can provide an opportunity for women to access clean water at times of water scarcity.
- Water user associations and other communal water agencies should make sure that women are adequately represented in decision-making structures. Cultural norms relating to gender roles (e.g. that women should not speak in public bodies) need to be challenged by introducing rules and guidelines, e.g. everyone needs to speak before a decision can be made (if necessary in separate male and female groups).

5.3.4 For researchers

- More research is needed on the **impacts of climate change** on intra-household decision-making (e.g. with regards to farming decisions) and on gender-specific coping strategies.
- **Burdens on women's time** due to water collection and their increased care responsibilities due to inadequate water and sanitation facilities should be quantified and valued to provide an incentive for governments and WASH institutions to include women's needs and priorities in their projects. At the same time the (sometimes negative) effects of having a private water supply or toilet should also be scrutinized.

"Research in India by the Self Employed Women's Association (SEWA) demonstrates the interaction. Women engaged in a successful microenterprise project in a semi-arid area of Gujarat spent three to four hours a day collecting water. During summer months, when the time to collect water increased by two hours a day, women adjusted by reducing the time spent on microenterprise work. SEWA calculated that reducing water collection to one hour a day would enable women to earn an additional \$100 a year depending on the enterprise—a very large implied income loss for households in an area of high poverty. But it was not only the loss of income that was important. Women also emphasized the importance of income generation to their independence."

Source: UNDP (2006). Human Development Report 2006. Beyond scarcity: Power, poverty and the global water crisis. UNDP, New York, pp.47-48

• In order to successfully integrate women's concerns into sanitation projects, **methods to elicit sensitive data** (such as information about sanitation practices and needs) need to be developed and tested in the field.

• More women should be involved in **climate change research**. Not only researchers but also local male and female small-scale farmers should also be involved in observing and monitoring the impacts of climate change at the local level.

5.4 Concluding remarks

Women are the main water collectors and managers at the household level. Their priorities for water allocation often differ from those of men. Similarly, their sanitation needs and priorities differ from those of men (privacy and security are of utmost importance). While hygiene projects often specifically target women, water and sanitation projects are often approached from a purely technical perspective – a fact that has led to the failure of many projects and consequently to recognition of the importance of including women and gender issues in the planning process. Nevertheless, the water and sanitation sectors are still dominated by men and social and gender issues, if included at all, are relegated to issues of secondary importance. This can also be seen in the prevailing definitions of what constitutes improved water and sanitation, which are purely technical and do not account for women's specific needs. For projects to be sustainable and really meet the needs of all people, women and men need to be included in the planning and monitoring of projects. Technical and social expertise needs to be treated as equally important, and more women need to be encouraged to join technical professions.

Similarly, climate change research on adaptation and mitigation has been dominated by men and by technical approaches. The recognition that women are among the most vulnerable to climate change due to their household responsibilities and lack of opportunities to find paid employment is reflected in many policy papers. Their agency as active agents of change has not yet been very widely recognized. It is important to include women in adaptation and mitigation strategies and to make sure that they can also access climatic forecasts and early warning systems.

Bibliographies for the three glossaries

Bibliography on Gender and Food

Journal articles

Agarwal, B. (2011). Food crises and gender inequality. DESA Working paper No. 107.

- Allouche, J. (2011). The sustainability and resilience of global water and food systems: Political analysis of the interplay between security, resource scarcity, political systems and global trade. *Food Policy* Vol.36(1):3–8.
- Altieri, M (2009). Small farms as a planetary ecological asset: five key reasons why we should support the revitalisation of small farms in the global south. *Environment and Development Series 7*, Third World Network, Penang.
- Bain, C. (2010). Structuring the flexible and feminized labour market: Global GAP standards for agricultural labour in Chile. *Signs* Vol.35(2):343–370.
- Barrientos, S. (2003). A gendered value chain approach to codes of conduct in African horticulture. World Development Vol. 31:1511–1526.
- Bradshaw, S. and Linneker, B. (2001). 'Challenging Poverty, Vulnerability and Social Exclusion in Nicaragua: Some Considerations for Poverty Reduction Strategies'. *The Nicaraguan Academic Journal – NAJ* Vol. 2(2):186–224.
- Braun, E.B. (2010). Gender, large–scale development, and food insecurity in Lesotho: an analysis of the impact of the Lesotho Highlands Water Project. *Gender and Development* Vol.18(3):453–364.
- Buechler, S. (2009). Gender, water, and climate change in Sonora, Mexico: implications for policies and programmes on agricultural income-generation. *Gender and Development* Vol.17(1):51–66.
- Ferguson, H. (2011). Agricultural cooperatives and social empowerment of women: A Ugandan case study. Development in Practice Vol.21(3):421–429.
- Gunewardena, N. (2010). Bitter Cane: Gendered fields of power in Sri Lanka's Sugar economy. Signs Vol.35(2):371–396.
- Gunnarson, B. (2011). The influence of male migration on female resources, independence and development in three Gambian villages. *Gender and Development* Vol.19(1):15–128.
- Hillenbrand, E. (2010). Transforming gender in homestead food production. *Gender and Development* Vol.8(3):411–425.
- Ifejika Speranza, C. (2006). Gender-based analysis of vulnerability to drought among agro-pastoral households in semi-arid Makueni district, Kenya. In: Premchander S, Müller C, editors. 2006. Gender and Sustainable Development: Case Studies from NCCR North-South. Perspectives of the Swiss National Centre of Competence in Research (NCCR) North-South, University of Bern, Vol. 2. Bern, Switzerland: Geographica Bernensia, pp 119-146.
- Jiggins, J. (2011). Gender in the food system. Science Review SR 48. Avalaible at: http://www.bis.gov.uk/ assets/foresight/docs/food-and-farming/science/11-585-sr48-gender-in-the-food-system.
- Lawal, A. (2011). Women's benefits from agricultural technologies: evidence from poultry production among Nigerian fisherfolk. *Development in Practice* Vol.21(3):371–378.
- Lyon, S. (2010). Gender equity in fairtrade organic coffee producer organisations: cases from mesoamerica. *Geoforum* Vol.41:93–103.
- Macleod, B. (2010). Challenging gender inequality in women's organizations in Nicaragua. Gender and Development Vol.18(3):373–386.
- Meinzen-Dick et al. (2010). Engendering agricultural research. IFPRI Discussion Paper 00973.
- Nation, M.L. (2010). Understanding women's participation in irrigated agriculture: a case study from Senegal. Agriculture and Human Values Vol.27(2):163–176.
- Neogy, S. (2010). Gender inequality, mothers health and unequal food distribution: experience from a CARE project in India. *Gender and Development* Vol.18(3):479–489.

- Preibisch, K. & Grez, E.E. (2010). The other side of el otro lado: Mexican Migrant Women and labour flexibility in Canadian Agriculture. Signs Vol.35(2):289–316.
- Pretty, J. et al. (2010). The top 100 questions of importance to the future of global agriculture. *International Journal of Agricultural Sustainability* Vol.8(4):19–236.
- Rahman, S. (2010). Women's labour contribution to productivity and efficiency in agriculture: Empirical evidence from Bangladesh. *Journal of Agricultural Economics* Vol.61(2):318–342.
- Ramamurthy, P. (2010). Why are men doing floral sex work? Gender, cultural reproduction and the feminization of agriculture. Signs Vol.35(2):397–424.
- Sachs, C. & Alston, M. (2010). Global Shifts, Sedimentations, and Imaginaries: An Introduction to the Special Issue on Women and Agriculture. *Signs* Vol.35(2):277–287.
- Sang, E.L. (2010). Unpacking the packing plant: Nicaraguan migrant women's work in Costa Rica's evolving agriculture export sector. *Signs* Vol.35(2):317–342.
- Scott, J. (1986). Gender, a useful category of historical analysis. *American Historical Review* Vol. 91(5):pp. 1053–1075.
- Tandon, N. (2010). New agribusiness investments mean wholesale sell-out for women farmers. *Gender* and *Development* Vol.18(3):503–514.
- Uraguchi, Z.B. (2010). Food price hikes, food security, and gender equality: assessing the roles and vulnerability of women in households of Bangladesh and Ethiopia. *Gender and Development* Vol.18(3):491–501.
- Verhaart, N. (2010). The rough road to gender-equitable growth: the case of café de mujer Guatemala. Development Vol.53(3):356–361.
- Zaccaro, S. (2011). Sustainable agriculture has a woman's face. Development Vol.54(2):263–264.

Books/Book sections

Boserup, E. (1970). Women's role in economic development. London, Earthscan.

- Hovorka, A. et al. (2009). *Women feeding cities. Mainstreaming gender in urban agriculture and food security*. Practical action publishing, Warwickshire.
- Pionetti, C. (2011). Women farmers, crop diversity and seed politics in semi-arid India. *In:* Verschuur, C. (2011). *Du grain à moudre. Genre, développment rural et alimentation*. IHEID, Geneva.
- Chancellor, F. (2005). Enabling women to participate in African smallholder irrigation development and design. *In:* Coles, A. & Wallace, T. (2005). *Gender, water and development*. Berg, Oxford.
- Koopmann, J.E. (2011). Globalization, Gender and Poverty in the Senegal River Valley. In: Berik, G. et al. (eds.) (2005). Inequality, Development and Growth. Routledge, London.
- Prügl, E. (2011). Preface. In: Verschuur, C. (2011). Du grain à moudre. Genre, développment rural et alimentation. IHEID, Geneva.
- Prügl. E. (2011). Transforming masculine rule. Agriculture and rural development in the European Union. University of Michigan Press, Michigan.
- Razavi, S. (2011). Agrarian debates and gender relations. Now you see them, now you don't. *In:* Verschuur, C. (2011). *Du grain à moudre. Genre, développment rural et alimentation*. IHEID, Geneva.
- Uwantege Hart, S. (2011). Women only: Violence and gendered entitlements in post-quake food distributions in Haiti. In: Verschuur, C. (2011). Du grain à moudre. Genre, développment rural et alimentation. IHEID, Geneva.
- Villareal, M. (2011). Gender and hunger in the context of the recent crisis: underlying factors. In: Verschuur, C. (2011). Du grain à moudre. Genre, dévelopment rural et alimentation. IHEID, Geneva.

Reports

- ActionAid (2011). Farming as equals. How supporting women's rights and gender equality makes the difference. Action Aid, Johannesburg.
- IIASTD (2009). Agriculture at a crossroads. International assessment of Agricultural knowledge, science and technology for development. Global Report. IAASTD, Washington DC.

North-South dialoaue

- Carr, M. & Hartl. M. (2010). *Lightening the load. Labour-saving technologies and practices for rural women.* IFAD & Practical Action Publishing, Warwickshire.
- Dominguez Redondo, E. et al. (2009). *The global food challenge. Towards a human rights approach to trade and investment policies.* FIAN, Köln.
- EADD (East Africa Dairy Development) (2008). East Africa dairy development project. Baseline Report No 6. Gender, Dairy production and marketing. East Africa Dairy Development/ International Livestock Research Institute, Nairobi.
- FAO (2011). The state of food and agriculture 2010–2011. Women in agriculture. Closing the gender gap for development. FAO, Rome.
- FAO (2010). Gender dimensions of rural and agricultural employment. Differentiated pathways out of poverty. FAO, Rome.
- IPCC (2008). Intergovernmental Panel on Climate Change Fourth Assessment Report, IPCC, Geneva.
- Klaffenböck, G. & Lachkovics, E. (2011). Agrofuel Production: The World Food Situation, the Right to Food and the Impact on Women. WIDE, Vienna.
- Mehra, R. & Rojas, M.H. (2011). Women, food security and agriculture in a global market place. ICRW, Washington DC.
- Skoufias, E. (2005) PROGRESA and its impacts on the welfare of rural households in Mexico. International Food policy Research Institute Research Report 139, Washington DC.
- UNRISD (2005). Gender Equality. Striving for justice in an unequal world. UNRISD, Geneva.
- World Bank (2011). World Development Report 2012. Gender Equality and Development. The World Bank, Washington.

Policy briefs

IDS (2011). Food security. Research findings for development practicioners. Insights, iss.82, pp.1-8.

- Prieto-Carrón, M. (2008). Gender, Labour Rights and the Ethical Trading Initiative (ETI). CAWN Briefing Paper: December 2008. CAWN, London.
- FAO (2007). Gender and food security: Facts and figures. FAO, Rome .
- FAO (2010). Agricultural value chain development. Threat or opportunity for women's employment? Gender and rural employment policy brief 4. *FAO*, Rome.
- FAO (2010). Addressing HIV and gender inequities through agriculture. FAO, Rome.
- FAO (2010). Factsheet Gender and Nutrition. FAO, Rome.
- UK HungerFree Campaign (2009). Brief on sustainable agriculture. Action Aid, London.

Websites

Eldis Gender and Agriculture

http://www.eldis.org/go/topics/resource-guides/agriculture/gender-roles-in-agriculture

Gender and Food Policy News (Publications, Policy Briefs etc.)

- http://genderfoodpolicy.wordpress.com/
- International Food Policy Research Institute

http://www.ifpri.org/search?keys=gender

FAO Gender and Food/Agriculture/Value chains publications.

http://www.fao.org/economic/esw/esw-publications/en/

Beijing Platform for Action

http://www.un.org/womenwatch/daw/beijing/platform

Bibliography on Gender and Land

Journal articles

- Ayalew Ali et al. (2011). Environmental and gender impacts of land tenure regularization in Africa. Pilot evidence from Rwanda. Working Paper No.2011/74, UNU-WIDER.
- Chapoto, A. (2011). Widows land security in the era of HIV/AIDS. *Economic Development and Cultural Change* Vol. 59(3):11–547.
- Cochrane, L. (2011). Food Security or Food Sovereignty: The case of land grabs. *The Journal of Humanitarian Assistance*. Available: http://sites.tufts.edu/jha/archives/1241 (Last accessed: 17.1.2012).
- Daley, E. and Englert, B. (2010). Securing Women's Land Rights. *Journal of Eastern African Studies* Vol. 4, No. 1, March 2010, pp. 91–113.
- Daley, E. et al. (2010). 'Ahead of the Game: Land Tenure Reform in Rwanda and the Process of Securing Women's Land Rights'. *Journal of Eastern African Studies* Vol. 4(1):31–152.
- Flintan, F. (2010). Sitting at the Table: Securing Benefits for Pastoral Women from Land Tenure Reforms in Ethiopia. *Journal of Eastern African Studies* Vol. 4(1):170–195.
- Holden, S. et al. (2011). Tenure Insecurity, Gender, Low-cost Land Certification and Land Rental Market Participation in Ethiopia. *Journal of Development Studies* Vol. 47(1):31–47.
- IRIN News. (2010). 'Swaziland: Women's Rights Take One Step Forward, Two Steps Bank', 16th June 2010. Available: http://www.irinnews.org/report.aspx?reportid=89510 (Last accessed: 7.2.2012).
- Jiggins, J. (2011). Gender in the food system. Science Review SR 48. Available at: http://www.bis.gov. uk/assets/foresight/docs/food-and-farming/science/11-585-sr48-gender-in-the-food-system (Last accessed: 7.2.2012)
- Manji, A. (2010). Eliminating poverty? 'Financial inclusion', access to, and gender equality in international development. *Modern Law Review* Vol.73(6):985–1004.
- McAuslan, P. (2010). Personal reflections on drafting laws to improve women's access to land: is there a magic wand? *Journal of Eastern African Studies* Vol.4(1):114–130.
- Mollett, S. (2010). Esta listo? Gender, Race and land registration in the Rio Platano biosphere reserve. Gender, Place and Culture Vol.17(3):357–375.
- Neilsen, N. (2009). Land-grabbing in Africa: the why and the how. *Pambazuka News* 7. October 2009, Issue 451. Available: http://www.pambazuka.org/en/category/features/59291 (Last accessed: 7.2.2012).
- Pellizzoli, R. (2010). 'Green revolution' for whom? Womens access and use of land in the Mozambique Chokwe Irrigation Scheme. *Review of African Political Economy* Vol.37(124):213–220.
- Petermann, A. (2011). Women's property rights and gendered policies: Implications for women's longterm welfare in rural Tanzania. *Journal of Development Studies* Vol.47(1):1–30.
- Peters, P. (2010). "Our daughters inherit our land, but our sons use their wives' fields":matrilinealmatrilocal land tenure and the new land policy in Malawi. *Journal of Eastern African Studies* Vol. 4(1):79–199.
- Polavarapu, A. (2011). Procuring meaningful land rights for the women of Rwanda. *Yale Human Rights and Development Law Journal* Vol.14(1):101–150.
- Pradeep P., and Agarwal, B. (2005). Marital violence, human development and women's property status in India. World Development Vol. 33(5):822–850.
- Pretty, J. et al (2010). The top 100 questions of importance to the future of global agriculture. *International Journal of Agricultural Sustainability* Vol.8(4):219–236.
- Tandon, N., 2010, 'Land investments are wholesale sell-outs for women farmers', Pambazuka. News 3 June 2010, Issue 484. Available: http://www.pambazuka.org/en/category/features/64921 (Last accessed: 7.2.2012).
- Wandia, M. (2009). Safeguarding women's rights will boost food security. Pambazuka. News 25 June 2009, Issue 439. Available: http://pambazuka.org/en/category/features/57225 (Last accessed: 7.2.2012).

Book and Book Sections

- Koopmann, J.E. (2011). Globalization, gender and poverty in the Senegal River Valley. In: Berik, G. et. al. (eds.). Inequality, Development and Growth. Routledge, London.
- Pallas, S. (2011). Women's land rights and women's empowerment: One and the same? *In:* Verschuur, C. (2011). *Du grain à moudre. Genre, développment rural et alimentation*. IHEID, Geneva.
- Rao, N. (2011). Gender, land and resource rights in India. In: Verschuur, C. (2011). Du grain à moudre. Genre, développment rural et alimentation. IHEID, Geneve.
- Razavi, S. (2003). Agrarian change, gender and land rights. Blackwell Publishing, Oxford.
- Spieldoch, A. & Murphy, S. (2009). Agricultural Land Acquisitions: Implications for Food Security and Poverty Alleviation. *In:* Kugelman, M. & Levenstein, S. (eds.) (2009). *LandGrab? The Race for the World's Farmland*. Woodrow Wilson Center, Washington.
- Walker, C. (2011). Women's land rights, agrarian change and gender transformation in Post-Apartheid South Africa. *In:* Verschuur, C. (2011). *Du grain à moudre. Genre, développment rural et alimentation.* IHEID, Geneve.

Reports

- Action-Aid (2010). Her Mile Women's Rights and Access to Land. The Last Stretch of Road to Eradicate Hunger, Action-Aid, Milano.
- Agarwal, B. (2011). Food crises and gender inequality. DESA Working paper NO. 107.
- Behrmann, J. et.al. (2011). *The gendered implications of large-scale land deals*. IFPRI Discussion Paper 01056.
- Alden Wily, L. (2011). *The tragedy of public lands: the fate of the commons under global commercial pressure*. ILC, Rome.
- Anseeuw, W. et al (2011). Land rights and the rush for land. Findings of the global commercial pressures on land research project. ILC, Rome.
- Ayalew, A. et al. (2011). Environmental and gender impacts of land tenure regularization in Africa: Pilot evidence from Rwanda. World Bank Policy Research Working Paper 5765, World Bank, Washington.
- Cotula, L. et al. (2009). Land grab or development opportunity? Agricultural investment and international land deals in Africa. IIED/FAO/IFAD, London/Rome.
- ILC (2008). Land and vulnerable people in a world of change. An appeal to collective action. Commission on Sustainable Development (CSD) Session 16, New York, 5–16th May 2008.
- Daley, E. (2011). Gendered impact of commercial pressures on land. International Land Coalition, Rome.
- FAO (2002). Gender and Access to Land. FAO Land Tenure Studies 4. FAO, Rome.
- FAO (2005). Gender and Land Compendium of Country Studies. FAO, Rome.
- FAO (2010). Gender and Land Rights. Understanding Complexities; Adjusting Policies. FAO, Rome
- FAO (2011). The State of Food and Agriculture 2010–2011. FAO, Rome.
- FIAN (2010). Land Grabbing in Kenya and Mozambique: A report on two research missions and a human rights analysis of land grabbing, FIAN International Secretariat, Heidelberg.
- Holden, S. (2008). From being property of men to being equal owners? Early impacts of land registration and certification on women in Southern Ethiopia. UN-HABITAT, Nairobi.
- Mazhawidza, P. & Manjengwa, J. (2011). Research Report. The social, political and economic transformative impact of the Fast Track Land Reform Programme on the lives of women farmers in Goromonzi and Vungu-Gweru Districts of Zimbabwe. ILC, Rome.
- Paradaza, G. (2011). Synthesis Report. Securing women's access to land: Linking research and action. An overview of action-research projects in Eastern Africa. ILC, Rome.
- UN-Energy (2007). Sustainable Bioenergy: A Framework for Decision Makers. UN-Energy.
- Rossi, A and Y. Lambrou (2008). Gender and Equity Issues in Liquid Biofuel Production. Minimizing the Risks to Maximize the Opportunities. FAO, Rome.
- Tandon, N. et. al. (2011). Rural women and corporate investment in African land. High level policy forum land based foreign direct investments in Africa: Making investments work for African agricultural development. Nairobi, 4–5 October 2011.

- Veldmann, M. & Lankhorst, M. (2011). Socio-economic impact of commercial exploitation of Rwandan marshes: A case study of sugarcane production in rural Kigali. ILC, Rome.
- UNDP 2011. Equity and sustainability: a better future for all. The Human Development Report 2011. Geneva, 2012. URL: http://hdr.undp.org/en/reports/global/hdr2011/.
- World Bank (2011). World Development Report 2012. Gender Equality and Development. The World Bank, Washington. URL: http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTRE-SEARCH/EXTWDRS/EXTWDR2012/0,,menuPK:7778074~pagePK:7778278~piPK:7778320~theSit ePK:7778063~contentMDK:22851055,00.html.
- 3D → Trade Human Rights Equitable Economy (2009). *The global land grab: A human rights approach*. 3D, Geneva.

Policy Briefs and Training Tools

- Paradaza, G.G. (2011). Policy Brief 3 (March 2011). Securing women's land rights in Eastern Africa: Time for a paradigm shift. *International Land Coalition*, Rome.
- Rwanda Women Network (RNW) (2011). Policy Brief 5 (May 2011). Women's land rights gains are eroded by cultural practices and negative attitudes. *International Land Coalition*, Rome.
- UN-HABITAT (2010). A training package. Improving gender equality and grassroots participation through good land governance. UN-HABITAT, Nairobi.
- URDT (2011). Policy Brief 4 (May 2011). Voices over women's aspirations over land and land matters: the case of Kibaale district, Uganda. *International Land Coalition*, Rome.
- UNRISD (2006). Land Tenure Reforme and Gender Equality. UNRISD Research and Policy Brief 4, *UNRISD*, Geneva.

Websites

Commission of the status of women (CSW)

http://www.un.org/womenwatch/daw/csw/56sess.htm (Last accessed: 27.1.2012)

Gender and Food Policy News (IFPRI)

http://genderfoodpolicy.wordpress.com/ (Last accessed: 27.1.2012)

Global Land Tool Network (GLTN)

http://www.gltn.net/ (Last accessed: 27.1.2012)

International Land Coalition

http://www.landcoalition.org/publications (Last accessed: 27.1.2012)

World Bank Gender in Agriculture Sourcebook

http://worldbank.org/genderinag (Last accessed: 27.1.2012)

Eldis (Institute of Development Studies IDS)

http://www.eldis.org/

Bibliography on Gender and Water

Journal articles

- Acey, C. (2010). Gender and community mobilisation for urban water infrastructure investment in southern Nigeria. *Gender and Development* Vol.18(1):11–26.
- Ahlers, R. & Zwarteveen (2009). The water question in feminism: water control and gender inequities in a neoliberal era. Gender, Place and Culture Vol. 16(4):409–426.
- Aladuwaka, S. (2010). Sustainable development, water resources management and women. Gender and Development Vol.18(1):43–58.
- Allouche, J. (2011). The sustainability and resilience of global water and food systems: Political analysis of the interplay between security, resource scarcity, political systems and global trade. *Food Policy* Vol.36(1):3–8.

- Angula, M. (2010). Gender and Climate Change: Namibia Case Study. Cape Town, Southern Africa: Heinrich Böll Stiftung.
- Arku, F. (2010). I cannot drink water on an empty stomach. A gender perspective of living with drought. Gender and Development Vol.18(1):115–124.
- Baten, M.A. & Khan, N.A. (2010). Gender issue in Climate Change discourse: theory versus reality. Unnayan Oneshan The Innovators, Dhaka.
- Blanton et al (2010). Evaluation of the Role of School Children in the Promotion of Point-of-Use Water Treatment and Handwashing in Schools and Households—Nyanza Province, Western Kenya, 2007. *American Journal of Tropical Medicine and Hygiene* Vol. 82(4):664–671.
- Braun, E.B. (2010). Gender, large-scale development, and food insecurity in Lesotho: an analysis of the impact of the Lesotho Highlands Water Project. *Gender and Development* Vol.18(3):453–364.
- Brocklehurst, B. & Bartram, J. (2010). Swimming upstream: why sanitation, water and hygiene are so important to mothers and their daughters. *Bulletin of the World Health Organisation* Vol. 88:482.
- Brown, R. (2010). Unequal burden: water privatisation and women. *Gender and Development* Vol.18(1):59–67.
- Büchler, S. (2009). Gender, water, and climate change in Sonora, Mexico: implications for policies and programmes on agricultural income-generation. *Gender and Development* Vol.17(1):51–66.
- Cleaver, F. & Hamada, C. (2010). 'Good' water governance and gender equity: a troubled relationship. *Gender and Development* Vol.18(1):27–41.
- Crow, B. & McPike, J. (2010). How the drudgery of getting water shapes women's lives in low-income urban communities. *Gender, Technology and Development* Vol. 12(1):43–68.
- Daley, E. (2011). Gendered impacts of commercial pressures on land. ILC, Rome.
- Fatusin, A.F. et al (2010). The Impacts of Oil and Gas Pollution on Female Gender in Ilaje, Niger Delta Region of Ondo State Nigeria. *Journal of Human Ecology* Vol. 32(3):189–196.
- Harris, L. (2009). Gender and emerging water governance: comparative overview of neoliberalized natures and gender dimensions of privatisation, devolution and marketization. *Gender, Place and Culture* Vol. 16(4):387–408.
- Jewitt, S. (2011). Geographies of shit. Spacial and temporal variations in attitudes towards human waste. Progress in Human Geography Vol.35(5):608–629.
- Juran, L. (2012). The gendered nature of disasters: Women survivors in post-tsunami Tamil Nadu. *Indian Journal of Gender Studies* Vol.19(1).
- Laurie, N. (2011). Gender Water Networks: Femininity and Masculinity in Water Politics in Bolivia. International Journal of Urban and Regional Research Vol.35(1):172–188.
- Leite, M. (2010). After the summit: women's access to water and policy making in Brazil. *Gender and Development* Vol.18(1):69–79.
- Mahón, T. & Fernandez, M. (2010). Menstrual hygiene in South Asia: a neglected issue for WASH (water, sanitation and hygiene) programmes. *Gender and Development* Vol.18(1):99–113.
- Nation, M.L. (2010). Understanding women's participation in irrigated agriculture: a case study from Senegal . Agriculture and Human Values Vol.27(2):163–176.
- Nawaz, J. et al. (2010). Oxfam experience of providing screened toilet, bathing and menstruation units in its earthquake response in Pakistan. *Gender and Development* Vol.18(1):81–86.
- O'Reilly, K. (2010). Combining sanitation and women's participation in water supply: an example from Rajasthan. *Development in Practice* Vol. 20(1):45–56.
- Pretty, J. et al. (2010). The top 100 questions of importance to the future of global agriculture. *International Journal of Agricultural Sustainability* Vol.8(4):219–236.
- Sachs, C. & Alston, M. (2010). Global Shifts, Sedimentations, and Imaginaries: An Introduction to the Special Issue on Women and Agriculture. *Signs* Vol.35(2):277–287.
- Seager, J. (2010). Gender and water: Good rhetoric, but it doesn't "count". Geoforum Vol.41(1):1-3.
- Sultana, F. (2009). Fluid lives: subjectivities, gender and water in rural Bangladesh. Gender, place and culture Vol. 16(4):27–444.

- Tandon, N. (2007). Biopolitics, climate change and water security: impact, vulnerability and adaptation issues for women. *Agenda 73*.
- Tilley, E. et al. (Forthcoming). Sanitation in developing countries: a review through a gender lens. [Forthcoming].
- Udas, P.B. & Zwarteveen, M (2010). Can water professionals meet gender goals? A case study of the Department of Irrigation in Nepal. *Gender and Development* Vol.18(1):87–97.
- Wallace T. & Porter, F. (2010). Introduction. Gender and Development Vol.18(1):1-10.
- Yaffa, T. (2011). (Re-)Conceptualizing water inequality in Delhi, India through a feminist political ecology framework. *Geoforum* Vol.42(2):143–152.

Book and Book Sections

- Adger, W.N. et al (2007). Assessment of adaptation practices, options, constraints and capacity. *In:* Perry, M.L. et al. *Climate Change 2007: Impacts, Adaptation and Vulnerability*. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, Cambridge University Press, Cambridge, pp. 717–743.
- SBlack, M. & Fawcett, B. (2008). *The Last Taboo. Opening the Door on the Global Sanitation Crisis.* Earthscan, London.

Coles, A. & Wallace, T. (2005). Gender, water and development. Berg, Oxford.

Dankelmann, I. (ed.). Gender and climate change: An introduction. Earthscan, London.

Koopmann, J.E. (2011). Globalization, Gender and Poverty in the Senegal River Valley. In: Berik, G. et. al. (eds.). Inequality, Development and Growth. Routledge, London.

Reports

- Action-Aid, (2010). Her Mile Women's Rights and Access to Land. The Last Stretch of Road to Eradicate Hunger. Action Aid, Rome.
- Amnesty International (2010). Women's experiences in the slums of Nairobi, Kenya. Amnesty International, London.
- Bues, A. (2011). Agricultural Foreign Direct Investment and Water Rights: An Institutional Analysis from Ethiopia. International Conference on Global Land Grabbing 6–8 April, 2011. University of Sussex, Brighton.
- Carr, M. & Hartl. M. (2010). *Lightening the load. Labour-saving technologies and practices for rural women.* IFAD & Practical Action Publishing, Rome.
- Dankelman, I. et. al. (2009). Making Sustainable Sanitation work for women and men. Integrating a gender perspective into sanitation initiatives. WECF, Utrecht.
- Deegener, S. et. al. (2009). Sustainable and safe school sanitation. How to provide hygienic and affordable sanitation in areas without a functioning wastewater system. WECF, Utrecht.
- Global Gender and Climate Alliance (2011). Collaborating, empowering, achieving. GGCA, New York.
- IPCC (2007). Climate Change 2007. Synthesis Report. IPCC, Geneva.
- IPCC (2008). Intergovernmental Panel on Climate Change Fourth Assessment Report. IPCC, Geneva.
- Kirk, J. & Sommer, M. (2006). Menstruation and body awareness: linking girls health with girls education. Royal Tropical Institute (KIT), Special on Gender and Health 1-22.
- Klaffenböck, G. & Lachkovics, E. (2011). Agrofuel Production: The World Food Situation, the Right to Food and the Impact on Women. WIDE, Vienna.
- Lambrou, Y. & Nelson, S. (2010). Farmers in a changing climate. Does gender matter? Food Security in Andrah Pradesh, India. FAO, Rome.
- Maimaiti, Y. & Siebert, W.S. (2009). The Gender Education Gap in China: The Power of Water. IZA Discussion Papers 4108. Institute for the Study of Labour, Bonn.
- Movik, S. & Mehta, L. (2010). *The Dynamics and Sustainability of Community-led Total Sanitation* (*CLTS*): *Mapping challenges and pathways*. STEPS Centre, Brighton.
- Nahar, Q. & Ahmed, R. (2006). Addressing the special needs of girls. Challenges in schools. WaterAid, Bangladesh.

- Oster, E. & Thornton, R. (2009). *Determinants of technology adoption: private value and peer effects in menstrual cup take-up*. NBER Working Paper Series, National Bureau of Economic Research, Cambridge.
- Said Business School (2010). New study shows sanitary protection for girls in developing countries my provide a route to raising their educational standards. Press Release. Oxford University, Oxford
- Tjon A Ten, V. (2010). *Menstrual hygiene. A neglected condition for the achievement of several Millenium Development Goals.* Europe Aid, Zoetermeer.
- Toulmin, C. and Huq, S. (2006). *Africa and Climate Change. Sustainable development opinion paper.* International Institute for Environment and Development (IIED), London.
- UNDP (2006). *Human Development Report 2006. Beyond scarcity: Power, poverty and the global water crisis.* UNDP, New York.
- UNDP (2009). Resource Guide on Gender and Climate Change. UNDP, New York.
- UNDP (2011). Discussion Paper Series. Africa Adaptation Programme experiences gender and climate change: Advancing development through an integrated gender perspective. Vol. 1, March 2011. UNDP, New York.
- UNESCO (2009). World Climate Conference 3. Gender and Climate Forum. 1 September 2009, Geneva, Switzerland. UNESCO Division for Gender Equality, Paris.
- Water and Sanitation Programme (WSP) (2010). Gender in Water and Sanitation. World Bank, Nairobi.
- Woodhouse, P. & Ganho, A.S. (2011). Is Water the Hidden Agenda of Agricultural Land Acquisition in sub-Saharan Africa? International Conference on Global Land Grabbing, 6–8 April 2011, University of Sussex, Brighton.

Policy Briefs and Toolkits

BRIDGE (2011). Cutting edge pack. Gender and Climate Change. BRIDGE, Brighton

- Fajber, L. Gender, water and climate change. *Gender Water Alliance*. Available: www.genderandwater.org (Last accessed: 10.1.2012)
- Lüthi, C. & Ulrich, L. (2011). Presenting the community-led urban environmental sanitation guidelines. *EAWAG/Sandec*, Dübendorf.

Websites

Intergovernmental Panel on Climate Change

http://www.ipcc.ch/index.htm (Last accessed:10.1.2012)

Gender and Water Alliance

http://www.genderandwater.org/page/107 (Last accessed:10.1.2012)

GenderCC. Women for Climate Justice.

http://www.gendercc.net/metanavigation/home.html. (Last accessed:10.1.2012)

Global Gender and Climate Alliance (GGCA).

http://gender-climate.org/ (Last accessed:10.1.2012)

WEDO. Women's Environment and Development Organisation.

http://www.wedo.org/ (Last accessed: 10.1.2012)

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This document is divided into three glossaries concerning land, food, and water. Each glossary provides short and precise information on subjects which are of relevance to researchers, policy-makers, and development practitioners working in these three fields. Issues such as food security, land rights and land grabs, climate change, and water and sanitation are taken up and elucidated from a gender perspective. In each glossary, case studies help to highlight important issues. Furthermore, policy recommendations aimed at different stakeholders are provided at the end of each glossary. The individual glossaries aim to provide brief, up-to-date information that can serve as entry points for professionals in the development community. For more indepth and detailed information, users may refer to the three structured bibliographies at the end of the document.

We hope that this document will help to make research, policy, and development interventions more sensitive to underlying gender issues and thus more inclusive of the needs of both women and men.

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