

Making Sense of Gender, Climate Change and Agriculture in sub-Saharan Africa: Creating Gender- Responsive Climate Adaptation Policy

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Abstract

Attention to gender and climate change has increased steadily over the last decade. Much of the emerging policy-focused literature resembles to a considerable degree the gender and environment literature from the 1990s, with the nature of women's work being used to justify placing women at the centre of climate change policy. However, in contrast with the portrayal of women in earlier literature as knowledgeable guardians of the environment, the women at the centre of gender and climate change policy are typically portrayed as vulnerable, weak, poor, and socially isolated. Arguably, this is a reflection of the politics of gender rather than the reality of the men and women who regularly experience and deal with changes of various kinds. We argue for a more realistic and nuanced framing of gender that is built on an acknowledgement of social complexity, and an understanding of social, including gender relations, in specific local settings. Such a framing would provide a more valuable starting point for understanding the way in which both women and men, together and separately in their different, and changing roles, shape the outcomes of external interventions. This shift does not mean that targeting vulnerable women to meet short term needs is not valuable. Rather, the intention is principally, to minimise the risks of policy failure resulting from the adoption of often erroneous but popular assumptions about the different roles that women and men play, and must continue to play, to achieve food security in the face of climate change.

Introduction

There is broad consensus around the need for targeted policies to protect vulnerable men and women whose livelihoods depend on climate-sensitive natural resources. Attention to gender, and particularly women, is increasingly central to debates on responses to climate change. By and large, the call to integrate women in climate change policy is based on an assumption that they are more vulnerable to climate shocks and stressors than men, because of their greater dependence on natural resources for fulfilling the food security needs of themselves and their dependants. At the same time, women are viewed as politically and economically marginalised, hence less able to influence policy processes than men. Moreover, there is often emphasis on the value of women's knowledge and skills built up through their work. Together, these somewhat contradictory but powerful narratives provide a strong justification for placing women at the centre of climate change adaptation policies. Similar justifications have been used to place women centrally in a range of other rural development areas, especially agricultural and environmental policies and plans.¹

Although this link between women's roles and climate change policy has an attractive logic to it, its universal application in relation to all women in all kinds of situations makes it highly problematic as a basis for policy. Arora-Jonsson (2011) argues that much of the

portrayal of rural women in climate change policy as vulnerable, weak and without agency, yet with the potential to make a difference, is simply a reflection of the politics of gender discourse. In part this reflects recognition of the need for a simple yet convincing narrative in order to influence policy.

In this paper we compare this climate change and gender narrative with those found in other policy areas. We argue that a gender-responsive policy, one that takes into consideration actual or potential gender disadvantage, needs a different starting point. Rather than starting with some generalised version of weak women coping in social isolation, such policy needs to be built on an analysis of context-specific social relations, including gender relations, in order to reveal, i) the way relations with others influence individual decision-making; ii) how changes in gender relations are negotiated and renegotiated in response to both threats and opportunities arising from external and internal (to households/ families etc.) sources; and iii) the trade-offs that responding to these changes entail for everyone. Our main argument in support of such a change is that policies focusing on women alone are unlikely to result in a sustainable increase in their – or society's – adaptive capacity in the face of a changing climate.

The emphasis of the paper is on climate change adaptation. We understand climate change adaptation here as a process of adjustments to climate-related shocks and stressors that are part of a broader range of livelihood shocks and stressors faced by women and men.² Therefore, at an individual, household or other level, actions that might be classified as adaptation can rarely be attributed to climate shocks or stressors alone, and successful adaptation will reflect the capacity to respond to change more broadly. In other words, the notion of a climate-change specific adaptive capacity is probably not very useful.

The remainder of the paper is divided into two parts followed by a conclusion. The first part reviews broad gender and development policy approaches, and then details their deployment in relation to environment and climate change policy.³ Part II focuses on alternative starting points for gender-responsive climate adaptation policy. The paper concludes that an alternative starting point for policy development must be firmly based on a critical analysis of gender relations in specific local institutional contexts. This analysis must include the gendered experience of climate change, of the wider social relations that influence resource allocations.⁴ Such analyses should enable the separation of women's and men's interests in resources from their resource use work. They should also reveal factors that shape women's and men's choices, and influence their decision-making, including previous experience of change and adaptation. Ultimately, such analyses are essential to making informed policy choices.

Part I: Review of policy and policy arguments

This section reviews gender, and gender and environment discourse in order to set the context for a critical examination of the gender and climate change policy agenda.

Gender policy discourse

A discourse on the value of investing in women to achieve desired development outcomes has dominated gender and development policy since the 1970s, when Esther Boserup's revelations about women being excluded from yet disadvantaged by policy initiatives were documented.⁶ This discourse and the processes whereby it came to dominate policy are well documented, and critiqued.⁷ The introduction of separate programmes for women was a major policy choice from the outset. Plans were laid early in the 1970s for the collection of sex disaggregated data to demonstrate the value of women to the functioning of the economy and household. In terms of agricultural production, women were invariably shown to work longer hours than men; to be more likely to grow food crops for home consumption than men; to have more limited access to physical assets than men for their independent farming; to spend more time caring for children and the sick; and to undertake more household chores including the collection of firewood and water. Their rewards, in terms of cash or other benefits were consistently recorded to be minimal compared with those of men.

Comparisons such as these provided the material for the narratives that have driven much gender and natural resources policy over the past four decades. Possibly one of the most important has been women's concern for ensuring food security through the production of food crops to be used primarily for home consumption; and associated with this, an unwillingness to take risks that might jeopardise these domestic provisioning interests.⁸ Since 1970, sex differences in economic and domestic roles have been relentlessly described, but they have also been confounded with individual interests, essentialised, and therefore presented as fixed and unchanging. Cornwall and others remark on the universalisms of this discourse in which all women are portrayed in the same way, and 'she is hardly the woman we know'.⁹

In large part, when gender is used by mainstream agencies to talk about women, two contrasting pictures of women emerge: either they lack agency and hence the ability to exploit opportunities (and as a consequence struggle to fulfil their responsibilities in difficult if not near impossible circumstances), or, as is especially the case to-day, they behave as resourceful providers and reliable entrepreneurs. Investing in women's entrepreneurial capacity thus becomes 'Smart Economics' (Buvinic and King 2007).¹⁰ The 'business case' for investment in women's programmes is as follows: gender equality and increased labour force participation by

women will result in faster growth, more efficient resource use and reduced poverty. Here women's entrepreneurship becomes 'an important untapped resource'.¹¹ When accompanied by steps to increase women's control over the rewards of their economic activities (i.e. economic empowerment), and combined with their well-established caring nature, thinking along this line has encouraged the instrumental use of women by development agencies for achieving a range of social and economic objectives.

All this has been at the centre of much of the criticism of gender and development policies for well over a decade. Its re-emergence in policy arguments today is linked with a politically and ideologically inspired agenda which seeks to achieve women's economic empowerment through the self-improvement of individual women rather than through collective struggle. A 'neat chain of causalities' is presented which begins with empowering individual women and girls and ends in economic growth and poverty reduction. In this chain, women's agency is reduced to the acquisition of assets and the exercise of individual choice. In other words they are seen to behave just like men.¹²

The women and development discourse outlined above fit readily into or easily incorporated poverty, participatory and livelihoods agendas and approaches, and specific concerns within agriculture such as crop genetic diversity and small-scale fisheries, and recently Conservation Agriculture, and climate change. Too often it seemed that all that was required to incorporate gender sensitive action was to 'add women and stir'.¹³ A number of feminists and others developed guidelines including gender planning frameworks that translated the ideas of academic gender analysis and/or feminism into practical tools for development planners and practitioners. These were used in training, and provided an understanding and language with which to analyse the findings from the assembled data.

Based on the widespread evidence and agreement across a range of donors and development agencies about what gender and gender issues are, and how to close 'gender gaps' (sex differences/ inequalities in resource distribution etc.), it would be hard to conclude that 'gender' had not been mainstreamed in line with the global commitment made in 1995.

Gender and environmental policy

Women were and often continue to be portrayed in policies designed to conserve the environment as ideal environmental managers, the 'natural' constituency for conservation projects and programmes. As we shall see, this contrasts with the more recent images of women in climate change policy.

As Jackson argues, it was the portrayal of the 'positive synergy' between women and nature that produced the 'win-win' policy argument in the 1990s that has served

the interests of both women's activists and environmental activists ever since.¹⁵ As the titles of Jackson's papers spell out, women were portrayed as having a special and close relationship with nature based on the sexual division of labour, and as a consequence, they might be described as 'simply doing what comes naturally', caring for and protecting the environment.¹⁶ The instrumentalist WED (Women, Environment and Development) strategy of including knowledgeable and resourceful women, and of even placing them at the forefront of environmental policy, is regarded by Leach and Green (1995) as inspired by Gender and Development (GAD) discourse and practice, within which women and men's relations with the environment are seen to emerge from the social context of gender relations.¹⁷ As a consequence, women's roles in 'managing' the environment may simply reflect gendered roles (for convenience or for some other reason) and/or a lack of alternatives.¹⁸

Within environmental and forestry projects, all this translates into a concern for women as key and indeed privileged actors whose participation will necessarily add value in terms of increased project efficiency.¹⁹ As Leach (2007) observes, the environmental 'fables' about women's cultural or ideological closeness to nature were critiqued by feminists through the 1990s. These critiques are not however directly reflected in current discourse on gender and the environment, nor, we would argue, in the discourse on gender and climate change. Nevertheless, since women's special relationship with nature was first argued in development circles in the 1980s, increasing the role of women in natural resources management has been a common response to demands that women must be engaged in policy processes, to ensure both present productivity (food security), but also the long term sustainability of resources and livelihoods. The formation of natural resource user associations and management groups has been a popular project response. These associations were largely comprised of men, at least in the first instance, with women commonly being allocated a small number of places – a convenient administrative response to pressure to include women. By the end of the decade, women, defined as primary resource users, were secure in their position as efficient managers and conservers (Leach 2007). Naturalist arguments had all but disappeared. Leach concludes that since the 1990s, with the arrival of livelihoods approaches and a resurgence of concerns with poverty, the discourse had moved to property rights, resource access and control which she regards as being closer to GAD although 'there is rather little evidence of a more politicized, relational perspective on gender and environment taking root' (Leach 2007: 68).

Gender and climate change policy

Attention to gender in climate change policy processes only emerged gradually during the late 1990s in parallel with an increasing focus on the need for adaptation along with mitigation policies. Whereas the UN's Intergovernmental Panel on Climate Change (IPCC) was

formed in 1988, it was only in its Third Assessment Report (IPCC 2001) that reference was made to gender. Even here, its appearance is very limited, and with little or no discussion of what this might mean for policy. 'Gender' appears ten times in the context of statements about: sex-differentiated levels of vulnerability as a consequence of the 'feminization of poverty'; the particular plight of women during disasters; and the use of gender analysis to map social vulnerability. In the years that followed, a series of articles and reports was published on gender and climate change, building the case for its inclusion (with a particular focus on women) in climate change policy (e.g. Denton 2004; Wamukonya and Skutsch 2002; Lambrou and Piana 2006; and Lambrou and Nelson 2010).²⁰ The title of Denton's 2004 article points to the 'late arrival' of gender in climate change discourse.

Calls to national governments to follow-up on global level agreements on gender, or women, were in large part stalled until finance was provided, first for the drawing up of National Adaptation Programmes of Action (NAPAs).²¹ By this time, focusing on the most vulnerable locations and people had already been established as a key strategy. The IPCC's Fourth Assessment Report (AR4) published in 2007 put much more weight on vulnerability and adaptation than previous reports, and by this time Africa had already been identified as one of the two most vulnerable regions by the Commission for Africa in 2005.²² The poor, including women, were increasingly framed as being among the most vulnerable, and the argument that climate change impacts can exacerbate existing inequalities started to emerge after 2000.²³

Although there is now a body of both published and grey literature on gender and climate change touching on crop production, forestry and fisheries, as well as in health, this literature is relatively recent. One critical reviewer, Arora-Jonsson (2011), argues that much of it lacks supporting evidence, with many reports and papers not citing their sources or simply citing others working with the same sources as themselves.²⁴ In her recent report, 'Gender-Responsive Strategies on Climate Change: Recent Progress and Ways Forward for Donors', Otzelberger (2011) concludes that most of the more relevant material sits in project documents and donor publications. Overall, she agrees with others that 'much work remains to be done for gender to become truly and systematically incorporated into donor climate change policies and programmes'.²⁵

In contrast with the women and environment discourse of the 1980s and 1990s where women were also portrayed as being central to successful programmes (i.e. their participation resulting in increased project efficiency but in addition, an improved status for the women themselves), in the case of climate change, women, where they are visible at all, are generally portrayed as vulnerable and poorly equipped, compared to men, to adapt to climate change.²⁶ Their limited adaptive capacity is seen to reflect their comparative lack of control over assets needed for fulfilling their domestic and economic responsibilities, plus – in some cases – their lack of knowledge and know-how. As in the

case of gender and environment discourse, the arguments draw little from the earlier feminist critiques and resulting WID-related programmes.²⁷ The vulnerability argument in relation to women and climate change incorporates a particular women and development discourse about access to and control over land and other inputs needed for agricultural production for satisfying food security needs, and within this, as pointed out by Leach (2007), 'subsistence, domesticity and environment are entwined as a female domain' (p.67).

Amongst 50 published journal articles reviewed in 2012, there was little evidence of critique of the way gender is being incorporated into climate change policy.²⁸ McGregor (2010a; 2010 b) and Arora-Jonsson (2011) are among the few authors calling for a return to the feminist agenda of addressing the structural (built into society and long enduring) constraints that underpin vulnerability.²⁹ A decade earlier, Irene Dankelman (2002) argued that the emphasis on vulnerability, and the portrayal of women as victims, denies women's agency and can result in policies that are focused on meeting short term needs with no potential to substantially improve their capacity to adapt to change.³⁰

Amongst the remaining articles reviewed, it is the link between women's on-farm work, and especially their water and firewood collection – the female domain of 'subsistence, domesticity and environment' (Leach 2007 op.cit.) that is used most frequently to support the inclusion of women in climate change policy, and especially, and not for the first time, their inclusion in local natural resource management committees (Gabrielsson and Ramasar 2012; Figueiredo and Perkins 2012; Preet et al. 2010).³¹

Part II: Seeking an alternative starting point for policy design

Many initiatives around adaptation to climate change are recent, and information that would allow us to evaluate the degree to which these initiatives might reduce vulnerability or enhance resilience is limited.³² However, based on decades of experience with women in development (WID) and women, environment and development (WED) initiatives, we have particular concerns about how women are placed within climate change policies since this has implications for enhancing, or not, their ability to adapt to climate change. As already noted, we are especially concerned about policies and practice solutions built on women's existing work roles, which may be defined by gender inequalities, and that possibly increase rather than reduce risk and vulnerability to climate change by "enrain[ing] low status, low return work as women's work" (Locke 1999 op. cit. pp. 278–280). Related to this concern is the possibility that current roles may simply reflect the need to satisfy immediate needs, rather than any interest in investing say in new short season crop varieties to address changing seasonal rainfall patterns as a result of climate change.³³

Our key concerns about gender and climate change policy are therefore, firstly, its narrow framing of gender as women, who are socially isolated and vulnerable, and secondly that it builds on a static and stylised picture of women's roles as subsistence food producers, guardians of household food security, and bearers of fuel wood and water. This framing largely ignores the criticisms of four decades of women and development interventions associated with natural resources management. It fails to take into account the diversity of women, the social relational aspects of their lives, and their livelihood complexity that includes both individual and joint activities with others, including men who may be spouses, siblings, parents and others. Women are simply presented as an undifferentiated and separate social category that can, with no fear of negative outcomes, be the explicit target of policy. Men, if they are made visible at all, are presented as choosing to leave agriculture and rural areas, or at least to work less hours in the fields than women thereby potentially placing women in an even more vulnerable position. In addition, this policy scenario fails to acknowledge the social and economic dynamics of rural communities that are likely to have already responded to past changes in the natural environment but also to policy shifts and economic challenges more generally.

This is the dominant perspective driving gender climate change policy today. While there are murmurs about women being burdened with even more responsibility, these have not been loud enough to destabilise this policy scenario. There is also nothing new in this picture to suggest that dealing with climate change might require a different approach, perhaps one that focuses substantially on institutions beyond the household, and that have been the focus of feminist critiques since the 1970s as failing to provide services to female farmers. Gender analyses of these institutions, and their role in constraining or supporting men's and women's adaptation strategies are essential for determining gender responsive adaptation policy.³⁴

Such a change in scope - moving from individuals to society and structures that determine disadvantage - supports a broader interpretation of gender vulnerability than one that suggests that all women are especially vulnerable because of their dependence on the natural resource base, and their related roles in meeting consumption and nutritional needs. It acknowledges the importance of gender relations in the lives of women and men, their multiple gender identities that have implications for what these relations look like, and the role of different institutions in determining disadvantage.³⁵

It could be argued that it is the discourse and policies relating to women and food security (including nutritional security) that should be our main concern when assessing existing policies and searching for new starting points for future policies. It is within the context of food production for own consumption rather than for sale, frequently referred to as 'subsistence production' that the link between women and food security is made, and thus the argument for placing women centrally within

climate change and other natural resource policies. In this discourse, women may be presented as choosing to protect these activities, even in the face of attractive alternatives, and seeking greater control over a range of natural resources. Here control is linked with their ability to adopt new agricultural practices designed to increase their productivity, as well as with the ability to act and adapt when faced by threats of various kinds.³⁷ This discourse draws on a large literature on women in agriculture that has dominated gender and development policies over the last four decades.³⁸

In respect of this food security agenda, it is time to separate the day-to-day provision of food on the table for which women are in large part responsible in many cultures, from other aspects of food security. If this separation is made, we can potentially move away from designing policies that enable women as helpless/disempowered players meet our interests in their work as food producers, to designing policies that offer opportunities for women as active agents, able to negotiate for change in their lives.

Social analysis, guidelines and operating principles

Decisions made at international and other levels must be informed by solid analyses of local social, economic and political situations, along with information on adaptations to change (including climate change) if they are to be operationalized locally.

In arguing for such studies we are aware of the limitations of the gender roles analyses that have been widely used at community levels to provide a baseline for intervention.³⁹

There are already a range of training materials available on line to guide planning in the context of climate change at the local level. Most have been developed since 2005/6 by a range of NGOs, and bi- and multilateral agencies.⁴⁰ The CGIAR Research Programme on Climate Change, Agriculture and Food Security, and the Food and Agriculture Organisation have recently produced a set of comprehensive guidelines for a household and community level study designed for 'understanding the different adaptive strategies men and women apply in order to secure their livelihoods.' Much of this guideline document is about 'Climate Smart Agriculture' (defined as agriculture that helps adaptation, reduces greenhouse gas emissions as well as supports food security and development goals).⁴¹ The guidelines include questions relating to farming systems, livelihoods, and gender roles. They also include time use, asset decision-making and production data within households disaggregated by sex, along with a series of participatory research tools and guidelines for community-level data collection and analysis. They are amongst a wide range of tools used for social analysis by different organisations, and might include individual case studies and large scale surveys.

Here we are proposing a set of operating principles that serve as reminders of the need to account for social relations, including social exchange, in the analysis of social difference, choices made, and expectations of individuals and social groups. when developing and implementing local level policies and programmes. They say nothing about the methods that might be used to highlight these relations. Rather, in presenting them we are making a statement about the need for an analytical and conceptual framework that will serve as a guide to both data collection and its interpretation, and enable programmes to move beyond reading directly from sex-disaggregated data to developing policy.

Operating principles

The operating principles detailed in Table 1 are designed to throw light on the complexity of social life that goes some way to explaining why there is unlikely to be a neat unfolding of planned climate change related activities. Importantly, they fit with a view of vulnerability as caused by multiple interconnected factors, and of adaptation processes needing to take account of this complexity rather than to be based on linear processes of scenario projections, impacts and responses (O'Brien et al. 2007).⁴² Similarly, they throw into question any assumption that generic adaptation actions – once identified – can be easily replicated across a wide range of socio-economic and geographic contexts.

The principles include key social understandings: that gender relations are dynamic and variable; women and men are heterogeneous social groupings with multiple identities (as spouses, siblings, co-workers and so on). They also take account of the fact that women and men as members of domestic and other units are likely to have both separate and joint interests. In the case of spouses and/or residential units of related kin, regardless of the level of separation of their interests they are likely to remain engaged in what is essentially a cooperative enterprise, the immediate care of dependants and the long term survival of the unit. Further, the operating principles acknowledge the fact that social differences of different kinds - gender, class, age, marital status - frequently act together in the production and reproduction of disadvantage (and privilege?), and that 'gender issues' may not be women's (or men's) most important concerns. It follows that gender needs to be considered along with other social divisions and categories, we suggest especially age and class. A focused inquiry into the impact of say making agricultural credit available to women needs to be framed within such an understanding of how gender and other relations work.

Our interest in the use of these principles in the context of designing climate change policies and programmes, and changing the associated gender narrative, lies especially in their relevance for examining social relations in institutional contexts other than domestic units of various kinds, while bearing in mind the interlocking nature of local institutions (Kabeer 1994 op. cit.). Given this, and the nature of climate change, it would seem to

Table 1. Operating principles for integrating gender concerns in climate change research and policy. Adapted from Okali (2012).⁴³

Operating principles	Examples of implications for climate change research and policy
<p>1. Vigorously resist notions that:</p> <ul style="list-style-type: none"> • The rural population is a collection of isolated, atomised individuals with only individual interests • Farmers, producers and others are neutral actors with no gender, age, class or other identities, or have only a single identity • All rural areas are the same (share the same history, cultural constructions of gender, and are experiencing similar rates of change etc. 	<ul style="list-style-type: none"> - Notions of Community-Based Adaptation strategies(CBA) must focus on intra-community social dynamics to avoid reinforcing existing disadvantage/ poverty/ vulnerability - location specific analyses must underpin local programmes
<p>2. Question dominant narratives about:</p> <ul style="list-style-type: none"> • Women and men's roles in the economy, in domestic units and in food security provision • Gender and other social relations <p>(i.e. Roles/ rules are not simply determined by gender, or fixed over time and in different situations. They vary depending on the relationships involved (spouse; child; employee), the way in which a task is undertaken (manual; headloading; with wheeled vehicle etc.), and by the specific situation (wife weeding personal field of husband; wife working as hired labourer) etc.</p>	<ul style="list-style-type: none"> -Water and fuel collection are not intrinsically the tasks of women/ girls and are frequently carried out by men/boys if other means of transport are available - both women and men undertake responsibilities to meet food security – , (i.e. Stable and good quality food available/ accessible all the time)
<p>3. Avoid:</p> <ul style="list-style-type: none"> • Simply cataloguing differences and seeking gap-filling solutions: <p>(question ways of 'caring', providing food security, subsistence production)</p>	<ul style="list-style-type: none"> - The meaning/ significance of sex disaggregated data for climate change programmes on the ground depends on the nature of gender relations in the specific location.
<p>4. Clarify:</p> <ul style="list-style-type: none"> • The context in which any specific study is undertaken: • Which women and which men are the subject of study: • Gender and wider social relations in various institutional contexts <p>(i.e. Be aware of ongoing processes of social, economic and political change; women and men are not undifferentiated social categories; the rules/ norms/ values of different local groups and other agencies often reinforce one another)</p>	<ul style="list-style-type: none"> 1 - Location-specific norms and values have implications for the ability of individuals to act/ and cope with/adapt to climate risks. - Social disadvantage/ inequality is repeated across Institutions e.g. neither customary nor new community groups are automatically gender-equitable - Power relations need to be at the forefront of all analysis of social relations and climate change impacts and solutions sought

be especially important to look at the adaptive capacity of institutions, as well as of individuals.

Conclusion

In this paper we set out to explore the ways in which gender has been incorporated into climate change policy. While it is still early days, the arguments used to support integrating gender into climate change policy are a mix of earlier gender and agriculture, and gender and environmental change arguments. They closely resemble one another in the discourses, programmes and activities used -- they are not unique to climate change. However, based on the glaring gender disparities that continue in spite of the efforts made now over decades, we conclude that there is no clear advantage in continuing with this approach to determining gender policy.

Above all, we find the almost total reliance on current work roles of women and men to determine gender policy to be highly problematic. Although the gender roles narrative and sex disaggregated data sets that make the differences between women and men visible have enabled different kinds of organisations engage with the call to mainstream gender in their policies and

programmes, it is the way the observed differences between women and men are interpreted that determines policy design. A dominant narrative is of women as hard workers but victims with little ability to act in their own interest, and this narrative informs most gender and climate change documentation and policy. This has resulted in the call to place women at the centre of climate change policy, with men apparently being left to do what they do, with interest in or influence over what women do.

Our suggestions for changing the starting point for developing gender-responsive climate change policy focus on the analyses of local social, economic and political situations along with information on adaptations to change (including climate change). The 'operating principles' provide a starting point for such local analyses. They are built on an acknowledgement of social complexity and hence the need to move beyond generalisations and arguments that essentialise women's and men's roles. In addition they reflect understandings of social, including gender, relations. While not necessarily explicit within these principles there is the understanding that the rules underpinning social behaviour are likely to vary in specific local settings, and they may be more

or less fixed, both supporting and constraining social development. They point to the way in which both women and men, together and separately, in their different and changing roles, can and do shape the outcomes of external interventions. They therefore make it clear that whatever the decisions made at international and other levels, they have to have meaning for men and women at the local level if they are to make a difference to their lives, in addition to supporting efforts to develop strategies that mitigate as well as enable adaptation to climate change. For women and climate change, we point to the role that institutions can play in entrenching established opinion rather than seeking to improve on the past, and propose a greater focus on these.

This proposed shift does not mean that targeting vulnerable women and men to meet short term needs is not valuable. Rather, the intention is to bring this gender policy in line with much current women and development thinking that focuses on how women might be enabled to use development interventions to further their own interests in seeking ways out of positions and actions that are likely to perpetuate a status described since the 1970s as 'subordinate'. The key questions for us in relation to climate change activities designed for women might be: 'Which women are likely to perceive their involvement in a positive light?' and, given the importance of wider social relations in the lives of individuals, 'Can the focus be on women alone?' and, 'What trade-offs are they likely to have to make with others in order to participate?'

Finally, while we appreciate the need for organisations to justify their resource use by reference to achievements of one kind or another, we do not see this as necessarily being worked out in such a direct way as through targeting individual women to achieve gender equality, increased production or increased productivity, by their involvement in climate change policy. Such a conclusion ignores much of what we already know about gender relations and social relations more widely. Since we subscribe to the view that such changes in gender relations cannot be predicted with certainty, developing an ongoing appreciation of how women and men are using project opportunities and reacting accordingly is the only way in which projects can intervene responsibly.

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Notes

¹ See the following publication that crosscuts a whole range of agricultural policy areas: The World Bank. 2009. *Gender in Agriculture Sourcebook*, Washington: World Bank, FAO and IFAD.

² Adger, W. N., Agrawala, S.M., Mirza, Q., Conde, C., O'Brien, K., Pulhin, J. Pulwarty, R., Smit, B., and Takahashi, K. 2007 'Assessment of adaptation practices, options, constraints and capacity' in *Climate Change 2007: impacts, adaptation and vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* edited by Parry, M. L., Canziani, O. F., Palutikof, J. P. van der Linden, P. J. and C. E. Hanson (eds.). Cambridge: Cambridge University Press: 717-743: Smit, B., and Wandel, J. 2006 'Adaptation, adaptive capacity and vulnerability'. *Global Environmental Change* 16(3): 282-292. <http://dx.doi.org/10.1016/j.gloenvcha.2006.03.008>

³ Comprehensive analyses of the Women, Environment and Development (WED) policies can be found in the following documents: Green, Cathy, Joekes, Susan and Leach, Melissa. 1995 'Questionable links: Approaches to gender in environmental research and policy'; in *Feminist Visions of Development: Gender analysis and policy* edited by Jackson C. and Pearson, R. London: Routledge: 259-283; Leach, M and Green, 'Gender and environmental history: Moving beyond narratives of the past in contemporary women-environment policy debates.' IDS Working Paper 16. Brighton, University of Sussex, Institute of Development Studies; Leach, Melissa. 2007 'Earth mother myths and other ecofeminist fables: How a strategic notion rose and fell' *Development and Change*, 38(1): 67-85; Jackson, C. 1993a 'Doing what comes naturally? Women and environment in development' *World Development*, 21(12): 1947-63; Jackson C. 1993b 'Questioning synergism: Win-Win with women in population and environment policies'. *Journal of International Development* 5(6): 651-68.

⁴ Locke, C. 1999 'Constructing a gender policy for Joint Forest Management in India' *Development and Change* 30: 265-285. In making this analysis of the way gender is integrated into Joint Forest Management policy, Locke refers to the work of Hobley, Mayoux, Agarwal, and Leach.

⁵ Jane Guyer makes a number of points about the way men and women relate to their work and how this might change depending on their interests in the work, their alternative opportunities in terms of income, or access to alternative resources such as firewood, or even whether or not the work can be handed to someone else (Guyer, J. 1988 'Dynamic approaches to domestic budgeting: cases and methods from Africa' in *A Home Divided: Women and Income in the Third World* edited by

Daisy Dwyer and Judith Bruce, California, Stanford University Press:155-172.

6 Boserup, E. 1970 *Women's Role in Economic Development*, London: Earthscan.

7 For a detailed review see Razavi, S. and Miller, C.1995. 'From WID to GAD: Conceptual shifts in the Women and Development Discourse', Occasional Paper no. 1 for Beijing, Geneva: UNRISD. Also see Okali, C. 2011 *Searching for New Pathways towards Achieving Gender Equity: Beyond Boserup and Women's Role in Economic Development*, ESA Working Paper No 11-09. Rome: Agricultural Development Economics Division, Food and Agriculture Organisation.

8 These accounts of the early development of a women and development discourse have been rehearsed in a number documents over the past two decades. They are detailed in Okali C. 2012 'Gender Analysis: Engaging with rural development and agricultural policy processes', FAC Working Paper 026, Future Agricultures Consortium, Institute of Development Studies, University of Sussex.

9 Cornwall, Andrea, Gideon, Jasmine, and Wilson, Kalpana (2008) 'Introduction: Reclaiming feminism: gender and neoliberalism', *IDS Bulletin*, 39(6): 1-9.

10 Buvinic, M. and King, E.M. 2007 'Smart Economics – More needs to be done to promote the economic empowerment of women.' *Gender and Development: Finance and Development. Quarterly Magazine of the IMF. Vol 44(2)*.

11 Simavi, Sevi, Manuel, Clare and Blackden, Mark. 2010 *Gender Dimensions of Investment Climate Reform. A Guide for Policy Makers and Practitioners*. Washington DC: World Bank:3.

12 Okali, C. 2012 op.cit.

13 A recently published critique of Conservation Agriculture highlights the risk to women of the willingness of policy advocates to uncritically add them to every area of development, and stir: Anderson, Jens, A. and Giller, Ken, E. 2012 'On heretics and God's blanket salesmen: Contested claims for Conservation Agriculture and the politics of its promotion in African smallholder farming' in *Contested Agronomy in a Changing World*, edited by J. Sumberg and J, Thompson. London: Earthscan: 22-46.

14 The term 'natural constituency' is taken from Jackson 1993 op. cit.

15 Jackson, C. 1993a; 1993b op.cit.

16 This women and environment discourse, and its grounding in ecofeminist arguments while drawing on earlier WID policy arguments are detailed by Melissa Leach 2007 op. cit. Leach observes that while this discourse was poorly

conceptualised and therefore was inherently fragile, it has more recently re-emerged.

17 The links between the different gender strategies referred to as WID, WED and GAD are detailed by Leach, M. 2007 op. cit.

18 In relation to women's management skills, Locke (op. cit.) argues that the women who were collecting poor quality forest resources (leaves) in Nepal had little experience in managing the trees, and the tedious nature of the work and its poor returns signal the women's desperation rather than their concern for the environment. Locke is joining Agarwal in expressing concern about entrenching women within a given division of labour with marginal if any benefits to them (Agarwal, B. 1992 'The gender and environment debate: Lessons from India', *Feminist Studies*,18(1):119-158).

19 Efficiency arguments such as these are widely used to support gender and development strategies, and more specifically to support involving women in programmes. In environmental policy and practice, women are included as primary stakeholders (see Cornwall, Andrea, 2002 'Making a difference? Gender and participatory development', Chapter 7 in *Shifting Burdens: Gender and Agrarian Change under Neoliberalism*: edited by Shahra Razavi: Kumarian Press:197-232; For issues of voice and power in respect of participatory processes that are frequently viewed as positive for all see Mosse, D. 1994 'Authority, Gender and Knowledge: Theoretical reflections on the practice of Participatory Rural Appraisal' *Development and Change*, 25: 497-526.

20 Denton, F. 2004 'Gender and climate change: giving the "latecomer a head start"' *IDS Bulletin*, 35(3):42-4; Wamukonya, N. and Skutsch. 2002 'Gender angle to the climate change negotiations?' *Energy and Environment* 13(1):115-124; and Lambrou, Y. and Piana, G. 2006. *Gender: The missing component in the response to climate change*, Rome: Food and Agriculture Organisation; Lambrou, Y., and Nelson, S. 2010. 'Farmers in a changing climate: Food security in Andhra Pradesh, India', in *Research. Impacts and Policy: Addressing the Gendered Impacts of Climate Change*, edited by Alston, M. and Whittenbury, K., London/New York, Springer.190-206.

21 This apparent reluctance to include gender resembles the unwillingness discussed by Locke, Hobly and Tinker in relation to Joint Forest Management programmes.

22 Commission for Africa. 2005 'Our Common Interest', Report of the Commission for Africa.

23 Lambrou, and Piana 2006 op. cit.; Tanner, T. and Mitchell, T. 2008 'Building the case for pro-poor adaptation' in *Poverty in a Changing Climate* edited by Tanner, T. and Mitchell, T. *IDS Bulletin*

39(4), University of Sussex, Institute of Development Studies.

24 Arora-Jonsson, Seema. 2011 op.cit.

25 Otzelberg, Agnes 2012 Gender-Responsive Strategies on Climate Change: Recent Progress and Ways Forward for Donors, BRIDGE, Institute of Development Studies, University of Sussex.

26 This image of women as victims of changes in the natural resources environment reflects earlier images from the 1980s of women needing to work harder in the face of environmental degradation in order to fulfill their roles as carriers of fuelwood and water, and as environmental carers (Leach 2007: 67-68).

27 For a detailed review on gender and climate change discourse see Agnes Otzelberg 2012 op.cit. The reference to women's lack of knowledge limiting their adaptive capacity is made in Article 10 of CEDAW (Convention on the Elimination of all Forms of Discrimination against Women).

28 We identified 50 articles published since 1999 where the words 'gender' and/or 'women' and climate change appeared in the title. There is an additional set of activist and possibly more influential literature linked with projects on the ground calling attention to the plight of vulnerable women, and for them to be placed at the centre of policies. Although we did not review this literature in any detail, the internet paper *JotoAfrika* is one example. In its Issue number 006, March 2011, its main front page piece is titled: 'Adapting to climate change in Africa: Women as key players in climate adaptation.'

29 MacGregor, S. 2010a 'Gender and climate change: from impacts to discourses.' *Journal of the Indian Ocean Region*, 6 (2), 223-238; MacGregor, S. 2010b 'A stranger silence still: The need for feminist social research on climate change.' *The Sociological Review*, 57: 124-140; Arora-Jonsson op.cit.

30 Dankelman, Irene 1992 'Climate change, gender analysis and organising for sustainable development', *Gender and Development*, 10(2):21-29.

31 Gabrielsson, S. and Ramasar, V. 2012 'Widows: agents of change in a climate of water uncertainty.' *Journal of Cleaner Production* [in press] and <http://www.sciencedirect.com/science/article/pii/S0959652612000546>; Figueiredo, P. and Perkins, P.E. 2012 'Women and water management in times of climate change: participatory and inclusive processes.' *Journal of Cleaner Production* [in press] and <http://www.sciencedirect.com/science/article/pii/S0959652612001011>; Preet, R., Nilsson, M., Schumann, B. and Evengård, B. 2010 'The gender perspective in climate change and global health.' *Global Health Action* 3.

32 The most common policy is to support the adaptive capacity of populations most at risk of climate change. Such policies are now covered by a substantial body of literature that is not focused on women per se although women may be viewed as having less capacity than men. Agricultural and forestry programmes detailed in climate change documentation closely resemble existing programmes addressing problems of changes in rainfall patterns, deforestation etc. such as are detailed in the reports of UNEP for countries in the Nile Basin (www.unep.org). Many programmes are managed by community groups, and women are reported to be involved. Various programmes under REDD+ (Reducing Emissions from Deforestation and Forest Degradation) are tied to market access and include natural resource management groups, tree growing activities, and cooking pots. Others include replacing traditional biomass (fuel wood, agricultural residues and animal waste) for cooking and heating (conserve woodland, and reduce CO2 emissions), but also action to conserve trees, and engaging rural men and women in accessing carbon markets (see the Scoping Study completed by Agnes Otzelberger, 2011 *gender responsive strategies to climate change: recent progress and ways forward for donors*, BRIDGE, Institute of Developments Studies, University of Sussex). However, it is too early to report on assessments of these various programmes in terms of their gender sensitivity or responsiveness to gender critiques of earlier similar programmes.

33 In the case of women, the difference between policies that meet immediate needs and policies that respond to meeting their interests has long been central to gender planning and is part of the feminist agenda of women being in a position to exercise agency or choice as detailed in Agarwal, 1992. op.cit. 'The gender and environment debate lessons from India.' *Feminist Studies*, 18(1):119-158.

34 Naila Kabeer details a social relations approach in the Oxfam publication 'March, C., Smith, I. and Mukhopadhyay, M. 1999 A Guide to Gender-Analysis Frameworks. UK: Oxfam. She details the principles of her approach in the volume titled *Reversed Realities: Gender Hierarchies in Development Thought*, Verso, UK, 1994. Okali and Locke attempted to integrate such an approach into their conceptual tool for the analysis of changing gender relations. The arguments supporting the approach are detailed in Locke, C. and Okali, C. 1999 'Analysing changing gender relations: Methodological challenges for gender planning', *Development in Practice*, 9(3): 274-286.

35 The underlying social vulnerability of disadvantaged populations, and the importance of social approval for legitimising changes in these positions, has long been central to understanding gender disadvantage, but also poverty, and social disadvantage more broadly.

The critical implication is that neither women nor men can be treated simply as socially isolated subjects.

³⁶ The FAO divides 'food security' into four dimensions of availability, access, utilization and control (FAO, 2006 'Food Security', FAO Policy Brief, Issue 2, Rome: FAO). Christine Okali (2011) concluded in relation to livestock that both women and men are likely to play a varied and changing role in each of these aspects of food security: 'Notes on livestock, food security and gender equity.' Working Paper, 3, Rome, Animal Production and Health.

³⁷ Two relevant documents to issues around the concept of food security and women's roles are Seur, Han (1992) *Sowing the Good Seed: The Interweaving of Agricultural Change, Gender Relations and Religion in Serenje District, Zambia*, PhD. University of Wageningen, The Netherlands, and Mackintosh, Maureen (1989) *Gender, Class and Rural Transition: Agribusiness and the Food Crisis in Senegal*, London: Zed Books Ltd. These two volumes are based on detailed context-specific research on the consequences or outcomes of change.

³⁸ Much of this literature about resource rights has focused on the need for legislation to support the rights of women as independent citizens but

in a recent publication, Nitya Rao, reflecting on recent events around women and rape in India, points out that it is the social legitimacy of resource rights for women and men that are needed if legislation has to have any impact on the ground (Rao, N. 2013 'Rights, Recognition and Rape' Commentary in *Economic and Political Weekly*, XLV111(7):18-21).

³⁹ These may be limited to descriptions of contrasting gender roles based on time use data, or may include a wider data set covering asset allocations, incomes and expenditures.

⁴⁰ See e.g. www.climateplanning.org

⁴¹ FAO, 2010. "Climate-Smart" Agriculture: Policies, Practices and Financing for Food Security, Adaptation and Mitigation. Rome: FAO.

⁴² O'Brien, K., Eriksen, S., and Nygaard, 2007 'Why different interpretations of vulnerability matter in climate change discourses', *Climate Policy*, 7(1):73-88.

⁴³ Okali, C. 2012 op. cit.

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