

Low carbon resilient development and gender equality in the least developed countries

Susannah Fisher and Rachel Mohun

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About the authors

Susannah Fisher is a Senior Researcher in the Climate Change Group. www.iied/org/users/susannah-fisher Susannah.fisher@iied.org

Rachel Mohun is a consultant with the Climate Change Group and holds a Masters in Environment, Development and Policy from The University of Sussex. rcmohun@gmail.com

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International Institute for Environment and Development 80-86 Gray's Inn Road, London WC1X 8NH, UK Tel: +44 (0)20 3463 7399

Tel: +44 (0)20 3463 7399 Fax: +44 (0)20 3514 9055 email: info@iied.org www.iied.org

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Bringing together the dual aims of low-carbon and climate resilient development has become a significant policy goal in planning for climate change. This, along with an increasing recognition of the importance of gender equality in the field of climate change has led to an emergence of low carbon resilient development planning that is starting to take gender considerations into account. Gender mainstreaming is recognised as a systematic way to develop gender equality and so integrated planning is being developed across a range of issues around climate and gender. However, integrating such multiple agendas poses a challenge - most notably to Least Developed Countries (LDCs) who are already experiencing the impacts of climate change, and are also part of efforts to develop low carbon or green growth pathways to mitigate emissions. This paper examines how LDCs are meeting this challenge and how gender considerations have been incorporated into different aspects of low carbon resilient development planning.

Contents

Acronyms	<u> </u>
Executive summary	6
1 Introduction	8
2 Gender equality and low carbon resilient development	10
2.1 Why gender equality and climate change?	11
2.2 Gender equality and low carbon development and green growth	12
2.3 Concepts: gender-sensitive, gender equality and gender mainstreaming	12
2.4 Including gender concerns in policy-making on low carbon resilient development	13
3 Gender in the NAPAs and NAMAs	14
3.1 Guidelines for NAPAs	15
3.2 General findings on the NAPAs	15
3.3 Examples of how gender has been included within the NAPAs	16
3.4 Gender considerations in the NAMAs	16
3.5 Summary	16
4 Gender considerations in national low carbon resilient development plans and strategies	17
4.1 Climate change and gender by sector	19
4.2 Climate change and gendered social norms	21
4.3 Key countries focusing on gender and low carbon resilient development	21
4.4 Discussion and limitations	23
5 Conclusions and looking forward	25
References	27
Related reading	28
Annex I: NAPAs and Submission Dates	29

Acronyms

BCCSAP Bangladesh Climate Change Strategy and Action Plan

ccGAP Climate Change and Gender Action Plan

CIFs Climate Investment Funds

Climate-Resilient Green Economy CRGE

ECOSOC United Nations Economic and Social Council

EDPRS II Economic and Development Poverty Reduction Strategy II

HFA Hyogo Framework for Action

IFAD International Fund for Agricultural Development

IMF International Monetary Fund **LDCs** Least Developed Countries

LEG Least Developed Countries Expert Group

NAP National Adaptation Plan

NAPA National Adaptation Programme of Action NAMA Nationally Appropriate Mitigation Action

OCHA United Nations Office for the Coordination of Humanitarian Affairs

PAGE Programme for Accelerated Growth and Employment

SPCR Strategic Plan for Climate Resilience

UN **United Nations**

UNFCCC United Nations Framework Convention on Climate Change

UNFPA United Nations Fund for Population Activities

UNHCR United Nations High Commissioner for Refugees

WEDO Women's Environment and Development Organisation

Executive summary

The issue of gender equality and climate change has come to the fore in both policy and research arenas in the last decade, due to the widespread recognition that neither the impact pathways for climate change, nor the policy responses are gender-neutral. Whilst it shouldn't be assumed to always be the case, climate change *can* worsen existing conflicts and gender inequalities, and some strategies to address climate risks can exacerbate this if not applied with gender-sensitive principles. Gender-sensitivity is therefore a key priority for low-carbon climate resilient planning at local, national and international levels.

The Least Developed Countries (LDCs) have been planning for climate change adaptation and mitigation through an array of frameworks such as the NAPAs, NAMAs and NAPs, and through their own national plans and strategies. The extent to which gender considerations are apparent within these plans therefore helps understand how gender considerations are being integrated into national low carbon resilient planning.

Incorporating gender concerns into policy-making and climate change plans involves: changes in the *process* of drawing up a plan to making the process gender-inclusive; incorporating gender issues in the key sectors of the plan and including the goal of gender equality as part of the objectives of the plan. Indeed, with an increased rhetoric around 'gender mainstreaming' countries are facing a challenge to integrate gender sensitivity into every aspect of climate planning, from participation and decision making, through to content and implementation.

This paper reviews low carbon resilient development plans and strategies in the least developed countries to see how gender dimensions are being incorporated in planning documents and processes. This analysis shows where gender considerations have been well incorporated into planning, which countries have moved ahead and where further attention is needed.

A number of studies analyse the gender-sensitivity of the NAPAs. While a large number of NAPAs were deemed gender blind in their consideration of gender dimensions within the context of climate change, there several positive examples in which both participation and content were deemed to take gender considerations seriously. However many argue that they do not go far enough in terms of integrating gender considerations throughout a range of sectors related to climate planning, and likewise that they fail to identify both women and men as key actors in adapting to and mitigating climate change.

With new NAPs and NAMAs in the pipeline, and further guidance on gender mainstreaming within long-term adaptation and low emissions development plans, we assess existing low carbon resilient development strategies that have emerged within national planning processes.

This paper shows that increasing numbers of LDCs are considering gender in their low carbon resilient planning. While for many integration throughout the various sectors remains a challenge, there are a number of positive examples of effective gender mainstreaming.

Countries such as Bangladesh and Cambodia have specific plans on gender and climate and/ or green growth whilst in The Gambia and Tanzania mainstreaming of gender and climate has occurred throughout wider development planning. Of the 21 country strategies analysed, six were identified as having taken a mainstreaming approach to gender considerations, with a further eight including gender dimensions in some aspect of the plans. Sociopolitical factors affecting gendered impacts of climate change were also addressed in a number of the plans, identifying issues around division of labour, access to recourses and women's economic empowerment as key factors contributing to differing implications of climate change for men and women.

From this analysis and the experience of the inclusion of gender considerations so far in the plans and strategies, a number of lessons can be drawn out that may support the mainstreaming of gender considerations into future low carbon resilient development plans and strategies as well as supporting the inclusion of gender perspectives within global climate finance. These include:

- The use of an integrated approach to gender equality across various sectors and ensuring a mainstreaming approach has a plan for supporting the gender equality across sectors
- · Assessment of broader social, political and economic issues relating to gender in order to gain deeper understanding of the influences on gendered vulnerabilities to climate change

- Including gender concerns in less typical areas such as low carbon development - as well as in resilience planning
- Consideration of the roles of men and women, boys and girls, and the *relationships between them* as an important part of achieving gender equality
- Women's full participation and contribution to decision-making and leadership on planning for climate resilience and low carbon development
- · Preparation and implementation of projects and programmes that have a gender focus in addition to mainstreaming gender
- Collection of gender disaggregated data when conducting research and including gender in the theories of change and the results frameworks of the plans

Introduction



Planning for low carbon resilient development has become an increasingly important policy priority for least developed country governments. This includes planning for the potential effects of climate change on achieving national priorities such as poverty reduction and sustainable agriculture often called climate change adaptation as well as using international finance and national budgetary sources to address issues of energy production and access contributing to a global low carbon agenda. In a review conducted in 2012, it was found that nine LDCs had developed national strategies that addressed both low carbon and climate resilience (Fisher, 2013). However, this is a quickly evolving arena and since then other countries have either developed national strategies or mainstreamed climate concerns into their national development plans (see Section 4 for a full list).

There has also been an evolution in types of climate change planning over the past decade (Kallore et al. 2014). Early planning on climate change came about as response to international negotiations and potential funding sources. National Adaptation Plans of Action (NAPAs) were developed by all LDCs to provide a strategy for addressing immediate to medium term adaptation needs. Many NAPAs produced a list of projects to be funded. Nationally Appropriate Mitigation Actions (NAMAs) were also developed in some countries as standalone mitigation strategies designed to attract international funding. Since 2009 however, countries starting developing national climate change plans and strategies such as the Bangladesh Climate Change Strategy and Action Plan (BCCSAP) (one of the first LDC plans to be developed) and the Climate Resilient Green Economy Strategy in Ethiopia (Fikreyesus et al. 2014). These national strategies have sought to address both mitigation and adaptation priorities and looked for co-benefits between the two agendas. Funding mechanisms and institutional mechanisms were also developed to support the implementation of these agendas.

However, there has been an increasing shift to mainstreaming climate change into national development plans and strategies rather than developing a separate document or implementing a policy in isolation. The Gambia for example has integrated climate change in the Programme for

Accelerated Growth and Employment (PAGE) and Ethiopia and Rwanda are using their standalone policies to mainstream key elements of the agenda into their national planning processes – the Growth Transformation Plan II and the Economic and Development Poverty Reduction Strategy II (EDPRS II) respectively. The international arena has also moved more towards a mainstreaming approach with support for new National Adaptation Plans (NAPs) that are designed to meet medium to long-term adaptation needs. NAPs have been designed to be a more flexible process than NAPAs and can support integration of these concerns into core development planning rather than continuing with projectised approach of the NAPAs. They have been designed at least in theory to be more transformational and the form a NAP takes is defined by the needs of the country in question. In this sense, NAPs offer the opportunity to build upon and learn from the NAPA process, in a way that takes a more considered and transformative approach to reducing vulnerability to climate change.

With all this activity around planning for climate change, the issue of gender equality and climate change has also become increasingly recognised within research and policy fora (Bradshaw and Linnekar, 2014; Schalatek et al. 2012; Dankelmann, 2010; UNFCCC, 2010). This draws on a long tradition of research and practice around women in development and an increasing recognition of the role of power relationships including the needs and views of men in development (Boserup 1970; Moser 1993; Momsen 2004; Cornwall 2000).

The field of gender equality and climate change and gender equality and disasters has considered: the differentiated experiences and vulnerabilities of women and men; the differentiated impacts of different policy approaches on women and men and the role of women and men in decision-making and policy in these areas. This paper reviews low carbon resilient development plans and strategies in the least developed countries to see how gender dimensions are being incorporated in planning documents and processes. This analysis shows where gender considerations have already been incorporated into planning, which countries have moved ahead and offer examples to others, and where further attention is needed.

Gender equality and low carbon resilient development



The issue of gender equality and climate change has been increasingly recognised in academic research the past decade. This is because of a widespread recognition that the neither the impact pathways for climate change, nor the policy responses are genderneutral (Otzelberger, 2011). Gender-sensitive or gender-responsive policy-making and/or the goal of seeking gender equality are seen as both goals in themselves and also pre-cursors to achieving the desired development gains and resilience to climate change. Despite the increasing recognition of the need to take gender issues seriously in climate change planning, progress so far has been mixed. This review summarises why it is important to consider gender equality and climate change and gender equality and the low carbon agenda, the main concepts to consider when addressing gender equality in policy-making, and how this has been done so far in the international agreements on climate change.

2.1 Why gender equality and climate change?

Men and women need different support to build their resilience and can experience adaptation and mitigation interventions in different ways (IFAD 2O14; Otzelberger 2011; Dankelmann, 2010). Climate change risks worsening existing gender inequalities and women may face more negative impacts from climate change due to their position in the community, the livelihoods they depend on, their roles within the household and access to assets and resources. Women also have agency to address climate risks, can play key roles within their households and are important stakeholders in implementing climate change plans and strategies at all levels.

Whilst it shouldn't be assumed to always be the case, climate change can worsen existing conflicts and gender inequalities, and some strategies to address climate risks can exacerbate this if not applied with gender-sensitive principles. The gendered division of labour is one area where climate change effects and policies may have a significant impact on women. IFAD have documented through their programme supporting smallholder farmers how supporting communities to diversify their livelihoods can lead to a greater burden on women and actually increase their workloads (IFAD 2014). In the contexts where they were working, the benefit for the community and the spreading of risk comes with costs for women in particular. A major issue for women is increases in their workloads due to either increased climate risks, more marginal environments

or as part of an adaptation intervention. Access to assets is another key area which affects how women can respond to increased climate risks. Moser and Satterthwaite (2008) argue that the more assets people have the less vulnerable they are. Erosion of people's assets leads to greater insecurity and international data indicates that women tend to have less or limited access to all types of assets - physical, financial, human, social and natural capital (Aguilar et al. 2009). Household relationships are also an important facet of gender equality and climate change - there is some evidence that gender-based violence is increasing in areas under greater climatic stress and this is an area that needs further investigation.

Evidence shows that women are more likely to die than men in large-scale disasters or climate-related extreme events (Bradshaw and Fordham, 2013). This is due to social and cultural norms and the fact that women often have less access to assets that help individuals cope with extreme events. In extreme events, women and girls often experience intangible losses - for example, of health or wellbeing – and secondary effects such as increased gender-based violence, early marriage, family disintegration, increased child mortality and loss of education. Men and women also use weather-related information in different ways and so early-warning systems need to take this into account to support better gendered responses to disasters (IFAD 2014).

While the policy and academic discourse has sometimes portrayed women as victims and inherently more vulnerable to global environmental change, such understandings of womens' positions and situations in disasters and climate change are often based on their supposed characteristics and have not always been evidence-based (Bradshaw and Linneker, 2014). Experience with small-holder agriculture also suggests that women's knowledge and experience can also be used to create community opportunities and investing in women brings economic returns for small holder farmers (IFAD 2014), and women can be active agents for climate change adaptation and mitigation (Aguilar et al. 2009).

Although women are an important group, gender equality also needs to address the relationships between men and women, and the experiences of men, women, boys and girls of both climate impacts and the effects of any plans or strategies.

2.2 Gender equality and low carbon development and green growth

There has also been a growing literature on gender equality and low carbon development and green growth. This builds on key issues such as energy access and land use change (often deforestation) – both important issues for LDCs in addressing low carbon goals and building a green growth pathway (Bowen and Fankhauser, 2009). There are many underlying factors behind deforestation and access to energy and these often involve women or *impact* on women. As well as women and gender relationships being affected by potential low carbon policies, women can also be beneficiaries of low carbon or green growth interventions that can support gender equality.

Women face many of the impacts of fuel poverty in developing countries although alternatives and cleaner technologies are available that would both address gender inequality and support low carbon development. Improving women's access to clean energy services and providing clean electricity for lighting, would be key aspects in a gender-sensitive low carbon strategy (Terry 2009). Terry (2009) identifies examples of clean energy projects that address women's gendered needs and interests. These include projects that enable women to earn an income through the use or supply of renewable energy services. Improved cookstoves are another intervention included as low carbon in national plans and strategies (Ethiopia includes this as a flagship programme) and these can make significant contributions to reducing carbon emissions whilst reducing indoor air pollution and bringing health benefits for women and children.

The green economy concept seeks to integrate economic growth with environmental objectives. The green growth knowledge platform argues that "as such it inherently places a significant emphasis on gender, with women constituting approximately 70 per cent of the 1.3 billion people living on less than US\$1 a day and hence the majority of those populations adversely affected by climate change and environmental degradation" (GGK, no date).

2.3 Concepts: gendersensitive, gender equality and gender mainstreaming

Women and development has been a topic of research for several decades and work within the field of gender equality and climate change builds on this tradition. Within this there are a number of different conceptual tools to assess and analyse gender equality within a policy domain.

Gender sensitivity can be defined as the understanding of social and cultural norms that underpin gender relations. It is the first step to considering gender dimensions in programming but does not necessarily imply that gender equality is an overarching goal. A programme could be aware of gender relations and be sensitive to them without explicitly targeting any change in those relationships. This could also be called *gender-responsive* and is a step further to responding to gender inequality than gender-sensitive.

Gender equality is a normative position that can be understood as a commitment to "an equal visibility, empowerment and participation of both sexes in all spheres of public and private life ... [T] he opposite of gender inequality, not of gender difference, and aims to promote the full participation of women and men in society" (UNHCR, 1998).

Gender equality is associated with not only the relationships between men and women, but also the social construction of gender and gender roles (Aguilar et al. 2009). Indeed while gender equality is not a 'women's issue', it is typically women who are disadvantaged in terms of control of and access to resources or decision making where gender inequality exists. As such women's empowerment is a critical aspect of gender equality.

Whilst gender equality is the ultimate policy goal, mainstreaming has been internationally recognised as the tool to achieve this (UN, 2002). This was first established as the global strategy in the Beijing Platform for Action from the Fourth United Nations World Conference on Women in 1995. Gender mainstreaming is defined as "the process of assessing the implications for women and men of any planned action, including legislation, policies or programmes, in all areas and at all levels. It is a strategy for making women's as well as men's concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres so that women and men benefit equally and inequality is not perpetuated. The ultimate goal is to achieve gender equality." (ECOSOC agreed conclusions 1997/2 cited in UN, 2002).

Whilst mainstreaming has become a widespread approach to seeking to achieve gender equality, it is also recognised that targeted programmes or interventions may be needed to support this process (UNWomen, no date). It has been widely recognised that gender concerns need to be mainstreamed into a range of sectors such as health and education and this also been recognised in the context of climate change.

2.4 Including gender concerns in policy-making on low carbon resilient development

Incorporating gender into policy-making and climate change or low carbon plans involves: changes in the process of drawing up a plan, making that process gender-inclusive; incorporating gender issues in the key sectors of the plan and including the goal of gender equality as part of the objectives of the plan.

In 2008 the UNFCCC secretariat called for gendersensitive measures within the Convention and major campaign groups were launched such as the Women for Climate Justice Network and Global Gender and Climate Alliance by several UN bodies and others (see Terry, 2009). Yet despite this, women's representation in high-level climate bodies has often been lacking. Initially there were no women on the advisory group on climate financing established in 2010 and some argue that climate finance debates have often been gender-blind (Schalatek, 2012; Wichterich 2012).

Article 7 in the Cancun Agreement of the UNFCCC recognises the need to consider gender equality and participation of women as important for all aspects of climate change, and particularly adaptation, and the Durban platform also called for gender balance in two new bodies - the Adaptation Committee and the Standing Committee (Schlatek et al, 2012). The Hyogo Framework for Action (HFA) includes a commitment to gender equality and empowerment of women in the context of disaster risk reduction (Aguilar et al. 2009).

Major climate change programmes such as the Climate Investment Funds (CIFs) have also sought to consider gender equality in their operations, although initial work did not include gender explicitly. Two gender reviews and assessments have sought to strengthen this part of the CIFs (Aguilar et al., 2013). Some country programmes under the CIFs have integrated gender concerns such as the Strategic Plan for Climate Resilience (SPCR) in Haiti which places a particular emphasis on gender inequality in rural areas, highlighting the multiple roles assumed by women within their families. In addition to domestic tasks, many women collect water and firewood, provide food security for their families, and play an essential role in processing or marketing agricultural products and acquiring imported products for basic consumption and everyday needs. The strategic plan places women and women's organizations at the heart of responses to communities' problems, particularly where they are already involved in mobilising and implementing community initiatives, as well as at the centre of climate change adaptation strategies.

The multilateral banks and bilateral donors also have their own gender policies as part of their operations that they seek to implement within their climate change programmes and activities.

This paper now goes on to review how gender concerns have been incorporated in the NAMAs and NAPAs and national plans and strategies addressing low carbon resilient development or climate change, to consider how these issues have been mainstreamed into national planning and where future attention should be focused.

Gender in the NAPAs and NAMAs



The NAPAs and NAMAs provide the first entry point for assessing how gender equality is being included in climate change planning. Every LDC has a NAPA and they highlight the urgent adaption needs in each context. In light of the evidence discussed above, it is likely that the needs of women would be part of urgent adaptation actions. A number of studies have been conducted on the inclusion of gender dimensions in the NAPAs. These range from quantitative assessments of gender inclusion through the various phases of participation, decision-making, and content (Holvoet and Inberg, 2014), to more qualitative assessments of how gender is included or excluded in the context of gender mainstreaming (UNFPA and WEDO, 2009; Mainlay and Tan, 2012). Here, we analyse the main findings of the literature on the NAPAs, presenting a brief overview of the countries that can be viewed as having positive examples of gender considerations in their NAPA preparation and/or content, to provide the context for the following section on national climate change plans and strategies. We also look at the NAMAs or statements of intent where they are available.

3.1 Guidelines for NAPAs

The guidance from the LDC Expert Group (LEG) on the preparation of the NAPAs identifies gender equality as a key guiding element (LEG, 2002). The LEG highlights that 'in most cases, the adverse effects of climate change disproportionately affect women' adding that women are often keepers of vital local and traditional knowledge and as such need to be included as key stakeholders in the consultations and in decisionmaking (LEG, 2002). However, while gender equality is noted as a key issue to consider in developing the plans, there is little guidance on mainstreaming gender considerations throughout the NAPAs, resulting in a lack of integration of gender issues and analyses throughout the planning process at the country level.

The guidelines stress the importance of mainstreaming the 'objectives, policies, strategies or measures outlined within a NAPA - such that they become part and parcel of national and regional development policies, processes and budgets at all levels and at all stages, and such that they complement or advance the broader objectives of poverty reduction and sustainable development,' (Saito, 2013). However, mainstreaming of gender throughout these processes is not explicitly discussed. A number of studies featured here have sought to understand the extent to which gender has, or hasn't, been considered as an integrated issue within the context of climate change adaptation.

3.2 General findings on the NAPAs

Many of the studies suggest there has been relatively limited consideration of gender dimensions within the various sectors in the NAPAs. While many of the NAPAs acknowledge women as among the most vulnerable to the effects of climate change (UNFPA and WEDO, 2009), few identify the links between gendered vulnerabilities and women's economic political and social status. Equally there has been a critique of almost all NAPAs in that they failed to incorporate women as key stakeholders or contributors to community adaptation and capacity building (Elasha, 2010). These issues have resulted in many of the NAPAs being deemed 'gender-blind' (Rakibul & Bahauddin, 2014).

In 2009, the Gender Advisory Team at the UN Office for the Coordination of Humanitarian Affairs (OCHA) conducted a review of the 39 plans then available, looking at three key aspects of the NAPAs. These include the gendered vulnerabilities identified in each NAPA, whether these were subsequently addressed by projects or gender equality programming, and the extent to which men and women had participated in the preparation of the NAPA (UNFPA and WEDO, 2009). Their findings were as follows:

- While several NAPAs mentioned the principles of women's empowerment and gender equality, none demonstrated a clear commitment to these principles by mainstreaming gender throughout the document
- Roughly half the NAPAs recognised women as a particularly vulnerable group to the impacts of climate change
- · Very few NAPAs translated the principles of gender equality into their projects, despite several stating that gender equality and/or women's empowerment guided these projects. (UNFPA and WEDO, 2009).

The lack of mainstreaming of gender concerns in the NAPAs suggests a need for further support on how gender can be mainstreamed into climate change plans and how to translate rhetoric into substantial commitments to gender equality. It is also worth noting that climate change planning does not occur in a vacuum and government planning systems may not be gender-sensitive or yet have the political will and/or capacity to address gender equality across development planning. In this context it is difficult for climate change planning to fully incorporate gender equality.

3.3 Examples of how gender has been included within the NAPAs

Some NAPAs do however show relatively high levels of gender-sensitivity either in relation to their content, consultation process, or projects. Malawi, Uganda and Bangladesh feature gender equality as a key criterion for priority setting (Habtezion, 2012), while Eritrea, Mauritania, Niger, Senegal and Sierra Leone all included women's groups in their consultation processes and/or specifically mention women as their beneficiaries (Otzelberger, 2011). In particular, issues around health, food security and water resources are the main sectors that feature a gendered dimension in NAPAs (Otzelberger, 2011). This can largely be linked with traditional roles and responsibilities often taken up by women as carers and providers. Empowerment of women through access to microfinance, ensuring easier access to water and energy sources, and a rural electrification programme are all outlined as key interventions by Malawi's NAPA, while Mauritania acknowledges that women are guardians of vital local and traditional knowledge, placing emphasis on their involvement in consultations and decision-making.

Therefore, women are beginning to gain limited visibility within certain aspects of climate change planning in the NAPAs. However, this has often been limited to certain sectors or areas where gender dimensions are more obviously linked. Moving ahead, the NAP guidelines, issued in 2012, have a much stronger focus on the integration of a gender perspective into NAPs, stating that gender sensitivity can help to ensure that there is equal participation of men and women in the decisionmaking processes, as well as in the implementation of adaptation activities. The guidelines also state that integration of gender issues can help to ensure that the NAP process and the activities it entails will not exacerbate gender inequalities and can lead to better adaptation and more resilient communities on the whole (LEG, 2012).

3.4 Gender considerations in the NAMAs

In terms of low carbon development, there is little information on the mitigation actions being implemented by LDCs through the NAMAs yet. As proposed actions and implantation plans are submitted these are likely to also emerge as an interesting area of study. A number of countries in the LDC category have submitted letters of intent around low carbon development

planning to the UNFCCC, on issues such as renewable energy, forestry, agriculture and transport. However, at present there is little acknowledgement of gender considerations within these actions.

Clean energy and forestry are two key areas of low carbon development that have clear gendered dimensions. A number of existing clean energy projects – such as the introduction of clean cookstoves, and the provision and use of micro-hydro and solar energy projects – have been targeted at women in particular as a means of ensuring success, while others are beginning to take into account the gendered dimension of mitigation actions.

3.5 Summary

The NAPAs and NAMAs provide a useful starting point for examining how gender considerations have been included in initial climate resilient planning in the LDCs. While gender equality has featured as a guiding principle in a number of the plans, reviews of the NAPAs have largely raised concerns around the lack of comprehensive gender mainstreaming. There could be various reasons for this. The guidance notes and framework for the NAPAs largely prioritise a number of key themes over that of gender, and generally treat gender as a standalone issue - as such, it is likely to be reflected in this way throughout the NAPAs. Equally where countries do not have gender-sensitive planning for development in general, it may prove difficult to address this issue under climate change, if there is little political will or capacity to do so. Research on the NAPAs also shows that inclusion of women in the preparation of the NAPA does not always make for more gender sensitive content, which is an important finding for future climate planning (Holvoet and Inberg, 2014). While the basic premise that inclusion and participation of women is of course important with regards to the development of plans and strategies, such findings reveal the more complex process of including gender considerations throughout all aspects of low carbon climate resilient development. The NAMAs are still in a very early stage of development, but the initial statements of intent do not consider gender equality.

We now go on to examine national low carbon resilient development strategies developed by countries to examine how country governments have considered gender equality and climate change within these more nationally-driven processes.

Gender considerations in national low carbon resilient development plans and strategies



This section now turns to the national low carbon resilient development strategies and plans developed by LDC governments to see what their development means for low carbon climate resilient planning across the LDCs with regards to gender. These plans and strategies have links to the NAPAs and NAMAs but also represent a different type of planning, encompassing a range of nationally-driven agendas such as green growth, low carbon/low-emissions development strategies and adaptation and resilience planning.

There are also number of donor programmes and initiatives, such as the Pilot Programme for Climate

Resilience (part of the Climate Investment Funds). These are not included in detail in this review, due to the focus on nationally driven plans.

We evaluate which of the LDC climate change plans integrate a gender perspective into their sectoral planning on climate issues, and to what extent countries are taking a 'gender mainstreaming' approach to low carbon climate resilient planning. The table below shows all the national plans and strategies to address climate change in the LDCs. This includes the names of development plans where some climate change issues have been mainstreamed into the plan.

Table 1: Low carbon resilient development / climate change strategies by country

Angola	2007	National Strategy on Climate Change
Bangladesh	2009	Bangladesh Climate Change Strategy and Action Plan (BCCSAP)
	2013	Bangladesh Climate Change and Gender Action Plan
Bhutan	2012	National Strategy and Action Plan for Low-Carbon Development
Cambodia	2010	National Green Growth Roadmap
	2013	Cambodia Climate Change Strategic Plan
	2014	Gender and Climate Change, Green Growth and Disaster Management Report
Equatorial Guinea	2014	Climate Change Plan
Ethiopia	2011	Ethiopia's Climate-Resilient Green Economy (CRGE) Strategy
	(draft)	Climate Resilient Strategy for Agriculture
	2011	Also regional plans of Adaptation.
Gambia, The	2012	Programme for Accelerated Growth and Employment (PAGE) Priority
	2012	Action Plan for Climate Change
Kiribati	2012	Kiribati Development Plan
Lao PDR	2010	Strategy on Climate Change of the Lao PDR
Malawi	2012	Malawi National Climate Change Policy
	2013	Malawi's Strategy on Climate Change Learning
Mali	2011	National Policy on Climate Change
	2011	Green Climate Resilient Pathway
Mozambique	2012	National Climate Change Adaptation and Mitigation Strategy
Nepal	2011	Climate Change Policy
	(forthcoming)	Low Carbon Economic Development Strategy
Niger	2012	National Climate Change Policy
Rwanda	2011	National Strategy on Climate Change and Low-Carbon Development
Solomon Islands	2012	Solomon Islands National Climate Change Policy 2012-2017
Tuvalu	2012	Tuvalu Climate Change Policy (TCCP) ("Te Kaniva")
Uganda	2013	Climate Change Policy
Tanzania	2012	National Climate Change Strategy
Vanuatu	2011	National Climate Change Adaptation Strategy (2012-22)

As discussed in Section 2, gender mainstreaming is 'the process of assessing the implications for women and men of any planned action, including legislation, policies or programmes, in all areas and at all levels' (ECOSOC agreed conclusions 1997/2 cited in UN, 2002). The notion of gender mainstreaming has been promoted as a means of achieving gender equality throughout development policy, yet the ways in which it is emerging in practice are still being understood.

Many of the more recent climate change strategies emerging from the LDCs, such as Cambodia's Climate Change Strategic Plan (2013), include the gendered social and economic issues that impact upon climate vulnerability, and position women as active participants in the process of moving towards a more climate resilient and low carbon society. While in some cases women are only mentioned in the context of 'vulnerable groups' to climate change, a small number of plans are beginning to include the social structures that underpin these vulnerabilities, such as the division of labour and access to resources that commonly differ between gender.

Despite these examples there is still a way to go for gender considerations to be fully mainstreamed within low carbon and climate resilient policy and planning. Many of the strategies analysed here only consider gender dimensions within certain standalone sectors, while others mention gender as a cross-cutting issue or as a priority for mainstreaming, but then do not seem to draw upon this rhetoric when putting together plans and programmes, or when discussing issues within particular sectors.

4.1 Climate change and gender by sector

In order to understand the extent to which gender issues are being considered in the different sectors affected by climate change, we have identified seven key areas that are important in climate adaptation and mitigation policy. These groupings were selected based on the NAPA Thematic Working Groups, and have then been adjusted taking into account how sectors are categorised within the strategies themselves, as well as to include low carbon development. They are:

- · Agriculture and food security
- · Fisheries and coastal areas
- Water and energy access
- · Social protection and public health
- Disaster management
- Infrastructure
- · Mitigation and low carbon development

By examining the ways in which gender dimensions are, or aren't, factored into the different thematic areas we highlight how countries are considering the gender differentiated impacts of climate change by sector, and likewise how countries are attempting to integrate these across their plans. Socio-political dimensions, and the extent to which countries are beginning to target these dimensions as part of an overarching approach to climate resilience will also be examined in Section 4.4.

The following table presents a quantitative analysis of gender-sensitive planning by sector in each of the country strategies. The table shows which sectors in the plan include reference to gender differentiated impacts or issues are acknowledged in some way - later, we will examine in more detail, how these issues are dealt with in the different plans.

The table shows that issues of gender-differentiated impacts or responsibilities in the context of climate change are largely raised in relation to social protection and public health (the highest scoring sector), food security and agriculture, disaster management, and water and energy access. Out of 21 country strategies analysed, the highest number of countries including gender content in any given sector is nine. While six strategies have little or no inclusion of gender in any of these sectors, a further six have been identified as taking a gender mainstreaming approach in their plans. These have been identified due to their inclusion of gender dimensions across a high number of sectors, or due to the extent to which they detail the cross-cutting nature of gender equality within the plan.

With regards to mitigation and low carbon development, only four countries identified the gender dimension of this area, again highlighting the need to shift discussion on gender from simply a discussion of vulnerabilities to climate change to one also of active participation in low carbon development as well as adaptation. Where countries did do this, key contributions were highlighted for both men and women, taking into account different roles and responsibilities at both the household and societal level. Women's potential as entrepreneurs was also highlighted in a number of plans linked to improved women's employment and economic empowerment. In the case of Bangladesh's Climate Change and Gender Action Plan, women's employment and economic empowerment were linked with the potential for both climate resilient and low carbon development.

 ${\bf Table\ 2: Gender-sensitivity\ by\ sector}$

	Agriculture and food security	Fisheries and coastal areas	Water and energy access	Social protection and public health	Disaster management	Infrastructure	Mitigation and low carbon development	Mainstreamed across all sectors	Mentioned as cross cutting issue but not addressed in sectors	Number of sectors in which gender dimensions are considered
Angola										0
Bangladesh	Χ	X	X	X	Х	X	X	Χ		7
Bhutan									Х	0
Burkina Faso	Χ									1
Cambodia	Χ			X	X		X	Χ		4
Equatorial										0
Guinea										
Ethiopia			Х							1
Gambia, The	Х				Х			Х		2
Kiribati				Х						
Lao PDR										0
Malawi				X						1
Mali	Х			Х				.,		2
Mozambique								Х		0
Nepal										0
Niger										0
Rwanda	Х			X	Х			Х		3
Solomon Islands				Χ			X			2
				X	X					2
Tuvalu	X		X	X	^		X			4
Uganda United	٨		X	^	X		٨	X		2
Republic of			^		^			^		2
Tanzania										
Vanuatu										0
Total Number	7	1	4	9	6	1	4	6	1	
of Countries										
considering										
gender in this										
way										

4.2 Climate change and gendered social norms

An increasing awareness of social, political and economic factors affecting gendered vulnerability and adaptation strategies appear to be emerging in a number of country documents. This is a shift from the NAPAs, where one criticism raised was the lack of acknowledgement of these issues. A large number of plans mention the context of gender equality across society.

In order to assess the extent to which such the wider social issues that affect gender equality are being considered with regards to a changing climate we have used five broad thematic categories. These categories have been developed using the gender-sensitive content within the country strategies, as a way of grouping together and finding key patterns and themes. Below are some examples of issues included in each of the categories:

- Division of labour this includes issues such as the assignment of domestic tasks such as water and firewood collection, cooking, childcare and health provision; and trends in employment or economic responsibilities, for example women working in informal sectors.
- Access to resources this includes issues around land titles and inheritance, control of assets or resources at a household level.
- · Social and economic support structures this includes access to health and education, issues around mobility, social networks and welfare.
- Economic empowerment of women this includes microfinance, entrepreneurship schemes, employment, as well as identifying issues that limit women's economic empowerment including inability to access credit, income or other monetary assets.
- · Gender equality this category provides a broader representation of plans that identified issues of gender inequality as lying at the heart of certain gender-differentiated impacts of climate change.

A significant number of countries make some mention of gender equality, with the level of consideration varying considerably. Many strategies only make brief mention of gender inequality and its repercussions within the context of development and/or climate change, while others achieve a much more comprehensive analysis of structures and social norms that influence gender-differentiated issues linked to climate change. Recognising these more fundamental issues that impact on both the roles assumed in the face of climate

change, and the vulnerabilities that emerge from gender inequality, serves as a step towards an overarching approach to issues around gender and climate recognising the inter-linkages between the two.

It should also be noted that whilst many of these documents do not go into detail on implementation of the strategies, it is also important that the gender concerns raised in the documents are then carried forward not only into the implementation of programmes but also into the results frameworks and indicators that define the success of the strategy. Research on adaptation monitoring and evaluation highlights the important of including gender in considering the theory of change of any strategy, the indicators chosen and the disaggregation of any data collected (Khan et al. 2014; Fisher 2014).

4.3 Key countries focusing on gender and low carbon resilient development

Some countries have incorporated gender considerations in innovative and/or comprehensive ways in their plans and strategies. We now go on to explore these in more detail.

4.3.1 Bangladesh

The Bangladesh Climate Change Strategy and Action Plan (BCCSAP, 2009), one of the earliest climate resilient and low-carbon development plans produced by any of the LDCs, places a special emphasis on gender sensitivity in the introduction. Similar to a number of other strategies, women are highlighted as among 'the most vulnerable' to climate change, particularly around issues of water access. While the strategy goes some way in acknowledging the gender differentiated impacts of climate change, the Bangladesh Climate Change and Gender Action Plan, published in 2013, goes much further in mainstreaming a gender focus throughout all sectors and programmes on climate resilience and low-carbon development.

Building upon the NAPA and the BCCSAP, the Climate Change and Gender Action (ccGAP, 2013) plan highlights the specific contribution women do and can make within four pillars: food security, social protection and health; comprehensive disaster management; infrastructure; and mitigation and low carbon development. Particular emphasis has been placed on women's role in the agricultural sector, creating an environment to lease land or water bodies to women, provide safety nets for female farmers through crop insurance, and improve women's capacity to take up alternative technologies through increased access

to financial instruments. With regards to disasters, women are posited as key participants in community risk assessment activities, while with regards to infrastructure, the plan seeks to increase women's participation in climate change related infrastructure development and management, monitoring, maintenance as well as ensuring secure and uninterrupted mobility of women in transport sector (ccGAP, 2013).

The ccGAP also provides a vision for women's involvement in low carbon development, emphasising women's increased access to energy and power technologies, development of gender responsive programs to reduce GHG emission at household level, entrepreneurship development programs related to waste management, solid waste and drainage management and encouraging participation of women in coastal and social forestry programmes.

4.4.2 Cambodia

Cambodia's National Green Growth Roadmap highlights gender equity as a critical issue to be addressed for improvement of developmental equity and again mentions the need to mainstream gender throughout the green growth initiative. The Cambodia Climate Change Strategic Plan, released in 2013, also places an emphasis on mainstreaming the issue, recognising that the rural poor of Cambodia, the majority of whom are women, are most vulnerable to climate change impacts because of their high dependence on agriculture and natural resources. However, despite such ambitions the documents do not yet acknowledge gender differentiated impacts in the various sectors of the plans, and rather rely on the rhetoric around crosscutting gender issues as a whole.

The Gender and Climate Change, Green Growth, And Disaster Management Gender Assessment issued by the Ministry of Women goes further to draw direct links between women's economic empowerment and climate change and highlights the need to create opportunities for women to work towards a low-carbon society. The establishment of a Gender and Climate Change Committee in 2013 and the development of the Gender and Climate Change Action Plan (which seeks to introduce capacity development measures for women in policy-dialogue, leadership, livelihood development, green growth and building climate change resilience in communities), show that the Government of Cambodia has a high level of ambition and policy commitment to mainstreaming gender in low carbon climate resilient development.

4.4.3 Ethiopia

Despite there being little mention of gender in Ethiopia's Climate Resilient Green Economy (CRGE) strategy, there is significant progress being made at the regional level, particularly in the Somali, Oromi and Dire Dawa regional climate change adaptation plans.

The Somali Regional plan for example identifies access to and distribution of resources, which are mostly controlled by male elders, as a key issue in limiting the capacity of women and youth to implement adaptation strategies. Poor intra-household income distribution, disfavouring women, a lack of recognition of women's direct and indirect contribution towards livestock production and household incomes, and reduced mobility of women compared to men are also highlighted as key issues that exacerbate gender differentiated impacts of climate change by a number of the regional plans. Such insights are a tightly linked to social and economic issues and show the need to consider the root causes of vulnerabilities in planning on climate resilience.

Changes to resource management, with more responsibility given to young men and women, is highlighted as a possible way of improving the management & protection of available natural resources: giving younger people more control and decisionmaking rights over natural resources would give them a sense of ownership and responsibility and therefore to encourage young men to participate in resource management. The division of labour is also highlighted as a critical point of concern around managing and adapting to changes, given that women in rural areas participate fully in agricultural production as well as being responsible for all domestic activities such as food preparation, fetching of firewood and water for domestic use, child care, construction and erection of residential houses.

Whilst, Ethiopia regional states are considering gender dimensions when planning for adaptation and resilience to climate change, the CRGE strategy contains relatively low gender-sensitivity and so highlights the need for further attention on the gender dimensions of a green economy.

4.4.4 Gambia, The

The Programme for Accelerated Growth and Employment has not yet fully mainstreamed gender but does acknowledge women's roles in responding to challenges posed by climate change. It states that women, like men, have particular socially constructed vulnerabilities and capacities that are developed through socialisation.

"In disaster response situations, women are active community mobilizers and demonstrate diverse adaptation coping strategies and mechanisms: moving to safer places, saving their assets, changing their diets, using energy-saving techniques, adapting their agricultural practices to changing weather patterns, earning income or saving money from alternative sources, using alternative healthcare options, and engaging in organization and collective action" (PAGE, 2012: 115).

Despite this, in general women's access to assets, services, political decision-making, information and leadership is limited. As such, the Programme places emphasis on a shift in women's empowerment and employment in order to further enable these adaptive capacities. A note on restructuring the land tenure and inheritance system to correct gender bias is also included in the programme.

4.4.5 Tanzania

The National Climate Change Strategy again highlights the ways that climate change impacts affect gender and vulnerable groups differently due to their different roles in society. The goal is to integrate issues of gender and the needs of vulnerable groups into climate change initiatives by ensuring that climate change researchers generate gender-disaggregated data. The data is on impacts and response, enhancing equitable representation of women and vulnerable groups at all levels in planning, decision making and implementation and promoting safeguards that will ensure gender and vulnerable groups equity in benefit sharing related to climate change initiatives, both in relation to climate resilience, adaptation and low-carbon development.

4.4.6 Uganda

Uganda's Climate Change policy included gender as a cross-cutting issue with a focus on gender mainstreaming. It identifies gender inequality as the key contributor to increased vulnerability for women, and seeks to mainstream gender issues in both climate change adaptation and mitigation approaches. The focus on gender considerations remains rather broad - with little inclusion of gender considerations within specific sectors - and while gender sensitive policies and activities are highlighted as a key goal there is little further detail on how this is to be achieved. Participation of women through assessments and broad based consultations are however highlighted as integral parts of developing climate change policy, as is the improved capacity of relevant stakeholders at national and local levels to promote gender-sensitive approaches to climate change adaptation.

4.4 Discussion and limitations

This review has shown that whilst the issue of gender is recognized as both a need and a priority within climate and low carbon development agendas, only a few countries so far are finding effective ways to mainstream these issues into their climate change planning. Approaches that have proven most comprehensive include a cross-cutting approach that not only mentions gender inequality as an issue from the outset, but then integrates the gendered dimensions of different climate change impacts and adaptation and mitigation strategies throughout the different sectors. Plans that acknowledged the specific social, political and economic factors affecting men and women also achieved meaningful inclusion of the issues, and showed the most progress in comparison to content in many of the NAPAs.

One interesting point to note is the differing success stories between the NAPAs and the country climate change and green growth strategies analysed. Malawi was widely praised as having one of the most gender-sensitive NAPAs, but the National Climate Change Policy fails to stand out in the analysis of gender-differentiated impacts of climate change, with only a small section on disadvantaged groups and mention of gender as a cross-cutting issue alongside climate financing, capacity building, research and technology, population, HIV and AIDS. Cambodia's NAPA (submitted in 2007), on the other hand contained no mention of gender, while the Cambodia Climate Change Strategic Plan and the Gender And Climate Change, Green Growth, And Disaster Management Gender Assessment provide one of the most comprehensive analyses of the linkages between climate and gender of all the LDC climate plans analysed and inclusion of issues around the green economy. The incorporation of low-carbon development issues within a number of the plans is promising, and while some plans do acknowledge gendered dimensions and roles in low carbon development, there is still some way to go in moving beyond the simple rhetoric around women as 'victims' of climate change.

Many of the plans and strategies analysed in this paper did not provide extensive information on the process to preparing the strategies, or of the gendered makeup of participants, and as such it was difficult to make a fair assessment as part of a desk-based review of the gendered participation in preparing the documents for each country (see Table 1 in Annex). However in some cases, positive examples of gender-sensitive participation were documented. In Bangladesh, training workshops for women and women's organisations were held as part of a participatory process to develop the National Climate Change and Gender Action Plan. In Cambodia, the work on gender and climate involved both male and female participants and was led by the female Minister of Women's Affairs.

A number of other plans gave some insight into some aspect of the preparation process, yet did not go into detail with regard to the involvement of particular groups, according to gender, race, class, caste etc. An interesting area of future research would be to conduct empirical research with the key coordinating bodies to further investigate participation and decisionmaking from a gender perspective. This could also further illuminate questions around the extent to which gendered participation and decision-making is important in ensuing that gender is considered in the content of the plans themselves.

Similarly, while this study addresses the inclusion of gender within plans and strategies developed by LDCs, further research would also be useful into the implementation of projects and programmes that seek to address these issues.

Conclusions and looking forward



In conclusion, women are still widely considered as one of most vulnerable groups to climate change and in many low carbon resilient development plans this continues to be the only way gender considerations are discussed. However, some countries are now beginning to acknowledge the active role that women play in adapting to climate change, as well as their role in low-carbon development.

Gender mainstreaming has become an important approach in some country strategies, most notably in those that have commissioned reports or strategies specifically on gender and climate such as Bangladesh and Cambodia. However, whilst mainstreaming is an approach to achieving gender equality there is a risk that it is something that is included as a 'cross-cutting issue', but that is only mentioned at the outset of the plan. There needs to be a supported framework for how gender considerations will be drawn upon and addressed in every sector, with reference to broader social, political and economic influences that impact on gendered experiences of climate change.

The approach to gender issues seen in the plans is still largely a woman-focused approach. While this is logical given that it is typically women who are disadvantaged in terms of control and access to resources or decisionmaking, there needs to be further research and acknowledgment of the role that men can play both in addressing these issues and equally the challenges that they face. Currently there is little consideration on the roles of men and their engagement with climate adaptation and mitigation policies and how this differs to women. Nor of the household relationships and roles of boys and girls. This is an area where countries could go further, and the plan for the Somali Region (Ethiopia) shows some interesting ways this can be included, with a discussion of young men lacking control over resources and the impacts this has.

This paper has focused on the documents themselves, but further research into implementation of the plans over the coming years will be important to see what programmes or projects emerge from the more gender-sensitive strategies and the impact that they have. In terms of the policy cycle, this review has analysed agenda-setting and content, but this leaves implementation and evaluation as areas for further work.

Finally, from the inclusion of gender considerations so far in the LDC plans and strategies, a number of lessons can be drawn out that may support the mainstreaming of gender considerations into future low carbon resilient development planning. These are:

- The use of an integrated approach to gender equality across various sectors and ensuring a mainstreaming approach has a plan for supporting the gender equality across sectors
- Assessment of broader social, political and economic issues relating to gender in order to gain deeper understanding of the influences on gendered vulnerabilities to climate change
- Consideration of the roles of men and women, boys and girls, and the *relationships between them* as an important part of achieving gender equality
- Including gender concerns in less typical areas such as low carbon development – as well as in resilience planning
- Women's full participation and contribution to decision-making and leadership on planning for climate resilience and low carbon development
- Preparation and implementation of projects and programmes that have a gender focus in addition to mainstreaming gender
- Collection of gender disaggregated data when conducting research and including gender in the theories of change and the results frameworks of the plans

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Annex I: NAPAs and **Submission Dates**

COUNTRY	SUBMISSION DATE	COUNTRY	SUBMISSION DATE
Afghanistan	2009	Malawi	2006
Angola	2011	Mali	2006
Bangladesh	2009	Mauritania	2007
Benin	2008	Mozambique	2004
Bhutan	2006	Myanmar	2008
Burkina Faso	2007	Nepal	2013
Burundi	2007	Niger	2010
Cambodia	2007	Rwanda	2006
Central African Republic	2008	Samoa	2007
Chad	2010	Sao Tome Principe	2005
Comoros	2006	Senegal	2007
Democratic Republic of Congo	2006	Sierra Leone	2006
Djibouti	2006	Solomon Islands	2008
Equatorial Guinea	2013	Somalia	2008
Eritrea	2007	Sudan	2013
Ethiopia	2008	The Gambia	2007
Guinea	2008	Timor Leste	2011
Guinea-Bissau	2007	Togo	2009
Haiti	2008	Tuvalu	2007
Kiribati	2006	Uganda	2007
Lao PDR	2007	United Republic of Tanzania	2007
Lesotho	2009	Vanuatu	2007
Liberia	2007	Yemen	2009
Madagascar	2007	Zambia	2007

Bringing together the dual aims of low-carbon and climate resilient development has become a significant policy goal in planning for climate change. This, along with an increasing recognition of the importance of gender equality in the field of climate change has led to an emergence of low carbon resilient development planning that is starting to take gender considerations into account. Gender mainstreaming is recognised as a systematic way to develop gender equality and so integrated planning is being developed across a range of issues around climate and gender. However, integrating such multiple agendas poses a challenge - most notably to Least Developed Countries (LDCs) who are already experiencing the impacts of climate change, and are also part of efforts to develop low carbon or green growth pathways to mitigate emissions. This paper examines how LDCs are meeting this challenge and how gender considerations have been incorporated into different aspects of low carbon resilient development planning.

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International Institute for Environment and Development 80-86 Gray's Inn Road, London WC1X 8NH, UK Tel: +44 (0)20 3463 7399

Fax: +44 (0)20 3463 7399 Fax: +44 (0)20 3514 9055 email: info@iied.org www.iied.org

