



**Chronic Poverty**  
Research Centre

# Working Paper

May 2011

No. 174

## Women exiting chronic poverty: empowerment through equitable control of households' natural resources

Jessica Espey

Overseas Development Institute  
111 Westminster Bridge Road  
London  
SE17JD  
UK

### What is Chronic Poverty?

The distinguishing feature of chronic poverty is extended duration in absolute poverty.

Therefore, chronically poor people always, or usually, live below a poverty line, which is normally defined in terms of a money indicator (e.g. consumption, income, etc.), but could also be defined in terms of wider or subjective aspects of deprivation.

This is different from the transitorily poor, who move in and out of poverty, or only occasionally fall below the poverty line.



## Abstract

This paper examines the relationship between women's vulnerability to poverty and their management of domestic natural resources. It finds that gendered experiences of poverty often derive from discriminatory social institutions which prohibit women's control over the financial returns from productive resources; which limit their ownership of natural resources; which prevent them from seeking alternative employment; and which prescribe women the major responsibility for domestic care work. Compounding these gendered social conditions are changing environmental circumstances, such as climate change, resource scarcity and disease, which further perpetuate many women's vulnerability to poverty.

Reflecting on this analysis the paper examines current methods and means of strengthening women's control over resources; through legal and policy change, natural resource management initiatives and community mobilisation. It finds that alongside many examples of good practice are many bad practices and misconceptions about gendered roles with regard to resources, which have often inadvertently further subjugated women. It concludes that five conditions are essential for women's equitable control of resources and their subsequent empowerment: political and institutional will; improved legal awareness; sustained donor support; opportunities for genuine community participation; and supportive national and local level environments.

**Keywords:** women, poverty, natural resource management, discrimination, social institutions

## Acknowledgements

I would like to thank to Dr Cheryl Doss (Senior Lecturer in International Affairs & Economics at the University of Yale) for her thoughtful comments on this paper. Thanks also to the Development Policy Team at Save the Children for giving me the time and space to finish this paper in spite of other competing demands. Finally, considerable thanks to Dr Caroline Harper and Dr Nicola Jones (Programme Leaders at the Overseas Development Institute) for their guidance and direction throughout my employment at the Overseas Development Institute.

**Jessica Espey** is a Research and Policy Adviser at Save the Children UK. From 2008 to 2010 she was a Research Officer in the Social Development Programme at the Overseas Development Institute and was involved in the gender policy stream of the Chronic Poverty Research Centre.

Email: [J.Espey@savethechildren.org.uk](mailto:J.Espey@savethechildren.org.uk)



## Acronyms

BOA - Bureau of Agriculture (Ethiopia)

CFs - Community Fisheries

CPR – Common Property Resources

CPRC – The Chronic Poverty Research Centre

CSE - Centre for Science and Environment

ECLAC - Economic Commission for Latin America and the Caribbean

FAO - UN Food and Agriculture Organisation

HIV - Human Immunodeficiency Virus

IFAD – International Fund for Agricultural Development

IGT - Inter-Generational Transfer (of poverty)

IKS - Indigenous Knowledge Systems

JFM - Joint Forestry Management

KA - Kebele Administration (Ethiopia)

MoEF – Ministry of Environment and Fisheries (India)

NGO - Non-governmental Organisation

NRM – Natural Resource Management

SEWA – Self-Employed Women's Association

UN – United Nations

UNFPA - United Nations Population Fund

*This document is an output from the Chronic Poverty Research Centre (CPRC) which is funded by UKaid from the UK Department for International Development (DFID) for the benefit of developing countries. The views expressed are not necessarily those of DFID. The CPRC gratefully acknowledges DFID's support.*



## Contents

Executive Summary .....	5
<b>1 Introduction .....</b>	<b>6</b>
<b>2 The relationship between poverty and domestic management of natural resources: underpinned by gendered dynamics .....</b>	<b>9</b>
2.1 Assets, entitlements and power.....	10
2.2 Time use.....	13
<b>3 Global processes which compound women's resource-related vulnerability and poverty .....</b>	<b>16</b>
3.1 Climate change.....	16
3.2 HIV/AIDS .....	17
3.3 Demographic growth.....	18
<b>4 Legislative and programmatic interventions for equitable natural resource management and control: offering women an exit from poverty?.....</b>	<b>20</b>
4.1 Legal entitlements.....	20
4.2 Gender-sensitizing national NRM policies and legislation.....	23
4.3 Natural resource management programmes and interventions .....	28
4.4 Community mobilisation, collective action and social movements .....	36
<b>5 Policy lessons and conclusions.....</b>	<b>40</b>



## Executive Summary

This paper examines the relationship between women's vulnerability to poverty and their management of domestic natural resources. It finds that gendered experiences of poverty often derive from discriminatory social institutions which prohibit women's control over the financial returns from productive resources; which limit their ownership of natural resources; which prevent them from seeking alternative employment; and which prescribe women the major responsibility for domestic care work. Compounding these gendered social conditions are changing environmental circumstances, such as climate change, resource scarcity and disease, which further perpetuate many women's vulnerability to poverty.

Reflecting on this analysis the third section of the paper focuses on legislative and programmatic interventions aimed at addressing inequitable resource management and control, analysing the efficacy of certain interventions for poverty alleviation and women's empowerment. Interventions considered include legal and policy change, natural resource management initiatives and community mobilisation.

The section identifies many examples of good practice but, alongside this, many bad practices and misconceptions about gendered roles with regard to resources, which have often inadvertently further subjugated women. For example, women are often viewed as major stakeholders in community natural resources and so mobilised to participate in institutions such as water user groups, community fisheries or village associations. However, these approaches make assumptions that women's participation in institutions is straightforward, unproblematic and will translate fully into empowering benefits for women (Resurreccion, 2006; Resurreccion and Elmhirst, 2008). Such approaches fail to appreciate the variety of levels through which gendered social expectation affects a women's ability to control resources (for example, the burden of care work) and therefore the number of complementary measures needed to create the appropriate environment for equitable access and control over resources, and thereafter women's economic and political empowerment.

The paper concludes that five conditions are essential for women's equitable control of resources and their subsequent empowerment. These include improved political and institutional will; enhanced legal awareness; sustained donor support; opportunities for genuine community participation; and supportive national and local level environments.

This paper is primarily a literature review; it considers a broad range of academic and grey literature but also selected national policy documents and legislation. The paper draws upon but also complements a number of outputs on women and girl's empowerment produced by the gender policy stream of the CPRC (see Jones *et al.*, 2011, Amosu, 2011, Amosu *et al.*, 2011).



## 1 Introduction

Research conducted by the Chronic Poverty Research Centre (CPRC) has demonstrated that gender is a major determinant of poverty and vulnerability.<sup>1</sup> It can intensify the position of women living in chronically poor households,<sup>2</sup> but also render women (not living in poor households) chronically poor because of the intra-household allocation of resources (Jones *et al.*, 2011; Amosu, 2011; Espey and Harper, 2009; Doane, 2007; Bird and Shepherd, 2003).

For a large percentage of poor women, particularly those living in rural households, natural resources are their main livelihood – as subsistence farmers, fishermen, hunters and/or agricultural wage workers.<sup>3</sup> Natural resources are also key to preventing poverty spirals as the transmission of assets (including land, cattle, forestry) can provide a buffer against environmental hazards and economic shocks, as can entitlement to good-quality environmental resources (Scott, 2006).

The condition of natural resources can therefore determine a woman's and her family's vulnerability to poverty. But it is not only the condition of the resources that determines a woman's vulnerability to poverty; so too does her gender and society's expectations about the appropriate level of management, control and access to natural resources that she should be permitted.

Men's and women's roles and responsibilities with regards to natural resources vary across regions and cultures, but they often follow similar gender divisions of labour (World Bank *et al.*, 2009). For example, in many regions men use natural resources in agriculture, logging, and fishing for commercial purposes more than women. In crop production in many regions of the developing world men tend to focus on market-oriented or cash crop production, whereas women often work on crop production for domestic purposes – subsistence crops, minor crops and vegetable gardens (World Bank *et al.*, 2009: 425).

---

<sup>1</sup> Gender being the roles, responsibilities and expectations socially prescribed to a man or woman.

<sup>2</sup> People living in chronic poverty are those who remain poor for much or all of their lives, many of whom will pass on their poverty to their children, and all too often die easily preventable deaths. People who are chronically poor are not a homogeneous group – they are trapped in poverty for a range of reasons. These include 'ascribed status', oppressive labour regimes, being considered an outsider, disability, ill-health, gender, age and household composition. While not everybody in these groups suffers chronic poverty, those who experience several forms of disadvantage and discrimination simultaneously are most likely to be chronically poor (CPRC, 2004).

<sup>3</sup> Agricultural wage work accounts for more than 1.3 billion people (FAO, 2004; World Bank *et al.*, 2009: 423).



These gender patterns are neither consistent nor fixed; indeed, policy and practice on the basis of fixed gender roles can often turn out to be counterproductive for women (Resurrection and Elmhirst, 2008).<sup>4</sup> Nevertheless the large proportion of women who are occupied by the domestic (and often unprofitable) management of natural resources seems to reflect two things:<sup>5</sup> first, the necessity for many women to work in the domestic sphere because of social expectations (for example, that they will care for dependants and tend the home) and, second, the fact that discriminatory social practices or institutions (e.g. men controlling the ownership rights and productive earnings of a household's resources) limit many women's ability to accumulate assets and earn independent or commercial income. Indeed, international comparison of agricultural census data shows that less than 20 percent of landholders are female. In Cameroon, although women undertake more than 75 percent of agricultural work, they own less than 10 percent of the land (Jones *et al*, 2010: 55). Socially prescribed domestic obligations, including natural resource management (NRM), and discriminatory practices can therefore render women more susceptible to poverty.

This paper seeks to unpack this hypothesis, examining the relationships between gender, chronic poverty and the domestic management of natural resources so as to understand whether, why and how inequalities in the control over and relationship to these resources affect experiences of poverty. Important to examine and differentiate are the environmental conditions, which may worsen vulnerability (for example climate change and resource scarcity), and the underlying social conditions (such as gendered social institutions around ownership and care work).

Drawing on this understanding the paper moves on to examine current means of empowering women: by strengthening their control over the resources under their care, by enabling income earning opportunities, through community mobilisation around natural resource management, and so forth. The paper not only assesses good practice but identifies many bad practices and misconceptions about gendered roles with regard to resources. These have often inadvertently further subjugated women. For example, women are often viewed as major stakeholders in community natural resources and so mobilised to participate in institutions such as water user groups, community fisheries or village associations. However, these approaches make assumptions that women's participation in

---

<sup>4</sup> Within this paper women's 'roles' are not assumed to be either homogenous or static. Agreeing with Rao (1991) the paper emphasises the importance of contextualising women's and men's responsibilities as they dynamically respond to complex environmental realities. It also encourages an understanding of how women enter into and engage in social relationships with men within the institutions of their natural resource-dependent societies, instead of *a priori* perceptions on women's roles.

<sup>5</sup> The notion of women as the domestic natural resource manager is supported by a wide range of literature. For example, findings from case studies in rural areas of India and Nepal (completed in 2003 and 2004) suggest that women clearly outdo men in terms of their involvement in use and management of all the studied sectors, i.e. water, agriculture, livestock, forestry and fishery (Upadhyay, 2005).



institutions is straightforward, unproblematic and will translate fully into empowering benefits for women (Resurreccion, 2006; Resurreccion and Elmhirst, 2008). Such approaches fail to appreciate the variety of levels through which gender affects a woman's ability to control resources (for example, the burden of care work) and therefore the number of complementary measures needed to create the appropriate environment for equitable access and control over resources, and thereafter women's economic and political empowerment.

The paper recognises that gender is salient within policy and practice on a variety of levels (from the institutions central to natural resource governance to the gendered position of actors within organisations charged with governing or managing natural resources) (Resurreccion and Elmhirst, 2008). As such it also examines national laws, policies and budgetary processes which pertain to equitable resource control.

This paper consists of four parts:

- The first seeks to examine the relationships between gender, chronic poverty and the domestic management of natural resources so as to understand whether, why and how inequalities in the control over and relationship to these resources affect experiences of poverty.
- The second section unpacks three global processes which are exacerbating the responsibilities placed on women within the domestic sphere: demographic growth, climate change and HIV/AIDS.
- The third section focuses on legislative and programmatic interventions aimed at addressing inequitable resource management and control, analysing the efficacy of certain interventions for poverty alleviation and women's empowerment.
- The fourth section outlines a number of lessons and recommendations for national policy makers, donors and development practitioners.

The paper is primarily a literature review; it considers a broad range of academic and grey literature but also selected national policy documents and legislation. The paper draws upon and complements a number of outputs on women's and girl's empowerment produced by the gender policy stream of the CPRC (see Jones *et al.*, 2011; Amosu, 2011; Amosu *et al.*, 2011).



## 2 The relationship between poverty and domestic management of natural resources: underpinned by gendered dynamics

There are a variety of channels through which a women's management of domestic natural resources and experiences of poverty interrelate. Natural resources provide sustenance, a tradeable asset, collateral for loans, physical security, and a fall-back mechanism in the face of economic shocks. For the chronically poor the transmission of assets which can provide a buffer against environmental hazards and of entitlements to good-quality environmental resources is important (Scott, 2006). As such the absence of natural resource assets, or limited access to them, can bring about vulnerability and potentially induce or intensify poverty.

But control over natural resource assets and the management of these resources is not gender-neutral. In most societies social relationships and traditional mores define who is responsible for the day to day management of resources and who has physical and financial control over the resources. These roles are contested and arranged through social bargaining, and are affected by changing relationships over the lifecourse and by the complexity of social identities (Cleaver, 2000).

In many societies women's day to day management of natural resources gives them influence over the functioning of the household and local community, but discriminatory social institutions and practices deny them legal or financial control over the resource. In addition these time-consuming domestic responsibilities jeopardise their ability to earn an independent income. This renders many women in both poor and non-poor households dependent upon their spouse or male relatives for money, accommodation and less tangible goods like political and economic representation.<sup>6</sup>

For women in chronically poor households these gender inequalities combine with other deprivations, such as a lack of access to basic services and/or lack of political voice, further intensifying their vulnerability and disempowerment (see Figure 1 for a summary of the determinants of women's chronic poverty). The denial of equitable rights and financial resources has been described as bringing about the denial of four forms of power: 'power to' – the possibility of making meaningful life choices such as choice of work; 'power with' – the ability to participate in social networks and community mobilisation; 'power over' – the power to confront and overcome others; and not least 'power within' – the self-respect and

---

<sup>6</sup> Women and girls may experience poverty in non-poor households, or heightened poverty in already poor households, because of the unequal distribution of resources and decision-making power between males and females in the household. Such poverty may then be manifested in different ways outside the household (Braunholtz-Speight *et al.*, 2008).



confidence to overcome lack of hope, and internalised acceptance of powerlessness and poverty (Braunholtz-Speight *et al.*, 2008).

**Figure 1: Determinants of chronic poverty for women and girls**



The following section examines two key variables which can determine the correlation between poverty and domestic natural resources: first, the issue of resource control and entitlement; second, the challenges of multiple competing domestic demands or ‘time-poverty’.<sup>7</sup>

## 2.1 Assets, entitlements and power

Assets and entitlements are intimately tied to the prevention of conditions of poverty. For the chronically poor accumulating assets and entitlements to natural resources such as the land on which they live and work is vitally important to prevent the intergenerational transmission of poverty (IGT), i.e. the passing of positions of poverty from one generation to another (Bird, 2007). Additionally assets are a vital buffer against the impact of short-term environmental and/or other covariant shocks, providing a resource base to draw down upon. The

---

<sup>7</sup> Time poverty is a critical variable in well-being, affecting women disproportionately. In Brazil 90% of women spend an average of 20 hours a week on unpaid domestic chores, in contrast to only 45% of men for an average of seven hours a week (Jones and Baker, 2008). This highlights the socially ascribed burdens on women and the ways in which socio-cultural dynamics limit female education and opportunities (Jones *et al.*, 2008). For a more expansive discussion of time poverty see Blackden and Woden (2005)



inheritance or non-inheritance of assets on marriage or death of the household head has been integrally linked to people's poverty trajectories and their likelihood of staying in or moving out of poverty (Bird and Espey, 2010).

Where poor households do not have an asset base they are often forced to adopt hazardous coping strategies in the face of shocks, such as pulling their children out of school or partaking in hazardous labour (Harper *et al.*, 2009; Espey and Harper, 2009). In a number of crisis studies the selling of assets has been identified as a direct result of the way the global recession is affecting respective countries and demonstrates the necessity of these 'coping mechanisms' for many poor and non-poor households (Hossain *et al.*, 2009; African Development Bank, 2009; FAO, 2009). These coping strategies are often gendered. According to Kabeer (2009), poverty as a result of entitlement failure or shortfall curtails choices and imposes painful, and often gender-specific, trade-offs between different dimensions of basic well-being (see also Espey and Harper, 2009). An example of this is intra-household food allocation: when households are forced to compromise on their nutritional intake it is often women who consume the least, as a result of gendered intra-household relations (Holmes *et al.*, 2009).

For women the independent accumulation of assets, either through inheritance, marriage or their own economic activities, is vitally important for their ability to manage shocks, to participate in decision-making processes, to safeguard access to essential services and to protect the well-being of their children (Jones *et al.*, 2011). However, in 2000 it was estimated that less than one percent of the world's landed property was owned by women (Lee-Smith and Hemmati, 2000). Other assets integral to the rural economy include livestock, financial capital, modern inputs, information, extension services and labour. These also show significant gender differences which are, moreover, generally interlinked. Land ownership in particular enables women to access other assets and resources, which in turn enables investment and diversification. This, in effect, creates a vicious 'asset trap', which is reinforced by social norms and patterns of inheritance and control, and by the gendered division of labour (Jones *et al.*, 2011). Weaker property rights in Ghana, for example, are one reason women farmers are more likely to be subsistence farmers than cultivators of more profitable cash crops, such as pineapples (Desai, 2010).

In a large number of low-income countries discriminatory tenure practices and entitlements can be attributed to customary practices, whereby property ownership and asset inheritance are transferred down the male or patrilineal line. As such, when a male household head dies, female family members are left in a position of dependence upon their male relatives – susceptible to land grabbing or the appropriation of their assets (see Box 1) (Bird and Espey, 2010).



Although land reforming efforts which formalise tenure (for example in Uganda and Rwanda) have tried to make ownership systems more equitable, in the majority of low-income countries with such traditions, customary practice prevails (Bird and Espey, 2010).

Preventing women from accessing assets and entitlements can induce a vicious cycle of powerlessness within the home and wider community. Without assets to bring to a marriage, women are often subordinated within the marriage or conjugal contract through lack of bargaining power (Bird and Espey, 2010). This can affect their ability to secure independent employment and to control the economic returns from household land and assets. It can also prevent them from making independent choices about their health and well-being and can limit their physical integrity or sexual health. A lack of intra-household power can have considerable knock-on effects not only upon women's poverty and well-being but on the well-being of their children (Save the Children, 2010). Conversely, when women do bring assets to a marriage, this can have a number of beneficial affects upon household investment in the well-being of children; it specifically increases the shares spent on education (Quisumbing and Maluccio, 2000).

#### **Box 1: Property grabbing from a widow in Uganda**

'My husband died in 1982 and is survived by eight orphans. Three of these orphans dropped out of school and got married, three are in school and two are dead. Life has never been easy for me since the death of my husband; I have to meet all the household needs, My husband and I had land and a grass-thatched house. When he died, his relatives took the land and our bed.' (Butema, Bugiri District)

'I came to Mubende with my late husband who was a soldier and we stayed in the army barracks. Later after he died I never went back home and I never inherited any of the property. Now I am out of the barracks all by my own renting and earning by digging in other people's gardens. The little money I get is used to pay my rent and buy food. I have no beddings and all I sleep on are gunnysacks.' (Katogo village)

*Source: Lwanga-Ntale and McClean cited in Bird and Pratt (2004: 5).*

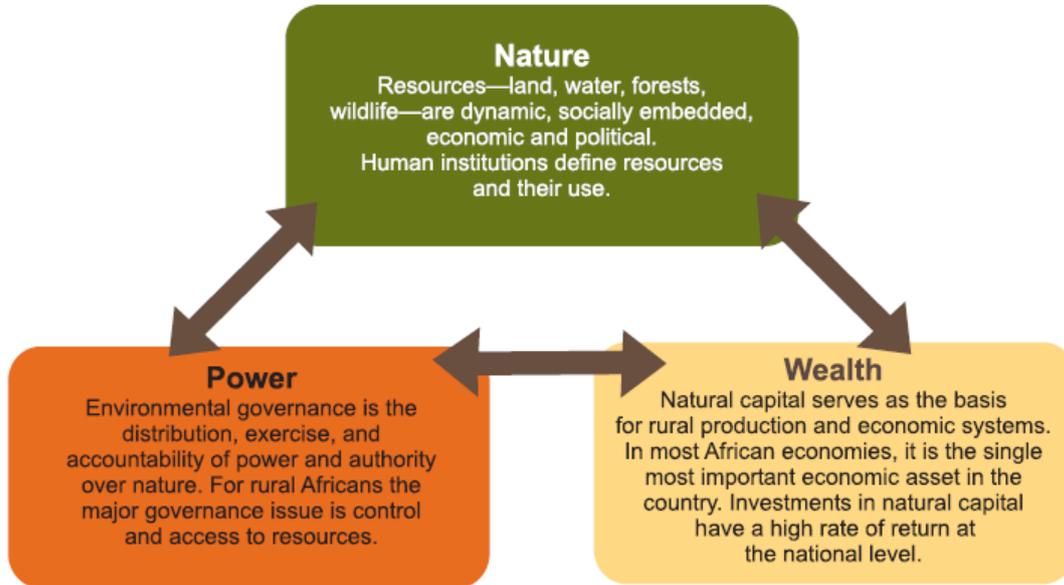
Powerlessness is not only an influential factor within the household and community, but it affects poor people and particularly poor women's ability to influence natural resource governance and to communicate at the subnational and national levels of government (see Figure 2).

According to Folbre (1997: 263), 'policy makers themselves are often described as if they were benevolent heads of that larger household known as the state'. As such, state structures have an implicit tendency to mirror the social relations and constructs of their society (Bird and Espey, 2010), often absorbing and formalising inequitable resource practices, such as male asset rights. For example, in Lesotho and Swaziland women are



considered legal minors.<sup>8</sup> they cannot own property, enter into contracts, or receive bank loans without a male relative (Quisumbing *et al.*, 2004).

**Figure 2: Nature, wealth and power – definitions and links**



Source: Based on USAID *et al* (2002: 4).

## 2.2 Time use

Agricultural work and the management of other natural resources require considerable time and investment for productive returns. However, as highlighted above, many women lack ownership of or have entitlement to the resources they work with. This, alongside unequal intra-household relations, which may limit control over household finance, can prevent them from reaping the financial rewards.

In addition, time spent on natural resource management is for the vast majority of women unpaid family labour (Boesrup, 1970; Barrientos, 2007).<sup>9</sup> This labour, alongside other

---

<sup>8</sup> Both Lesotho and Swaziland have dual legal systems incorporating customary and civil law. In both countries customary law considerably limits women's equal control of resources, their equal status in marriage and their legal standing (see the OECD Social Institutions and Gender Index, available at: <http://genderindex.org>). In Swaziland there have, however, been some positive shifts. In 2010 the Ministry of Justice committed to developing draft legislation to reform and consolidate customary and civil law relating to marriage, property and inheritance rights for women. Furthermore the tactical decision by the Ministry of Justice legislation review panel to focus on the Marriage Act as the entry point for creating greater equality in the legislation of Swaziland shows an understanding of strategies for addressing gender inequality (see [http://justgovernancegroup.org/en/swaziland/pdf/swaziland\\_dispatch\\_5.pdf](http://justgovernancegroup.org/en/swaziland/pdf/swaziland_dispatch_5.pdf)).

<sup>9</sup> However, as Barrientos (2007) notes, the expansion of employment in the high-value agricultural production section is providing important opportunities for women to enter paid employment.



domestic responsibilities like care work (and according to women's stage in the lifecycle and their household's composition), can prohibit the pursuit of other paid employment or reduce time for accessing public services, disproportionately reducing women's capabilities and potential well-being:

perhaps nowhere is the asymmetry in the respective rights and obligations of men and women more apparent than in the patterns of time use differentiated by gender, and the inefficiency and inequity they represent. Both men and women play multiple roles (productive, reproductive, and community management) in society...Yet while men are generally able to focus on a single productive role, and play their multiple roles sequentially, women, in contrast to men, play these roles simultaneously and must balance simultaneous competing claims on limited time for each of them. Women's labor time and flexibility are therefore much more constrained than is the case for men. (Blackden and Woden, 2005: 1)

Time-use studies such as that by the Economic Commission for Latin America and the Caribbean (ECLAC) in Latin America (ECLAC, 2007) have demonstrated that men and women have very different levels of input into domestic responsibilities, including household and community resource management. In Brazil 90 percent of women spend an average of 20 hours per week on unpaid domestic chores, while only 45 percent of men do such work, averaging just seven hours per week. Overall it is estimated that African women and children spend 40 billion hours fetching water every year, equivalent to a year's labour for the entire workforce of France (UN Millennium Development Project, 2005a).

In South Africa a study by Burca Kizilirmak and Emel Memis (2009) has gone further, demonstrating the correlation between household responsibilities and the potential for intensified poverty. They found that, for women, household responsibilities and care burdens intensify in accordance with the depth of their poverty. In contrast, for the men in their sample, poverty was seen to have no direct correlation to the amount of men's unpaid work time, nor did poverty seemingly intensify it.

This time-poverty brought about by women's triple labour burden (reproductive work, productive work and community work) can have an impact on their development opportunities, and on the well-being of their dependants, through three main channels:

(1) Extensive domestic responsibilities, including natural resource management, compromise the amount of time that women can dedicate to productive work and therefore their opportunities to establish an independent income or asset base. But without independent resources women are often unable to negotiate a better position within household relations, creating a self-perpetuating cycle (Blackden and Woden, 2005).

(2) Time spent on natural resource management can compromise child care: several studies document the way that workload constraints limit the likelihood that children will



be taken to health posts for vaccinations, or the improbability that sick children or family members will access health care in a timely manner. As argued by the World Bank (2006), there is a critically small 'window of opportunity' for addressing under-nutrition in children, which in turn hinges on timely access to food, including time for breastfeeding and timely preparation of meals in the first two years of life – a period in which, according to time use survey data, women with young children are likely to be especially heavily burdened with work (Blackden and Woden, 2005). There can be lifelong consequences for children deprived of good care, not only for their health but for their social behaviour and economic productivity. According to Heckman and Masterov (2007), children deprived of care are more likely to become involved in crime as adults, and to earn less than children who have received good care.

(3) Excessive demands on women's time can prohibit access to essential services like health care (as demonstrated above) but also to credit, to social protection services, adult education and other support facilities, such as community groups or even those governance groups which directly affect their livelihoods, such as resource user committees (see, for example, New Course, 2010).



### 3 Global processes which compound women's resource-related vulnerability and poverty

As highlighted in Section 2, long-held power asymmetries and socio-cultural gendered dynamics underlying natural resource management make women particularly vulnerable to chronic poverty. But this vulnerability is not static. There is a range of global and regional processes that shape, and are shaped by, chronic poverty (CPRC, 2009). These processes can serve to compound pre-existing vulnerability, making women and their dependants even more susceptible to being caught in poverty traps.<sup>10</sup>

#### 3.1 Climate change

The imminent and already discernible impacts of climate change are calling into question the sustainability of many current livelihood practices. For the chronically poor climate change poses a particular threat – intensifying the unpredictability of weather patterns, limiting the production of various crops and jeopardising the health of livestock as well as fish supplies. It is generally recognised that the already poor and marginalised are most likely to suffer from climate change most acutely (Stern, 2006; Lambrou and Piana, 2006; Tanner and Mitchell, 2008). The chronically poor often live in marginal environments, and lack the assets, mobility and political power to adapt to climate change. Climate change jeopardises the quality or quantity of the resources upon which these managers of natural resources depend. This affects their work, effort and the energy which is needed for that management, and thus limits their other development options (Dankelman, 2002).

As women are often the primary managers of natural resources in most poor households, it is their development options which are most at risk. And yet, although a broad body of literature exists on the way in which environmental hazards can lead poor people into chronic poverty (Scott, 2006; CPRC, 2004; Folke *et al.*, 2002), there has been little research into the correlation between climate change, stresses on natural resource management and the large-scale extension or intensity of chronic poverty, particularly among women.

The Centre for Science and Environment (CSE), based in New Delhi (India), argued in their *The State of India's Environment Report* in 1985: 'Probably no other group is more affected by environmental destruction than poor village women. Every dawn brings with it a long

---

<sup>10</sup> Poverty traps: 'A situation in which poverty has effects which act as causes of poverty. There are thus vicious circles, processes of circular and cumulative causation, in which poverty outcomes reinforce themselves (Gore 2003). Poverty traps can operate at various units of analysis, from individual and household, to national. At the individual and household level, poverty traps enmesh people in vicious cycles of material deprivation and a lack of investment in human capital' (CPRC, 2009: 133).



march in search of fuel, fodder and water... As ecological conditions worsen, the long march becomes even longer and more tiresome. Caught between poverty and environmental destruction, poor rural women in India could well be reaching the limits of physical endurance' (CSE, 1985: 172).

The necessity to walk further for water, to spend more time tending the fields to produce consistent amounts of resources and to search for domestic fuels will inevitably intensify women's burdens. Women and their dependants are as a consequence more susceptible to chronic poverty, because of the increased demands on their time and their dwindling resources, in the context of climate change (Masika and Joeke, 1997; Danklemann, 2002). Additionally, having fewer resources, entitlements and capabilities than men undermines women's capacity to adapt to the existing and predicted impacts of climate change. It also prevents their active participation and knowledge sharing within adaptation and mitigation decision-making processes (Demetriades and Esplen, 2008).

### 3.2 HIV/AIDS

HIV/AIDS can have considerable effects upon how natural resources are managed and upon social organisation more broadly. AIDS-affected households are particularly prone to draw on natural resources as a livelihood safety, as they become less productive. Declining productivity in agriculture can result from a number of factors: inability to work as a result of illness, the need to spend more time caring for relatives; high investments in medical care compromising financial investments in the upkeep of the land; and poorer participation in social networks through which people access credit, find work, and so forth (Slater, 2008; Slater and Wiggins, 2005).

Women are unduly affected by HIV/AIDS for a number of reasons: they are more likely to be infected (as a result of physiology and problems of sexual bargaining power), they tend to have a higher burden of caring for the sick and HIV/AIDS compromises their ability to manage the domestic natural resources, potentially heightening their families' risk of poverty and deprivation. Additionally, where men die before women, women are often subject to land-grabbing by male relatives as they have poor legal and socio-cultural claim to their property (Bird and Espey, 2010; Slater 2008). In the most desperate of cases dwindling resources can plunge families deeper into chronic poverty, forcing women to engage in dangerous forms of employment such as the sex trade (Oglethorpe and Gelman, 2008).

It has also been argued that, for the purposes of effective NRM, early death can compromise the transfer of sound resource management skills or indigenous knowledge systems (IKS) (Rajasekaran *et al.*, 1991). Women are often the holders of resource management knowledge and the disproportionate burden of HIV/AIDS threatens their ability to share their knowledge with future generations.



Early death resulting from HIV/AIDS has potent implications for the potential to accumulate assets and prevent the transmission of intergenerational poverty. Building up assets is essential if households are to have a buffer against shock. Where parents have been unable to accumulate such a buffer and are then deceased, their children are left in an even more vulnerable position, effectively inheriting a position of deprivation. As highlighted above (Section 2.a) the inheritance or non-inheritance of assets on marriage or death of the household head has been integrally linked to people's poverty trajectories and their likelihood of staying in or moving out of poverty (Bird and Espey, 2010).

### 3.3 Demographic growth

World population is projected to rise by 2.3 billion people, from 6.8 billion in 2008 to 9.1 billion in 2050, assuming that fertility continues to fall in developing countries. If fertility remains constant, world population will reach 11 billion by 2050 (UNFPA, 2009). Population growth is set to be highest in some of the poorest and least developed regions, potentially worsening stresses on resources such as water, land and forests (CPRC, 2009: 3). According to UNFPA, the population of less developed nations is expected to rise by almost two billion (equivalent to the total world population in 1927) beyond the 7.9 billion currently projected for these countries, if fertility remains constant (UNFPA, 2009).

The neo-Malthusian argument<sup>11</sup> closely correlates widespread poverty, environmental conditions, the use of natural resources, and economic and social development with population growth and distribution (Merrick, 2002). Unsustainable patterns of consumption and production deplete natural resources, causing environmental degradation, while reinforcing social inequity and poverty (e.g. Scherr, 2000; Elbadawi and Sambanis, 2000).

Although there is increasing recognition of the adaptive capacities of poor households (e.g. Sherwood and Bentley, 2009), in countries still reliant on customary forms of governance and/or in countries where women have insecure property and natural resource rights, demographic growth poses a particular threat to the security and poverty status of women. In Wello, Ethiopia acute competition for land has resulted in female-headed households being encouraged to give up their land or enter into sharecropping arrangements. It is claimed that they will be unable to farm without male labour but there is reportedly a long-term strategy of uprooting such women (Marena, 2002b).

In Rwanda demographic growth alongside inequitable systems of land ownership and access, high incidences of female-headed households and refugee resettlement as a result

---

<sup>11</sup> Neo-Malthusian theorists have developed the work of Thomas Malthus, who in the 18th century highlighted that 'the power of population is so superior to the power of the earth to produce subsistence for man, that premature death must in some shape or other visit the human race' (Malthus, 1798).



of the 1994 genocide have created a highly insecure environment for poor women dependent on natural resources and without the support of a male relative. Although there is some gender-equitable legislation, for example pertaining to the rights of women to land and inheritance, poor implementation at the local level has enabled discrimination over access and ownership of natural resources to persist (Bird and Espey, 2010). Intense land competition, alongside cultural norms which bar women from independent ownership of land, means women requiring land or seeking to control other assets are at the mercy of their male relatives. Although in many cases single women (particularly widows) are cared for and granted land, a recent empirical survey by Kusters (2010) on the incidences of poverty among female-headed households shows that almost one-third of female-divorcee-headed households are landless and more than two-thirds have access to less than 0.25 hectares of land (in comparison with an average size of household holdings which was 0.59 hectares). This is largely attributable to their independence being at odds with cultural norms which prevent women holding land and, because land is scarce, there is little incentive for equitable distribution. Kusters concludes that, in light of the difficulties of obtaining employment outside of the agricultural sector, divorcees 'not only belong to the poorest of the poor at present, but that these women and their children may also face a bleak future' (Kusters, 2010: 139).

It is not only direct competition over land that produces the correlation between demographic growth and physical insecurity or intensified poverty. Taking the example of food scarcity, despite rapid population growth over the last five decades global food production has actually exceeded this growth, thanks to improving modern technologies. Food scarcity and malnutrition has resulted more from the poor management of agricultural and from trade policies which limit poor people's ability to buy food than just from an increase in population size and density (Merrick, 2002). This point testifies to the importance of implementing equitable social and economic policy, as opposed to just relying on population controls and localised natural resource management strategies.



## 4 Legislative and programmatic interventions for equitable natural resource management and control: offering women an exit from poverty?

As governments and development practitioners have come to realise the importance of assets, legal entitlements and economic opportunities for women's empowerment (and simultaneously come to better understand the daily functioning of the household), a great number of interventions has emerged which seek to strengthen women's control over and productive use of natural resources. At the national level efforts have tended towards legal reform; harmonising customary and civil law to ensure equal ownership rights. At the local level interventions such as micro-finance have tried to turn women's daily responsibilities like farm labour into money-making ventures (see Amosu *et al.*, 2011). Simultaneously there has been a movement within the NRM sector to improve the visibility of gender and particularly women's roles and responsibilities within national policy and local level interventions. Participatory NRM projects are increasingly targeted at women, as they are key resource managers, but also as these projects can serve as a means to strengthen women's voices and social standing.

Many of these interventions have resulted in demonstrable successes – empowering women while also improving domestic resource management and local conservation – but many have been blighted by tokenistic consideration of gender differences, poor implementation or unsustainability. The following section critically evaluates four categories of interventions, so as to identify successful and sustainable strategies for women's social and economic empowerment through the equitable management of natural resources. The first subsection considers legal reform around natural resource assets and entitlements; the second attempts to gender-sensitise national level policy and legislation around natural resources and NRM; the third discusses the array of community and local level NRM initiatives that have sought to empower women to better control domestic resources; the final subsection considers the empowering benefits of community mobilisation.

### 4.1 Legal entitlements

The neo-liberal conceptualisation of land entitlement as a means of overcoming poverty and a way of controlling resource depletion has placed it high up many developing countries' policy agendas (see, for example, Herring, 1999). It has become even more prominent since it was argued that land entitlement can be a vehicle for women's empowerment (e.g. Agarwal, 2003).

Providing persons with legal entitlement to natural resources can result in a wide spectrum of benefits. For example, land rights can provide personal security from one's neighbours and rival claimants to land, and can stimulate economic security by enabling land to be used as collateral for loans, stimulating the land market and thus providing liquidity. Additionally,



entitlement can encourage land investments and sustainable practice (see Section 2a). For governments formalising entitlements minimises the cost of administering resource disputes and can increase the value of the land thanks to greater agricultural investment and preservation (Platteau, 1999: 56). The Malawian Land Law states that 'titling is a way of unifying the law...This in turn is assumed to increase security for landholders and thereby lead to investment and increased productivity' (Peters and Kambewa, 2007: 452).

For the chronically poor access, control and ownership of natural resource assets can have positive effects upon consumption (increasing spending on food, children's welfare and education) and productivity (Economic Commission for Africa, 2004; Prowse and Chimhowu, 2007). It also increases household resilience to shocks, can prevent the adoption of adverse coping strategies and additionally enables the accumulation of a resource base which can be passed on to the next generation, preventing intergenerational poverty (Bird and Espey, 2010: 754). Land ownership particularly enables women to access other assets and resources such as credit, which enables investment and diversification (Dolan, cited in Bird and Espey, 2010).

Testifying to the negative effects of insecure tenure, a stratified sample of tree farmers in Kumuli district, Uganda found that women farmers constrained by insecure tenure to tree resources were subsequently exposed to inequitable benefit sharing, weak power in decision making and poor access to planting materials. Additionally the women suffered from lower educational levels (Mukadasi and Nabalegwa, 2007).

Despite the many positive returns from entitling citizens, many women are still excluded from this process, unable to enjoy the positive returns of entitlement and deprived of their human right to equitable livelihoods.<sup>12</sup> Women's exclusion can result from gender-blind processes of registration (see Box 2), inability to access registration centres (because of high demands on their time during working hours and/or restricted movement) or because they fear their community's chastisement, particularly in areas which practice patrilineal inheritance.

---

<sup>12</sup> For more information on the legal statutes which support all human's right to livelihood and land, see [www.pdhre.org/rights/land.html](http://www.pdhre.org/rights/land.html).



## Box 2: Titling in Rwanda and Malawi

Despite the many goods that can result from entitlement the process by which it is undertaken can often exacerbate gender inequalities. Within the 2004 Rwandan Land Policy the insecurity of women's rights within customary tenure practices – particularly concerning inheritance – is heavily emphasised and reform strongly encouraged (Republic of Rwanda, 2004: 4.2 02). The 2005 Land Law subsequently pays specific attention to making each premise genderless. Nevertheless the process of registering land according to one owner or the 'head' of a family dismisses customary traditions of communal land access and holding. As the 'head' of a family is conventionally considered to be the male (land rights are customarily conferred among men in Rwanda) the reforms could be argued to be formalising the marginalisation of women even further. As Platteau points out in his general assessment of the efficacy of implementing land rights, 'sections of the local population face a serious risk of being denied legal recognition of their customary rights to land during the registration process' (Platteau, 1999: 67).

Peters and Kambewa (2007) have also highlighted the potential for a disempowerment of women and denial of their customary rights within matrilineal regions of Malawi. The Malawian Land policy's registration method takes note of the family 'head.' This will tend to be recorded as the male, despite many regions of Malawi practising matrilineal reallocation and matrilineal inheritance. In these instances recording the male head 'will not reflect the ways in which land is allocated, used and transferred in which women as daughters and wives have far more authority' (Peters and Kambewa, 2007: 467).

But exclusion from entitlement is not only a gendered phenomenon. The rural poor are also frequently disadvantaged as the implementation of land entitlement at the most local and rural levels can be costly, difficult to administer and more often comes into conflict with customary practices. It is often expected that the cost of the registration process will be borne by the household, thereby excluding the poorest. For example, the Government of Rwanda in the draft Land Policy of 2004 stated that 'cadastral costs and costs of registration will be borne by the tenants' (Musahara and Huggins, 2005: 320), without due consideration of the majority of poor households' binding liquidity constraints. The Rwandan Land Policy has, since 2004, been adjusted to regulate this point by creating a two-tier system of land registration – formal and informal – whereby informal will be considerably cheaper as it uses less accurate mapping methods. Nevertheless the expense of registration, by either method, is in danger of being largely prohibitive for the majority of poor subsistence farmers (Musahara and Huggins, 2005). The practicalities of going to a registration centre can also intensify the potential for exclusion of the poorest – as they frequently lack ready access to transport, are subject to acute time pressure and/or may lack the requisite education to manage the complex legal processes of registering titles (e.g. Busingye, 2002).

The neoliberal notion of equitable entitlement as both a means of overcoming poverty, a form of women's empowerment and a way of controlling resource depletion has also been undermined by its own simplicity. Yong Ooi Lin (2008) has shown through a case study of minority forest-dwelling Orang Asli groups in Malaysia that development schemes, alongside state discourses, Islamisation and Malay culture, has erased the informal mechanisms through which the Orang Asli women gain access to resources, therefore entrenching gender and ethnic exclusion. Similarly Flintan (2006), through a study of pastoral communities in Ethiopia, claims that there is still no system of land use planning that fully reflects pastoralist



needs, with most intensifying the problems of land scarcity by privatising large swathes of land, often by major rivers, despite their use by pastoralists and nomadic groups.

For entitlement processes to be effective they need to be sensitive to their context, to the informal mechanisms through which women and marginalised groups access land, and to local natural resource governance practices so as to prevent the exclusion of certain groups or the entrenchment of discriminatory practices (see Box 3).

### Box 3: User rights in Ethiopia

Attempts to provide legal rights over natural resources have been implemented at regional as well as national levels. In Ethiopia, in October 1998, the Bureau of Agriculture (BoA) of the Amhara Region passed a regulation to implement *ye-wel meret kififil*, or 'Communal Area Allocation'. The official objective of the allocation was to rehabilitate degraded natural resources. The most important component of the regulation was the provision of user rights as a legal incentive to rural people's long-term investments in improved natural resource management.

The idea of regional user rights being implemented in the *ye-wel meret* originated in an experiment by SOS-Sahel, a British NGO that had initiated a community-based user rights hillside enclosure and environmental rehabilitation programme in Meket in 1996. *Ye-wel meret* refers to marginal or hillside land areas within a Kebele Administration (KA) that is neither owned by individuals as private land, nor used for cultivation. This covers areas where community members discuss, and decide to use the land for forestry, perennials and/or fodder production. However, it does not include communal lands that are being used by peasants for grazing.

The allocation of user rights over hillside enclosures was undertaken at the KA level. Yet, despite much rhetoric about community participation, the regulation appears to the community more like a government quota system than as something based on community participation and decision making. Community members feel they were treated as passive recipients of an agenda from above. Women, particularly female-headed households, generally appear to be losers in *ye-wel meret* allocation. One KA Chairman in Tehuledere noted:

'In principle, the KA has not attempted to make women or female headed households beneficiaries of *ye-wel meret* allocation. Many of them did apply. But, we persuaded them that it would be difficult for them to work on forestry development activities since they do not have the *aqem* (or physical energy)'.

Source: Marena Research Team, 2002a.

## 4.2 Gender-sensitizing national NRM policies and legislation

In most countries natural resources are governed by policies and legislation set out within either the national development plan, a poverty reduction strategy paper or else within a sectoral NRM policy, for example within a National Land Policy. The sector policy dictates the key attention and investment areas within a given time period. As such, much like a PRSP, it is essential that it is sensitive to social, geographic and economic divergences if these are to be given due consideration in subsequent policy implementation and programme delivery. The visibility of gender within national-level policy and planning documentation is essential for divergent interest and power dynamics to be given due consideration within ministry, sector and local government planning but also to ensure that



gender-sensitive NRM programmes and research are accorded relevant resources and space within national budgets.

Despite the importance of gender-sensitivity within these documents, a large percentage of national policies are either gender-blind or only pay cursory mention to divergent impacts for women as a homogenous category, with little explanation of the underlying power dynamics that have brought about their divergent experiences (e.g. Razavi, 2005). As a consequence interventions resulting from the policy, specifically for women, treat the symptom of the inequity, rather than the cause. Conversely, when national level policies are gender-sensitive and pay specific attention to rectifying pre-existing inequalities, these can be a powerful tool to mobilise adequate resources, and generate political will to implement durable change. When the government's commitment to equitable resource access, management and ownership is clear, this can also enable a form of accountability for excluded groups.

Commonly national policies do succeed in including a consideration of gender dimensions but are then undone by ineffective implementation – a key 'fracture point' for many social policies (Bird and Pratt, 2004). In order to be widely owned and accepted, properly resourced and adequately implemented policies must pass through many stages. According to Crosby (cited in Bird and Pratt, 2004), these stages include policy legitimisation, constituency building, resource accumulation, organisational design and modification, mobilisation of resources and actions, and the monitoring impact. For policies to be implemented on contested and complex social issues such as women's empowerment and equal access to natural resources, it is therefore necessary to mobilise considerable high-level political support amongst parliamentarians, ministers and the donor community (not least so as to ensure adequate resource allocation). It is then necessary to motivate the technocrats, regional ministry office staff and local government to support and carry out this agenda, particularly when there is not already widespread support emanating from the local level upwards.

Tanzania provides a case in point whereby natural resource management policies such as the National Water Policy and the National Land Policy do include some consideration of gender dynamics. There remains, however, a substantial gap between the policies laid down in law and actual practices. Moreover, the policies fall short in terms of addressing the underlying causes of gendered exclusion and inequity. For example, the Water Policy document states that 'every citizen has an equal right to access and use of the nation's natural water resources for his and the nation's benefit'; yet the policy is rooted in customary practice, which, it states, will be 'institutionalised into statutes'. This thus ignores the fact that Tanzanian customary practice with regard to water management is highly gendered (Odgaard, 2002; Cleaver, 2003). Similarly, for the principle of equity to have any real meaning, accompanying measures are required that enable women to access water resources on an equal basis with their male counterparts, thereby levelling out pre-existing inequalities.



In the same vein the Tanzanian National Land Policy states that women are entitled to acquire land in their own right through purchase and allocations. However, in item 4.2.6(I) it reaffirms customary land tenure and allocation practices with regard to clan land, in spite of customary law and practices discriminating against women by 'allocating land to heads of households who are usually men', subject to the provision of the constitution. The assumption is that constitutional provisions override custom and tradition to protect women's land rights, with regard to clan land. However, problems of policy enforcement persist (e.g. Kassim, 2010). Further, the policy document later weakens its provision for women to own and access land by stating that the 'ownership of land between husband and wife shall not be subject to legislation' (United Republic of Tanzania, 1997) in spite of gendered social institutions that discriminate against women in marriage (Jones *et al.*, 2011).

By way of contrast Uganda's water policy demonstrates strong gender-sensitivity and has resulted in the considerable empowerment of women through water management mechanisms. Equitable access and control over water is highlighted in three policy documents the National Gender Policy (1997), The Water Action Plan (1995) and the National Water Policy (1999). The former outlines the importance of gender responsiveness in terms of planning, implementation and management of water and sanitation initiatives. The National Water Policy, based on the Water Action Plan, further commits the Ugandan government to manage and develop the water resources of Uganda in an integrated and sustainable manner, so as to secure and provide water of adequate quantity and quality for all social and economic needs, with the full participation of all stakeholders, and so as not to leave future generations any worse off than the current population. The policy recognises and highlights the key role played by women in all water management and development activities. This also features in the National Gender Policy, wherein women and children are acknowledged as the main carriers and users of water. The importance of women's participation in water management has been further strengthened by the appointment of HE Maria Mutagamba, Minister of State for Water of Uganda. Uganda's water policy is a sophisticated example of effective gender-sensitive policy development, but other natural resource policies in Uganda (such as the Land Act – see Box 4) lag far behind, highlighting the common inconsistencies within governments, as well as between them.



**Box 4: The Ugandan Land Act**

'The 1998 Land Act has two objectives: (i) to provide a basis for formalising traditional land rights and accelerated transition to freehold tenure; and (ii) to enhance the land security of marginalised groups, including women...However, there is tension between these two objectives. The Act supports decision making under customary land tenure systems, which reflect custom, traditions and practices, but states that these should not be implemented when they will deny women, children or people with disabilities ownership, occupation or use of land. The Act also emphasises that land cannot be sold without the permission of a resident spouse or from dependent children or orphans with a claim on the land. The Act therefore contains internal contradictions; customary systems commonly reflect entrenched paternalism and therefore registering customary land is likely to come into conflict with gender equity.'

*Source: Bird and O'Neil, 2004: 30.*



One of the key limitations to effective policy development for NRM (and particularly for the development of gender-sensitive NRM) is a lack of or only tokenistic stakeholder participation. Given the complex interactions and contradictions between customary practice and formalised policy, as well as the variety of ways through which various interest groups access natural resources, comprehensive local-level participation is essential for a unified and responsive national policy. As a buzz-word of neo-liberal development theory, 'participation' is frequently evident within national NRM policies. However, the nature and management of this participation is seldom defined, nor is there any indication of how participants involved in policy development and programme delivery will influence design.

In India there is a National Forest Policy (1988), a National Water Policy (2002) and a National Agricultural Policy (2000). The Indian government's strategy in the forestry sector has been modelled on the principles of 'joint-forest management' (JFM) and forging partnerships with local communities. The official ground for JFM is based on the National Forest Policy of 1988 and the JFM Resolution of 1990. The former envisages 'people's involvement, particularly of women, in meeting their basic forest related needs and in managing their local resources' (MoEF, 1988). On the other hand, the 1990 Circular makes no explicit mention of women but rather might include their consideration under the general category of 'beneficiaries' (MoEF, 1990). In general, national-level policy seems to regard women as an undifferentiated and marginalised category, whose inclusion in JFM merits a clause (Locke, 1999), and where there is explicit consideration of gendered issues these seldom relate to gender-sensitive strategies.

Similarly to the Forestry sector, the National Water Policy incorporates a provision to undertake a 'Participatory Approach to Water Resources Management'. The directive is to undertake necessary legal and institutional changes at various levels for water resource management, duly ensuring an appropriate role for women. However, beyond the general rubric of women's participation, gender considerations do not seem to be given due consideration.

There is considerable scope for national policies to positively influence the management of natural resources and in doing so give due recognition to women or excluded groups. However, doing so requires that the policy demonstrate a genuine understanding of local customs, practices and power dynamics, and thereby gender relations. Genuine understanding requires local-level consultation and participation, which must be a core pillar of the strategy rather than a tick-box. In addition, participation must be integrated into programmes and policies across the sector, supported by sufficient resource allocations.



### 4.3 Natural resource management programmes and interventions

In many developing countries women's social positioning and community relationships mean that the roles they are expected to take on are often supportive and reproductive, centred around the home and local community rather than the public sphere (Brody *et al.*, 2008). As highlighted in Section 2, part of a woman's supportive role is as resource manager responsible for tending to the household's and community's productive natural resources. According to an understanding of the management of natural resources being intimately linked to the reproduction of conditions of poverty,<sup>13</sup> women, as the natural resource managers, are particularly exposed to and involved in the perpetuation of poverty.

Drawing on this understanding, past NRM strategies and programmes have sought to educate local communities about the dangers of resource degradation and to promote management techniques, often through community mobilisation (e.g. IFAD, 2006) and often specifically targeting women. Where programmes purposively target women it is often done with the dual intention of influencing the day to day household resource manager for conservationist purposes and empowering women to have better control and influence over the resources under their care (Krishna, 2004).

Programmes and interventions for sustainable natural resource management come in a variety of shapes and sizes, from agricultural extension programmes to irrigation schemes or eco-tourism. In natural resource management in general the creation of institutions is considered to be crucial in ensuring sustainability of the use of resources, of economic production and, to some degree, of 'empowerment' of communities. These ideas draw from literature on the Common Property Resources (CPR) approach that views local people and governments as being able to successfully manage common property resources through the creation of local institutions and rule-making. Development interventions, in this regard, aim to 'craft' formalised community structures for purposive agendas (Ostrom, 1990). As a result of this agenda the past two decades have seen a proliferation of water user associations,

---

<sup>13</sup> For the poor, highly dependent upon natural resources for consumption, income, and protection in the face of food or income shortage, efficient and sustainable use of resources is vitally important. Environmental change or mismanagement can intensify poverty, taking away vital fall-back mechanisms (Scott, 2006; see also Scherr, 2000; Elbadawi and Sambanis, 2000). In the early 1990s academic debate often conceived of the relationship between poverty and resource depletion as a 'downward spiral'. But since the late 1990s debate has shifted, recognising the striking heterogeneity in environmental management by the rural poor and their success in adapting to environmental change (Scherr, 2000). Sherwood and Bentley (2009) describe an approach to climate change adaptation in the Andes, in which farmers learn through visits to other farms and through experimentation. As farmers learn and take action at the farm level, the focus shifts to collective actions, such as sharing responsibility for collecting weather data, and implementing soil and water conservation measures. Understanding these heterogeneous and successful adaptation strategies is vitally important, but for many, particularly women, the connection between resource insecurity and increased propensity to poverty remains.



water user groups, community fisheries, village user associations, community forestry groups and village development councils (Resurreccion, 2006).

However, critics of this approach have pointed out its lack of attention to the complexity in local social relationships and practices that actually characterises and shapes resource management situations (Cleaver 1999; 2000; 2004). Institutionally crafted approaches, which make assumptions on the basis of simplified gender roles and norms, are insufficiently nuanced to accommodate fluctuating social dynamics, making them ultimately unsustainable (see Box 5). By contrast, when these dimensions are understood, there is greater potential to implement durable, context-relevant change within pre-existing structures and institutions, which may ultimately overcome inequities within pre-existing systems.

Wiens (2003) highlights the importance of this detailed gender and power analysis with the example of an irrigation project in the community of Licto in Ecuador. He cites a study by Arroyo and Boelens (1997) which examined the local institutional arrangements governing irrigation water access and explored the norms, social relationships and ideologies forming the base of this system. Arroyo and Boelens viewed the irrigation system as a 'social construction', heavily embedded in networks of social and power relations. As such, to change these arrangements was to affect fundamental social relations. Looking closely at issues of equity, particularly gender equity, the study explored how such structures can be manipulated (where a good understanding of them exists) to the advantage of traditionally excluded and/or disadvantaged groups – in this case, particular groups of women.

A further critique of the CPR approach is that it tends to gloss over the fact that unclear boundaries define informal and formal institutions and natural resources are often managed in ways which blur such boundaries. Social institutions or cultural norms, like it being a woman's responsibility to collect firewood or water, might actually be subject to ad hoc practices or may change as a result of changing life circumstances (Mosse, 1997; Resurreccion, 2006).



### Box 5: Gender, participation and community fisheries management in Cambodia

In the Tonle Sap Region, Community Fisheries (CFs) have been constituted by the Cambodian Government to address the need for local and sustainable management of fisheries resources. Local women are being urged to participate in these institutions by various state and non-state programmes. However, actual social conditions and practices of people demonstrate that women are not actively involved in de facto fisheries management, with its complex mosaic of rules, rights and roles.

Many of these rules, rights and roles are determined by long-held gendered social expectations or social institutions. In Tonle Sap fisheries management is defined by power in patron-driven transactions among male fishing lot owners and their shareholders. Therefore, access rights to fisheries resources are strongly determined by such relations. They observe rules of exclusion and inclusion. Women are excluded 'because they are women', and are largely consigned to 'female' work, shouldering the combined load of subsistence farming, some fishing, debt management and care taking in general.

Nevertheless these programmes assume that people will readily observe rules once these are formulated, despite existing practices that have become normal over time, and that women's participation in these programmes will release them from poverty, as well as their heavy workloads and their exclusion from the male terrain of fisheries management. However, such programmes may inadvertently add to women's workloads, subject them further to male authority and, as a result, may reproduce gender inequality. Thus, women's participation in projects, in some cases, may make them worse off as a result of the overly simplistic idea of 'inserting women in'.

*Source: Resurreccion (2006).*

Partly in reaction to criticism of institutional crafting and relational insensitivity among CPR approaches, but also existing alongside it, a community and participation-based approach to NRM has emerged.

Since the end of the 1990s empirical research has challenged the assumption that the community should be the recipient of NRM interventions or institutions, instead highlighting striking heterogeneity in environmental management by the rural poor, their success in adapting to environmental change and the efficacy of policies in influencing outcomes (Scherr, 2000). Thus over the decade an approach to natural resource management shaped around active community involvement has influenced policy and programming, particularly in sub-Saharan Africa. 'The indigenous technical knowledge of rural Africans indicates that they have sophisticated understandings of environmental processes' (Hulme and Murphree, 2001a: 278), such that 'no longer should rural Africans be seen as degraders of the environment but as local heroes' (Hulme and Murphree, 2001b: 1).

Community based natural resource management stems from the premise that communities and local populations have a greater interest in sustainable natural resource management than the state or private corporations.<sup>14</sup> Additionally it is assumed that they have a better

---

<sup>14</sup> Community based natural resource management is often referred to under a wide variety of terms, such as 'community conservation', 'community-based conservation' and 'park outreach', and also covers a wide range of meanings and definitions as elaborated by David Hulme and Marshall Murphree (2001a; 2001b). These terms



understanding of local ecology and as such are better placed to implement NRM than development partners or local government (Tsing, cited in Elmhirst and Resurreccion, 2008).

Central to many of these community-driven approaches is the assumption that women are the key players within community NRM. Not only will women's greater involvement in decision-making processes build sustainable environments but women's active participation may improve the security of their livelihoods.

James *et al.* (2002) provide evidence to support the notion of women's improved livelihood security and empowerment through greater resource control with regard to water management. When water supply improvements are coupled with the opportunity for women and their communities to create income through micro-enterprises, time released from water collection is converted into income earned. This brings several benefits: reduced drudgery, higher household income and, consequently, greater women's empowerment through changing gender relations within the household. One such scheme in Banaskantha District in the state of Gujarat in India, one of poorest districts in the state and the country, demonstrates the potential for these positive returns. Here, thanks to the efforts of the Self-Employed Women's Association (SEWA),<sup>15</sup> poor women are reaping the social and economic benefits of a government-run regional piped water supply scheme, a project funded by Dutch bilateral aid, focusing on women's development.

Similarly, through an analysis of five community NRM interventions across five countries, which specifically target women as community resource managers (wetland use systems, dairy cattle raising, crop production, etc.) Thomas-Slayter and Sodikoff (2001) found evidence to support the claim that environmental sustainability and economic productivity are increased when women are vested with authority to make land use management decisions (see Table 1).

---

refer to a variety of policies and practices which aim to give those who live in rural environments greater involvement in sustainably managing local natural resources and/or greater access to benefits derived from those resources (Ribero, 2001).

<sup>15</sup> SEWA is an Indian trade union, registered in 1972. It is an organisation of poor, self-employed women workers. These are women who earn a living through their own labour or small businesses. They are without regular salaried employment or welfare benefits. For more information, see <http://www.sewa.org/>.



**Table 1: The impact of women's NRM interventions – indicators, enabling conditions and illustrative changes**

Enabling conditions	Impact	Process	Sustainability
Extension and training	<i>Environment</i> Improved, intensive farming on farmland resulting from new information (Nigeria)	<i>Partnerships</i> Household and community adoption of aquaculture over time (Rwanda)	<i>Local ownership</i> Group organisation of agricultural input services (Kenya)
Local participation and organisation	<i>Productivity</i> Increased productivity/sales through communal efforts (The Gambia)	<i>Capacity building</i> Organised farmer production groups (Rwanda)	<i>Cost-effectiveness</i> Spontaneous replication of communal vegetable gardens (The Gambia)
Gender disaggregated data	<i>Equity</i> Extension services targeted to women-headed households (Malawi)	<i>Leadership</i> Household income earnings by men and women (The Gambia)	<i>Local ownership (i.e. national instead of donor ownership)</i> Integration of data into national planning process (Malawi)
Livelihood security	<i>Welfare</i> Improved nutrition/sales from aquaculture (Rwanda)	<i>Organisational skills</i> Farmers keep records showing increased milk yield from high-breed cows (Kenya)	<i>Environmental suitability</i> Group members rehabilitate soil with compost (Rwanda)
Partnerships and linkages	<i>Productivity</i> New technologies and higher yields resulting from international and national research linkages (Nigeria)	<i>Capacity building</i> Long-term collaboration of extension services, farmer organisations, and researchers (Malawi)	<i>Replicability</i> New groups undertaking partnerships/projects (Kenya)

Source: Thomas-Slayter and Sodikoff (2001: 160).

Despite the positive shifts in development theory, policy and programming, which have recognised the importance of community involvement and the necessity of women's decision making and contextual relevance, there are considerable blind spots in community-orientated NRM interventions, specifically relating to participation, which have particular implications for both the gender sensitivity of interventions and for the equity of participatory projects.

Central to the community driven approach is the notion of full community engagement, whereby interventions are designed in collaboration with or entirely within the local community. Stakeholder participation is expected to improve the efficiency, equity and sustainability of natural resource management research and development projects by ensuring that research reflects users' priorities, needs, capabilities and constraints. In order to identify users' priorities, participatory processes claim to be encouraging the engagement of those who have conventionally been marginalised from decision-making processes, e.g. women. But as Johnson *et al.* (2004) have asked, what does participation actually mean in reality?



Use of participatory methods and tools is growing rapidly; however, there is little systematic evidence about what participation actually means in practice, or about what difference it makes. Based on an inventory of 59 self-described participatory research and development projects in the area of natural resource management, Johnson *et al.*, (2004) characterise the typical project and analyse how stakeholders are selected, how they participate in the research process, and what their involvement means for project costs and impacts. Their results suggest that, while projects are generating a range of direct and indirect benefits for participants, more careful attention needs to be paid to achieving equitable impacts. Current practices may lag behind best practices in key areas, such as power sharing and participant selection – not least because participants' power is seldom valued as an endogenous asset (Baumann, 2000). As such, participatory interventions may be missing important contributions from women and other marginalised groups and therefore may be failing to adapt projects accordingly.

The work of Bina Agarwal (1997; 2001) and Giri *et al.* (2008) on women's experiences of participation further develops this point. Agarwal's evidence suggests that, where women are 'involved' in NRM processes, they also continue to be excluded as a result of traditional practices and established norms of gendered exclusion, formal rules of membership, social perceptions regarding women's ability to contribute to user groups and their household endowments. Women's participation in resource user groups and similar community interventions is therefore more akin to 'participatory exclusion'. Similarly evidence from Nepal suggests that women continue to be systematically excluded from community forestry management, despite the Nepal Forestry Law specifically recognising the need for women's active engagement (see Box 6). Where women have been able to participate, this has been made possible by the urban out-migration of men, by intensifying degradation of forestry resources prompting urgent action and where they have pre-existing experience of community mobilisation to instil self-confidence (Giri *et al.*, 2008).

Discrimination and exclusion on the basis of sex is only one in a variety of factors determining effective participation. As Joshi *et al.* (2003) point out, it is naïve to consider gender the only blind spot in NRM analysis or to 'essentialise' women when considering their participation in NRM initiatives (see also UNDAW, 2005). In Joshi *et al.*'s case study of an Indian village they found that the female treasurer of the water and sanitation committee was the most vocal in pushing for the exclusion of the low-caste women in the village, low-caste women being one of the groups most prone to chronic poverty. There is thus a need for better analysis of all forms of social exclusion and how best to represent these interest groups when devising equitable natural resource management.

Importantly, all the critiques discussed above have assumed that the process of participation, despite its many inherent difficulties, is a social good. However, as with broader critiques of neo-liberal development, there is a growing body of literature which criticises local-level NRM interventions for their dependence upon the free labour of women. In Asia the theory that



women are the innate fixers and carers of the environment has resulted in many women being deliberately mobilised to meet the demands of conservation projects through the ruse of 'women's participation' (Kurian, 2000; Buchy and Rai, 2008). This has been referred to as the 'feminization of natural resource management; an issue which looms large in interventions seeking to enhance environmental governance in neo-liberal times' (Elmhirst and Resurreccion, 2008: 8). To overcome this it is vital that participatory initiatives are formulated in such a way as to directly benefit the participants, to take heed of their daily commitments and not to intensify their time poverty; the case cited by James et al. (2002) of water management and women's micro-finance in India (see above) provides a strong example.

#### Box 6: Nepal forestry NRM projects

In Nepal Common Property Resource Management (CPRM) has been applied to forestry and community forestry for the past 25 years. It is now operating in all 75 of Nepal's districts and has received priority support both from the state and donors. Donor-supported projects currently exist in more than 70 districts and share about 80 percent of the community forestry budget. Within 25 years, more than 1.5 million households (25 percent of the total population of the country) have been organised in about 14,000 Forestry User Groups (FUGs), now managing and controlling about one million hectares of forest. Across the mid-hills of Nepal, many forests have been regenerated, plantation targets have mostly been achieved, and increased biodiversity has been reported in many places under community forestry. Community forests have not only resulted in increased availability of forest products but have also generated a significant amount of income locally.

In addition to conservation, CPRM strategies are believed to improve access to communal resources, especially for the poor and women whose livelihoods depend on these resources). Central to the belief that community forestry can contribute to social justice are a number of assumptions: that FUGs are all-inclusive, that the FUG committee or *samiti*, represents all the various interest groups in the community, that all users are equally affected by the rules and the regulations, and that all users will have an equal share of the benefits of the forests.

Unfortunately, an increasing number of empirical works demonstrates that these assumptions do not hold. Most FUGs are exclusive in terms of participation and access to the incentives. Moreover, the three specific axes of exclusion – caste, class and gender relations – in the community result in consistently excluding women and the poor. This is especially relevant for Nepal, a Hindu kingdom in which caste hierarchies and rules very much dictate people's positions and options in life.

Women's systemic exclusion is a conclusion of Buchy and Rai's study – conducted using empirical evidence from five women-only FUGs in the mid-west region of the Rapti zone and secondary data on women-only FUGs and mixed FUGs throughout the country. They conclude that women-only FUGs, as in the case of mixed FUGs, are so far giving voice to economically better-off and high-caste women, who may have little interest in benefiting the poor and lower-caste women. Such institutions 'can serve to reproduce existing relations of inequality between "women" and "men" and strengthen compacts between particular kinds of women and their men folk, rather than build the basis for more equitable gender relations' (Cornwall, cited in Buchy and Rai, 2008).

This will continue as long as community forestry addresses solely the practical needs of environmental protection rather than tackling head-on the strategic need for social change. The objective of promoting women's effective participation in CPRM should not be confined to their participation in the management of resources, but should ensure increased access to and control of the resource in parallel with concrete measures to increase their capability. Unless efforts are



made to address class-, caste- and gender-based exclusion at community level through specific policies but also through explicit directives for implementation, the formation of women-only spaces in community forestry will be counterproductive, isolating women and further marginalising them.

*Source: Buchy and Rai (2008).*



#### 4.4 Community mobilisation, collective action and social movements

Since the initial recognition that the involvement of the community is vitally important to sustainable NRM, academic theory has gone a step further, recognising not only community involvement but community leadership as intrinsic to sustainable solutions. Concurrently discussions of chronic poverty emphasise the extent to which poverty endures because of the social relationships and structures within which particular social groups are embedded. In this sense chronic poverty is a socio-political relationship rather than a condition of assetlessness (Bebbington, 2007). Understood as such, processes of social and community mobilization become central to any discussion of chronic poverty because they are vehicles through which such relationships are argued over in society and potentially changed.

Group formation or collective action refers both to the process by which voluntary institutions are created and maintained and to the groups that decide to act together.<sup>16</sup> It can assume various forms ranging from voluntary self-help groups to formal organisations that aim to manage a community's natural resources or to lobby for political change at the national or global level (Pandolfelli *et al.*, 2007). Collective action is valuable to the poor in managing risk, sharing natural resources and in supporting various stages of production (Upton, 2008; Mwangi and Markelova, 2009). Additionally social and community mobilisation (in the form of social movements, popular protest and networks) seeks to bring about social change, calling for widespread economic, political and social transformation (Braunholtz-Speight *et al.*, 2008).

Collective action around natural resource management and control can take a variety of shapes, dependent on the end objective. When seeking to overcome exploitative relations that hold back livelihoods, social movements have been highlighted as the most prevalent form of action, as they often emerge in response to '*accumulation by systematic exclusion*', i.e. the systematic denial of assets or services to particular groups (Bebbington and Mitlin, 2006: 5).

At their most simplistic these are 'an organized set of constituents pursuing a common political agenda of change through collective action' (Batilwala, 2008:10). Additionally social movements extend their reach through space and time (Amosu, 2011), for example through networks of informal interaction (Diani, 1992).

---

<sup>16</sup> For an expansive discussion of gender and collective action, with specific reference to natural resources, see the CAPRI research workshop on gender and collective action, 17–21 October 2005, Chiang Mai, Thailand. Available at: [http://www.capri.cgiar.org/wks\\_1005.asp](http://www.capri.cgiar.org/wks_1005.asp). Accessed 3 May 2011.



Importantly for those excluded from natural resource management or ownership social movements contest the cultural politics that surround poverty, and stereotypes of poverty or ascribed (e.g. ethnic or sex-determined) status, thereby weakening social orders that exclude and discriminate (Braunholtz-Speight *et al.*, 2008).

Mosse (2006) cites the example of the collective associations which sprang up in Alapuram village, South India in the 1990s. These associations – of Dalits, youth, and women – organised action around village common properties such as water tanks. These were strategic sites in several ways. First, members of low castes and women laid claim to these material and symbolic resources as a challenge to upper-caste landlords and contractors. Second, because these commons constituted government property (*purumpokkui*, or Public Works Department – PWD), action over them could invoke support from the state (PWD, revenue, or police) for claims to equal access as citizens in the face of exclusions. Third, by organising action on tank repair or water supply, politically ambitious individuals could appeal to common interests and so mobilise the broader constituencies of support that electoral politics demanded. These associations were pivotal for previously excluded persons to make claims to resources and asset rights, and to get support from the state (see Mosse, 2005: 213–215).

Kariuki and Place (2005) identified similar returns from collective action during a study in the highlands of central Kenya. They collected data from a total of 442 households, focusing on whether members of those households belonged to groups and, if so, what type of groups these were and their activities. They found that that both men and women were engaged in similar group activities but the motivation for joining groups and extent of participation was quite different. The women interviewed were likely to engage in subsistence agriculture, while the men were traditionally inclined towards the production of commercial enterprises through which they obtained their major source of income. Men were therefore interested in joining groups that had an element of commercialisation and marketing; access to markets and social insurance coping mechanisms were very important. For women building household assets and social insurance were the primary reasons for collective action, suggesting that these collective institutions helped to overcome poor opportunities for private enterprise and to provide them with networks of support.<sup>17</sup> Kariuki and Place concluded that these collective groups empowered disadvantaged factions (including women) to have 'greater access to income and other necessities that require partaking in decision making with responsibility for production, reproduction, consumption, technology adoption, and marketing...this brings to light the fact that although property rights systems in Africa

---

<sup>17</sup> For 39 percent of the women, building household assets is the major reason why they join groups. This compares with only seven percent of men who cite this reason (Kariuki and Place, 2005).



generally work against and even dispossess women, institutions for collective action play an important role in empowering women' (Kariuki and Place, 2005: 35).

In spite of their many advantages, social movements have been critiqued for their ambiguity, their tendency to replicate social relations and therefore exclusivity, and their vulnerability to NGO appropriation (see Box 7).

### **Box 7: Challenges for social movements**

#### **NGO appropriation**

A considerable problem with social movements acting as intermediaries, and effectively communicating the demands of the grassroots or marginalised, is the ambiguity in the term 'social movement' (Batilwala, 2008) and what delineates a movement from a community organisation working in partnership with an NGO.

It is argued that social movements are today an amalgamation of grassroots and NGO joint activity, making it hard to differentiate between those movements that have been built by international or external agencies and those that have merely been facilitated by agencies. This is what Batilwala refers to as 'NGO-isation' of social movements, i.e. where the development framework co-opts truly independent movements which, through their association with NGOs, may lose their autonomy. This is also related to the funding culture that NGOs promote, which can undermine organic campaigns and independent initiatives.

However, the link between NGOs and movements is not always negative. In a study of herder management in the Gobi region of post-Soviet Mongolia Upton (2008) highlights the beneficial effects that external agents can have as 'trust brokers', who catalyse growth of interpersonal cooperation by bringing people together, and so forth. Meanwhile, Raymond (2006), rather than an emphasis on the individual, argues that external political leadership can play a critical role beyond trying to build trust and social capital among the collaborating parties. Public agencies can create assurance mechanisms and other institutional arrangements which help to maintain collaboration. Raymond advocates that policy makers spend less time on building direct trust between individuals and more effort on incentives and institutional mechanisms to make cooperation the rational choice.

#### **Replicating social exclusion – horizontal inequalities**

Another concern, which questions the ability of movements to represent the grass roots and particularly poor women, is their propensity to incorporate forms of social exclusion. For Pimbert (2006) this is because popular spaces or social movements reproduce subtle forms of exclusion in the absence of a conscious social commitment to a politics of freedom, equity and gender inclusion. Agarwal defines these forms of exclusion as the result of traditional practices and established norms of gendered exclusion, formal rules of membership, social perceptions regarding women's ability to contribute to user groups and their household endowments (Agarwal, 1997; 2001).

Conversely Batilwala (2008) ascribes this to the need for movement participants to relate to donors, which requires time and fiscal understanding, plus a relative degree of education. Schady (2001) highlights the importance of education for participation in collective action. By analysing volunteering patterns in rural Peru, Schady finds that volunteers typically have a high opportunity cost of time. They are more educated and more likely to hold a job. Schady's paper highlights neglected socio-economic factors which inhibit taking part in participatory programmes and movements – like lacking social status; not having the education to see the potential impact of such efforts; not understanding the larger political and economic environment in which these movements can work. In both instances a good degree of education is seen as a prerequisite for interaction at the policy level, thereby suggesting that social movements are ineffective above the



local level without some form of educated hierarchy or an intermediary organisation to act as go-between.

**Free riders?**

The traditional stumbling block to collective action across societies has long been identified as the lack of social capital. Raymond cites Putnam's (1995) social capital definition as the 'combination of factors encouraging cooperation among groups with strong social networks, including the development of mutual trust' (Raymond, 2006: 37). Raymond's study adds an untraditional response to Mancur Olson's (1965) much debated contention that self-interested individuals are unlikely to cooperate voluntarily to capture future joint benefits, because of the selective benefits of defection and high transfer costs, or 'free-riding'. As a form of collective action, social movements are also be subject to similar scrutiny. Why should individuals get involved in a movement when they can simply share in the benefits of, say, legislation change should the movement be successful? For some organisations (e.g. workers' unions, teachers' unions), legislation that requires union membership is a common way to deal with free-riders. Another important way to eliminate the free-rider is to create 'selective incentives' that individuals will want but can only gain through membership. Selective incentives can be tangible gains such as insurance plans, saving and credit schemes, or intangible gains such as increased self-identity and purpose, empowerment and confidence.

*Sources: Amosu (2011) and Agarwal (1997; 2001).*



## 5 Policy lessons and conclusions

Women are often disadvantaged by household divisions of labour; social norms, institutions and expectations often dictate that their work takes place within the domestic sphere, and is subsistent and economically unprofitable. A large part of their domestic responsibility involves tending to natural resources. In spite of this responsibility, women are frequently denied equitable entitlement or ownership of the resources with which they work, compromising their ability to accumulate assets. Social institutions that prescribe that women manage natural resources (and take on other domestic responsibilities such as care work) limit their ability to access key services and/or to take up economically productive employment, rendering them dependent on other income earners – predominantly their spouse. This dependency, as well as other intra-household power asymmetries, makes many poor women particularly vulnerable to living in a state of chronic poverty.

In addition to pre-existing roles and responsibilities which compromise women's and girls' livelihood opportunities and well-being, three global processes are having an effect on development outcomes: climate change, HIV/AIDS and demographic growth. There has been insufficient consideration of the effects of these processes upon women's access to resources, their livelihoods and their well-being, within both government strategies and development partner interventions. Understanding the dynamic nature of both social relationships and environmental processes is intrinsic to effective policy and programme development.

The analysis of current interventions, which seek to tackle women's inequitable control over resources and disempowerment, has highlighted a number of problems and pitfalls associated with participation, horizontal inequalities, legislative implementation and poor project design. However, it has also served to highlight the wide spectrum of approaches to natural resource management that can dually support poor and excluded women's empowerment. The policy recommendations below attempt to distil positive lessons from these interventions and highlight additional areas in need of consideration. There are four suggested levels for action: with national governments, through external donors, via NGOs, and via the community.

(1) **Foster political and institutional will:** To gain genuine support for gender-equitable natural resource control and management, and for women's empowerment more broadly, it is imperative for legislation to be passed, accorded sufficient budget and realised. Changes in political mindsets and social attitudes can be achieved through the development of effective lobbies in areas where they are currently absent or weak (Bird and Pratt, 2004). The creation of fora for debate, as well as strong leadership in pre-existing environments, such as parliaments, can be pivotal. Such leadership is unlikely where governments do not have sufficiently grounded experience in tackling the multiple deprivations experienced by the chronically poor or in dealing with complex social



problems (Bird and Pratt, 2004). Thus the influence of donors alongside NGO coalitions and bottom-up, community-led movements is very important.

(2) **Legal awareness raising and outreach:** Legislative and policy change from above has to be accompanied by outreach so as to inform local communities of women's rights and entitlements. But improving people's awareness of their and other's rights is only constructive if you also highlight the channels through which they can realise their rights, as well as the benefits of doing so. For example, land and/or other natural resource asset reforms, which provide women with equitable entitlement, should be accompanied by outreach strategies which raise awareness of how to go about registering an asset, which highlight the locations of registration centres and provide transport for those in remote areas. Community outreach should also highlight the economic and social returns of women having equitable ownership and control over assets, making the case for a change in social mores and institutions. Highlighting evolving social and environmental dynamics (such as climate change and demographic growth) and the necessity for adaptation can help to influence social attitudes.

(3) **Sustained donor support:** Developing equitable, community-led NRM, through which women are empowered, is a long-term project, deeply rooted in socio-cultural norms and institutions. Such projects are not amenable to short-term funding or budget support cycles. Financial and technical support needs to be sustained. At the political level influence and pressure needs to be continual to ensure the evolution of epistemic communities around policy issues. Donors should recognise that they wield considerable power in shaping what is in the 'framework of possible thought' – power derived not only from the resources they dispense but also from the knowledge they can choose to bring (or not bring) to the table' (Bird and Pratt, 2004: xi).

(4) **Genuine participation:** Community-orientated resource management projects and micro-enterprise related to natural resources need to foster genuine participation, which directly compensates the inputs of participants (e.g. James *et al.*, 2002), which is formulated with sensitivity to fluctuating gender dynamics and not based on static gender roles, and which considers and provides for horizontal inequalities which may limit participation. Additionally NRM projects and legislative changes, such as formalised entitlement, need to be sensitive to their context, to the informal mechanisms through which marginalised groups access land, and to local natural resource governance practices, so as to prevent the exclusion of certain groups or the entrenchment of discriminatory practices.

(5) **Supportive environments:** Governments and NGOs need to create a supportive environment for women's cooperative, collective action from below. To avoid the 'NGO-isation' of social movements and collective action groups (Batilwala, 2008) NGOs and government ministries should focus less on institutional support and more on fostering



collaborative environments – providing safe spaces for meetings, practical support like transport and/or incentives for husbands and fathers to let the women in their household participate.

In order to maximise the effectiveness of group formation complementary services should be provided, such as leadership training, literacy classes, business start-up and political-awareness training.



## References

- African Development Bank (2009). *Africa and the Global Economic Crisis: Strategies for Preserving the Foundations of Long-term Growth*. Senegal: African Development Bank.
- Agarwal, B. (2003). 'Gender and land rights revisited: exploring new prospects via the state, family and market'. *Journal of Agrarian Change*, 3 (1–2), 184–224.
- Agarwal, B. (2001). 'Participatory exclusions, community forestry and gender: an analysis for South Asia and a conceptual framework'. *World Development*, 29 (10), 1623–1648.
- Agarwal, B. (1997). 'Environmental action, gender equity and women's participation'. *Development and Change*, 28 (1), 1–44.
- Amosu, R. (2011). 'The efficacy of women's social movements to include chronically poor women and give voice to their demands: a literature review'. CPRC Working Paper 172. Manchester, U K: Chronic Poverty Research Centre (CPRC).
- Amosu, R., Kim, J. W., McMillon, C. and Reid, R. (2011). 'Supporting civic activism among chronically poor women: to what extent can multidimensional women's microfinance groups help?'. CPRC Working Paper 173. Manchester, UK: Chronic Poverty Research Centre.
- Anderson, J., Shaikh, A., et al. (2002). *Nature, Wealth, and Power: Emerging Best Practice for Revitalizing Rural Africa*. Washington, DC: USAID and Partners.
- Andre, C. and Platteau, J.-P. (1998). 'Land relations under unbearable stress: Rwanda caught in the Malthusian trap'. *Journal of Economic Behaviour and Organisation*, 34, 1–47.
- Arroyo, A. and Boelens, R. (1997). *Mujer Campesina e Intervención en el Riego Andino*. Quito, Ecuador: Capacitación en el Manejo de Recursos Naturales Renovables (CAMAREN), Servicio Ecuatoriano de Sanidad Agropecuaria (SESA) and Netherlands Volunteer Service (SNV).
- Barrientos, S. (2007). *Female Employment in Agriculture: Global Challenges and Global Responses*. Brighton, UK: Institute of Development Studies. Available at: [http://www.pathwaysofempowerment.org/CommSec\\_Barrientos.pdf](http://www.pathwaysofempowerment.org/CommSec_Barrientos.pdf). Accessed 20 March 2011.
- Batilwala, S. (2008). *Changing Their World: Concepts and Practices of Women's Movements*. New Delhi: Association for Women's Rights in Development (AWID)/Brijbasi Art Press.
- Baumann, P. (2000). 'Sustainable livelihoods and political capital: arguments and evidence from decentralisation and natural resource management in India'. ODI Working Paper 136. London: Overseas Development Institute.
- Bebbington, A. (2007). 'Social movements and the politicization of chronic poverty'. *Development and Change*, 38 (5), 793–818.
- Bebbington, A. and Mitlin, D. (2006). 'Social movements and chronic poverty across the urban–rural divide: concepts and experiences'. CPRC Working Paper 65. Manchester, UK : Chronic Poverty Research Centre (CPRC).
- Bird, K. (2007). 'The intergenerational transmission of poverty: an overview'. CPRC Working Paper 99. London: Chronic Poverty Research Centre (CPRC)/ODI.



- Bird, K. and Espey, J. (2010). 'Power, patriarchy and land: examining women's land rights in Uganda and Rwanda'. In Chant, S. (ed.), *The International Handbook of Gender and Poverty: Concepts, Research, Policy*. Cheltenham, UK: Edward Elgar, 360–366.
- Bird, K. and Pratt, N. (2004). 'Fracture points in social policies for chronic poverty reduction'. ODI Working Paper 242/CPRC Working Paper 47. London:ODI.
- Bird, K. and O'Neil, T. (2004). 'Illustrative case studies of the fracture points in social policy formation for poverty reduction'. Annex to ODI Working Paper 242/CPRC Working Paper 47. London: ODI.
- Bird, K. and Shepherd, A. (2003). 'Chronic poverty in semi-arid Zimbabwe'. CPRC Working Paper 18. London: Chronic Poverty Research Centre/ODI.
- Blackden, C. M. and Woden, Q. (2005). 'Gender, time use, and poverty: introduction'. In Blackden, C. M. and Woden, Q. (eds), *Gender, Time Use, and Poverty in Sub-Saharan Africa*. World Bank Working Paper 73, Washington, DC: World Bank.
- Boesrup, E. (1970). *Women's Role in Economic Development*. New York: St Martin's Press.
- Braunholtz-Speight, T., Harper, C. and Jones, N. (2008). 'Progressive social change – women's empowerment'. CPRC Policy Brief 12. London:Chronic Poverty Research Centre (CPRC)/ODI.
- Brody, A., Demetriades, J. and Esplen, E. (2008). *Gender and Climate Change: Mapping the Linkages*. Brighton, UK: Institute of Development Studies.
- Buchy, M. and Rai, B. (2008). 'Do women-only approaches to natural resource management help women? The case of community forestry in Nepal'. In Resurreccion, B. and Elmhirst, R. (eds), *Gender and Natural Resource Management: Livelihoods, Mobility and Interventions*. London: IDRC/Earthscan.
- Busingye, H. (2002). 'Customary land tenure reform in Uganda; lessons for South Africa'. Paper prepared for the International Symposium on Communal Tenure Reform, Programme for Land and Agrarian Studies (PLAAS), Johannesburg.
- Centre for Science and Environment (CSE) (1985). *The State of India's Environment*. CSE: New Delhi.
- Cleaver, F. (2004). 'The inequality of social capital and the reproduction of chronic poverty'. *World Development*, 33 (6), 893–906.
- Cleaver, F. (2003). 'Bearers, buyers and bureaucrats: the missing social world in gender and water'. Paper prepared for the International Workshop on Feminist Fables and Gender Myths: Repositioning Gender in Development Policy and Practice, Institute of Development Studies, Brighton, 2–4 July 2003.
- Cleaver, F. (2000). 'Analyzing gender roles in community natural resource management: negotiation, life courses and social inclusion'. *IDS Bulletin*, 31 (2), 60–67.
- Cleaver, F. (1999). 'Paradoxes of participation: questioning participatory approaches to development'. *Journal of International Development*, 11, 597–612.
- CPRC (2004). *The Chronic Poverty Report 2004–2005*. Manchester, UK: Chronic Poverty Research Centre (CPRC).



- CPRC (2009). *The Chronic Poverty Report: Escaping Poverty Traps, 2008–9*. London: Chronic Poverty Research Centre (CPRC)/ODI.
- Dankleman, I. (2002). 'Climate change: learning from gender analysis and women's experience of organizing for sustainable development'. *Gender and Development*, 10 (2), 21–29.
- Demetriades, J. and Esplen, E. (2008). 'The gender dimensions of poverty and climate change adaptation'. *IDS Bulletin*, 39 (4), 24–31.
- Desai, M. (2010). 'Hope in hard times: women's empowerment and human development'. Human Development Research Paper 2010/14. New York: United Nations Development Programme.
- Diani, M. (1992). 'The concept of social movements'. In Nash, K. (ed.), *Readings in Contemporary Political Sociology*. Oxford: Blackwell Publishing.
- Doane, D. (2007). 'Living in the background: homebased workers and poverty persistence'. CPRC Working Paper 97. Manchester, UK: Chronic Poverty Research Centre (CPRC).
- DOF (1998) *Community Forestry for Everybody Forever*. Proceedings of the Third National Community Forestry Workshop. Kathmandu: Department of Forests, Ministry of Forest and Soil Conservation, 2–4 June.
- Economic Commission for Africa (2004). 'The missing link in growth and sustainable development: closing the gender gap'. Issues paper prepared for the ADB/ECA Symposium on Gender, Growth and Sustainable Development, Kampala, Uganda.
- ECLAC (2007). 'Women's contribution to equality in Latin America and the Caribbean'. Tenth Session of the Regional Conference on women in Latin America and the Caribbean. Quito, 6–9 August.
- Elbadawi, E. and Sambanis, N. (2000). 'Why are there so many civil wars in Africa? Understanding and preventing violent conflict'. *Journal of African Economics*, 9, 244–269.
- Espey, J. and Harper, C. (2009). 'The global financial crisis: are women more likely to be pushed into chronic poverty?'. CPRC Opinion1, London: Chronic Poverty Research Centre (CPRC).
- Flintan, F. (2006). 'Combating marginalisation of pastoralist women: SOS Sahel's experience in Ethiopia'. *Gender and Development*, 14(2), 223–233.
- Folbre, N. (1997). 'Gender coalitions: extrafamily influences on intrafamily inequality'. In Haddad, L. Hoddinott, J. and Alderman, H. (eds), *Intrahousehold Resource Allocation in Developing Countries: Models, Methods, and Policy*. Baltimore, MD: International Food Policy Research Institute, Johns Hopkins University Press, 263–274.
- Folke, C. *et al* (2002). 'Resilience and sustainable development: building adaptive capacity in a world of transformations'. Scientific background paper on resilience for the process of the World Summit on Sustainable Development on behalf of the Advisory Panel to the Swedish Government.
- Food and Agriculture Organisation (2009). 'Crop prospects and food situation'. Available at: <http://www.fao.org/docrep/011/ai481e/ai481e05b.htm>. Accessed 3 May 2011.
- Food and Agriculture Organisation (FAO) (2004). *The State of Food and Agriculture 2003–2004*. Rome: FAO.



- Giri, K., Pokhrel, B. and Darnhofer, I. (2008). 'In the absence of their men: women and forest management in the mid-hills of Nepal'. In Aravossis, K. Brebbia, C. A. and Gomez, N. (eds), *Environmental Economics and Investment Assessment II*. Southampton, UK: WIT Press, 295–304.
- Harper, C., Jones, N., McKay, A. and Espey, J. (2009). 'Children in times of economic crisis: past lessons, future policies'. Background Note. London: ODI.
- Heckman, J. and Masterov, D. (2007). 'The productivity argument for investing in young children', NBER Working Paper 13017. Cambridge, MA: National Bureau of Economic Research (NBER).
- Herring, R. J. (1999). 'Political conditions for agrarian reform and poverty alleviation'. Paper prepared for the DFID 2001 World Development Report on Poverty conference, Birmingham, UK, 16–17 August 1999. Available at: <http://siteresources.worldbank.org/INTPOVERTY/Resources/WDR/DfiD-Project-Papers/herring.pdf>. Accessed 5 April 2011.
- Holmes, R., Jones, N. and Marsden, H. (2009). 'Gender vulnerabilities, food price shocks and social protection responses'. Background Note. London: ODI.
- Hossain, N. with Eybden, R. et al. (2009). *Accounts of Crisis: Poor People's Experiences of the Food, Fuel and Financial Crises in Five Countries*. Brighton, UK: IDS.
- Hulme, D. and Murphree, M. (2001a). *African Wildlife & African Livelihoods: The Promise and Performance of Community Conservation*. Oxford: James Currey.
- Hulme, D. and Murphree, M. (2001b). 'The "new conservation" in Africa: an introduction to this book'. In Hulme, D. and Murphree, M., *African Wildlife & African Livelihoods: The Promise and Performance of Community Conservation*. Oxford: James Currey.
- IFAD (2006). *Community-based Natural Resource Management: How Knowledge is Managed, Disseminated and Used*. IFAD: Rome.
- James, A. J., Verhagen, J., van Wijk, C., Nanavaty, R., Parikh, M. and Bhatt, M. (2002). 'Transforming time into money using water: a participatory study of economics and gender in rural India'. *Natural Resources Forum*, 26, 205–217. Johnson, N., Lilja, N., Ashby, J.A. and Garcia, J. (2004). 'The practice of participatory research and gender analysis in natural resource management'. *Natural Resources Forum*, 28 (3), 189–200.
- Jones, N., Harper, C. and Watson, C. (2011). *Stemming Girls' Chronic Poverty: Catalysing Development Change by Building Just Social Institutions*. London: Chronic Poverty Research Centre (CPRC)/ODI.
- Jones, N. and Baker, H. (2008). 'Untangling links between trade, poverty and gender'. ODI Briefing Paper. London: ODI.
- Jones, N., Holmes, R. and Espey, J. (2008). 'Gender and the MDGs: a gender lens is vital for pro-poor results'. Briefing Paper. 42. London: ODI.
- Joshi, D., Lloyd, M. and Fawcett, B. (2003). 'Voices from the village: an alternative paper for the alternative water forum'. Paper prepared for the Alternative Water Forum, University of Bradford, 1–2 May. Available at: <http://www.bradford.ac.uk/acad/dppc/GTP/Joshietal.pdf>. Accessed 3 May 2011.



- Kabeer, N. (2009). 'Editorial: tactics and trade-offs: revisiting the links between gender and poverty'. *IDS Bulletin*, 28 (3), 1–13.
- Kanel, K. R. (2004). 'Twenty-five years of community forestry: contribution to Millennium Development Goals'. Paper prepared for the Fourth National Workshop on Community Forestry, Community Forestry Division, Department of Forests, Kathmandu, 4–5 August.
- Kariuki, G. and Place, F. (2005). Initiatives for rural development through collective action: the case of household participation in group activities in the highlands of central Kenya'. CAPRI Working Paper 43, CGIAR Systemwide Program on Collective Action and Property Rights. Washington, DC: IFPRI.
- Kassim, S. (2010). *Decentralisation of Land Administration and Women's Rights in Tanzania*. Ottawa: International Development Research Centre (IDRC).
- Kizilirmak, B. and Memis, E. (2009). 'The unequal burden of poverty on time use'. Working Paper 572. New York: Levy Economics Institute and Ankara University.
- Kosters, M. (2010). 'Poverty and female-headed households in post-genocide Rwanda'. , In Chant, S. (ed.), *The International Handbook of Gender and Poverty: Concepts, Research, Policy*. Cheltenham, UK: Edward Elgar, 135–140.
- Krishna, S. (ed.) (2004). *Women's Livelihood Rights: Recasting Citizenship for Development*. New Delhi: Sage Publications.
- Kurian, P. (2000). *Engendering the Environment? Gender in the World Bank's Environmental Policies*. Aldershot: Ashgate.
- Lambrou, Y. and Piana, G. (2006). *Gender: The Missing Component of the Response to Climate Change*. Food and Agriculture Organisation, (FAO). Available at: [http://www.fao.org/sd/dim\\_pe1/docs/pe1\\_051001d1\\_en.pdf](http://www.fao.org/sd/dim_pe1/docs/pe1_051001d1_en.pdf). Accessed 1 December 2010.
- Lee-Smith, D. and Hemmati, M. (2000). 'Women's land ownership and globalisation', *The Network Newsletter*, 20 (7).
- Locke, C. (1999). 'Constructing a gender policy for joint forest management in India'. *Development and Change*, 30 (2), 265–285.
- Malthus, T. (1798). *An Essay on the Principle of Population*. London: J. Johnson. Available at: <http://www.esp.org/books/malthus/population/malthus.pdf>. Accessed 3 May 2011.
- Marena Research Team (2002a). 'Gender and natural resource management'. Policy Briefing 13, University of Sussex. Available at: <http://www.geog.sussex.ac.uk/research/development/marena/#briefings>. Accessed 2 May 2010.
- Marena Research Team (2002b). 'Interpretation of user rights'. Policy Briefing 8 , University of Sussex. Available at: <http://www.geog.sussex.ac.uk/research/development/marena/#briefings>. Accessed 2 May 2010.
- Masika, R. and Joekes, S. (1997). 'Environmentally sustainable development and poverty: a gender analysis'. BRIDGE report 52. Brighton, UK: IDS.
- Merrick, T. (2002). 'Population and poverty: new views on an old controversy'. *International Family Planning Perspectives*, 28 (1). Available at: <http://www.guttmacher.org/pubs/journals/2804102.html>. Accessed 3 May 2011.



- MoEF (1988). National Forest Policy, No. 3-1/86-FP. New Delhi: Ministry of Environment and Forests (MoEF), Department of Environment, Forests and Wildlife.
- MoEF (1990). Joint Forest Management Resolution. Resolution No. 6-21/89-FP. New Delhi: Ministry of Environment and Forests (MoEF), Department of Environment, Forests and Wildlife.
- Mosse, D. (2006). 'Collective action, common property, and social capital in South India: an anthropological commentary'. *Economic Development and Cultural Change*, 54 (3), 695–724.
- Mosse, D. (2005). *Cultivating Development: An Ethnography of Aid Policy and Practice*. London: Pluto.
- Mosse, D. (1997). 'The symbolic making of a common property resource: history, ecology, and locality in a tank-irrigated landscape in South India'. *Development and Change*, 28 (3), 467–504.
- Mukadasi, B. and Nabalegwa, N. (2007). 'Gender mainstreaming and community participation in plant resource conservation in Buzaya county, Kamuli district, Uganda'. *African Journal of Ecology*, 45 (S1), 7–12.
- Musahara, H. and Huggins, C. (2005). 'Land reform, land scarcity and post-conflict reconstruction: a case-study of Rwanda'. In Huggins, C. (ed). *Clover From The Ground Up*. African Centre of Technology Studies, Nairobi, Natural Resource Perspectives 98. London: ODI.
- Mwangi, E. and Markelova, H. (2009). 'Collective action and property rights for poverty reduction: a review of methods and approaches'. *Development Policy Review*, 27 (3), 307–331. New Course (2010). *Women, Natural Resource Management and Poverty: A Review of Issues and Opportunities*. Seattle, WA: New Course.
- Odgaard, R. (2002). 'Scrambling for land in Tanzania: processes of formalisation and legitimisation of land rights'. *European Journal of Development Research*, 14 (2)71–88.
- Oglethorpe, J. and Gelman, N. (2008). 'AIDS, women, land and natural resources in Africa: current challenges'. *Gender and Development*, 16 (1), 85–100.
- Olson, M. (1965). *The Logic of Collective Action: Public Goods and the Theory of Groups*. Cambridge, MA: Harvard University Press.
- Ostrom, E. (1990). *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge: Cambridge University Press.
- Pandolfelli, L. Meinzen-Dick, R. and Dohrn, S. (2007). 'Gender and collective action: a conceptual framework for analysis'. CAPRI Working Paper 64. Washington, DC: IFPRI.
- Peters, P. E. and Kambewa, D. (2007). 'Whose security? Deepening social conflict over customary land in the shadow of land tenure reform in Malawi'. *Journal of Modern African Studies*, 45 (3), 447–472.
- Pimbert, M. (2006). *Reclaiming Autonomous Food Systems: The Role of Local Organisations in Farming, Environment and People's Access to Food*. Report. London: International Institute for Environment and Development (IIED).
- Platteau, J. P. (1999). 'Allocating and enforcing property rights in land: informal versus formal mechanisms in sub-Saharan Africa'. Available at: [http://www.samfunnsforskning.no/file/NOPEC\)2000\)3.pdf](http://www.samfunnsforskning.no/file/NOPEC)2000)3.pdf). Accessed 1 December 2010.



- Prowse, M. and Chimhowu, A. (2007). 'Making agriculture work for the poor'. *Natural Resource Perspectives* 111. London: ODI.
- Quisumbing, A. and Maluccio, J. (2000). 'Intrahousehold allocation and gender relations: new empirical evidence from four developing countries'. FCND Discussion Paper 84 Washington, DC: IFPRI.
- Quisumbing, A. Smith, L. and Meinzen-Dick, R. S. (2004). 'Increasing the effective participation of women in food and nutrition security in Africa'. 2020 Africa Conference Brief 4. Washington, DC: IFPRI.
- Rai, B. (2002). 'Contribution of forestry sector in addressing gender equality in 10<sup>th</sup> five year development plan of Nepal'. Report prepared for the Department of Forests, Kathmandu.
- Rajasekaran, B., Warren, D. M. and Babu, S. C. (1991). 'Indigenous natural resource management systems for sustainable agricultural development – a global perspective'. *Journal of International Development*, 3 (4), 387–402.
- Rao, B. (1991). 'Dominant constructions of women and nature in the social science literature'. CES/CNS Pamphlet 2. Santa Cruz, CA: University of California.
- Raymond, L. (2006). 'Cooperation without trust: overcoming collective action barriers to endangered species protection'. *Policy Studies Journal*, 34 (1), 37–57. Razavi, S. (2005). 'Land tenure reform and gender equality'. UNRISD Research and Policy Brief 4. Geneva: United Nations Research Institute for Social Development (UNRISD). Available at: [www.unrisd.org/publications/rpb4e](http://www.unrisd.org/publications/rpb4e). Accessed 3 May 2011.
- Razavi, S. (2005). 'Land tenure reform and gender equality'. UNRISD Research and Policy Brief 4. Geneva: United Nations Research Institute for Social Development (UNRISD). Available at: [www.unrisd.org/publications/rpb4e](http://www.unrisd.org/publications/rpb4e). Accessed 20 April 2011.
- Republic of Rwanda, (2004). *National Land Policy*. Kigali: Ministry of Land, Environment, Forests, Water and Mines.
- Resurreccion, B. P. (2006). 'Rules, roles and rights: gender, participation and community fisheries management in Cambodia's Tonle Sap region', *International Journal of Water Resources Development*, 22 (3), 433–437.
- Resurreccion, B. and Elmhirst, R. (eds) (2008). *Gender and Natural Resource Management: Livelihoods, Mobility and Interventions*. London: IDRC/Earthscan.
- Save the Children (2010). 'Gender, discrimination and child survival'. Briefing Paper. London: Save the Children UK.
- Schady, N. (2001). 'Who participates? The supply of volunteer labor and the distribution of government programs in rural Peru'. Research Working Papers. Washington, DC: World Bank.
- Scherr, S. (2000). 'A downward spiral? Research evidence on the relationship between poverty and natural resource degradation'. *Food Policy*, 25, 479–498.
- Scott, L. (2006). 'Chronic poverty and the environment: a vulnerability perspective'. CPRC Working Paper 62. London: Chronic Poverty Research Centre (CPRC)/ODI.



- Sherwood, S. and Bentley, J. (2009). 'Katalysis: helping Andean farmers adapt to climate change'. In IIED, *Community Based Adaptation to Climate Change, Participatory Learning and Action*, No. 60, pp. 65-75, Nottingham: IIED.
- Slater, R. (2008). Institutions and instruments for tackling chronic poverty: the case of social protection and HIV/AIDS'. CPRC Working Paper 127. London: Chronic Poverty Research Centre (CPRC)/ODI.
- Slater, R. and Wiggins, S. (2005). 'Responding to HIV/AIDS in agriculture and related activities'. ODI Natural Resource Perspectives 98. London: ODI.
- Stern, N. (2006). *Stern Review on the Economics of Climate Change*. London: HM Treasury.
- Tanner, T. and Mitchell, T. (eds) (2008). 'Poverty in a changing climate'. *IDS Bulletin*, 39 (4).
- Thomas-Slayter, B. and Sodikoff, G. (2001). 'Sustainable investments: women's contributions to natural resource management projects in Africa'. *Development in Practice*, 11 (1), 45–61.
- UNDAW (2005). *Women and Water: Women 2000 and Beyond*. New York: UN Division for the Advancement of Women. Available at: <http://www.un.org/womenwatch/daw/public/Feb05.pdf>. Accessed 20 April 2011.
- UNFPA (2009). *Fact sheet: Population Growth and Poverty, Are Fewer Children a Route to Prosperity?*, New York: United Nations Population Fund (UNFPA).
- United Republic of Tanzania (1997). *National Land Policy*. Dar es Salaam: Ministry of Lands and Human Settlements Development.
- UN Millennium Development Project (2005). *Health, Dignity and Development: What will it Take?*. Taskforce on Water and Sanitation. London: Earthscan.
- Upadhyay, B. (2005). 'Women and natural resource management: illustrations from India and Nepal'. *Natural Resources Forum*, 29 (3), 224–232.
- Upton, C. (2008). 'Social capital, collective action and group formation: developmental trajectories in postsocialist Mongolia'. *Human Ecology*, 36, 175–188.
- USAID with CIFOR, Winrock, WRI and IRG (2002). 'Nature, wealth and power: emerging best practice for revitalising rural Africa'. Discussion paper. Washington, DC: USAID.
- Wiens, P. (2003). 'The gendered nature of local institutional arrangements for natural resource management: a critical knowledge gap for promoting equitable and sustainable NRM in Latin America'. Working Paper 14. Ottawa: International Development Research Centre.
- World Bank (2006). 'Repositioning nutrition as central to development: a strategy for large-scale action'. *Directions in Development*. Washington, DC: World Bank.
- World Bank, FAO and IFAD (2009). *Gender and Agriculture: Sourcebook*. Washington, DC: World Bank, Food and Agriculture Organisation of the United Nations and International Fund for Agricultural Development. Available at: <http://siteresources.worldbank.org/INTGENAGRLIVSOUBOOK/Resources/CompleteBook.pdf>. Accessed 3 May 2011.
- Yong Ooi Lin, C. (2008). 'Autonomy reconstituted: social and gender implications of resettlement on the Orang Asli of Peninsular Malaysia'. In Resurreccion, B.P. and Elmhirst, R. (eds), *Gender*



*and Natural Resource Management: Livelihoods, Mobility and Interventions.* London:  
IDRC/Earthscan.



**Chronic Poverty**  
Research Centre

[www.chronicpoverty.org](http://www.chronicpoverty.org)

**The Chronic Poverty  
Research Centre**

(CPRC) is an international partnership of universities, research institutes and NGOs, with the central aim of creating knowledge that contributes to both the speed and quality of poverty reduction, and a focus on assisting those who are trapped in poverty, particularly in sub-Saharan Africa and South Asia.

**Partners:**

Bangladesh Institute of  
Development Studies (BIDS),  
Bangladesh

CEDRES, University of  
Ouagadougou, Burkina Faso

Development Initiatives, UK

Development Research and  
Training, Uganda

Economic Policy Research  
Center, Uganda

HelpAge International, UK

Indian Institute of Public  
Administration, India

IED Afrique, Senegal

Overseas Development  
Institute, UK

Programme for Land and  
Agrarian Studies, South Africa

Université Cheik Anta Diop,  
Senegal

University Abdou Moumouni,  
Niger

University of Legon, Ghana

University of Manchester, UK

University of Sussex, UK

**Contact:**

[cprc@manchester.ac.uk](mailto:cprc@manchester.ac.uk)