



*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

*No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.*

## Gender and Collective Action: A Conceptual Framework for Analysis

Lauren Pandolfelli, Ruth Meinzen-Dick, and  
Stephan Dohrn  
*International Food Policy Research Institute*

**International Research Workshop on 'Gender and Collective Action'**  
**October 17-21, 2005 • Chiang Mai, Thailand**

---

The [CGIAR Systemwide Program on Collective Action and Property Rights](http://www.capri.cgiar.org) (CAPRI) is an initiative of the 15 centers that belong to the Consultative Group on International Agricultural Research. The initiative promotes comparative research on the role played by property rights and collective action institutions in shaping the efficiency, sustainability, and equity of natural resource systems. CAPRI's Secretariat is hosted by the [International Food Policy Research Institute's](http://www.ifpri.org) (IFPRI) Environment and Production Technology Division ([www.ifpri.org](http://www.ifpri.org)).

CAPRI Working Papers contain preliminary material and research results and are circulated prior to a full peer review in order to stimulate discussion and critical comment. It is expected that most Working Papers will eventually be published in some other form, and that their content may also be revised. <http://dx.doi.org/10.2499/CAPRIWP64>.

Copyright © May 14, 2007 International Food Policy Research Institute. All rights reserved. Sections of this material may be reproduced for personal and not-for-profit use without the express written permission of but with acknowledgment to IFPRI. To reproduce the material contained herein for profit or commercial use requires express written permission. To obtain permission to reprint, contact the IFPRI Communications Division at [ifpri-copyright@cgiar.org](mailto:ifpri-copyright@cgiar.org).

---

CGIAR Systemwide Program on Collective Action and Property Rights (CAPRI)  
c/o INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

2033 K Street NW, Washington, DC 20006-1002 USA • T +1 202.862.5600 • F +1 202.467.4439 • [www.capri.cgiar.org](http://www.capri.cgiar.org)

## ABSTRACT

This paper presents a framework for investigating the intersection of collective action and gender; i.e. how gender-oriented analysis can foster more effective collective action in the context of agriculture and natural resource management and how collective action can be used as a vehicle for gender equity. We begin with definitions of the key concepts and then present three entry points for a gendered analysis of collective action-motivations, effectiveness, and impact on gender equity- vis-à-vis the Institutional Analysis and Development (IAD) framework (Oakerson 1992; Ostrom 1991). At the heart of this framework is the action arena, which is shaped by a host of initial conditions, including asset endowments, vulnerabilities, and legal and governance systems that influence a range of outcomes. Applying a gender lens to this framework, we present an analysis of how women and men experience the initial set of conditions differently and thus, have different motivations and capacities for engaging in collective action. Next, we look at how the gender composition of groups affects the effectiveness of collective action, and finally, at the impact of collective action on gender equity and women's empowerment. We conclude with a discussion of how this framework can improve our understanding of gender and collective action in order to facilitate more effective collective action while fostering gender equity.

**Keywords:** gender, collective action, motivation, effectiveness, impact, action resources, institutional change

## TABLE OF CONTENTS

Introduction	1
Collective Action and Gender	3
The Analytical Framework	13
Motivations to Engage in Collective Action	27
Effectiveness of CA	34
Impact on Gender Relations	42
Conclusions	46
References	50

# **Gender and Collective Action: A Conceptual Framework for Analysis**

Lauren Pandolfelli,<sup>1</sup> Ruth Meinzen-Dick,<sup>2</sup> and Stephan Dohrn<sup>3</sup>

## **INTRODUCTION**

It is notable that two of the last three Nobel Peace Prizes have been awarded to those who have worked to build local organizations that address poverty, environmental degradation and women's well-being: Wangari Maathai of the Green Belt Movement in Kenya (2004) and Muhammad Yunus and the Grameen Bank in Bangladesh (2006). Collective action plays a vital role in many aspects of human interaction, including income generation, risk reduction, and public service provision. Experience has shown that institutions of collective action play an important role in how people use natural resources, which in turn shapes the outcomes of production systems. Many government devolution policies and community-driven development (CDD) programs are fundamentally premised upon collective action.

Collective action refers both to the process by which voluntary institutions are created and maintained and to the groups that decide to act together. It can assume various forms ranging from voluntary self-help groups to formal organizations that aim to manage a community's natural resources or to advocate for political change at the national or global level.

---

<sup>1</sup> Lauren Pandolfelli is a Research Analyst for the International Food Research Policy Institute's Gender Task Force (l.pandolfelli@cgiar.org)

<sup>2</sup> Ruth Meinzen-Dick is the coordinator of the CAPRi program and senior research fellow at the International Food Research Policy Institute (r.meinzen-dick@cgiar.org)

<sup>3</sup> Stephan Dohrn is a Research Analyst for CAPRi (s.dohrn@cgiar.org)

Integrating a gender perspective into applied research on collective action is imperative because institutions themselves are gendered and can either challenge or reinforce existing social roles. Gender also serves as an organizing principle for community action and thus may have implications for the efficiency and effectiveness of collective action. In both the Green Belt movement and the Grameen Bank, for example, there is a clear gender dimension in their focus on fostering collective action by women. But despite these types of well-known cases, there is insufficient empirical evidence and analysis regarding the role that gender relations play in collective action.

This paper presents an analytical framework for investigating the intersection of collective action and gender; i.e. how gender-oriented analysis can foster more effective collective action and how collective action can be used as a vehicle for gender equity. We begin with definitions of key concepts and then present three entry points for a gendered analysis of collective action-motivations, effectiveness, and impact on gender equity- vis-à-vis the Institutional Analysis and Development (IAD) framework (Oakerson 1992; Ostrom 1991, Di Gregorio et al., forthcoming). At the heart of this framework is the action arena, which is shaped by a host of initial conditions, including asset endowments, vulnerabilities, and legal and governance systems that influence a range of outcomes. Applying a gender lens to this framework, we present an analysis of how women and men experience the initial set of conditions differently and thus, have different motivations and capacities for engaging in collective action, with particular reference to agriculture and natural resource management. Next, we look at how the gender composition of groups affects the effectiveness of collective action, and finally, at the impact of collective action on gender equity and women's empowerment. We conclude with a discussion of how this framework can improve our understanding of gender and

collective action in order to facilitate more effective collective action while fostering gender equity.

## **Collective Action and Gender**

### **Collective Action**

Collective action as an institution is commonly overlooked or, when recognized, frequently misunderstood. Most basically, collective action can be defined as voluntary action taken by a group to achieve common interests (Marshall 1998). The action can take place through an organization such as a producer cooperative or members can participate in such action directly. As a governance structure, collective action occurs not only when group members pool labor and resources to build a dam or well, for example, but also when a group establishes rules for resource use or non-use. While collective action can be complemented and strengthened by *de jure* law, its structure is often more determined by the customary law – with which members are most familiar – inherent in a community. It is important to note that collective action includes forming and enforcing rules for use (or non-use) of resources that determine who is included in the use and management of the resources and how the group is managed.

### **Group characteristics**

Many researchers have tried to define the situations under which collective action occurs, and the characteristics that allow sustainable collective action (Baland and Platteau 1996; 1999; Ostrom 1992; 1999; Wade 1988). A review of these studies shows that the conditions for collective action are multiple and complex (see Agrawal 2001); however, collective action typically arises in instances where there are significant incentives to cooperate. Based on

members' socio-economic characteristics, they may recognize strong benefits in such collective projects as joint investment, maintaining local infrastructure, rule-setting for natural resource use, or representing the group to outsiders. Small group size, shared norms, previous successes in collective action (social capital), effective leadership, and interdependence among group members are factors that can encourage and support effective collective action (Agrawal 2001).

Such factors are not limited to *formal* collective action, as in the form of cooperatives or other formal organizations. In fact, *informal* collective action can be more flexible and responsive to members' shifting needs. In both forms of collective action, however, leadership/governance needs to be institutionalized, not dependent on one or two people, to be sustainable.<sup>4</sup>

### **Importance of collective action for natural resource management**

The characteristics of the resources around which collective action is organized also affect the group's effectiveness and sustainability. In many ways, natural resource management (NRM) is a natural fit for collective action because it requires an expanded time horizon and spatial scale to be effective. Though some activities, such as the use of high-yield variety crops (HYVs), can be employed on a plot-by-plot basis and provide benefits within a season, most natural resource management technologies have 'spill-over' effects that require larger-scale action, and have benefits that accrue only after years and, sometimes, generations. For example, while pest management may be effective within a season, its use on only a few select plots can have negative consequences for adjoining plots to which pests may retreat. Watershed management exhibits a long-term time horizon, as well as the need for regional coordination to accrue benefits (Knox et al. 2002).

---

<sup>4</sup> Some types of collective action are spontaneous or episodic, in response to particular needs or opportunities. However, in this paper we focus on longer-term forms of collective action.



Though most management programs for natural resources can benefit from collective action, well-defined boundaries and a limited scale facilitate effective collective management (Ostrom 1990 1992; Wade 1988). This may include a plot of forest reserved for common use to a certain community or coastline/fishery that is used exclusively by group members. The scale and excludability allows the group to regulate use, including prohibiting outsiders and enforcing sanctions on overuse by members. Collective action is also facilitated when the resource is located in or near the vicinity of group members and when all members exhibit a high level of dependence on the resource.

### **Importance of collective action for other development activities**

Collective action and networks among community members can facilitate access to information. Informal networks have always been important in dissemination of innovations, including new plant or animal varieties as well as new practices. Formal group-based extension approaches have been adopted by many NGOs, as well as by large-scale government programs in Uganda and Kenya. As in the case of natural resource management, collective action for research and extension does not always serve all farmers equally. In particular, women farmers are often less likely to be served by extension services and female-headed households may be especially disadvantaged, whether due to male extension agents' gender biases or because extension agents prefer to work with wealthier landowners, who often are male (Doss 1999). There remain important questions regarding whether group-based dissemination systems are more likely to serve women farmers.

Although collective action offers an alternative to state and markets institutions, in practice it can also complement markets as well as government. This can be particularly important for poor and vulnerable groups, who are often at a disadvantage in many market

relations, or who may suffer from missing markets. Examples include input and output marketing, agroprocessing, infrastructure development, labor markets, as well as credit and insurance.

In many communities throughout the world, people work together to provide local goods and services they would not be able to provide as single individuals or that the government is not providing. They build and maintain local parks, religious buildings and community halls, operate volunteer fire control groups, and implement rules for local natural resource management. Sometimes local groups share responsibilities for provision with local or central governments, such as in supporting schools and health services (McCarthy 2004). In other cases, non-governmental organizations (NGOs) play a role in fostering the collective action, or use groups to disseminate information or services such as nutrition and health interventions, water supply and sanitation, infrastructure, and creating voice and capacity. Many of these, along with microfinance and other natural resource management programs are considered as Community-Driven Development (CDD) programs. There are also numerous programs specifically targeted to women that are premised on collective action that have both economic and empowerment objectives.

### **Benefits, limitations, and difficulties**

Collective action can provide significant benefits in reducing negative externalities in natural resource management, or in providing local public goods that address the needs and interests of its participating members. Where collective action has a strong basis in community norms, members are more likely to abide by access and management rules. Finally, when

enforcement comes from the group, monitors and other officials are more accountable and the cost of adjudication is often lower than in state-based programs.

These benefits frequently translate into greater effectiveness of natural resource management or other local development programs. They can also have a positive impact on poverty and gender inequities, especially if collective action results in more equitable distribution of resources that can improve livelihoods for marginalized groups. In addition to improved resource distribution, collective action can also serve as a way for the poor to pool risks so that they can realize bigger benefits through long-term planning.

However, collective action does not always reduce poverty or inequality. A major limitation to collective action's ability to meet community needs is the entrenched biases in community norms and expectations that disenfranchise certain categories of people. Women, the poor, religious or ethnic minorities may face significant constraints in their attempts to participate in collective action. They may not be able to participate at all (not accorded membership) or their participation may be only nominal or passive. Though needs and interests will align more within a single community, homogeneity among all members is an unrealistic expectation and may in fact result in less effective outcomes (e.g. adherence to rules). As such, collective action projects risk capture by elites that promote inequitable participation and benefit distribution. The result, then, is that collective action may benefit the already well-off, while increasing the impoverishment (however defined) of marginalized groups.

## Defining Gender

Gender refers to the “socially determined ideas and practices of what it is to be female or male” (Reeves and Baden 2000).<sup>5</sup> These ideas and practices are sanctioned and reinforced by a host of cultural, political, and economic institutions, including the household, legal and governance structures, markets, and religion. While gender roles vary among cultures and over time, and are crosscut by a multitude of identities (e.g. ethnicity and class), the gender division of labor usually implies that men and women are relegated to the public and private spheres, respectively (Moser 1993; Agarwal 2000; 2001; Kabeer 1994; King and Mason 2001; Lind 1997; Quisumbing 2003). Women are thought to be ‘natural’ caregivers and men ‘benevolent dictators’ who adequately supply material needs to their families (Bruce 1989; Moser 1993; Sen 2000). This means that men undertake public activities, e.g. remunerative work and market activities, membership in formal community organizations, and participation in political institutions. Women’s activities, in turn, often are constrained to household and community management activities (childcare, food preparation, subsistence agriculture). Moser (1993) refers to women assuming a triple role, i.e. they are responsible for reproductive, productive, and community management activities, and receive little recognition for their unpaid work. Another way of broadly characterizing gender roles is that men take the lead in productive activities, and women in reproductive activities, where the latter include the reproduction of the family and even of society itself.

The unitary view of the household suggests that in the gender division of labor, women and men’s roles and responsibilities are separate but complement one another. The accuracy of this model however, has been called into question by anthropologists for at least two decades and

---

<sup>5</sup> Although ‘gender’ and ‘women’ are often used interchangeably, they are not one in the same. However, gendered analyses usually find that women are disproportionately disadvantaged, which is why the majority of gendered interventions target women.

more recently by economists who find that gender is an important determinant of the distribution of rights, resources, and responsibilities within the household (Agarwal 1992; Alderman et al. 1995; Haddad et al. 1997; Pryer 2003; Quisumbing 2003; Sen 1990). For example, Sen (1990) proposes a bargaining model of the household typified by ‘cooperative conflict.’ Household members cooperate so long as doing so improves their individual position. The extent of cooperation depends on members’ contributions to the household, access to asset endowments, and the consequent strength of their ‘fall-back’ position. One’s fall-back position also is based in part on the perception of each member’s contributions to the household (Agarwal 1997a; Moser 1993; Sen 1990). Because women often undertake more reproductive (household management) tasks and fewer productive (wage-earning) tasks, they are commonly perceived as contributing less to household welfare than men. Finally, because of the social norms that restrict women’s sphere of activity, their access to additional human, social, natural, and financial capital is limited. Women’s negotiating power within the household is low compared to men’s and their reduced ability to negotiate further perpetuates gender inequality.

While gender is a source of power differentials that shape women’s and men’s access to a range of resources, gender can also serve as an organizing principle for collective action; i.e. an identity around which women (or men) may organize in response to constraints within the household or the broader social environment. Defining gender as an organizing principle does not imply that women are a homogeneous group defined only by their gendered interests but rather that gender is one source of identity that women may mobilize around at local, national and transnational levels.

## **The Intersection of Gender and Collective Action: Three Entry Points**

As noted above, gender is both an organizing principle and a source of power dynamics. Yet, gender is largely absent from the literature on collective action for public goods provision, particularly in the context of agriculture and natural resource management.<sup>6</sup> While a considerable literature rooted in Women, Environment, and Development (WED) theory has debated whether women's propensity to serve as local safeguards of the environment is linked to an intrinsic relationship to nature or their greater dependency on natural resources (see Jackson 1993a 1993b 1998 and Westermann et al. 2005 for an overview) less systematic attention has been paid to gender as a source of group heterogeneity and its implications for effective collective action. The evidence that does exist suggests that the gender composition of groups is an important determinant of successful collective action for natural resource management. Meinzen-Dick and Zwarteveen (1998), for example, find that the involvement of women in water organizations in South Asia can strengthen the effectiveness of irrigation management. In their study of the NRM outcomes of 33 rural programs in 20 countries in Latin America, Africa and Asia, Westermann et al. (2005) find that collaboration, solidarity and conflict resolution increase when women are members of the groups. Similarly, in a study of 104 peasant cooperative institutions in Paraguay, Molinas (1998) finds that levels of cooperation increase with increases in women's participation. Finally, Agarwal (2001) notes that women's exclusion from community forest groups has efficiency implications and may exacerbate gender asymmetries in power relations.

Finally, many women's programs are premised on collective action yet lack a clear understanding of the mechanics of effective and sustainable collective action. The development literature is replete with examples of participatory development programs targeted to women's

---

<sup>6</sup> A review of five major references in this field (Agrawal 2001; Baland and Platteau 1996; Bromley 1992; Ostrom 1990; Wade 1988) does not find gender or even women listed in the indexes.

groups that fail to meet either their efficiency or empowerment goals because they did not adequately address how those groups are structured and managed (Baden 1999; Mayoux 1993 1995a 1995b). Examples can also be found of externally-initiated women's self-help groups that fail to address masculinities and men's involvement in women's groups, thus missing potential opportunities for transformative development processes (Cornwall 2000) vis-à-vis collective action. In Bangladesh, despite an NGO's insistence that it would work only with women to create aquatic resource management committees, its efforts in a Muslim community failed to involve women in the long run because it lacked a clear understanding of local gender roles (Sultana and Thompson 2006). Inadequate gender analysis can also result in detrimental consequences for existing women's groups. For example, an agroforestry extension project in western Kenya used women's groups as entry points for the project. Hambly Odame (2002) noted that men comprise a minority of membership in these women's groups yet research on these groups tends to underestimate the importance of these gendered power dynamics in the distribution of resources and benefits. The groups suffered a 67 percent rate of collapse over a 12 year period, often resulting in a loss of labor, capital, and moral support for group members.

Additional analysis is thus needed to address the question of how gender shapes women's and men's incentives and abilities to engage in, and benefit from, collective action on the one hand, and how different collective action institutions affect gender equity on the other. This web of interactions is complex but it also offers multiple entry points for analyzing the intersection of collective action and gender. This paper presents three such analytical entry points for doing so: *motivations* for engaging in collective action, *effectiveness* of collective action (as defined by the group's objective), and *impact* of collective action on gender equity. Each of these entry points

demonstrates that gender analysis can facilitate more effective collective action and collective action can be used as a vehicle for fostering gender equity.

In terms of motivations, collective action programs are increasingly being used as a vehicle for reaching development and poverty-reduction goals; hence a better understanding of women's and men's motivations for joining such groups would help development practitioners assess whether their programs are hitting or missing the target. Evidence indicates, for example, that women have a higher opportunity cost of time than men which may reduce their incentives for participation (Meinzen-Dick and Zwarteven 2003) so organizations that are able to tap into women's motivations for participating in collective action may have a better chance of succeeding than those programs which assume that women and men share the same motivations. In addition, understanding the motivations behind groups that spontaneously form may help explain why some groups function better than others.

In terms of effectiveness, certain socioeconomic characteristics, such as class and ethnicity, have been studied in an effort to understand the group dynamics and the power relations that foster effective collective action, but much less attention has been paid to how gender as a source of power relations influences group dynamics and patterns of interaction within collective action. This is somewhat surprising given that a wide range of group strategies exist (from women-only groups on one end of the spectrum, to gender blind male groups on the other, and mixed sex groups in between), thus raising the question of whether certain strategies may be more effective than others at realizing the group's objectives.

In terms of impact, collective action programs that fail to address gender, or that target women as beneficiaries without a clear understanding of gender relations within the given community, risk further disempowering women while gender-related programs premised on



collective action can provide real opportunities to foster women's empowerment, as can programs which do not regard gender equity as an end goal but see it as instrumental in reaching the group's objectives. Thus, understanding the impacts of collective action on gender equity may provide insight into which strategy can best stimulate gender-equitable change processes at the micro, meso or macro levels.

## The Analytical Framework

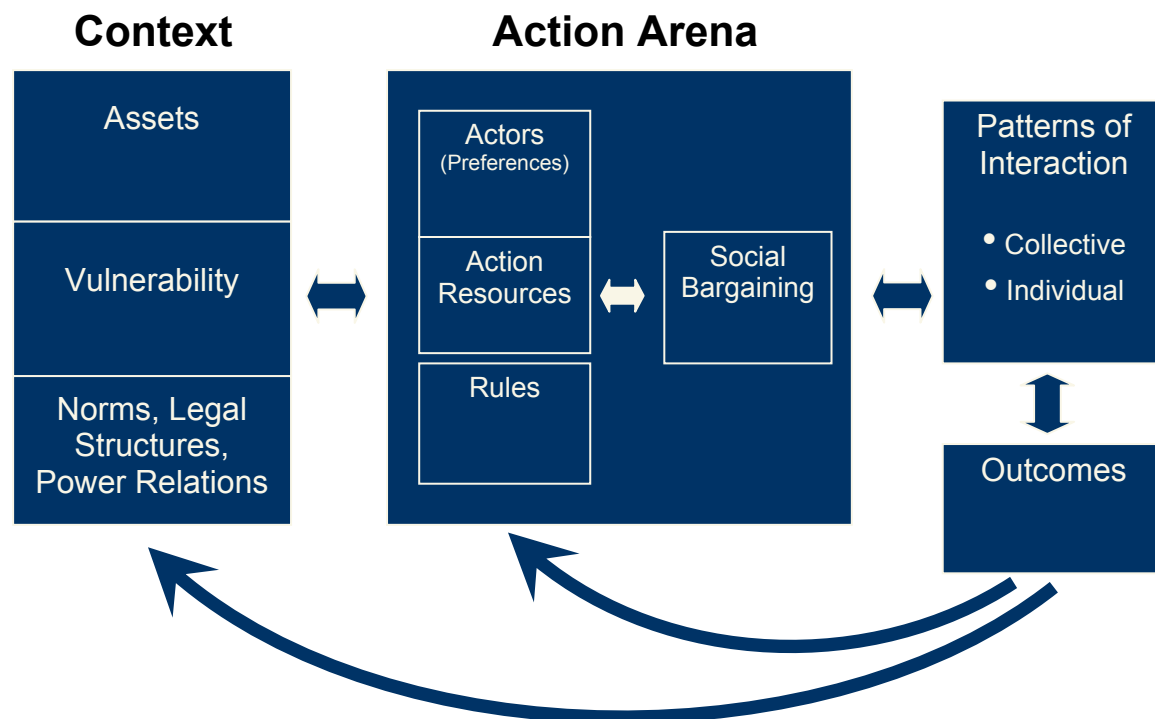
To explore the intersection of collective action and gender, we have adapted the conceptual framework for institutional analysis (Oakerson 1992; Ostrom 1991, 2005) that is used by CAPRI to investigate the relationship between institutions of property rights, collective action and poverty outcomes (Di Gregorio et al., forthcoming). This framework is especially suitable for analyzing collective action through a gender lens because it emphasizes the institutions, rules, and actors that create (gendered) patterns of interaction.<sup>7</sup>

In figure 1, the first box, the context or the external factors, represents the *initial conditions* that people face. It shapes the initial opportunity set of the possible actions, and includes the *assets* people have, the sources of *vulnerability*, and the relevant *norms, legal structures and power relations*.<sup>8</sup> In the following section we will focus mainly on the constraints and opportunities the context can provide for men and women in the achievement of their livelihood objectives.

---

<sup>7</sup> The sections describing the framework are heavily drawing on Di Gregorio et al., forthcoming.

<sup>8</sup> In the original IAD framework which focuses on natural resource management, the key aspects of context that are highlighted are the physical/material conditions, the attributes of the community, and rules in use. Di Gregorio et al. (forthcoming) have modified these to highlight factors of particular relevance to poverty reduction.

**Figure 1--Analytical Framework to Analyze Gender and Collective Action**

Source: adapted from Di Gregorio et al. (forthcoming)

All of the external factors, as well as property rights and collective action, in turn, affect the *action arena*, the more dynamic section of the framework. This is where decisions are made and institutions are reconfirmed and reshaped. In other words, this is where social bargaining takes place. This framework can be applied at different levels depending on the subject and level of analysis: within households or within collective action groups, but also bargaining between groups or with the state, and other external actors. While the gender dimensions are often clearest at the intra-household level, it is relevant to examine the role of gender at each level. Nevertheless in the remainder of this paper, we focus primarily on the group level.

These processes lead to patterns of interaction, for example the interaction within a collective action group we are analyzing. The focus here is on the rules and norms of the object of analysis and how they lead to regularized behavior.

These activities (whether collective or individual) will lead to certain outcomes, which may or may not achieve the objectives the collective action group set out to achieve, but may also alter the initial conditions of the analyzed interaction or transaction. The former we will discuss under effectiveness, the latter under impacts.

## **The Context or Initial Conditions**

To investigate the relationship between physical/technical and socioeconomic categories, we focus on asset endowments and vulnerabilities, as well as the basic institutional structure, i.e. the legal and governance systems that regulate and govern basic interactions among people. Particular attention is paid to the socioeconomic context—in which we subsume gender roles as they are defined in a given society—because our analysis is concerned with how gender roles influence the extent to which women and men can use their asset endowments and the institutional infrastructure at their disposition. Put another way, while physical assets such as roads will enhance access to markets, a gender norm which confines women to their homes (e.g. *purdah*) will be a stronger determinant of women's opportunities and constraints toward meeting their livelihood objectives.

## **Asset Endowments**

Asset endowments are defined here as the pool of resources or assets available to an actor (Di Gregorio et al. forthcoming) and include physical, natural, financial, social, political, and human capital, as well as property rights vis-à-vis these assets. Property rights involve complex relationships between different uses and users of the resources and can only be effective if they are recognized as legitimate, which requires governance structures to enforce such rights. Rights however, do not necessarily imply full ownership of a resource; instead, we often find separate

bundles of rights. For example, a woman may have access to a piece of land for firewood collection but have no rights to plant trees on that land, as the latter activity is often reserved for those who own the land. Women's property rights are important for agricultural productivity, women's empowerment and household welfare. There is considerable empirical evidence indicating that property rights raise women's status in the household as well as in the community, and this translates into greater bargaining power (Quisumbing 2003). For example, in a cross-site analysis in Sri Lanka, West Bengal and Kerala, Bhatla et al. (2006) find that women's property ownership serves as a protective factor against domestic violence.

A growing body of literature has documented gender disparities in asset endowments between female- and male-headed households and more recently, at the intrahousehold level of male-headed households (see Antonopoulos and Floro 2005 for a recent review of physical and financial assets). In terms of collective action, a prerequisite for participation is the possession of asset endowments valued by the group. A community's wealthiest members may be able to opt out of collective action because their need to pool resources is very low while its poorest members are unable to participate because they lack sufficient resources, or endowments, (as defined by the group). For example, membership in many so-called "Water Users' Associations" are restricted to heads of households with irrigated land in a designated area, although others also use water for domestic uses, small enterprises, livestock, gardens, etc. Thus, participation is usually greatest among those who possess a minimum level of assets or a skill set useful to a project (Agarwal 1997b; 2000; 2001; Johnson 2001; Weinberger and Jütting 2001). For the purposes of this paper, we are interested in examining how gender imbalances in asset endowments present constraints and opportunities for women's and men's participation in collective action.

Physical capital<sup>9</sup> comprises the basic infrastructure and physical goods that support livelihoods, including affordable transport systems, water supply and sanitation, and access to information. Other components of physical capital include productive capital that enhances income (e.g. bicycles, rickshaws, sewing machines, telephones, agricultural equipment), household goods and utensils and personal consumption items such as radios and refrigerators. It is often assumed that men and women benefit equally from investments in infrastructure, yet women often stand to benefit less than men and may in fact become worse off as a result of infrastructure investments that do not consider the full range of their economic and social impacts (AusAid 1997). For example, although sex-disaggregated data on the use of ICTs are scarce, ICT technologies are not gender neutral and their use is often determined by existing power differentials within a society (Gurumurthy 2004), unless there are specific measures such as the Grameen Bank's promotion of cellphone ownership by women. Access to roads, transportation, and labor-saving devices can reduce the costs of participating in collective action, which is particularly important for women, who, as noted above, often have a high opportunity cost of their time.

Financial capital is commonly defined as the financial resources that people use to achieve their livelihood objectives. These resources include available stocks, such as savings, and regular inflows of money, such as pensions and remittances.<sup>10</sup> While savings are the preferred type of financial capital of the poor, gender may influence women's and men's motives for saving, as well as the types of assets they prefer to save. For example, in Bangladesh, married women prefer not to save assets in the forms of large amounts of cash because their husbands are

---

<sup>9</sup> The definitions of capital build upon the CAPRI glossary (<http://www.capri.cgiar.org>) and the IDS: Livelihood Guidance Sheet No. 8: Glossary, [http://www.livelihoods.org/info/guidance\\_sheets\\_rtf/sect8glo.rtf](http://www.livelihoods.org/info/guidance_sheets_rtf/sect8glo.rtf); Accessed on October 7, 2005.

<sup>10</sup> It should be noted that this definition is different from a strict economic definition of financial capital as it includes flows as well as stocks.

likely to take control of the money (Antonopoulos and Floro 2005). In other instances, single women prefer to save large sums of money to put toward their dowries (Deolalikar and Rao 1998; Kim 1997) because assets brought to marriage are an important determinant of women's future welfare (Fafchamps and Quisumbing 2004). These examples suggest that gender-based savings preferences may have implications for the types of groups that women prefer to join (e.g. rotating savings and credit associations).

Natural capital is the term used for the natural resource stocks (e.g. trees, land, water, clean air, coastal resources) upon which people rely. The benefits of these stocks are both direct and indirect. For example, land and trees provide direct benefits by contributing to income and people's sense of well-being. The stake that men and women have in natural resources will influence the extent to which they will take part in collective NRM activities. For example, where men are in charge of livestock, they will have the greatest interest in pastures, but in areas where women have responsibility for caring for livestock, they are more likely to be involved in managing pastures or sources of fodder.

While studies on human capital typically focus on the more obvious indicators of education, health, and nutrition, relatively less attention is paid to the ways in which actors perceive the world and themselves. Human capital will be addressed in greater detail in a later section of this paper.

Social capital refers to the formal and informal social networks and relationships people draw upon in pursuit of their livelihood objectives. It can help women and men gain access to information, to influence or power, and to claims or obligations for support from others. Social capital can also serve as a building block for collective action. Yet, women and men tend to accumulate different types of social capital; i.e. bonding and bridging capital, respectively. For

example, Maluccio et al. (2003) note that although women's social capital networks are wider than men's in South Africa, they also are more localized and mobilize fewer economic resources. This in turn, may have implications for whether men and women are equally able to draw upon their stocks of social capital to participate in collective action.

Whereas social capital can be visualised as horizontal social organisation and solidarity within communities, political capital is the vertical link to policy and decision-making. Women's relegation to the private sphere and their limited political representation suggest that women's political capital may be weaker than men's, although increases in the number of women in decision-making roles at all levels of government may reduce these imbalances.

### **Vulnerability**

Opportunities to engage in collective action are determined not only by an individual's asset endowments, but also by his/her vulnerability to economic, socio-political, and natural shocks, the degree to which differs by gender. A large body of literature has established that structural adjustment policies have adversely affected poor women because they have absorbed the economic shocks of adjustment by working longer and harder in both productive and reproductive sectors to compensate for state-cut social services (Gladwin 1991; Sparr 1994; Cagatay and Ozler 1995; Cagatay 1998). Women also often find it more difficult to bear shocks resulting from crises in agricultural production, such as drought, declines in landholding, or seasonal unemployment because they have less access than men to credit and employment in alternative labor markets (Adato and Feldman 2001). In the context of a burgeoning HIV/AIDS epidemic, widows are highly vulnerable to land grabbing after the death of their husbands, leaving them more economically vulnerable and thus susceptible to activities that put them at greater risk of exposure and infection to the disease (Gillespie and Kadiyala 2005). Other

research from India indicates that women and girl children are often the first members of the household to suffer inadequate food intake in the face of seasonal food shortages as food is conserved for male members (Ramachandran 2004).

In addition to the more obvious aspects of vulnerability, including a lack of financial and physical assets, women face certain vulnerabilities particular to their gender roles, which in turn, may affect their ability or willingness to engage in collective action. Such vulnerabilities include dependence on, or subordination by, male household members and in-laws, which may result in a husband's refusal to allow his wife to engage in, or control the benefits accrued from, collective action. Likewise, gender-based violence (both within the home and at the community level) may impede a woman's physical mobility to access groups if for example, she refrains from leaving her homestead due to the fear of harassment. Indeed, security domains that encompass both domestic and state violence against women are increasingly being integrated into poverty analyses as research reveals that violence against women accounts for significant amounts of lost productivity and impedes overall economic growth (King and Mason 2001).

### **Norms, Legal Structures, and Power Relations**

As noted previously, gender refers to the socially constructed norms that are shaped by, and embedded in, cultural, political, and economic institutions. These norms do not change overnight and in fact, attempts to directly challenge gendered norms and upset power imbalances may result in backlash and the further disempowerment of women. Thus, the conceptual framework presented in this paper can be used to identify strategic mechanisms to stimulate gender-equitable change.

Legal structures are both shaped by, and reinforce, gendered norms. While changes in statutory law (e.g. in laws pertaining to inheritance, divorce, and property rights) will not



automatically translate into changes on the ground (i.e. changes in gendered norms) they do provide a basis for women's appeals for more substantial rights. Decentralization can also help to change existing power structures by enhancing women's participation in the public arena. It is often assumed that decentralization is inherently favorable to women because of its participatory nature, but as Baden (1999) argues, this is not always so and is contingent upon available resources and competition over these resources, the nature of local power structures, and the degree of organization and political visibility of women locally.

### **Actors and their preferences**

Actors can be both individual and collective entities, including formal and informal organizations, the state, and NGOs. Although we have seen above that men or women do not constitute a homogenous mass, we may also treat mixed or single-sexed community groups as single actors.

There is also a need to distinguish between internal or external actors. Internal actors are those who will have to follow the rules and regulations emerging from institutional bargaining, whereas external actors can influence the process, but are not bound by it or directly affected. For example, if an NGO sets up a self-help group, the members of the group would be internal and NGO staff external actors

Another important category of actors is the change agent—those who can influence other actors and stimulate or facilitate social bargaining. Thus, it is strategic to identify change agents in a given context since they can help induce change. For example, Andujar (2005) found that women over 50 years of age were among those most active in the fight for drinking water and sewage systems in their neighborhood in Villa Jardin, Argentina because they were freed from

the tasks of reproduction and childcare and had a history of activism vis-à-vis the Catholic Church.

To understand the motivations of actors, we have to understand their preferences. As we have highlighted in an earlier section, men's and women's preferences can differ quite substantially. For example, in terms of crop varieties, women's preferences are often based on taste and cooking properties, whereas men's are based on marketability. These gender-differentiated preferences can have an effect on group formation (e.g. single-sexed vs. mixed groups), as well as on group effectiveness and gender equity.

### **Action Resources**

Not all assets can be used by the actors as action resources in a given context. Action resources are those assets which are relevant to the specific situation, and increase the bargaining power of the actors. Whether a resource is useful depends on the nature of the interaction. For example, for decisions taken in public meetings, having the confidence to stand up and speak in front of the whole community can be an important action resource. However, if women are forbidden from speaking in public this particular asset cannot be translated into an action resource. Siagian et al (2005) found that only one woman in a farmer's group in Lubuk Kambing District, Indonesia was confident enough to seek support for the group's objectives from district officials but because of her obligations as the local school teacher, she did not have the time to meet with them.

All assets can become action resources. This includes the physical, financial, natural, social and political capitals as well as the human capital. As most of these have been discussed in an earlier section, we will focus here on human capital. Most analyses of human capital only use education as a proxy. Sometimes they will also add years of farming, number of people in the

household, but rarely do they look at resources inherent in people. Other very important action resources include knowledge, social standing, networks, cognitive schemata (one's way of thinking about the world), and time. For example, women (particularly poor women) often have a higher opportunity cost of time, as most of their time may be allocated to subsistence activities. Human capital thus refers not only to education and health but also the way the actors perceive the world and themselves.

### **Information and the ability to process it**

Information is a power resource (Schlüter 2001; Theesfeld 2004), that allows those who possess it to change the perceived value of the different alternatives (Young 1995). Access to information is costly and spreads mainly through an actor's networks and relationships. This suggests that it will play out differently for men and women since they accumulate different types of social capital. For example, Krishna (2003) found that where local agents had a good understanding of processes outside the locality, they were able to direct collective action toward development outcomes. Since men are more likely to have outside contacts, they are more likely to be able to direct collective action outcomes to their advantage.

### **Cognitive schemata**

Cognitive schemata provide the limits of what actors perceive as feasible in their lives, and propose a guideline of how the world should be structured. Cognitive dissonance, the difference between mental models and the way the world works, affects how an actor thinks about and acts in actual events. Ideologies, as the vehicles of a shared idea of how the world should be, can play a crucial role in legitimizing group solidarity (Di Gregorio et al. forthcoming)

For example, group members (sometimes including women themselves) may feel that women do not possess the knowledge or skills to effectively contribute to collective action. In community forestry programs in India and Nepal, Agarwal (2001) finds that women were perceived as having little to add in terms of forest conservation and frequently were not invited to group meetings. Likewise, community members – men and women - may feel that it is not women's place to comment. Feeling intimidated by such a public event, women may sit in the back of the room or on the floor and simply observe (Agarwal 2001; Mosse 1995). Women who do speak up are often viewed negatively; their efforts to gain a voice in group projects are viewed as attempts to subvert gender roles.

Women's exclusion from participation may be a direct result of gender norms, or can emerge from other factors that are determined or exacerbated by such norms. In a study of mixed-sex agricultural cooperatives in Nicaragua, Mayoux found women's participation limited to involvement as day laborers. When women attempted to make their voices heard or gain management positions, they were perceived by others (men and women) as attempting to step out of their appropriate social role.

### **Social prestige**

The social "standing" within a society or group or vis-à-vis powerful actors (state, private entrepreneurs) can be an important action resource. Bourdieu and Accardo (1993) point to two sources for social standing: the *habitus* of an actor and the embeddedness of the actor in social networks.

The *habitus* is often rooted in one's way of thinking about the world, and is reflected in the way one speaks and acts. This plays a major role in gaining leadership roles. Actors can be embedded in both formal and informal networks, which allow them to combine forces with

others. Women's savings groups around the world, for example, when successful, often increase the bargaining power and the confidence of women to engage in the public realm. Hence, social networks and the assets that an actor can derive from them depend on the ability of actors to call upon those social networks.

In most societies, tangible assets also convey status. The wealthiest households with most land occupy a higher place in many agrarian societies, while the landless may not even be considered full community members. This has repercussions also for access to information and other collective resources. In many agrarian societies, extension agents are more likely to visit wealthier landowners than landless tenants. Even within the household, control over assets influences the bargaining power of individuals. Fathers who control the household land may exercise authority over their sons. Research has shown that women with control over assets have more decision-making power on intrahousehold decisions (Quisumbing 2003)

### **Time**

A large body of literature has documented gender-biases in access to, and quality of, education and healthcare (King and Mason 2001; UNDP 1995; UN Department of Economics and Statistics 2005) but less work has explored the gendered-dimensions of time-use, particularly in the context of collective action. Yet women and men clearly have different time opportunity costs, and poor women in particular often have the highest opportunity costs of time since a large proportion of their day (and night) is allocated to subsistence activities; i.e. providing for their family's daily food needs. Male household members may also force women to take responsibility for their tasks so that the men can participate in collective action groups. Because of this additional burden, not only are women more constrained to participate, but they may also call on younger female household members to complete tasks delegated to them. This can negatively

impact schooling for girls and young women, reducing human capital stores for the next generation of women and, by extension, their ability to participate in group action.

Hence, the opportunity costs of engaging in collective action on women's time can be extremely high, particularly in labor-intensive collective action schemes. However, time constraints are not constant and may vary according to time of day and cultivation cycles, thus providing strategic points of entry to initiate collective action. Identifying more convenient meeting times and holding meeting near the houses to reduce travel time can help women participate (as can the provision of child care).

## RULES

Formal and informal rules determine how the initial conditions (norms, regulations, and laws) play out on the ground. They are the decision-making arrangements that affect which action resources are important. For example, in the Bhavani basin, when water became scarce, a lawyer among the downstream farmers' group used the courts to get an order for more water to be delivered to their area (Palanisami and Malaisami 2004). But women from the upstream area appealed to their kinswomen downstream, who in turn appealed to the lawyer to withdraw the case. In this example, the public fora favored legal knowledge as an action resource, but the women employed kinship and social pressure as action resources.

Rules clarify expectations about the costs and benefits of participation. The rules shape the bargaining process and/or may be shaped in the process of bargaining. Rules can be written and unwritten, explicit or implicit. For example, in parts of northern Nigeria, women must observe seclusion under *Shariah*<sup>11</sup> law and thus cannot organize, but women have been able to

---

<sup>11</sup> Islamic legal system

capitalize on the resurgence of Islam to form women-only associations that teach Islamic education. Through this informal rule that permits these schools, women are able to develop additional support networks to help with childcare and ceremonial expenses (Abdulwahid 2006).

Which rules are part of the action arena, and which are seen as given in the context, depends on the subject and scale of analysis. If we are analyzing the group formation process of a particular Heifer project, for example, the rules and basic conditions set by Heifer are exogenous, as they are not subject to bargaining between the group members, whereas by-laws set by group will be endogenous, and thus part of the action arena.

## **Motivations to Engage in Collective Action**

Women and men may vary greatly in their motivations and types of collective action they seek. Motivations are shaped by the preferences and interests of actors, as well as the way they perceive their chances of succeeding through collective action. The latter, in turn, relate to the rules and expected bargaining power of different groups.

### **Preferences and interests**

The role of preferences and interests in affecting motivations links most significantly to the activities for which men and women are most commonly responsible. As a consequence, there may be significant overlap in types of participation: to improve resource access, income, or food security women and men both undertake collective action in the arenas of natural resources management (NRM), micro-credit, and production or market activities. However, Agarwal (1997b; 2000; 2001) suggests that men's and women's motivations can vary, even within the same group. Taking community forest groups as an example, she notes that the broad goal is resource protection and sustainability. This can involve limits on using forest resources with

patrolling to limit violations of rules governing use, as well as planting new trees to replenish dwindling forests. However, male group members, whose use of common forest resources is relatively limited, are motivated more by goals of increased income. Therefore, they promote strict controls (to encourage rapid regeneration) and replanting with eucalyptus trees, which are predominantly cash crops. Women, on the other hand, favor looser controls to ensure that they have access to fuel and other forest resources, and encourage planting trees with a greater use value for household tasks. Lind (1997) and Beard (2005) likewise argue that women become most involved in collective action linked to the gendered division of labor. But other studies indicate that factors such as security and even non-economic returns (prestige, spiritual enrichment, or friendship) may also motivate group participation, and these factors may differ for men and women. Abdulwahid (2006), Godquin and Quisumbing (2006) and Kariuki and Place (2005) show that there is considerable variability in motivations and group types, not only between men and women and between countries, but even between men and women in different ethnic groups within a limited area, highlighting the importance of cultural and contextual factors in shaping gender relations.

Looking at the motivations of men and women is crucial to understand why certain groups are more effective than others and why certain processes lead to changes in the way women and men work together and understand each others roles. The following sections look at the factors that shape bargaining power and motivations of men and women and assess the link between the two concepts.

## **Bargaining Power**

We define bargaining power as the ability of an actor to engage in social bargaining in a given context based on one's action resources and the rules. Bargaining power is contextual: The



type of interaction or transaction and the rules determine which action resources an actor can use and how effectively they can be transformed into power endowments for the given situation.

There are multiple levels of bargaining power (e.g. individual within household, individual within group, or group vis-à-vis the outside). The level of bargaining determines whom the actor is representing and thus, the identity he or she brings to the table. For example, in some African communities, a woman who speaks at public meetings is representing all women present at the meeting since socioeconomic norms dictate that women remain silent during public meetings. In other cases, a woman may remain silent in the presence of her husband during a public meeting even though she is more informed of the subject matter. This is a good example of women's multiple identities coming into play and how they influence the bargaining power she is able to exert.

Differences in actors' fallback or exit options are an important source of bargaining power that determine the distribution of resources within a household or group. Exit options are determined in part by the actor's ability to turn an asset into a power endowment in a given context. The actor with the better exit possibilities will be at an advantage in the bargaining. In the context of the household, this actor is usually male since the distribution of power and resources tends to almost always favor men (Quisumbing 2003).

For example, a woman who has her own solar cooker can more easily exit a forestry user group than one who is dependent on that wood for her fuel, but this same cooker does not translate into a power endowment within the household. Assets brought to marriage and provisions of divorce and inheritance law will have more influence on exit options within the household.

Women may participate in collective or group action as a response to constraints within the household and broader social environment. The emphasis on micro-credit is one such form of participation. Informal rotating credit schemes, chit funds, and institutionalized credit provide women with working capital, savings opportunities, and a way to subvert male control over household finances. However, if a borrower is unable to repay a loan or make payments into a fund, her bargaining power within the group may be jeopardized, to the point where she may be asked to leave the group. In Kenya some women's groups maintain legal ownership of animals distributed to individual households, so that the group may remove them from homes where a husband treats his wife badly. This legal threat of removal can help decrease violence and divorce (Miller 2001). Thus, both the group and the asset strengthen women's bargaining power.

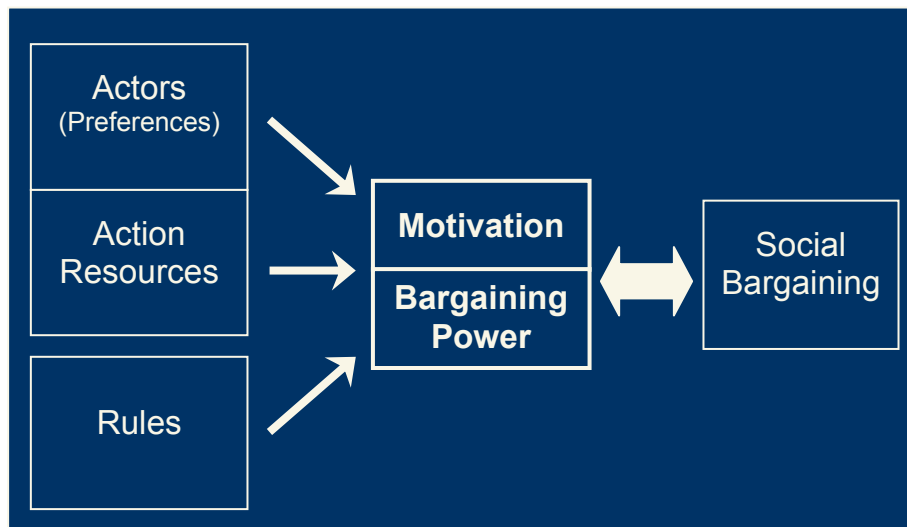
Another factor that will determine the actor's power is his/her prior bargaining experiences because they alter the actor's perceptions and expectations about the next bargaining process. Evaluating watershed management programs in India, Kerr (2002) found that where NGOs had been working with women and marginalized groups prior to the introduction of watershed management programs, these groups had greater capabilities to bargain for a better share of the benefits from the watershed programs. Siagian et al. (2005) observed that groups whose members had successful and relevant past experiences were more confident they could achieve their group objectives whereas groups without such experiences were lost confidence more easily during the process.

### **Motivations to engage in collective action**

The motivation of an actor is his or her willingness to engage in the bargaining process based on his/her preferences, action resources, and the rules, including barriers to participation. We have shown in the previous section that the action resources and the rules also affect the

bargaining power of an actor. It is thus the power of an actor, or, more precisely the perception an actor has of his/her power, that influences actors' motivations. Figure 2 shows the links between an actor's preferences and resources, the rules governing an action situation, and his or her resulting bargaining power and motivation.

**Figure 2--How does motivation fit in?**



In reaction to their own assessments of the probabilities of success, women may opt out and simply not participate, or they may create informal groups in order to meet their needs. In the community forestry example in Nepal, women who recognized the poor ability of all-male patrols to effectively guard forest resources created all-women's patrols. Because of women's reliance on forest resources, they are better attuned to spot violations (Sarin 1995). Further, due to social restrictions on interactions between men and women, women are more able to prevent female violators. Similar all-women activities have taken place in other contexts. In the agricultural cooperatives of Nicaragua, women have undertaken 'consciousness-raising' in the setting of an all-woman cooperative. In Bolivia, Cote d'Ivoire, and South Asia, women's micro-finance projects, formal or informal, have also developed to fill a need not supplied by mixed-

sex group programs. All-women microfinance projects—and their informal counterpoint in revolving saving schemes or chit funds—allow women access to financial capital and increase control over their personal assets (Jhabvala and Bali 1990; Velasco and Marconi 2004).

Collecting a critical mass of women with similar goals improves women's ability to make their voices heard in participatory projects or allows them to operate projects targeted to meet the specific needs of women.

The above arguments assume that women want to participate in group action, but Mayoux (1993; 1995a; 1995b) finds that women, especially poor women, are not interested in participating unless they see an obvious benefit. Because of their time and resource constraints, the value of institutionalized group action such as producer cooperatives often lie in its ability to increase real incomes. Mayoux gives the example of women in single-sex producer cooperatives in India. Though the development practitioners who initiated the program assumed women would be drawn to the 'empowerment' aspect of the cooperative (meaning they would all own and be responsible for management of the cooperative), Mayoux found that most women preferred piece-rate production, where they were not responsible for management decisions. Though this seems to contradict traditional development wisdom, women are often burdened with too much responsibility (albeit unrecognized) in the household, so they may seek more pragmatic ways to improve their livelihoods.

In other instances, women may be reluctant to participate in collective action around issues traditionally perceived as male domain. For example, when the Self Employed Women's Association (SEWA) initiated a collective action campaign in Gujarat, India to mobilize women for water management, women resisted participating because they regarded water infrastructure development and management as male territory (Panda 2006). Men also resisted women's

involvement in the water sector and some men even threatened not to work on water-harvesting structures that would be managed by women or to drink water from a structure built by women. Through interaction with SEWA, women gradually gained the confidence to participate in the campaign and be trained as handpump technicians. As the communities began to experience improved water supplies, men's resistance to women's involvement in the water sector diminished and some men began encouraging their wives to become members of the campaign.

Thus, while the action resources and rules determine the bargaining power of the actors, both the perceived power and the preferences of men and women will determine their motivation to engage in collective action processes: whether they engage in social bargaining at all, or to adopt one strategy over another.

These questions might be of help when trying to understand motivations and the way they influence group formation, functioning, and impact:

- Do women and men have different preferences?
- How do their asset endowments differ?
- How does gender determine an actor's ability to use his or her asset endowments?
- What is the subject of the bargaining?
- In what ways do the action resources represent opportunities or constraints to engage in social bargaining?
- Do the rules strategically favor men vs. women? How?
- How do women and men perceive the degree to which collective action will fit their preferences?
- How can external institutions affect the bargaining position of the poor?

In particular, this approach may help to identify whether there are ways to increase the bargaining power of disadvantaged groups by building up their critical action resources, or to shape the rules to build upon the resources that they do have, rather than those that they are lacking. For example, Parajuli and Enslin (1990) found that functional literacy training can be

instrumental in overcoming women's own feelings of incompetence and inhibitions to speak up at meetings in Nepal, and this is likely to apply to other areas with a large gender gap in literacy, and where literacy has become an important indicator of an individual's abilities to deal with the outside world. Increasing women's experience with meetings in other types of organizations may also increase their confidence and ability to participate.

## **Effectiveness of CA**

One major rationale for attention to gender in collective action institutions is that it can increase the effectiveness of programs. A number of studies (Acharya and Gentle 2006; Agrawal et al. 2006; Barham 2006; Kariuki and Place 2005; Sultana and Thompson 2006) provide indications that the gender composition of groups is an important determinant of effective collective action, especially for natural resource management, but there has thus far been little systematic assessment of how, and under what conditions. A more comprehensive assessment of this issue would provide valuable guidance to both local organizations and external programs.

The first question to address is what criteria will be used to measure effectiveness. Will it be internal criteria—meeting the objectives that the group itself identifies—or externally-defined criteria, set by program funders, or by analysts who are looking for broader patterns that apply across different groups? Both approaches are valid, depending on what the analysis will be used for, but it is essential to be clear about how the criteria are defined.

A second critical question is whether effectiveness is measured over the short or long term. Short-term results may be important for creating momentum in collective action, but longer-term results are more important for sustainability and equity outcomes.

Specific measures of the effectiveness of organizations might include tangible indicators such as the income or economic returns to group members, the distribution of costs and benefits, compliance with rules, or incidence and severity of conflicts. Less tangible indicators might also be important to consider, such as satisfaction of being a member.

How can gender affect the effectiveness of collective action institutions? Critical areas to examine include the composition of groups, how the rules shape the ability of men and women to participate effectively, and the roles of men and women within the groups.

## **Gender and participation**

We can broadly define two approaches to gender within many conventional collective action programs: gender-blind approaches and approaches to organizing all-female or all-male organizations. Gender-blind approaches do not explicitly specify whether men or women will be members. This is found in many NRM programs, such as irrigators' associations or forest user groups that define membership as one person per household. This frequently results in a predominance of male members, except from female-headed households, and even they may send a younger male member rather than a woman. Reviewing the evidence on water users' associations in South Asia, Meinzen-Dick and Zwarteveen (1998) found women's participation to be much lower than that of men, despite high involvement of women in irrigated agriculture and agricultural decision making. The few documented cases of a higher female involvement either stem from women-only organizations managing groundwater pumps or from areas where men were not interested or absent.

Though there have been several typologies of participation, perhaps the earliest is Sherry Arnstein's (1971) 'ladder of citizen participation.' In brief, this typology divides eight levels or 'rungs' of citizen participation into three groups: non-participation, tokenism, and citizen power.

The highest level of citizen participation is defined as ‘citizen control,’ in which citizen groups set and carry out their project agenda. More appropriate for the purposes of this paper is a typology articulated by Bina Agarwal (2001) in reference to community forestry programs in South Asia, in which participation ranges from nominal participation (membership in a group) to interactive participation in which a member ‘[has] voice and influence in the group’s decisions’ (1624). Rather than focus how a project is initiated, Agarwal argues that participation is best measured by members’ involvement and activeness in a project (see Table 2 below for complete typology).

**Table 2--Typology of Participation**

Form/level of participation	Characteristic features
Nominal participation	Membership in the group
Passive participation	Being informed of decisions <i>ex post facto</i> ; or attending meetings and listening in on decision-making, without speaking up
Consultative participation	Being asked an opinion in specific matters without guarantee of influencing decisions
Activity-specific participation	Being asked to (or volunteering to) undertake specific tasks
Active participation	Expressing opinions, whether or not solicited, or taking initiatives of other sorts
Interactive (empowering) participation	Having voice and influence in the group’s decisions

Source: Agarwal (2001)

The benefits men and women gain from group participation can also vary along gender lines. The level of participation has a strong influence on the benefits that individuals experience. When membership in a group is limited to one member per household, women may not even get the chance to participate. When they do, they can be limited to the lower levels of participation than men. Nominal, passive, and consultative participation are reflected in lower benefits from participatory group action.



Time-use will also vary. Yet, this ‘time poverty’ is rarely considered in the way group meetings are scheduled. Though women may be interested in attending, they are overburdened with childcare, food preparation, and agricultural activities and therefore cannot fit group meetings into their schedules.

That said, women are not a homogenous group, and may have greater or less ability to participate based on other socio-economic factors including income, ethnic group or caste, religion, and urban versus rural residence. The following section addresses directly the constraints to women’s full (interactive) participation, and the outcomes for efficiency, equity, and sustainability.

### **Gender, participation, and effectiveness**

Theories of participatory management suggest that the lack of participation of a large number of the users of a resource would lead to performance weaknesses in the organization, because of weaknesses in communication, representation, democracy and accountability, which may lead to free riding, rent seeking and corruption (Ostrom 1992). Zwarteveen and Neupane (1996) found that the all-male organization for the Chhattis Mauja system in Nepal faced difficulties in enforcing its rules on women. Female heads of farms in the head end of the system always took more water than their entitlements, while contributing less labor than they should, but it was difficult to solve the problems because women were not members of the organization and could thus not be punished. Women did not steal water or shirk from contributing labor to maintenance only because of opportunism. Water stealing by women occurred partly because women had an interest in applying more water to the paddy-field to reduce their labor requirements for weeding, and rules and prevailing gender norms made it difficult for women to make labor contributions.

Many community forestry programs have also found that the rules determined by men are too restrictive and increase the time burden on women who gather firewood for household use; in other instances, these regulations force women to violate community rules in order to meet their needs. Women who observe regulations are also not directly rewarded for their adherence: If cash or in-kind payments are made, they are typically distributed on a household basis and go to male household heads. Men's greater use of cash income toward leisure activities compared to women has been consistently documented in the literature (Bruce 1989; Quisumbing 2003; Smith et al. 2003). For forest management in Nepal, Sarin (1995) found that non-involvement of women made it easy for women (especially those from outside the village) to continue to gather firewood, in spite of strict regulatory rules set by the organization. In some communities 90 percent of the rule offenders were women. Male office-bearers found it difficult to stop these women, since they risk being accused of molesting them. As a result, the need for female participation in organizations is now accepted, but not on grounds of equity, participation or democracy, but because women are needed to help the organization enforce its rules, or to stop other women from taking firewood.

Other positive examples are available from the Philippines. In the Mountain Province, because of women's roles in agricultural and household decision-making, especially with regard to cash flow, community organizers charged with organizing water users' associations learned that unless women were encouraged to participate, the organizations could not be assured that the member households would pay their fees (Illo 1998).

It should be noted however, that while involving both women and men in collective action can help a group attain its goals more easily, it does not necessarily lead to more effective governance processes, or guarantee inclusiveness and transparency. For example, Padmanabhan

(2006) describes the tribal community of the Kurichyas in Kerala, India which organizes collective action to manage traditional seed landraces around a pittan (headman) and his wife, who assume complementary roles in the monitoring, sanctioning, and exchange of seeds and their related knowledge. The pittan organizes official requests for seed from farmers outside of the community, while the pittan's wife supervises the actual handling and storage of the seed. In her capacity as the guardian and custodian of women's knowledge of genetic wealth, she organizes other women within the household to weave storage baskets for the seeds, maintains a storage system to diversify risk, selects the quantity and the quality of seed to enter the exchange network, and cleans the seeds in preparation for exchange. Although this division of labor leads to the effective exchange of seeds, it is only the male members of a household who are allowed to formally represent the household's interest in acquiring seed. Similarly, in the western Kenyan highlands, the effectiveness of community water projects (measured by the successful operation of piped water supply) is attributed, in part, to a division of labor characterized by reciprocity and complementary roles. As principal users of domestic water, women report vandalism and breakages in pipes while men sanction rule-breakers and fix broken pipes. Yet, even though wives are instrumental in initiating and implementing the community water projects, they are not recognized as members of the formal project committees. Instead, they have formed their own groups to raise funds for the water projects and meet certain domestic needs (Were et al. 2006).

Therefore, rather than gender-blind or single-sex organizations, a more nuanced, third approach, would be to try to develop mixed male and female organizations that allow for women's full participation, particularly where men and women share joint interests or are both users of a resource (e.g. water). However, this will not be easy. Although the evidence on this to date is fragmentary, we would expect that establishing mixed groups would have a higher

transaction cost because of the need to overcome gender barriers. The corollary of that is that the larger the degree of gender inequality, the higher the transaction costs will be. Thus, establishing mixed organizations is likely to be easier in societies in which women already have education levels on a par with men's, and where women are used to going out and mingling with men, and much more difficult in societies which practice female seclusion, with low levels of female education. Under such conditions, working with all-women's groups to build capacity may be an important first step.

Sultana and Thompson's (2005) study of floodplain management in Bangladesh found that all-male community organizations took less time to establish than committees that included women (302 days vs. 340 days), but this was offset by a shorter time for the mixed organizations to start activities (179 days for all-male versus 106 days for mixed groups). All-male groups were able to obtain and disburse more credit, and undertook more fisheries management activities, but also had more conflicts and more rule-breaking, suggesting that involvement of women in decision-making was instrumental for compliance and conflict resolution.<sup>12</sup>

A study on marketing performance of farmer groups in Tanzania (Barham 2006) shows similar results. Male-dominated groups showed comparatively more improvement in the marketing performance over time than mixed or female dominated groups. This can be explained by the obstacles faced by women to establish contacts with market actors such as agricultural companies or other chain actors looking for business who will more likely approach men.

Acharya and Gentle's (2006) study of the SAMARPAN (Strengthening the Role of Women and Civil Society in Democracy and Governance) in Nepal illustrates some of the complexities involved in building gender-balanced organizations. The program provided

---

<sup>12</sup> Interestingly, in detailed case studies, Sultana and Thompson found that an all-women's group formed a men's advisory committee, whereas the all-male group did not have a separate advisory committee.

advocacy literacy training to women, but also engaged with local community group leaders. Community forestry user groups participating in this program showed an increase in women in leadership positions, who became active in auditing of group funds, expanding women's membership, and influencing the group activities to include fodder and multiple use activities, biogas, and a range of activities to help very poor households. The integration of a critical mass of women into the regular user groups led to better outcomes than all-women's user groups, which lacked the support of men, and had smaller overall forest areas and less land per household than the mixed groups.

Despite the higher transaction costs of establishing them, the examples above indicate that mixed groups can also have higher payoffs because they can tap into the differential strengths of men and women and also because they can get higher compliance with NRM, especially if men and women are both using the resource or have resources that are needed. Thus, evidence on the effectiveness of all-male, all-female, or mixed groups depends on whether it is assessed in the long or short-term.

### **Key Questions on Effectiveness**

- How could gender analysis help make collective action more effective?
- What stakes do men and women have in the outcomes of collective action?
- What formal and informal roles do women and men play in the management of resource and of the group?
- What action resources are critical? How are they distributed between men, women?
- If funds are needed for the collective action, how much control of cash do men and women have within their households?
- How do explicit and implicit rules affect ability of men, women to participate?
- Are there enough men and women to create a "critical mass" within the organizations?
- How does participation of men and women in decision-making affect compliance and cooperation in activities?

## Impact on Gender Relations

Whereas effectiveness of collective action refers to the ability of groups to meet their immediate purposes (e.g. the management of a natural resource), impact of collective action refers to changes (in this case, changes in gender relations) that go beyond that. For example, a microcredit scheme designed to raise the income of its members would measure its effectiveness in terms of income earned while measurements of impact on gender relations would include the ability of women to control that income within the household.

### Measuring Impact

Definitions and measurements of gender equity and women's empowerment, like all social processes, remain contested but in essence, empowerment is the individual or group capacity to make self-informed and effective choices (Alsop 2005). The concept of women's empowerment is best viewed along a continuum, ranging from emergence from isolation on one end of the continuum to participation in the public sphere on the other.<sup>13</sup> Thus, the criteria selected to measure impact will vary according to where along the continuum an actor is situated.

If we look at our institutional analysis framework through a "gendered poverty lens", we become interested in collective action outcomes in terms of all the critical aspects of poverty, as well as how these aspects are experienced differently by women and men. Impacts on gender equity can thus be evaluated by several indicators, including: the level and distribution of income, as well as the recognition that women may make tradeoffs, or tactical choices, between different material, psychological, and symbolic aspects of poverty (Chant 2003); the ability to

---

<sup>13</sup> James-Sebro (2005) defines gender equality in four stages: engagement of women to come out of isolation; empowerment through acquired ideas, knowledge, skills, and resources; enhancement of lives in households and communities; and emergence into the public sphere.

secure basic needs; the degree of social and political inclusion; security against violence (including violence against women); vulnerability to shocks; and more broadly, the opportunity set for livelihood improvement.

## **Levels of Impact**

In this paper, we distinguish four levels of impact on gender relations: relations within the household, relations within the collective action group itself, relations of the group vis-à-vis the community, and relations of the community vis-à-vis the outside.

Analysis of the impact of collective action on gender equity cannot be divorced from analysis of the household because activities undertaken as a collective feed back into women's and men's social bargaining within the household. For example, income-generating collective action schemes may increase a woman's fallback or exit options within the household if she is able to strengthen her asset endowments (e.g. financial capital) and draw upon them as action resources to increase her bargaining power within the household. A study of the impact of group-based fish pond or vegetable technology programs in Bangladesh found that women who participated had significantly higher empowerment levels on such criteria as keeping control over money, and reduced domestic violence (Hallman et al. forthcoming).

At the community level, collective action groups, particularly mixed-sex groups, may alter perceptions of women's socioeconomic contributions, thereby increasing their status within the community. In the same Bangladesh programs, the group-based fish ponds changed the gendered division of work because, although men were involved at various stages, negotiation over the activities and output took place above the household—men had to negotiate with groups of women backed by an NGO, rather than with their wives individually (Naved 2000).

Collective action groups may also mobilize enough social and political capital to contest the state. A well-known example is the Chipko movement in India, which began as a group of women literally embracing trees to prevent against deforestation in their community, spread across the state, and resulted in a major victory in 1980 with a 15-year ban on green felling in the Himalayan forests of Uttar Pradesh. The Green Belt Movement in Kenya similarly grew into a significant political force. In Argentina, Anduja (2005) found that women's ability to secure clean water for Villa Jardin rendered them "indisputable interlocutors" with institutions outside of their neighborhood. Collective lobbying efforts have also been influential in strengthening women's legal rights and share of state expenditure at the national level, e.g. in Uganda, Tanzania, and South Africa. Even at the international level, the global women's movement may be seen as a form of collective action that has had an impact on development discourse and policy, such as through the *Convention on the Elimination of All Forms of Discrimination against Women (CEDAW)* and the Beijing Platform for Action.

### **Feedback Loops**

As the above examples suggest, changes in gender relations may feed back into the action arena, the initial conditions, or both (see Figure 1). Panda (2006) observes, for example, that women who participated in the Self Employed Women's Association's (SEWA) water campaign grew more confident to participate in the public domain as a collective and thus challenged (male) alcohol consumption at both the village and household levels, resulting in decreased alcoholism in some villages. Applying the analytical framework to this example reveals that impacts on gender equity were observed in both the action arena (women's increased confidence) and in the initial context (decreased alcoholism by men). However, like the "rules"



discussed in an earlier section of this paper, whether impacts on gender relations feed back into the initial context or the action arena depends on the subject and scale of analysis.

Alternatively, collective action may have negative impacts on women's empowerment if collective action programs are designed "gender-blind" or with false assumptions regarding women's motivations for joining a given group. For example, Arganosa-Matienzo (2005) notes that women who engaged in collective soap production faced additional time constraints due to the high labor inputs required for soap making while also earning less than they did as paid farm laborers. Clearly then, collective action can be used as a vehicle for women's empowerment, but it can also contribute to women's disempowerment.

## **STRATEGIES FOR EMPOWERMENT**

Given the complexity of gendered norms and roles and their variances across cultures, there is no "one-size-fits-all" collective action strategy for fostering gender equity. In some instances, particularly where there are deeply entrenched levels of gender inequity, women-only groups may be more effective strategies for bringing women out of isolation, fostering their self-confidence, and building their capacity to bargain within the household. In other instances, mixed-sex groups may be more effective vehicles for enabling women to build their asset base and negotiate in the public arena.

Therefore, if we conceive of women's empowerment along a continuum, as suggested above, mixed-sex groups that respond to both women's and men's needs may be more appropriate the further along the continuum women are situated. Such groups may also affect more transformative change in gender roles if, through repeated interactions, women receive

greater recognition by men for both their paid and unpaid contributions to the community, although clearly this hypothesis warrants further investigation.

Another factor for external organizations to consider is how to integrate gender issues into collective action groups. In some contexts, groups that explicitly address gender equity as an end-goal may have a greater impact on women's empowerment whereas in other contexts, groups that address gender issues only in terms of the obstacles and constraints they present for realizing the group's (non-gender-related) objective may have a greater impact.

### **Key Questions on Impact:**

- What types of impact can be observed? How can these be measured? Are they always empowering, and to whom?
- Which factors within the initial context and action arena facilitate or hinder impact on gender equity?
- How can (poor) women and men increase their ability to bargain? Through collective action?
- What are some strategies for using collective action to stimulate gender-equitable change processes (e.g. increasing women's action resources, changing the rule set)?
- Are there tradeoffs between effectiveness for a bounded goal and impact in terms of gender equity?

## **CONCLUSIONS**

This paper has presented an adapted version of the Institutional Analysis Development framework to investigate the intersection of gender and collective action. The framework has applicability to research and practice.

For research and analysis, this framework can help clarify linkages we observe in the world by conceptualizing gender as both a source of power asymmetries and as an organizing principle. The first part of the framework is useful for identifying key aspects of the environment that may influence collective action outcomes and how these may differ for men

and women. The second part helps to go “inside the black box” of collective action, to look at the various action resources that different actors have to draw upon, and how the rules affect the bargaining power of different actors, especially men and women. There are often gender differences in the action resources that people draw upon in the action arena. For example, men often have more land and financial resources. In societies where women have less education and are discouraged from speaking in public, they will be at a disadvantage if collective decisions are made in public debates. Even the rules are often gendered, as when only the “head of household” is considered a member of the decision-making bodies. By recognizing these factors, the framework thus provides a dynamic way of analyzing collective action through a gender lens: institutions + rules + actors create gendered patterns of interaction, which in turn affect the effectiveness of collective action. These outcomes of collective action, in turn, can have a broader impact, changing the initial conditions, particularly gender roles.

What value does this framework provide for strengthening gender and collective action programs? First, it can help external organizations to: (1) learn from, and strengthen, informal forms of collective action that women (and poor women, in particular) may engage in, and (2) identify mechanisms for organizing gender-responsive formal types of effective collective action.

In particular, the analytical framework can help us understand the action resources women and men require in order to participate in collective action. This, in turn, can be used to redress power imbalances by building up the critical action resources so that both can participate effectively. For example, if financial resources are critical, microfinance targeted at women can be instrumental; if *habitus*, especially the ability to speak in public is critical, then training programs that build women’s confidence to speak out may be helpful. The framework also helps

to identify the rules that hinder or foster an actor's ability to translate his or her assets into action resources, e.g. by looking at how decision-making favors one set of assets over another.

Identifying the motivations of men and women is a prerequisite for building effective collective action which needs to take into account the costs and benefits of men's and women's participation. These costs and benefits are shaped by the preferences that people bring to the activity, as well as the definition of roles and rules within collective action groups.

As evidence mounts that reducing poverty and increasing gender equity are fundamentally related objectives, external actors—whether government agencies, NGOs, or others—can support gender equity by increasing the action resources available to the disadvantaged, such as by strengthening tangible or intangible resources and capabilities that are critical for bargaining power. Identifying rules that build upon the assets that women possess (rather than upon those they tend to lack) provides another means to increase equitable collective action. Additional evidence on the contributions of gender-balanced participation in collective action on the effectiveness of organizations can help to justify investments in going beyond gender-blind programs, or even beyond single-sex organizations.

The evidence is still fragmentary, but there are indications that organizations that include men and women may be more difficult to establish, but can be more effective, especially in managing natural resources, when both women and men are users of the resource. However, there are also times when gender disparities or cultural barriers to men and women working together are so great that it is important to work with women's groups to build their capacity. There remain important questions of whether external agents can be more effective at fostering gender equity by manipulating the action arena as opposed to contesting against the initial conditions, which shape and reinforce gendered norms.

Although poor women and men may be able to influence change in institutions underlying collective action (both organizations and social institutions) in their favor, their lower level of action resources makes such outcomes more difficult to achieve. External change agents can assist in such processes, but the complexity of both gender and institutional change means that favorable outcomes are not automatic, even if external agents are genuinely interested in reducing poverty and fostering gender equity. Indeed, because gender roles change in response to shifting economic, political, and cultural forces, roles within groups are subject to change as well. These changes may create additional opportunities for women's full-scale participation or, alternatively, they may lead to an erosion of women's status. Thus understanding how to influence collective action institutions merits serious attention as part of both poverty reduction and gender-equity strategies. We hope that this framework will provide a systematic basis for doing so.

## REFERENCES

- Abdulwahid, S. 2006. *Gender differences in mobilization for collective action: Case studies of villages in Northern Nigeria*. CAPRI Working Paper 58. Washington, D.C.: International Food Policy Research Institute.
- Acharya, K. P. and P. Gentle. 2006. *Improving the effectiveness of collective action: Sharing experiences from community forestry in Nepal*. CAPRI Working Paper 54. Washington, D.C.: International Food Policy Research Institute.
- Agarwal, B. 1997a. "Bargaining" and gender relations: Within and beyond the household. *Feminist Economics* 3(1): 1-51.
- . 1997b. Environmental action, gender equity, and women's participation. *Development and Change* 28: 1-44.
- . 2000. Conceptualising environmental collective action: Why gender matters. *Cambridge Journal of Economics* 24: 283-310.
- . 2001. Participatory exclusions, community forestry, and gender: An analysis for South Asia and a conceptual framework. *World Development* 29 (10): 1623-1648.
- Adato M, and Feldman, S. 2001. *Safety nets: Empowering women to achieve food security, 2020 Focus 6*. Washington, D.C.: International Food Policy Research Institute.
- Arganosa-Matienzo, E.L. 2005. When collective action leads to overburdening of rural women. Paper presented at the CAPRI International Research Workshop on Gender and Collective Action, October 17-21, Chiang Mai, Thailand.
- Agrawal, A. 2001. Common property institutions and sustainable governance of resources. *World Development* 29:1649-1672.
- Agrawal, A. G. Yadama, R. Andrade, and A. Bhattacharya. 2006. *Decentralization and environmental conservation: gender effects from participation in joint forest management*. CAPRI Working Paper 53. Washington, D.C.: International Food Policy Research Institute.
- Alderman, H., P. Chiappori, L. Haddad, J. Hoddinott, and R. Kanbur. 1995. Unitary versus collective models of the household: Is it time to shift the burden of proof? *World Bank Research Observer* 10 (1):1-19.

- Alsop, R. and N. Heinsohn. 2005. *Measuring empowerment in practice: structuring analysis and framing indicators*. World Bank Policy Research Working Paper No. 3510. Accessed April 2007 at [http://siteresources.worldbank.org/INTEMPowerment/Resources/41307\\_wps3510.pdf](http://siteresources.worldbank.org/INTEMPowerment/Resources/41307_wps3510.pdf)
- Andujar, A. 2005. Paper presented at the CAPRI International Research Workshop on Gender and Collective Action, October 17-21, Chiang Mai, Thailand.
- Antonopoulos R. and M. S. Floro. 2005. Asset ownership along gender lines: Evidence from Thailand. The Levy Economics Institute of Bard College, Working Paper No. 418.
- Arnstein, S. 1971. A ladder of citizen participation. *Journal of the Royal Town Planning Institute* (April).
- Beard, V. A. 2005. Individual determinants of participation in community development in Indonesia. *Environment and Planning C: Government and Policy* 23: 21–39.
- Australian Agency for International Development. 1997. Tip sheet on infrastructure. Prepared for the OECD Development Assistance Committee on Working Party on Gender Equality.
- Baden, S. 1999. Gender, Governance and the ‘Feminisation of Poverty’, Institute of Development Studies, Background Paper, Meeting on Women and Political Participation: 21st Century Challenges. New Delhi: United Nations Development Programme (UNDP). Accessed April 2007 at <http://mirror.undp.org/magnet/events/gender/india/Badefeb2.htm>.
- Baland, J.M. and J.P. Platteau. 1996. *Halting degradation of natural resources. Is there a role for rural communities?* New York and Oxford, U.K.: Food and Agricultural Organization and Clarendon Press.
- . 1999. The ambiguous impact of inequality on local resource management. *World Development* 27:773-788.
- Barham, J. 2006. Collective action initiatives to improve marketing performance: Lessons from farmer groups in Tanzania. Paper presented at the CAPRI Research Workshop on Collective Action and Market Access for Smallholders, October 2-5, Cali, Colombia.
- Bhatla N., S. Chakraborty, and N. Duvvury. 2006. Property Ownership and Inheritance Rights of Women as Social Protection from Domestic Violence: Cross-site Analysis. In *Property ownership and inheritance rights of women for social protection –the South Asia experience*, ed. International Center for Research on Women. Washington, DC. Accessed April 2007 at [http://www.icrw.org/docs/2006\\_propertyrights-southasia.pdf](http://www.icrw.org/docs/2006_propertyrights-southasia.pdf)
- Bourdieu, P., and A. Accardo. 1993. *La misère du monde*. Paris: Editions du Seuil.
- Bruce, J. 1989. Homes divided. *World Development* 17 (7): 969-991.

- Cagatay, N. 1998. Engendering macroeconomics and macroeconomic policies. United Nations Development Programme Working Paper 6. New York: United Nations.
- Cagatay, N. and S. Ozler. 1995. Feminization of the labour force: The effects of long-term development and structural adjustment. *World Development* November, 23(11).
- Chant, S. 2003. New Contributions to the Analysis of Poverty: Methodological and Conceptual Challenges to Understanding Poverty from a Gender Perspective. *United Nations Economic Commission for Latin America and the Caribbean*.  
<http://www.eclac.cl/publicaciones/UnidadMujer/5/LCL1955/lcl1955i.pdf>
- Cornwall, A. 2000. Missing men? Reflections on men, masculinities and gender in GAD. *IDS Bulletin* 3(2).
- Deolalikar, A. and V. Rao. 1998. The demand for dowries and bride characteristics in marriage: Empirical estimates of rural South-Central India. In *Gender, population and development*, ed. R. Sudharshan. New Delhi: Oxford University
- Di Gregorio, M., K. Hagedorn, M. Kirk, B. Korf, N. McCarthy, R. Meinzen-Dick, B. Swallow. *Property rights, collective action and poverty: the role of institutions for poverty reduction*. CAPRI Working Paper. Washington, DC: International Food Policy Research Institute. Forthcoming.
- Doss, C. 1999. *Twenty-five years of research on women farmers in Africa: lessons and implications for agricultural research institutions*. Program Paper 99-02. Mexico D.F.: International Maize and Wheat Improvement Center.
- Marcel, F. and Quisumbing, A. 2004. *Assets at marriage in rural Ethiopia*. FCND Discussion Paper No. 185. Washington, D.C.: International Food Policy Research Institute.
- Gillespie, S., and S. Kadiyala. 2005. *HIV/AIDS and food and nutrition security: from evidence to action*. Food Policy Review 7. Washington D.C.: International Food Policy Research Institute.
- Gladwin, C.H., ed. 1991. *Structural adjustment and African women farmers*, Gainesville, Fl.: University of Florida Press.
- Godquin, M. and A. R. Quisumbing. 2006. *Groups, networks, and social capital in rural Philippine communities*. CAPRI Working Paper 55. Washington, D.C.: International Food Policy Research Institute.
- Gurumurthy, A. 2004. Gender and ICTs. BRIDGE overview report. Brighton, UK: Institute of Development Studies.
- Haddad, L., J. Hoddinott, and H. Alderman, eds. 1997. *Intrahousehold resource allocation in developing countries: Models, methods and policy*. Baltimore, Md.: Johns Hopkins University Press.



- Hambly Odame, H. 2002. Men in women's Groups: A gender and agency analysis of local institutions, In *Masculinity matters. Men, gender and development*, ed. Frances Cleaver. London: Zed Press.
- Hallman, K., D. Lewis and S. Begum, Assessing the Impact of Vegetable and Fishpond Technologies on Poverty in Rural Bangladesh. In *Agricultural research, livelihoods, and poverty: Studies of economic and social impacts in six countries*, ed. Adato, M. and R. Meinzen-Dick. Baltimore, MD: Johns Hopkins University Press and International Food Policy Research Institute. Forthcoming.
- Jackson C. 1993a. Environmentalisms and gender interests in the Third World. *Development and Change* 24(2): 649-677.
- Jackson C. 1993b. Doing what comes naturally? Women and environment in development. *World Development* 21(12): 1947-1963.
- Jackson C. 1998. Gender, irrigation, and environment: arguing agency. *Agriculture and Human Values* 15(4): 313-324.
- James-Sebro, M. 2005. Revealing the power of gender mainstreaming: enhancing development effectiveness of non-governmental organizations in Africa. InterAction: Washington, DC.
- Jhabvala, R. and N. Bali. 1990. *My life, my work: A sociological study of SEWA's urban members*. Ahmedabad: SEWA Academy.
- Johnson, C. 2001. Community formation and fisheries conservation in Southern Thailand. *Development and Change* 32 (5): 951-974.
- Kabeer N. 1994. *Reversed realities: Gender hierarchies in development thought*. London and New York: Verso.
- Kariuki, G. and F. Place. 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. Washington, D.C.: International Food Policy Research Institute.
- Kerr, J. M. 2002. *Watershed development projects in India: An evaluation*. Research Report 127. Washington, D.C.: International Food Policy Research Institute.
- Kim, S-K. 1997. *Class struggle or family struggle?: The lives of women factory workers in South Korea*. Cambridge, UK: Cambridge University Press.
- King, E. M. and A. Mason. 2001. *Engendering development: Through gender equality in rights, resources, and voice*. A World Bank Policy Research Report. Washington, DC and Oxford: World Bank and Oxford University Press.

- Knox, A., R. Meinzen-Dick, and P. Hazell. 2002. Property rights, collective action, and technologies for natural resource management: A conceptual framework. In *Innovation in natural resource management: the role of property rights and collective action in developing countries*, ed. R. S. Meinzen-Dick, A. Knox, F. Place, and B. M. Swallow. Baltimore, MD: Johns Hopkins University Press and International Food Policy Research Institute.
- Krishna, A. 2003. *Understanding, measuring and utilizing social capital: Clarifying concepts and presenting a field application from India*. CAPRI Working Papers No. 28. Washington, D.C.: International Food Policy Research Institute.
- Lind, A. 1997. Gender, development, and urban social change: Women's community action in global cities. *World Development* 25 (8): 1205–1223.
- Ilo, J.F. 1998. Women and irrigator associations in the Philippines: Contexts and outcomes of collective action. In *Gender analysis and reform of irrigation management: Concepts, cases, and gaps in knowledge*, ed. D.J. Merrey and S. Bhaviskar. Colombo: International Water Management Institute.
- Maluccio, J., L. Haddad, and J. May. 2003. Social capital and gender in South Africa, 1993–1998. In *Household decisions, gender, and development: A synthesis of recent research*, ed. A. R. Quisumbing. Washington, D.C.: International Food Policy Research Institute.
- Marshall, G. 1998. *A dictionary of sociology*. New York: Oxford University Press.
- Mayoux, L. 1993. Integration is not enough: Gender inequality and empowerment in Nicaraguan agricultural cooperatives. *Development Policy Review* 11 (1): 67–89.
- . 1995a. Alternative vision or utopian fantasy? Cooperation, empowerment and women's cooperative development in India. *Journal of International Development* 7 (2): 211–228.
- . 1995b. Beyond naivety: Women, gender inequality and participatory development. *Development and change* 26 (2): 235–258.
- McCarthy N. 2004. Collective action and property rights for sustainable development: Local-level public goods and collective action. Brief 4. In *Collective action and property rights for sustainable development*, ed. Meinzen-Dick R. and M. DiGregorio. Washington, D.C.: International Food Policy Research Institute.
- Meinzen-Dick, R. and M. Zwarteveen. 1998. Gendered participation in water management: issues and illustrations from water users' associations in South Asia. *Agriculture and Human Values* 15(4):337–345.
- Meinzen-Dick, R. and M. Zwarteveen. 2003. Gender participation in water management: Issues from water users associations in South Asia. In *Household decisions, gender and development: A synthesis of recent research*, ed. A. Quisumbing. Washington D.C.: International Food Policy Research Institute.

- Miller, B. A. 2001. Rights to livestock. Brief 4. In *Empowering women to achieve food security*, 2020 Focus 6., ed. A. R. Quisumbing and Ruth S. Meinzen-Dick. Washington, D.C.: International Food Policy Research Institute. Accessed April 2007 at <http://www.ifpri.org/2020/focus/focus06.htm>
- Molinas, J. R. 1998. The impact of inequality, gender, external assistance and social capital on local level cooperation. *World Development* 26(3): 413-431.
- Moser, C. 1993. *Gender planning in development: theory, practice, and training*. New York: Routledge.
- Mosse, D. 1995. Authority, gender and knowledge: Theoretical reflections on participatory rural appraisal. *Economic and Political Weekly* (March 18): 569-578.
- Naved, R. T. 2000. Intrahousehold impact of transfer of modern agricultural technology: A gender perspective. Food Consumption and Nutrition Division Discussion Paper 85. Washington, D.C.: International Food Policy Research Institute.
- Oakerson, R. J. 1992. Analyzing the commons: A framework. In *Making the commons work. Theory, practice and policy*, ed. D. W. Bromley. San Francisco, Calif.: ICS Press.
- Ostrom, E. 1990. *Governing the commons: The evolution of institutions for collective action*. New York, NY, U.S.A.: Cambridge University Press.
- . 1991. *A framework for institutional analysis*. Working Paper No. W91-14. Bloomington, IN: Workshop in Political Theory and Policy Analysis.
- . 1992. *Crafting institutions for self-governing irrigation systems*. San Francisco, Calif.: ICS Press.
- . 1999. *Self-governance and forest resources*. CIFOR Occasional Paper 20. Bogor, Indonesia: CIFOR.
- . 2005. *Understanding institutional diversity*. Princeton, NJ: Princeton University Press.
- Padmanabhan, M. 2006 *Collective action in plant genetic resources management: Gendered rules of reputation, trust and reciprocity in Kerala, India*. CAPRI Working Paper 56. Washington, D.C.: International Food Policy Research Institute.
- Palanisami, K., and Malaisamy, A. 2004. *Taking water out of agriculture in Bhavani Basin – Equity, landscape and livelihood consequences*. Tamil Nadu and Coimbatore, India: Water Technology Centre and Agricultural University.
- Panda, S. M. 2006. *Women's collective action and sustainable water management: Case of SEWA's water campaign in Gujarat, India*, CAPRI Working Paper 61. Washington, D.C.: International Food Policy Research Institute.

- Parajuli, P., and E. Enslin. 1990. From learning literacy to regenerating space: A story of women's empowerment in Nepal. *Convergence* XXIII(1).
- Pryer, J. 2003. *Poverty and vulnerability in Dhaka slums: the urban livelihood study*. Burlington, VT: Ashgate.
- Quisumbing, A., ed. 2003. *Household Decision, Gender, and Development: A synthesis of recent research*. Washington, D.C.: International Food Policy Research Institute.
- Ramachandran, N. 2004. Seasonal hunger: Implications for food and nutritional security. In *Towards hunger free India: From vision to action*, ed. M.S. Swaminathan and P. Medrano. Madras: East West Books Pvt. Ltd.
- Reeves H. and S. Baden. 2000. Gender and development: frequently asked questions. *BRIDGE Report No. 57*. Brighton, UK: Institute of Development Studies.
- Sarin, M. 1995. Regenerating India's forests: Reconciling gender equity with joint forest management. *IDS Bulletin* 26(1): 83-91.
- Sen, A. 1990. Gender and cooperative conflicts. In *Persistent inequalities: Women and world development*, ed. Tinker I. New York: Oxford University Press.
- \_\_\_\_\_. 2000. Women's agency and social change. In *Development as freedom*. New York: Alfred A. Knopf.
- Schlüter, A. 2001. Institutioneller wandel und transformation: Restitution, transformation und privatisierung in der tschechischen Landwirtschaft. Aachen: Shaker.
- Siagian, Y, B. Morgan, Yentirizal, Neldysavrino. 2005. Strengthening women's participation through collective action for inclusive decision-making processes: Lessons learned from two villages in Jambi Province, Sumatra, Indonesia. Paper presented at the CAPRI Research Workshop on Gender and Collective Action, October 17-21, Chiang Mai.
- Smith, L. C., U. Ramakrishnan, A. Ndiaye, L. Haddad, and R. Martorell. 2003. *The importance of women's status for child nutrition in developing countries*. Research Report 131. Washington, D.C.: International Food Policy Research Institute.
- Sparr, P. 1994. *Mortgaging women's lives: Feminist critiques of structural adjustment*. London: Zed Press.
- Sultana, P. and P. Thompson. 2005. Gender and local floodplain management institutions—A case of study from Bangladesh. Paper presented at the CAPRI International Research Workshop on Gender and Collective Action, October 17-21, Chiang Mai, Thailand.
- \_\_\_\_\_. 2006. *Gender and local floodplain management institutions—A case of study from Bangladesh*. CAPRI Working Paper 57. Washington, D.C.: International Food Policy Research Institute.

- Theesfeld, I. 2004. Constraints on collective action in a transitional economy: The case of Bulgaria's irrigation sector. *World Development* 32 (2): 251-271.
- UNDP (United Nations Development Program). 1995. Human Development Report 1995: Gender and Human Development. New York. Accessed April 2007 at <http://hdr.undp.org/reports/global/1995/en/>
- UN Department of Economic and Social Affairs. 2005. *Special Report of the World's Women 2005: Progress in Statistics*. Accessed April 2007 at [http://unstats.un.org/unsd/demographic/products/indwm/ww\\_specialRep.pdf](http://unstats.un.org/unsd/demographic/products/indwm/ww_specialRep.pdf)
- Velasco, C. and R. Marconi. 2004. Group dynamics, gender and microfinance in Bolivia. *Journal of International Development* 16 (3): 519–528.
- Wade, R. 1988. *Village republics: Economic conditions for collective action in South India*. New York, NY: Cambridge University Press.
- Weinberger, K. and J. P. Jütting. 2001. Women's participation in local organizations: Conditions and constraints. *World Development* 29 (8): 1391–1404.
- Were, E., Swallow, B. and Roy, J. 2006. *Water, women, and local social organization in the Western Kenya Highlands*. CAPRI Working Paper 51. Washington D.C.: International Food Policy Research Institute:
- Westermann O, Ashby J, Pretty J. 2005. Gender and social capital: the importance of gender differences for the maturity and effectiveness of natural resource management groups. *World Development* 33(11): 1783-1799.
- Zwarteveen, Margreet and Nita Neupane. 1996. *Free-riders or victims: Women's nonparticipation in irrigation management in Nepal's Chhattis Mauja irrigation scheme*. Research report no. 7. Colombo, Sri Lanka: International Irrigation Management Institute.

## List of CAPRI Working Papers

- 01 Property Rights, Collective Action and Technologies for Natural Resource Management: A Conceptual Framework, by Anna Knox, Ruth Meinzen-Dick, and Peter Hazell, October 1998.
- 02 Assessing the Relationships between Property Rights and Technology Adoption in Smallholder Agriculture: A Review of Issues and Empirical Methods, by Frank Place and Brent Swallow, April 2000.
- 03 Impact of Land Tenure and Socioeconomic Factors on Mountain Terrace Maintenance in Yemen, by A. Aw-Hassan, M. Alsanabani and A. Bamatraf, July 2000.
- 04 Land Tenurial Systems and the Adoption of a Mucuna Planted Fallow in the Derived Savannas of West Africa, by Victor M. Manyong and Victorin A. Houndékon, July 2000.
- 05 Collective Action in Space: Assessing How Collective Action Varies Across an African Landscape, by Brent M. Swallow, Justine Wangila, Woudyalew Mulatu, Onyango Okello, and Nancy McCarthy, July 2000.
- 06 Land Tenure and the Adoption of Agricultural Technology in Haiti, by Glenn R. Smucker, T. Anderson White, and Michael Bannister, October 2000.
- 07 Collective Action in Ant Control, by Helle Munk Ravnborg, Ana Milena de la Cruz, María Del Pilar Guerrero, and Olaf Westermann, October 2000.
- 08 CAPRI Technical Workshop on Watershed Management Institutions: A Summary Paper, by Anna Knox and Subodh Gupta, October 2000.
- 09 The Role of Tenure in the Management of Trees at the Community Level: Theoretical and Empirical Analyses from Uganda and Malawi, by Frank Place and Keijiro Otsuka November 2000.
- 10 Collective Action and the Intensification of Cattle-Feeding Techniques a Village Case Study in Kenya's Coast Province, by Kimberly Swallow, November 2000.
- 11 Collective Action, Property Rights, and Devolution of Natural Resource Management: Exchange of Knowledge and Implications for Policy, by Anna Knox and Ruth Meinzen-Dick, January 2001.

- 12 Land Dispute Resolution in Mozambique: Evidence and Institutions of Agroforestry Technology Adoption, by John Unruh, January 2001.
- 13 Between Market Failure, Policy Failure, and “Community Failure”: Property Rights, Crop-Livestock Conflicts and the Adoption of Sustainable Land Use Practices in the Dry Area of Sri Lanka, by Regina Birner and Hasantha Gunaweera, March 2001.
- 14 Land Inheritance and Schooling in Matrilineal Societies: Evidence from Sumatra, by Agnes Quisumbing and Keijuro Otsuka, May 2001.
- 15 Tribes, State, and Technology Adoption in Arid Land Management, Syria, by Rae, J., Arab, G., Nordblom, T., Jani, K., and Gintzburger, G., June 2001.
- 16 The Effects of Scales, Flows, and Filters on Property Rights and Collective Action in Watershed Management, by Brent M. Swallow, Dennis P. Garrity, and Meine van Noordwijk, July 2001.
- 17 Evaluating Watershed Management Projects, by John Kerr and Kimberly Chung, August 2001.
- 18 Rethinking Rehabilitation: Socio-Ecology of Tanks and Water Harvesting in Rajasthan, North-West India, by Tushaar Shah and K.V.Raju, September 2001.
- 19 User Participation in Watershed Management and Research, by Nancy Johnson, Helle Munk Ravnborg, Olaf Westermann, and Kirsten Probst, September 2001.
- 20 Collective Action for Water Harvesting Irrigation in the Lerman-Chapala Basin, Mexico, by Christopher A. Scott and Paul Silva-Ochoa, October 2001.
- 21 Land Redistribution, Tenure Insecurity, and Intensity of Production: A Study of Farm Households in Southern Ethiopia, by Stein Holden and Hailu Yohannes, October 2001.
- 22 Legal Pluralism and Dynamic Property Rights, by Ruth Meinzen-Dick and Rajendra Pradhan, January 2002.
- 23 International Conference on Policy and Institutional Options for the Management of Rangelands in Dry Areas, by Tidiane Ngaïdo, Nancy McCarthy, and Monica Di Gregorio, January 2002.
- 24 Climatic Variability and Cooperation in Rangeland Management: A Case Study From Niger, by Nancy McCarthy and Jean-Paul Vanderlinden, September 2002.

- 25     Assessing the Factors Underlying the Differences in Group Performance: Methodological Issues and Empirical Findings from the Highlands of Central Kenya, by Frank Place, Gatarwa Kariuki, Justine Wangila, Patti Kristjanson, Adolf Makauki, and Jessica Ndubi, November 2002.
- 26     The Importance of Social Capital in Colombian Rural Agro-Enterprises, by Nancy Johnson, Ruth Suarez, and Mark Lundy, November 2002.
- 27     Cooperation, Collective Action and Natural Resources Management in Burkina Faso: A Methodological Note, by Nancy McCarthy, Céline Dutilly-Diané, and Boureima Drabo, December 2002.
- 28     Understanding, Measuring and Utilizing Social Capital: Clarifying Concepts and Presenting a Field Application from India, by Anirudh Krishna, January 2003.
- 29     In Pursuit Of Comparable Concepts and Data, about Collective Action, by Amy Poteete And Elinor Ostrom, March 2003.
- 30     Methods of Consensus Building for Community Based Fisheries Management in Bangladesh and the Mekong Delta, by Parvin Sultana and Paul Thompson, May 2003.
- 31     Formal and Informal Systems in Support of Farmer Management of Agrobiodiversity: Some Policy Challenges to Consolidate Lessons Learned, by Marie Byström, March 2004.
- 32     What Do People Bring Into the Game: Experiments in the Field About Cooperation in the Commons, by Juan-Camilo Cárdenas and Elinor Ostrom, June 2004.
- 33     Methods for Studying Collective Action in Rural Development, by Ruth Meinzen-Dick, Monica Di Gregorio, and Nancy McCarthy, July 2004.
- 34     The Relationship between Collective Action and Intensification of Livestock Production: The Case of Northeastern Burkina Faso, by Nancy McCarthy, August 2004.
- 35     The Transformation of Property Rights in Kenya's Maasailand: Triggers and Motivations by Esther Mwangi, January 2005.
- 36     Farmers' Rights and Protection of Traditional Agricultural Knowledge, by Stephen B. Brush, January 2005.
- 37     Between Conservationism, Eco-Populism and Developmentalism – Discourses in Biodiversity Policy in Thailand and Indonesia, by Heidi Wittmer and Regina Birner, January 2005.



- 38 Collective Action for the Conservation of On-Farm Genetic Diversity in a Center of Crop Diversity: An Assessment of the Role of Traditional Farmers' Networks, by Lone B. Badstue, Mauricio R. Bellon, Julien Berthaud, Alejandro Ramírez, Dagoberto Flores, Xóchitl Juárez, and Fabiola Ramírez, May 2005.
- 39 Institutional Innovations Towards Gender Equity in Agrobiodiversity Management: Collective Action in Kerala, South India,, by Martina Aruna Padmanabhan, June 2005.
- 40 The Voracious Appetites of Public versus Private Property: A View of Intellectual Property and Biodiversity from Legal Pluralism, by Melanie G. Wiber, July 2005.
- 41 Who Knows, Who Cares? Determinants of Enactment, Awareness and Compliance with Community Natural Resource Management Bylaws in Uganda, by Ephraim Nkonya, John Pender, Edward Kato, Samuel Mugarura, and James Muwonge, August 2005.
- 42 Localizing Demand and Supply of Environmental Services: Interactions with Property Rights, Collective Action and the Welfare of the Poor, by Brent Swallow, Ruth Meinzen-Dick, and Meine von Noordwijk, September 2005.
- 43 Initiatives for Rural Development through Collective Action: The Case of Household Participation in Group Activities in the Highlands of Central Kenya, By Gatarwa Kariuki and Frank Place, September 2005.
- 44 Are There Customary Rights to Plants? An Inquiry among the Baganda (Uganda), with Special Attention to Gender, by Patricia L. Howard and Gorettie Nabanoga, October 2005.
- 45 On Protecting Farmers' New Varieties: New Approaches to Rights on Collective Innovations in Plant Genetic Resources by Rene Salazar, Niels P. Louwaars, and Bert Visser, January 2006.
- 46 Subdividing the Commons: The Politics of Property Rights Transformation in Kenya's Maasailand, by Esther Mwangi, January 2006.
- 47 Biting the Bullet: How to Secure Access to Drylands Resources for Multiple Users, by Esther Mwangi and Stephan Dohrn, January 2006.
- 48 Property Rights and the Management of Animal Genetic Resources, by Simon Anderson and Roberta Centonze, February 2006.

- 49 From the Conservation of Genetic Diversity to the Promotion of Quality Foodstuff: Can the French Model of 'Appellation d'Origine Contrôlée' be Exported? by Valérie Boisvert, April 2006.
- 50 Facilitating Collective Action and Enhancing Local Knowledge: A Herbal Medicine Case Study in Talaandig Communities, Philippines, by Herlina Hartanto and Cecil Valmores, April 2006.
- 51 Water, Women and Local Social Organization in the Western Kenya Highlands, by Elizabeth Were, Brent Swallow, and Jessica Roy, July 2006.
- 52 The Many Meanings of Collective Action: Lessons on Enhancing Gender Inclusion and Equity in Watershed Management, by Laura German, Hailemichael Taye, Sarah Charamila, Tesema Tolera, and Joseph Tanui, July 2006.
- 53 Decentralization and Environmental Conservation: Gender Effects from Participation in Joint Forest Management, by Arun Agrawal, Gautam Yadama, Raul Andrade, and Ajoy Bhattacharya, July 2006.
- 54 Improving the Effectiveness of Collective Action: Sharing Experiences from Community Forestry in Nepal, by Krishna P. Achyara and Popular Gentle, July 2006.
- 55 Groups, Networks, and Social Capital in the Philippine Communities, by Marie Godquin and Agnes R. Quisumbing, October 2006.
- 56 Collective Action in Plant Genetic Resources Management: Gendered Rules of Reputation, Trust and Reciprocity in Kerala, India, by Martina Aruna Padmanabhan, October 2006.
- 57 Gender and Local Floodplain Management Institutions--A case study from Bangladesh, by Parvin Sultana and Paul Thompson, October 2006.
- 58 Gender Differences in Mobilization for Collective Action: Case Studies of Villages in Northern Nigeria, by Saratu Abdulwahid, October 2006.
- 59 Gender, Social Capital and Information Exchange in Rural Uganda, by Enid Katungi, Svetlana Edmeades, and Melinda Smale, October 2006.
- 60 Rural Institutions and Producer Organizations in Imperfect Markets: Experiences from Producer Marketing Groups in Semi-Arid Eastern Kenya, by Bekele Shiferaw, Gideon Obare and Geoffrey Muricho, November 2006.

- 61 Women's Collective Action and Sustainable Water Management: Case of SEWA's Water Campaign in Gujarat, India, by Smita Mishra Panda, October 2006.
- 62 Could Payments for Environmental Services Improve Rangeland Management in Central Asia, West Asia and North Africa? by Celine Dutilly-Diane, Nancy McCarthy, Francis Turkelboom, Adriana Bruggeman, James Tiedemann, Kenneth Street and Gianluca Serra, January 2007.
- 63 Empowerment through Technology: Gender Dimensions of Social Capital Build-Up in Maharashtra, India, by Ravula Padmaja and Cynthia Bantilan, February 2007.