

---

# **A Bigger Piece of a Very Small Pie: Intrahousehold Resource Allocation and Poverty Reduction in Africa**

**Bridget O'Laughlin**

---

## **ABSTRACT**

Feminist research has convincingly shown that an increase in household income does not necessarily lead to improvement in the well-being of all members of the household. More questionable is the policy conclusion often drawn from this research for rural Africa: redressing gender imbalance in control of productive resources will significantly reduce poverty. This contribution argues that the evidence and analysis presented by two studies repeatedly cited to show that gender inequality is inefficient are problematic. It is mythical to suggest that tinkering with women's market position by exchanging unequal collective rights to productive resources for individual ones will decisively reduce rural poverty in Africa. That will depend on the restructuring of long-term and deeply unequal processes of integration in the market, not on a firmer insertion of women within existing patterns of individualization and commodification of productive resources.

## **THE MYTH: PROMOTING GENDER EQUALITY TO REDUCE RURAL POVERTY IN AFRICA?**

This article is concerned with the making of a myth about the relation between gender inequality and poverty in Africa. The myth claims that if the allocation of productive resources were not skewed against women, rural African households would be able to work more efficiently and thus to produce more. So if a greater share of credit, inputs, land and labour were to be controlled by women, overall poverty could be reduced. The myth provides an economic rationale for policy measures such as targeting women in micro-credit schemes or giving women individual legal right to plots of their own.

From a feminist point of view, there is much that is appealing in the proposition that gender inequality in rural Africa is inefficient. It celebrates the skill and industry of women farmers. It is backed by abundant literature showing

---

I would like to thank Naila Kabeer, Duncan Foley, Ruth Castel-Branco and particularly Ann Whitehead for very helpful comments on an earlier draft of this contribution.

*Development and Change* 38(1): 21–44 (2007). © Institute of Social Studies 2007. Published by Blackwell Publishing, 9600 Garsington Road, Oxford OX4 2DQ, UK and 350 Main St., Malden, MA 02148, USA

that women have resisted injustice by withdrawing labour from development projects that did not take their interests into account. It is grounded in a point long made in feminist research but still poorly absorbed in poverty policy circles or in mainstream economics — that the unitary household is a fiction. If gender inequality compromises economic growth, there is a reason for bureaucrats and development donors to put gender concerns higher up on their agendas. The quest for proof that gender inequality is inefficient has attracted analytical attention from neoclassical modellers using game theory, bestowing new disciplinary legitimacy on feminist economics. Nonetheless, this contribution argues, it is important both for feminist emancipatory agendas and our understanding of poverty in Africa to recognize that the inevitable inefficiency of gender inequality is mythical.

Theory and myth have some common properties. They both set out premises that frame certain aspects of reality and omit others. Both seek to generalize. Theories about social life, like myths, often employ narratives, using vignettes, anecdotes and imagery to invoke a more subtle understanding than skeletal propositions can convey. Both often employ symbolic or esoteric language to enhance the power of their arguments.

In the telling of this myth, two narratives, both based in research done in the 1980s, have acquired timeless iconic status. The first is Christine Jones's account of how households in an irrigated rice scheme in northern Cameroon failed to optimize their production when men did not give women fair compensation for their work (Jones, 1983, 1996). The second is Christopher Udry's demonstration that the unequal distribution of inputs across women's and men's plots in Burkina Faso did not maximize yields (Udry, 1996). Each is repeatedly retold in the literature on gender and rural poverty in Africa, often in slightly different versions. Both deftly employ the language of neoclassical economics, fully accessible only to the initiated, and both provide the necessary magical incantation — a precise numerical estimate of the cost of gender bias.

It is one thing to disagree with a particular line of theoretical argumentation and another to call it a myth, suggesting both that its power to convince does not depend on its evidence or analytical strength and that it misrepresents or misleads. These two studies are rigorous works of scholarship, clear in their assumptions, logically argued and based in evidence. Yet a close reading shows that both have been open to mythical appropriation. The lessons drawn go far beyond the scope of the authors' findings. The myth presents a technicist rationale for reducing gender inequality that simplifies its political complexities — since co-operation within inequality can be (and often is) economically efficient. Finally, the way each study is analytically framed, tearing gender inequality out of its specific historical context of capitalist development in colonial and post-colonial Africa, leads to misrecognition of the causes of poverty.

## SPINNING THE MYTH

Myths are spun through repeated retelling by powerful voices. In this case the voices are those of major development agencies, particularly the World Bank. Two World Bank reports have been influential in the promotion of the myth. The first is Blackden and Bhanu's (1999) 'Gender, Growth, and Poverty Reduction', a World Bank technical paper. The idea that targeting productive resources to women will promote significant poverty reduction with growth has been emphasized for sub-Saharan Africa because African women do so much agricultural work. Much of the evidence and argumentation put forward by Blackden and Bhanu for rural Africa has, however, been universalized in the World Bank's *Engendering Development through Gender Equality in Rights, Resources and Voice* (IBRD/The World Bank, 2001), a general mandate for reducing poverty by channelling more resources to women. Many poverty reduction strategy papers (PRSPs), the web-sites and working papers of the World Bank and the International Food Policy Research Institute (IFPRI) and major bilateral donors have endorsed the importance of promoting gender justice to foster economic growth and thus reduce poverty.<sup>1</sup>

The inefficiency of gender inequality belongs to a family of arguments presented in these reports to convince development practitioners that improving the relative position of women will reduce poverty. Both reports contend that when women control household expenditure, it results in better nutrition and health for the household as a whole, and particularly for children. They also argue that when women are better educated and have more access to formal employment, they have lower fertility, important if one considers high fertility to be an important constraint on growth in sub-Saharan Africa.

Although this article focuses on the inefficiency claim, the entire set is contestable from a feminist point of view. The idea that those who have caring roles in households (usually women) use their resources to assure better care for their children than those who do not (usually men) is common-sensical but also slippery; one would hardly want to link arguments for greater gender equality to maintaining the exclusive right to the caretaker role. Linking better access to education for women to fertility reduction makes it dependent on one of the more contested ventures in the social sciences, the attempt to establish a direct causal relation between fertility and growth (see Eloundou-Enyegue, 1999). More broadly, claims to gender justice should not depend on proving instrumental links to poverty reduction or economic growth

---

1. See <http://www.ifpri.org/> and <http://www.worldbank.org/gender/>. IFPRI's 1994–2003 Project, 'Strengthening Food Policy through Intrahousehold Analysis', has been particularly influential, both for its scholarly publications (Quisumbing, 2003; Quisumbing and McClafferty, 2006) and its web-based outreach. Titles on the IFPRI web-page include: 'Agricultural productivity increases dramatically when women get the same amount of inputs men get' and 'Gender differences in property rights hinder natural resource management'.

(Jackson, 1996). Gender equality should be valued for itself, not simply because it increases output.

Blackden and Bhanu (1999) and IBRD/The World Bank (2001) do not dabble in high theory. They are practical policy-oriented documents aimed at a broad readership. They do, however, present evidence — often snippets framed in side-bars or boxes<sup>2</sup> — drawn from substantive research to develop their arguments. Particular attention is given to studies by neoclassical economists who have managed to model gender relations within households (intra-household resource allocation) and to produce statistically significant quantitative findings. The studies cited are limited in focus and time-period, but their results are generalized to a geographically unspecified and timeless rural Africa. As theory has become myth, the findings of these studies are selectively retold as empirical fact. This ‘fact’ is that agricultural productivity would be greater if women had individual control over productive resources — land, inputs and labour.

The myth provides different possible explanations of why gender inequality leads to inefficiency. The first, drawing on Jones’s (1983, 1986) work, is that women withdraw their labour when they are not adequately rewarded for it, putting it into less productive activities. This is how IBRD/The World Bank (2001: 86) presents Jones’s findings:

Losses in output also result from inefficiencies in the allocation of productive resources between men and women within households. In Cameroon, as a result of gender asymmetries in the control of income from different crops, female farmers prefer to work on their sorghum plots, for which they control the proceeds, than on rice, for which they don’t (Jones, 1986). Reallocating female labour from sorghum to rice could increase household incomes by 6 per cent.

The second explanation of the inefficiency of gender inequality is that male household heads do not pool resources but instead allocate them disproportionately to their own fields. To show how this leads to measurable inefficiency, the same World Bank report draws on Christopher Udry’s (1996) study of gender and agricultural productivity in Burkina Faso:

Households do not necessarily pool resources for production, and the resulting inefficiencies can have important implications for household income and welfare. In Burkina Faso too little labour and fertilizer are used on plots controlled by female farmers, while too much is allocated to plots controlled by men within the same households . . . these inefficiencies impose high costs on household production and income. Total household production could be increased by as much as 20% if some of the production inputs used on men’s plots were reallocated to women’s plots. (IBRD/The World Bank, 2001: 162)

The reports claim that the absence of pooling also has a direct negative impact on the ways women organize production.<sup>3</sup> When women have few

- 
2. Myths should be attractive if not necessarily fully comprehensible.
  3. Here the reports refer to the work of Doss (1996) on risk in rainfed farming in Ghana. This study is not so often cited as those of Udry and Jones and thus is not discussed here.

resources they are averse to risk and thus do not make good entrepreneurs. Compared with men, women are disadvantaged in their access to and control of a wide range of resources. With fewer resources and more precarious claims to resources, women are more risk-averse, more vulnerable, have a weaker bargaining position within the household, and consequently are less able to respond to economic opportunities (Blackden and Bhanu, 1999: 40).

Having established that gender inequality is inefficient, IBRD/The World Bank (2001: 163) moves on to draw the following policy implications: 'The evidence on determinants of intrahousehold resource allocation and investments make a strong case for targeting interventions by gender — to promote gender equality and more effective development'. Although 'targeting' by gender could mean simply attending to the gendered impact of interventions, the conventional meaning is channelling benefits to women.

Successful myth-making has spawned variant retellings of the tale, often giving it wider scope. As noted, the process began in the World Bank with the transformation of generalizing arguments about Africa in Blackden and Bhanu (1999) into universal truths in IRBD/The World Bank (2001). Deininger's 2003 World Bank report on land illustrates the continuing importance of Udry's study in policy discourse on gendered land rights:

Where the husband controls the proceeds from cultivation, this reduces women's incentives to exert efforts, and thus lowers agricultural productivity. This is particularly relevant in African countries, where women are the main agricultural cultivators, and in many Latin America and Asian countries, where men migrate or women are traditionally heavily discriminated against (Agarwal, 1994; Deere and Leon, 2001). In Burkina Faso the reallocation of factors of production from plots controlled by men to plots controlled by women within the same household could increase output by 6 percent (Udry, 1996). (Deininger, 2003: 58)<sup>4</sup>

Quisumbing and McClafferty (2006: 27) recently claimed that Udry's analysis showed that 'that the output of women's plots, and therefore total household output, could be increased by between 10 and 20 per cent by reallocating actually used factors of production between plots controlled by men and women in the same household'. Each new version makes slightly different and sometimes more dramatic claims. One account of Jones's (1986) study argued that gender inequality was a major reason for the failure of the rice-growing scheme that Jones studied: 'In an irrigated rice project in Cameroon, SEMRY 1, lack of incentives on part of the women farmers is considered to be a major factor in the failure of the project although lack of market also contributed to it' (Mukhopadhyay and Pieri, 1999: 14). Others have argued that the SEMRY experience shows that women would make more long-term investments if they had security of land tenure, presumably through their own entitlement to project plots (Kabutha, 1999:15).

This is the stuff of myth in development discourse — the telling and retelling of the tales of the improvident Burkinabe husbandman and the

---

4. Note that Deininger has reduced the estimate of increased output to be gained from giving men's plots to women from 20 to 6 per cent.

provident Cameroonian woman contract farmer in one consultancy report after another on gender and poverty in Africa. The truth they spin becomes a common-place, only tenuously connected to the original texts and unfixed in any particular place or time: African women are more efficient farmers than are African men, so if we target women in land-titling or micro-credit schemes more will be produced and poverty will decline.

As this myth is spun, the assumptions underlying it remain unchallenged, that is, beneath the story lies another myth, an account of the causes of poverty in rural Africa, more powerful for being implicit. If rural poverty can be substantially reduced by reallocating productive resources from men to women, then the organization of rural households is an important cause of poverty. Blackden and Bhanu (1999: ix) accept that gender inequality is not the only cause of poverty in Africa, but the other causes are drawn from the current consensus of the international financial institutions: the ill-advised policy options of post-colonial regimes that inhibited growth through lack of openness to the world market, regulation of domestic markets, bad governance and so on.

In this account, long-term structural patterns of market development rooted in colonial histories have no relevance for present patterns of poverty and inequality. There is no attempt to see how relations of gender inequality are intertwined with global relations between capital and labour or with processes that make some households prosperous and others poor. Where there is inequality it is assumed to be the expression of market imperfections, not an outcome of the ways markets work. Poverty is assumed to be the lack of commodities, bracketing the processes of intensification and prolonging of work, particularly for women, that have accompanied the expansion of commodity production. If addressing gender inequality requires that women hold individual title to productive resources, then both gender justice and the reduction of poverty depend on the individualization of collectively held resources and greater sway for market signals.

The rest of this article seeks to demystify this hegemonic account by returning to the original studies done by Jones and Udry, placing them in their post-colonial contexts, locating their assumptions, interrogating their methodologies and determining what can and cannot be learned from each case about the relation between gender and poverty in rural Africa.

#### **JONES'S STUDY OF SEMRY: INDEPENDENT WOMEN AS THE STANDARD OF EFFICIENCY?**

SEMRY is a large contract-farming scheme, producing irrigated rice, situated along the floodplain of the Logone on the border between northern Cameroon and Chad.<sup>5</sup> It began in 1954 as a colonial forced-cropping

---

5. The following account of the SEMRY project is drawn principally from Arditi (1985, 1998); Claude (1989); de Garine (1978); van de Walle (1989).

scheme. A drainage and irrigation system was constructed and rice was introduced as an obligatory crop for the Massa ethnic group living in the area.

The Massa were renowned for their lack of commitment to the French *mise-en-valeur* — cash-cropping. Neither of the principal forced crops in northern Cameroon (cotton and groundnuts) did well in the floodplain. The area was also deficient in the principal staple, red sorghums, and was vulnerable to drought. The Massa had, however, alternative ways of earning money to pay taxes and buy cereals: fishing, tobacco-growing and livestock sales. Only Massa in outlying areas of the floodplain had adopted the late transplanted varieties of sorghum grown by neighbouring groups. These demand work during the rainy season, a time the Massa preferred to use for house maintenance, artisanal work, young men's fishing expeditions, funerary celebrations, women's visits to their parents and men's prestige-conferring milk-gorging rituals. There were nonetheless inter-household differences in capacity to withstand the period of rainy season hunger when labour demands from cultivation were high and some granaries empty.

The Massa pattern of residence was based on dispersed compounds inhabited by a senior compound head, his younger brothers and their wives and children. The principal fields were those heavily manured plots that surrounded the compound. These were farmed collectively with red sorghum in association with other food crops. Individual plots were opened in fallow bush land, particularly by women and also by some of the junior men. This mode of land use depended on a gradual hiving-off of junior brothers to form their own compounds. By the 1960s, however, this pattern was no longer possible in all areas, increasing individual claims on collective compound holdings and leading to a decline in reliance on the collective field as the basis for subsistence.

Cattle were herded collectively by neighbourhoods, with compounds taking their turn in providing herders. Livestock could be individually owned, including by women, but most of the cattle were controlled by elders who received them in bridewealth exchanges or in cattle-loans from other compound heads. There were also frequent labour exchanges between compounds within the same neighbourhood.

The rice scheme was built in the floodplain, thus in land that had been used for pasture and for some individual plots such as tobacco. Plots were assigned to each conjugal household, not to the compound head. Rice was sold back to the colonial authorities at fixed prices. Women worked these plots with their husbands, but the income went to men. Chiefs were responsible for enforcing rice production and were allowed to exact tribute in labour. In the 1960s, they and their sons were the only people making much money from cash cropping.

Major expenditures and control over resources thus remained under the control of the compound head, with considerable open tension between the compound head and his junior brothers and sons over the timing of

marriage. We would also expect considerable tension over use of time both between men in the compound and between men and women in conjugal households. Although major expenditures were made by household heads, everyday household budgets (de Garine, 1964:112–18) show that most monetary transactions were carried out by women, including daughters as well as wives. They bought food — meat, dried fish, milk, sorghum flour, gumbo, salt, oil — and a small number of consumer goods such as soap and cloth. They sold these same things, but also sorghum brew and small amounts of fodder, wood and tobacco.

The stagnating irrigated rice scheme was reorganized and modernized in the 1970s with assistance from donors, particularly the World Bank. SEMRY became a parastatal enterprise, charged with developing the land, ploughing the rice-fields, managing the nurseries, organizing the pumping and distribution of water, maintaining the irrigation network and infrastructure, supplying fertilizer, and training and supervising the producers. Plots of one-half hectare were given to heads of conjugal households, who were expected to enlist family labour. In practice, from the outset, a large number of plots were given to established commercial producers and, in the areas close to town, to civil servants and traders who hired labour to work their plots. Producers were expected to finish levelling the ground, to make embankments, to transplant the rice, to weed, to apply fertilizer, to keep the land irrigated and to harvest the rice. Producers were allowed to keep 10 per cent of their production (sometimes as much as 17 per cent in fact), but the rest had to be sold to SEMRY, which discounted fees to cover its expenses before paying the residual to the producer. If peasants failed to fulfil their obligations, they were expelled from the project.

The SEMRY project led to major shifts in the organization of Massa livelihoods. The first change was the lengthening of the agricultural year and the intensification of agricultural work, particularly for weeding and transplanting. Weeding of red sorghums took place at the same time as the transplanting of rice, and the second cycle of rice was cultivated during the dry season. The late transplanted sorghums were rapidly adopted in the 1970s, providing some buffer against lower production of red sorghum. Young men's dry season fishing expeditions conflicted with the second rice cycle.

The land base needed to maintain the diversified livelihoods organization of the Massa was reduced, particularly in communities close to the Logone. After a number of destructive incursions, cattle were barred from the land of the project, ultimately leading to a reduction in herd size and thus the loss of both milk and manure for house land. Average cattle herds were higher outside the project boundaries than within. The availability of fallow for individual bush fields and irrigated tobacco plots declined.

Co-operation within the compound and lineage segment diminished relative to that of conjugal households. The rice plots were treated like the individual bush-plots of men. Since plots were assigned to individual conjugal households, earnings were controlled by the household head rather than

the compound head, and tasks were carried out mainly by members of conjugal households. The collective compound field became less important both in application of labour time and in its contribution to subsistence.

Differences among households sharpened, based not as in the past on the availability of labour within the household and compound, but on the recruitment of wage-labour and on the quality of land. Although the project led to a sharp rise in monetary income in the region, this income was not evenly distributed. Those achieving high yields found it relatively easy to pay SEMRY fees, but others did not. Arditì (1998) calculated that about one quarter of the producers obtained 4 tonnes per hectare, and 25 per cent more than 6 tonnes per hectare. Those who achieved good yields often used wage-labour, particularly for transplanting rice, and double-cropped. Wage-labour use was initiated in the project by civil servants, traders, and political leaders who were either part-time farmers or had accumulated several plots, but some compound heads also resolved labour conflicts by hiring migrant workers. When SEMRY was expanded into neighbouring areas, this migrant labour force dried up and was replaced by local women. These women, sometimes working in associations, were hired as casual day-labourers. They came both from households that themselves had plots within the project and from households without plots. The rapid emergence of local wage-labour was at the cost of earlier collective labour exchanges.

By the early 1980s, certain problems in the project were evident, despite its apparent technical success. The project was unprofitable. It had very high costs, in part because of the infrastructural investment in SEMRY II and III, but also because of high recurrent costs for labour and inputs. Prices paid for paddy to peasants stagnated as fees rose, reducing earnings for producers. Rates of desertion and default began to rise as did sale of SEMRY rice on parallel markets, often across borders in Nigeria and Chad (Arditì, 1985). In 1981, about a third of the plots in SEMRY I were not in cultivation (Jones, 1986: 108).

By 1987 SEMRY had accumulated debts of 11.000 million CFA, despite government subsidies (van de Walle, 1989: 595). The World Bank pulled out when the project was restructured in 1984. The reorganization plan financed by the EU proposed to cut labour costs by forming neighbourhood producer groups that would take over tasks of training and supervision. Despite a proposal to give land-titles to producers, in the event SEMRY retained a land monopoly, and thus the authority to expel marginal producers.

A donor-funded evaluation of the project concluded that women were unwilling to participate in the project because proceeds were controlled by their husbands (Jones, 1986: 106). Jones's study was designed to test this conclusion, giving her an opportunity to demonstrate the analytical weakness of unitary household models. Jones carried out a year's field research in two different Massa communities, one close to the river and the other in an outlying area. Her argument on women's time use is based on two-day recall labour allocation surveys carried out during the rainy season cropping

cycle in the village close to the project. Her sample consisted of twenty-four married women and twelve women heads of household — either widows or living with old or infirm husbands.

Jones's study does not advance the conclusion sometimes drawn from it in the telling of the myth, namely that incentive conflicts would be resolved if plots controlled by men were assigned to women. Jones observes that in one village, 20 per cent of the women were registered for their own plots, but they nonetheless handed the proceeds over to their husbands (*ibid.*: 118). She does, however, make the central claim drawn from her study by the authors of IBRD/The World Bank (2001): if men gave their wives greater compensation for their work in the rice-fields, women would reallocate their labour from sorghum to rice and household incomes would increase by 6 per cent (Jones, 1986: 116). If we look closely at the evidence and argumentation Jones presents to back up this reasonable sounding claim, we encounter some unstable ground.

Jones found considerable variation in how much time women put into rice cultivation. This variation in number of days worked reflected the amount of money women received from their husbands after the sale of the rice. If women received less than the going rate of compensation for their labour, they would refuse to work, instead putting more cultivation time into sorghum or even working as wage-labourer in the rice-plots of others. Here there is a gap in Jones's evidence. Her argument on the 6 per cent return to greater gender equality is not based on overall comparisons of gendered patterns of labour and income across all forms of household production. Her time study focused on women's work in agriculture. She did not do equivalent labour-allocation surveys for men, nor did she include non-farm forms of time use important for Massa livelihoods, such as fishing or livestock-raising.

Jones's study excluded from the outset the possibility of a complementary gendered division of labour across different activities and both rainy and dry seasons. She did not consider the possibility that women regard the compensation they receive from their husbands as only partial payment for their work in the rice fields, that a husband's sorghum production, both his individual plots and his contribution to the collective field, may be important to women, or that a share of his rice income may be spent on things that women would also spend it on, or that his income from fish and livestock rearing may be shared. Inequality is enmeshed *within* co-operation and some sharing may be better than no sharing.

To look at the impact of variation in women's allocation of labour time on household income, Jones compared the labour allocation of married women with that of women working on their own (Jones calls them independent women). There were twelve such women — seven widows, and five women with husbands too ill or old to cultivate rice (Jones, 1986: 114). She showed that these independent women spent 40 per cent more time transplanting rice than did married women, with a corresponding increase in area transplanted

per active household worker (Jones, 1983: 1050).<sup>6</sup> Since paddy yields for the two groups were almost the same,<sup>7</sup> the larger area cultivated led to higher household income from rice. Women on their own spent less time than the married women on the second weeding of their sorghum crop, but Jones argued that any resulting difference in sorghum yield could easily be recovered by retaining a greater amount of paddy for consumption (Jones, 1983: 1051). Jones concluded that the households of such autonomous women gained 6 per cent more than average households from rice and sorghum production (Jones, 1986: 117).

Jones assumes here that women's preferences are most clearly revealed in the labour patterns of women who are not sharing management of resources with men. Within a neoclassical framework that posits the centrality of individual choice, taking widows and the wives of the infirm as prototypes of rational choice may make sense. Everything we know about the heterogeneity of women-headed households should lead us, however, to question whether the choices made by widows and women whose husbands are infirm in any way represent ideal preferences or allocational efficiency either for themselves or for women as a group.

Even on the basis of the evidence Jones provides, women on their own appear to be vulnerable. They put more total days into farm labour than does the average married woman. Their efficiency is thus in part a function of the extension of their labour time. Women working on their own may have specialized in rice production to cover their minimum cash requirements, but would be vulnerable to food insecurity unless they had other resources. It is quite possible that Jones's widows and women with invalid husbands worked much longer and more intensively than other women in order to ensure the minimum amount of cash income that their families needed to survive. Given the intensification of labour and the lengthening of the agricultural year that SEMRY irrigated rice production implied, and resistance to these processes, it does not seem reasonable to assume that all women would regard extra rice income controlled by themselves as necessarily superior to time for visiting their families of origin in the dry season, or caring for their children, or gossiping with friends.

One might thus conclude that independent women's greater involvement in rice production was an expression of their vulnerability rather than their optimizing behaviour. Jones addresses this objection by looking at the 15 per cent (this is now a very small sample) of married women who were 'allocatively more efficient', that is, cultivated as much rice land and spent as much time cultivating rice as the women working on their own. She found that they were indeed compensated by their husbands at a higher rate than those

---

6. Independent women's households cultivated 0.47 ha per worker versus 0.31 ha for married women's households.

7. The households of married women produced 60 kg more per ha than households of independent women (Jones, 1986: 116).

who spent less time on rice. 'Senior wives from polygamous households and women whose husbands still owe bridewealth seem to be overrepresented in the allocatively efficient group of married women' (Jones, 1983: 1053; see also 1986: 117). So Jones concluded that men's bargaining position is weaker *vis-à-vis* higher status senior wives or when they are still struggling to accumulate cattle for bridewealth. When women's bargaining power was relatively higher, this resulted in a more efficient pattern of production for the household as a whole.

Here the evidence is tenuous, but on ethnographic grounds the two kinds of women Jones mentions — senior wives in polygynous households and women whose bridewealth has not yet been paid — would appear to have quite different structural positions within extended family households. One would thus expect them to have very different bargaining positions. Relations of gender inequality are intertwined with forms of inequality based on seniority, reflected in tensions within Massa extended family compound groups over collective claims and duties. Senior wives in polygynous households expected to receive labour contributions from junior wives, particularly in domestic work, making it possible for them to spend more time on rice cultivation. Payment of bridewealth depended on contributions from compound heads, not just husbands. Where this contribution was not forthcoming, junior men might neglect their labour services to the collective sorghum field and dedicate more time to their own rice, a signal of intra-compound conflict and potential rupture. When their wives put more time into rice as a contribution to the payment of their own bridewealth, this could be a reflection of vulnerability rather than of a strong bargaining position. These are the sorts of generational tension over individual vs collective plots exacerbated by the organization of the SEMRY scheme.

Jones's study is silent on the ways intrahousehold tensions are linked to interhousehold differentiation. Her precise calculation of the costs of gender inequality, so highly appreciated by the makers of the myth, depends on averages. She cannot show that the reallocation of women's labour-time from sorghum to rice was equally possible and advantageous for all households because her sample is too small to probe interhousehold variation in intra-household inequality. If one is concerned with the implications of this case for the reduction of rural poverty, it is particularly important to recognize that the processes of household differentiation associated with the SEMRY project and reflected in the demise of the collective field undermine the usefulness of the concept of the average household.

Thus it is not clear, for example, that all households would be more food-secure if they put less time into growing sorghum and more into rice. For producers with good yields from rice, it may be that a day's income from rice was higher than that from sorghum. Both Arditi (1985) and Claude (1989) argued, however, that yields from rice production were very unequal because of differences in the quality of land within the project as well as different patterns of labour input. The latter include hiring in of wage-labour by some

producers as well as women's participation in rice cultivation. Jones's work covered one cropping cycle, so she did not look at yearly fluctuations in sorghum and rice prices. In years of drought, the shortage of sorghum drove up its relative price (Arditi, 1998). Even if SEMRY relaxed its restriction on how much rice producers could keep, households at the low end of the productivity range could not easily switch from eating sorghum to eating rice as Jones suggests. Arditi (1998) noted that this group owed two-thirds of its income to SEMRY in fees for use of the irrigation system, inputs and marketing.

Nor is it clear that household income would be higher if those women who were doing wage-labour in the project plots of other men would work their husband's plots instead. Most of the fifteen married women who did wage labour worked only a few days a year as wage-workers (Jones, 1986: 111). Five women accounted for 67 per cent of the labour days worked. Each of the five indeed received less than the average rate of compensation from their husbands, but Jones does not tell us whether their husbands received the average rate of compensation or better. Her evidence does not exclude the possibility that these five women came from households that earned less than the average from rice-plots.

There is one final analytical silence in Jones's narrative that compromises its contribution to our understanding of gender inequality and poverty in rural Africa. Jones's study was grounded in the crisis of SEMRY — the low yields, the vacant plots. Asking whether women would put more work into rice if they received more compensation from their husbands can only yield a partial and deceptive account if one abstracts from relations of class. Struggles between husbands and wives over work and compensation were embedded in conflicts between SEMRY management and the occupants of the scheme over prices paid for rice, input charges, control of the crop, conditions of work and use of land.

Conflicts over property and the terms of work have continued to plague SEMRY. One general manager attributed its continuing financial crisis to 'the lack of spirit of initiative and solidarity on the part of the rice producers' (*Cameroun Tribune*, 2001). Producers still have no permanent rights to irrigated SEMRY plots, be they women or men. Security of use of land and water for central livelihood activities is diminished. Seasonal hunger remains an issue for many Massa households, increasingly subject to the fluctuations of cereal prices on local markets (Njomaha, 2000).<sup>8</sup>

What we can learn about the inefficiency of gender inequality from Jones's study is compromised by silences in its design: focusing exclusively on agricultural production; abstracting from the complexity of domestic groups;

---

8. As with other large dam projects, the environmental impact of the Phase II Maga dam on diversified rural livelihoods has proven to be much greater than at first estimated. Floodplain loss has meant loss of pasture land, surface water, fishing and grasses and thus results in a substantial loss of annual income in the regional economy (Loth, 2004). The incidence of malaria and of bilharzia have risen (Njomaha, 2000).

reducing interhousehold differentiation to the contrast between independent and married women; making the independent (or isolated) woman the normative rational actor; and bracketing the conflicts over compensation, conditions of work and land-use between SEMRY and those — men and women — who worked in the scheme.

Jones illustrates Whitehead and Kabeer's (2001) observation that bargaining approaches linking gender relations with allocational inefficiency often overlook the fact that households have joint as well as competing interests. With the insecurity of agricultural production in Africa, they observe, these joint interests are often protected through the diversification of livelihoods.

### **UDRY'S STUDY IN BURKINA FASO: THE SELFISHLY IMPROVIDENT MALE FARMER**

Some of Jones's problems of research design are remedied in Christopher Udry's work on the impact of intrahousehold resource allocation on household income in rural Burkina Faso (Udry, 1996; Udry and Alderman, 1995). Udry took advantage of a detailed ICRISAT agricultural survey that followed 150 households through the period from 1981 to 1985.<sup>9</sup> The households were located in six communities in three different ecological zones in Burkina Faso. All three zones are subject to the insecurity of opportune rainfall. They depend in varying proportions on rainfed cultivation and livestock production. The ICRISAT survey was carried out in the context of the great famines of the Sahel of the 1970s and 1980s. Udry wrote in the mid-1990s when media images of the misshapen bodies of children, desiccated fields and scattered corpses of cattle had faded, but in a period of new concern with rural poverty in the post structural adjustment period.

In reading Udry, it is important to remember that historically, Burkina Faso is one of West Africa's great labour reserves (Amin, 1974: Sautter, 1980; Skinner, 1960). It was not a poor country in the nineteenth century, but its riches were not those easily appropriated by a colonial regime. Skinner (1960: 378) cites a French official writing in 1899, three years after conquest: 'If one considers Mossi country from the point of view of the resources it can offer for the subsistence of its inhabitants — millet, peanuts, and livestock — one can say that the country is rich . . . but if one considers the country from the point of view of exportable commodities, one must conclude that it leaves a great deal to be desired'.

The colonial response was a forced labour regime. Young men initially fled to the cocoa farms of Ghana to escape forced labour. In time, however, large numbers moved towards the cocoa and coffee farms of Côte d'Ivoire on a contract recruitment system that remained in place after the abolition

---

9. ICRISAT is the International Crops Research Institute for the Semi-Arid Tropics. Udry drew on the 1981–3 data because it had the most agronomic detail. Other studies have looked at averages across the period, or focused on 1984–5, which was a drought period.

Table 1. Mean Yield, Area and Labour Inputs per Plot by Gender of Cultivator, Burkina Faso, 1981–83

	Women's Individual Plots	Men's Plots (individual and collective)
Crop output per ha (1000 CFA)	105.4	79.9
Area (ha)	0.10	0.74
Female labour (hours/ha)	859	248
Male labour (hours/ha)	128	593
Non-family labour (hours/ha)	46	106
Child labour (hours/ha)	53	104
Manure (kg/ha)	764	2993

Source: adapted from Udry (1996: 1019), based on data from ICRISAT.

of the forced labour regime in 1946. Migrant labour had contradictory effects on rural livelihoods. It withdrew men's labour both seasonally and on a longer-term basis, but remittances from migrants also buffered climatic insecurities and contributed to the accumulation of cattle, hiring of casual workers, purchase of inputs and the expansion of farms into new areas.

Udry's research confirmed that it makes analytical sense to disaggregate the household. To control for different possible sources of intrahousehold variation in productivity, he looked at yield variations between male and female plots planted to the same crop in the same household in the same year. His results, summarized in Table 1, show that yields are systematically higher on men's plots than on women's plots for the same crops. The difference in yields reflects differences in application of inputs. Women spend much more time working on men's plots than men spend working on women's plots; child labour, extra-familial labour and manure are used for men's plots more often than for women's plots.

On the basis of these differences, Udry concluded that the existing gendered distribution of individual plots within farming households sets up incentive conflicts that lead to an inefficient pattern of resource allocation. Total household output could be increased by diverting some factors of production from men's to women's plots (the finding invariably cited in the myth), or alternatively by reallocating land from women to men (the version less appealing to feminists) (Udry, 1996: 1018). Udry (1996: 1040) estimates that household output of the crops cultivated by both men and women could be increased by 5.89 per cent with a reallocation of factors of production across plots. When his evidence is recounted in the telling of the myth, however, his alternative way of calculating the effect of gender difference is generally cited — he argues that the effect of a female cultivator is to reduce yields by over 30 per cent of average household yield (*ibid*: 1018).

Udry's study has become the most frequently told tale in the gender inequality/inefficiency myth, yet despite a larger data-set and rigorous econometric analysis, it shares some of the same analytical silences that mark Jones's work. Udry's study abstracts from the benefits that women obtain from

belonging to a co-operative production group in which there is sharing, though on unequal and often conflictful terms. Ideally in Burkina Faso such groups are a patrilineage segment headed by a male compound head who manages land allocations and livestock, decides on priorities in crop cultivation and determines how the product of collectively worked plots should be used. All members of the compound group also cultivate individual plots, however, and control their output.<sup>10</sup>

The labour constraints and new sources of income associated with migration exacerbated tensions within such compounds, a point emphasized by French anthropologists working in West Africa in the 1960s and 1970s (Rey, 1976). Compound heads tried to oblige younger men and women to concentrate on collective plots. Young men evaded this control through voluntary migration, and women turned to petty trade. Despite these fragmenting tensions, the complex nesting of production groups was still important at the time of the ICRISAT study. In a mixed Bwa/Dyula community, Vierich (1986) found that compound heads could draw on accumulated savings and livestock, better land and more labour contributions. They obtained higher yields by doing so, but they could not easily abuse privilege without division of the compound. McMillan (1986) looked at the farming systems of Mossi households in 1979 in the context of growing land scarcity and the Volta resettlement scheme. Labour was allocated roughly in accord with allocation of land: 62 per cent of household land was worked as collective fields and 59 per cent of household labour was allocated to these fields (McMillan, 1986: 264).

Yet the ICRISAT data did not allow Udry to distinguish between individual plots cultivated by compound or household heads and collectively worked plots under their control. Both are classed as men's plots. We cannot really therefore compare the yields, size and use of labour and inputs on men's and women's plots. It is possible that men's individual plots are as small and as productive as those of women and that labour and inputs are applied less frequently to them than to collective plots. From the outset, Udry's study is biased against the possibility that collective fields are favoured over individual holdings. Labour that is available for cultivating collective plots may not be available for men's individual plots.

There are various reasons for thinking that maintaining co-operation within a compound group can be advantageous though inequitable in Burkina Faso, as in northern Cameroon. Marcel Fafchamps (2001) has argued that returns to scale and experience may support centralized management of farm resources and the specialization of individuals in particular tasks. A particular gendered division of labour may be allocatively efficient even though inequitable. Udry could not control for the timing of agricultural tasks. Large compound groups are able to spread risk through staggered planting. Opportune weeding is an

---

10. For a description of how such domestic groups normatively functioned in Mossi areas, see Skinner (1960).

Table 2. *The Regionally Differentiated Impact of Drought on Composition of Rural Household Income, Burkina Faso, 1981–85*

Income Source (in %)	Sahelian		Sudanian		Guinean	
	1981–85	1984–85	1981–85	1984–85	1981–85	1984–85
Own-crop	49	24	60	51	37	43
Livestock	14	26	6	7	20	14
Local off-farm	24	23	29	27	41	37
Migratory	10	18	2	8	1	3
Transfers	3	8	2	7	1	2

Source: adapted from Reardon et al. (1992: 281) and Reardon and Taylor (1996: 908) based on data from ICRISAT.

important determinant of yield. Whichever plots are weeded last will have lowest yields, all other things being equal. If women's plots are those last weeded, their yields will be lower than those on men's plots, but that does not mean that the household could obtain higher yields by weeding women's plots earlier than men's.

As Whitehead and Kabeer (2001) point out in their critical review of Udry's work, the maintenance of a collective reserve is particularly important given the uncertainty of harvests in Burkina Faso. Any short-term calculation of returns can underestimate the importance of joint interests, inequitable as they may be. With the diversification of rural livelihoods, co-operation can extend beyond agriculture, a possibility excluded from Udry's calculations. In the context of Burkina Faso, particularly Mossi areas, with long-term histories of oscillating male migration, it is possible that more labour is put into men's plots because men are working elsewhere — herding livestock, engaged in long-distance trade or working on plantations in Ghana and Ivory Coast.

Relying on the same ICRISAT survey used by Udry, Reardon and his co-authors show that the importance of income from crop production varies across regions and falls in drought years (Reardon and Taylor, 1996; Reardon, Delgado and Matlon, 1992; Reardon, Matlon and Delgado, 1988). Table 2 shows contributions to household income across the years 1981–5 and in 1984–5, a drought year. It shows that crop income is never more than 60 per cent of total income, and that the share of income derived from cattle sales and from migration rose sharply in the Sahelian zone during the period of drought.

Despite his creative use of the large ICRISAT data-set, Udry, like Jones, does not succeed in showing that gender inequality is necessarily inefficient. By abstracting from the complexities of households and off-farm work he fails to recognize the extent to which inequality within co-operation can be acceptable to women as a defence against poverty. Kevane and Gray (1999) do not dispute Udry's findings on differences in productivity, but they do challenge the interpretation. Differences may reflect the strength of a

particular woman's bargaining position rather than its weakness. Some women may choose, for example, to work less on their own field to obtain a share of the harvest from their husbands' fields or because they gain more from wage-labour. Little is to be gained by fixing women's land rights *vis-à-vis* their husbands if institutionalized gendered norms on land rights, use and duties go unchallenged. Fertilizer and animal traction were concentrated on collective fields supervised by male household heads, for example, because they were the focus of most government extension programmes (McMillan, 1986: 267).

Udry's effusive estimate of the gains in productivity to be reaped by transferring labour and manure from men's to women's fields has exposed his study to mythical appropriation. He notes, but does not probe, other dimensions of variation in yield that have not achieved such celebration. Men who are household heads achieve a yield on their plots that is 18 per cent higher than that achieved by other men (mostly sons) in the household (Udry, 1996: 1027–8). This suggests that, as in the Massa case, gender and generational inequalities are intertwined.

Udry also notes that the yields achieved by different households simultaneously farming the same crop vary more widely than differences within a household (Udry, 1996: 1021–2). Although all the households in the ICRISAT survey may indeed have been poor (*ibid.*: 1016), there was also interhousehold differentiation, a pattern worth exploring for those interested in the causes of poverty. In the ICRISAT data for 1983–4, gini coefficients for total income flows varied between 0.32 and 0.34 for the three different regions, but with much higher incidences of inequality for income from livestock, migration, off-farm labour and transfers than from crops (Reardon and Taylor, 1996: 905). Vierich (1986), working in one of the six villages in ICRISAT study, also found great variation in yields in cereal production (from 30 to 902 kg per worker), which she related to differential access to good land and use of animal traction.

The poor rely heavily on crop income in Burkina Faso, but the conditions that make it possible to increase crop income are access to arable land, access to animal traction and cash to hire labour and inputs. Depending on crop income, particularly in a period of drought, is a condition of the poor, while having a good source of off-farm income — from livestock or local trade or migrant labour — is what makes one better-off (Reardon and Taylor, 1996: 911).

Confronting the relation between gender and poverty in Burkina Faso means considering the long-term structural processes that made men's mobility and off-farm activities an important part of rural livelihoods and forged permeable boundaries between ethnic groups, regions and nations. Land resettlement schemes in the 1980s have not resolved the problems of competition for arable land in Burkina Faso. Sex ratios calculated from recent Demographic and Health surveys show that men of productive age are still migrating out of rural areas (see Table 3). Shifting coffee prices and political

Table 3. Sex Ratios: Men per 100 Women, Burkina Faso, 1992-3 and 1998-9 (by age group)

		Male/Female Ratios by Age Group													
		15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+
<b>1992-3</b>															
	Urban	111	125	103	110	105	111	147	70	112	79	81	70	105	70
	Rural	119	75	68	60	65	89	99	53	71	108	142	131	138	104
<b>1998-9</b>															
	Urban	94	102	108	112	98	108	124	83	96	105	96	84	160	41
	Rural	98	65	60	65	65	77	79	59	70	115	167	125	153	165

Source: Calculated from data for Demographic and Health Surveys (DHS) for Burkina Faso, 1992-3 and 1998-9 (Measure DHS, 2003).

tensions around migrant identity in Côte d'Ivoire shape the vulnerability of rural households in Burkina Faso.

### **WHERE THEORY MEETS MYTH: MARKET UTOPIANISM**

Both Jones and Udry provide a strong rationale for suspending the assumption of a unitary household, and evidence that it is possible to do so using the methodological apparatus of neoclassical economics.<sup>11</sup> For most feminists, however, the theoretical dismantling of the unitary household model is now superfluous outside rational choice theory and neoclassical micro-economics. By the 1980s, most social science literature accepted that domestic groups in Africa, as elsewhere, were complex and overlapping and constructed through contradictory relations of gender and seniority. The issue remains important for neoclassical economics because it must define a unit of maximizing decision making. For those who think that social processes live out relations of power, hierarchy and exploitation and are concerned with the elision between individual and collective agency, no such specification of an individual unit of choice is required or even advisable.

The current importance of the canned accounts of Jones's and Udry's work in the spinning of the myth does not stem, however, from their theoretical assault on unitary household models. What matters more is the link they provide between gender justice and poverty reduction in rural Africa. A close reading of these two studies produces little solid evidence for the proposition that reducing gender inequality in the distribution of productive resources in rural African households would lead to an overall increase in efficiency and thus to a reduction in poverty. They provide scant grounds for the myth's exact calculation of just how much production could be increased by transferring resources from men to women in a Cameroonian community and Burkinabe survey population in the 1980s, and even less for the ahistorical extension of their results to a mythically uniform terrain — all of sub-Saharan Africa.

In a number of respects, both studies are framed in ways that misrepresent the relation between gender and poverty in rural Africa, that is, they are vulnerable to mythical appropriation. Both Jones and Udry focused on agricultural production instead of looking at the gendered division of labour across the range of activities in which household members participate. These relations are often hierarchical and conflictful but also co-operative (Sen, 1990); some sharing may be better than none. In both areas studied, women have rights, though unequal rights, to the product of collective fields and the proceeds of men's non-farm labour. Jones and Udry treat the productive resources controlled by male household heads as men's individual property, abstracting from the ways in which their rights over collective property are

---

11. Although, as Hart (1995) has pointed out, this is not such a difficult step to take within a framework of methodological individualism.

constrained by convention and contestation. The feminist mandate is not trading oppression for isolation, providing women with resources so they can make it on their own, but redressing inequality within co-operative gender relations through reconstruction of the division of labour. This can only be a disruptive and broad political process that cuts across households and communities.

Both authors abstract from the ways that differences between households shape the options open to men and women within them, options that reflect differences in vulnerability to impoverishment. Jones classes widows, women with infirm husbands and senior wives in polygynous households together and finds that all put more labour into cash-crops than do other women. Yet their reasons for doing so are surely different, not simple reflections of what women do when they do not depend on men. Udry observes that yields achieved by different households vary more widely than yields within households, but does not explore how gendered patterns of migration and off-farm labour might lead to differences between households in agricultural practices and the distribution of productive resources.

Finally, neither author has anything to say about how gendered poverty relates to broad structural and contested processes of individualization and commodification of productive resources in rural Africa. The colonial forced labour systems in both Burkina Faso and northern Cameroon initiated processes of change in rural livelihoods that underlie gendered diversification today. Women's decisions about the organization of their labour have come to be shaped not only by relations with husbands, sons, in-laws, kin and friends but also by the terms of negotiation between migrants workers and employers or by the struggle over terms of labour and price between producers and management in the SEMRY scheme.

The ahistorical tonic of the studies by Jones and Udry reflects their fluency in neoclassical economics, one of the aspects of their work that makes it particularly attractive to authoritative voices within the World Bank. All modernist emancipatory projects, including many strands of feminism, have envisioned a world in which social justice is linked to a better use of resources. They differ, however, in their understanding of how social justice should be achieved. The World Bank, despite its more explicit concern with inequality in the post-structural adjustment era, remains wedded to market utopianism. Prescriptive individualization and commodification of resources will allow people everywhere to compare and choose and thus use their resources most efficiently. Poverty in Africa arises from the limited scale and sway of the market. This vision depends on diverting one's eyes from the inequality inherent in the long-term processes of market development in rural Africa.

Neither Jones nor Udry venture the kind of simplistic policy options that tellers of the myth promote, but their accounts have provided the grounds for arguing that we can reduce poverty in rural Africa by adjusting the gender distribution of resources, within a process of continuing commodification. Demanding individual land titles for women means one thing when land is

already individually owned and another when it is part of a programme of prescriptive individualization and commodification of all collectively held land.

Commodification has historically implied insecurity rather than security of tenure since the consolidation of holdings is linked to the sale or seizure of indebted land. As for micro-credit, it is in itself not an asset, for it is also micro-debt. Whether or not it becomes an asset for women depends on whether they have sufficient future production for consumption smoothing, or whether they have access to sufficient labour and markets to make a profitable investment in the famously risky world of micro-enterprises. These conditions may be met by women from more prosperous rural households (often those that have dependable off-farm sources of income), but are unrealistic for the very poor.

Poor households in rural Africa command very few productive resources indeed. To suggest that assuring poor women a larger piece of this very small pie will lead to a significant reduction in poverty, misrepresents the political processes needed to efface the gaps between rich and poor and to achieve gender justice. The improvident male farmer and the entrepreneurial woman on her own have become stock figures of mythical narratives — simple but dramatic stories, told in somewhat esoteric language, recited repeatedly by people with powerful voices — and deeply misleading. Words such as class, colonialism and imperialism have been edited out of these narratives, yet one cannot understand the relation between gender and poverty in rural Africa without them. Inequality is difficult to conceptualize within the neoclassical language of prescriptive commodification and individual choice.

## REFERENCES

- Agarwal, B. (1994) *A Field of One's Own: Gender and Land Rights in South Asia*. Cambridge: Cambridge University Press.
- Amin, S. (1974) 'Modern Migrations in Western Africa', in S. Amin (ed.) *Modern Migrations in Western Africa*, pp. 65–124. London: Oxford University Press.
- Arditi, C. (1985) 'Quelques Réflexions Socio-économiques sur la Riziculture Irriguée dans le Nord-Cameroun (SEMRY I et SEMRY II)', *Journal des Anthropologues* 20: 59–82.
- Arditi, C. (1998) 'Pourquoi les Massa préfèrent-ils le sorgho? Heurs et malheurs de la riziculture irriguée au Nord Cameroun', *Journal des Anthropologues* 74: 117–31.
- Blackden, C. M. and C. Bhanu (1999) 'Gender, Growth, and Poverty Reduction, Special Program of Assistance for Africa: 1998 Status Report on Poverty in Sub-Saharan Africa'. Washington, DC: The World Bank.
- Cameroon Tribune* (2001) 16 October. Available online: <http://www.cameroon-tribune.cm> (accessed 18 February 2003).
- Claude, D. (1989) 'Production and Commercialisation of Rice in Cameroon: The Semry Project', in B. Campbell and J. Loxley (eds) *Structural Adjustment in Africa*, pp. 202–33. Basingstoke: Macmillan.
- Deere, C. D. and M. Leon (2001) *Empowering Women: Land and Property Rights in Latin America*. Pittsburgh, PA: Pittsburgh University Press.

- Deininger, K. (2003) *Land Policies for Growth and Development: A World Bank Policy Report*. Washington, DC: IBRD/The World Bank.
- Doss, C. (1996) 'Intrahousehold Resource Allocation in an Uncertain Environment', *American Journal of Agricultural Economics* 78(5): 1335–9.
- Eloundou-Enyegue, P. M. (1999) 'Fertility and Education: What Do We Now Know?', in C. Bledsoe, J. B. Casterline, J. Johnson-Kuhn and J. G. Haaga (eds) *Critical Perspectives on Schooling and Fertility in the Developing World*, pp. 287–305. Washington, DC: National Academy Press.
- Fafchamps, M. (2001) 'Intrahousehold Access to Land and Source of Inefficiency: Theory and Concepts', in A. de Janvry, G. Gordillo, J.-P. Platteau and E. Sadoulet (eds) *Access to Land, Rural Poverty and Public Action*, pp. 68–96. Oxford: Oxford University Press.
- de Garine, I. (1964) *Les Massa du Cameroun, Vie Économique et Sociale*. Paris: Presses Universitaires de France.
- de Garine, I. (1978) 'Population, Production and Culture in the Plains Societies of Northern Cameroon and Chad: The Anthropologist in Development Projects', *Current Anthropology* 19(1): 42–57.
- Hart, G. (1995) 'Gender and Household Dynamics: Recent Theories and their Implications', in M. G. Quiriba (ed.) *Critical Issues in Asian Development Theories Experiences and Policies*, pp. 39–74. Hong Kong: Oxford University Press for the Asian Development Bank.
- IBRD/The World Bank (2001) *Engendering Development through Gender Equality in Rights, Resources and Voice*. Washington, DC: The World Bank; New York: Oxford University Press.
- Jackson, C. (1996) 'Rescuing Gender from the Poverty Trap', *World Development* 24(3): 489–504.
- Jones, C. W. (1983) 'The Mobilization of Women's Labor for Cash Crop Production: A Game Theoretic Approach', *American Journal of Agricultural Economics* 65(5): 1049–54.
- Jones, C. W. (1986) 'Intra-household Bargaining in Response to the Introduction of New Crops: A Case Study from North Cameroon', in J. L. Moock (ed.) *Understanding Africa's Rural Households and Farming Systems*, pp. 105–23. Boulder, CO: Westview Press.
- Kabutha, C. (1999) 'The Importance of Gender in Agricultural Policies, Resource Access and Human Nutrition'. Paper presented at the Seminar on Agricultural Policy, Resource Access and Nutritional Outcomes, Addis Ababa (3–5 November).
- Kevane, M. and L. C. Gray (1999) 'A Woman's Field is Made at Night: Gendered Land Rights and Norms in Burkina Faso', *Feminist Economics* 5(3): 1–26.
- Loth, P. (2004) *The Return of the Water: Restoring the Waza Logone Floodplain in Cameroon*. Gland, Switzerland and Cambridge, U.K., International Union for the Conservation of Nature and Natural Resources (IUCN).
- McMillan, D. E. (1986) 'Distribution of Resources and Products in Mossi Households', in A. Hansen and D. E. McMillan (eds) *Food in Sub-Saharan Africa*, pp. 260–73. Boulder, CO: Lynne Rienner.
- Measure DHS (2003) 'Statcompiler: DHS+ Surveys for Burkina Faso, 1992–3 and 1998–9'. Calverton, MD: Measure DHS. Available online: <http://www.statcompiler.com> (accessed 2 February 2003).
- Mukhopadhyay, M. and C. Pieri (1999) 'Integration of Women in Sustainable Land and Crop Management in Sub-Saharan Africa, Vol 2003'. Collaborative effort between Gender in Rural Development (GENRD) team and Sustainable Land and Crop Management SLCM) Thematic Team. Available online: [http://lnweb18.worldbank.org/ESSD/essdext.nsf/22DocByUnid/7F232B0EE14EF46A85256B880079D688/\\$FILE/IntegrationofWomeninSustainableLand&CropManagementinSSA.pdf](http://lnweb18.worldbank.org/ESSD/essdext.nsf/22DocByUnid/7F232B0EE14EF46A85256B880079D688/$FILE/IntegrationofWomeninSustainableLand&CropManagementinSSA.pdf) (accessed 15 April 2003).
- Njomaha C. (2000) 'Impact sanitaire et nutritionnel du barrage rizicole de Maga dans le Nord Cameroun', *Cahiers d'études et de recherches francophones / Agricultures* 9(5): 54.
- Quisumbing, A. R. (ed.) (2003) *Household Decisions, Gender, and Development: A Synthesis of Recent Research*. Washington, DC: International Food Research Institute; Baltimore, MD: Johns Hopkins University Press.

- Quisumbing, A. R. and B. McClafferty (2006) *Food Security in Practice: Using Gender Research in Development*. Washington, DC: International Food Research Institute.
- Reardon, T., C. Delgado and P. Matlon (1992) 'Determinants and Effects of Income Diversification amongst Farm Households in Burkina Faso', *Journal of Development Studies* 28(1): 264–96.
- Reardon, T., P. Matlon and C. Delgado (1988) 'Coping with Household-level Food Insecurity in Drought-Affected Areas of Burkina Faso', *World Development* 16(9): 1065–74.
- Reardon, T. and J. E. Taylor (1996) 'Agroclimatic Shocks, Income Inequality, and Poverty: Evidence from Burkina Faso', *World Development* 24(4): 901–14.
- Rey, P.-P. (1976) *Capitalisme négrier, la Marche des Paysans vers le Proletariat*. Paris: Maspero.
- Sautter, G. (1980) 'Migrations, Société et Développement en pays Mossi', *Cahiers d'études africaines* 20(79 Cahier 3): 215–53.
- Sen, A. K. (1990) 'Gender and Cooperative Conflicts', in I. Tinker (ed.) *Persistent Inequalities: Women and World Development*, pp. 123–49. New York and Oxford: Oxford University Press.
- Skinner, E. P. (1960) 'Labour Migration and its Relationship to Sociocultural Change in Mossi Society', *Africa* 30(4): 375–401.
- Udry, C. (1996) 'Gender, Agricultural Production and the Theory of the Household', *Journal of Political Economy* 104(5): 1010–46.
- Udry, C. and H. Alderman (1995) 'Gender Differentials in Farm Productivity: Implications for Household Efficiency and Agricultural Policy', *Food Policy* 20(2): 407–23.
- van de Walle, N. (1989) 'Rice Politics in Cameroon: State Commitment, Capability, and Urban Bias', *Journal of Modern African Studies* 27(4): 579–99.
- Vierich, H. (1986) 'Agricultural Production, Social Status and Intra-Compound Relationships', in J. L. Moock (ed.) *Understanding Africa's Rural Households and Farming Systems*, pp. 155–65. Boulder, CO: Westview Press.
- Whitehead, A. and N. Kabeer (2001) 'Living with Uncertainty: Gender, Livelihoods and Pro-poor Growth in Rural Sub-Saharan Africa'. IDS Working Paper 134. Brighton: University of Sussex, Institute of Development Studies.

**Bridget O'Laughlin** is an Associate Professor of Population and Development at the Institute of Social Studies, PO Box 29776, 2502 LT The Hague, The Netherlands (e-mail: [brolaughlin@iss.nl](mailto:brolaughlin@iss.nl)). Her current research interests are the politics of AIDS policies in southern Africa and the ways movements for land reform address the diversification of rural livelihoods.