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Gender and the Expansion of Non-traditional Agricultural Exports in Uganda

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Occasional Paper 12, May 2000

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Summary

Agricultural policy is at the heart of poverty-focused macroeconomic policy in Uganda. Women are central to agricultural production in the country, and agriculture is critically important to women's well-being. It is therefore crucial that Ugandan agricultural policy become more gender-aware, after having long been "gender-blind". The research on which this paper reports sought to contribute to building national capacity for gender analysis in Uganda.

The promotion of non-traditional agricultural exports (NTAE), one of the keystones of current macroeconomic policy in Uganda, was the subject of field study. Increasing agricultural production is crucial for the country's development, and NTAE promotion is now considered an important agricultural intensification strategy, given the demonstrated risks of over-reliance on world markets for the traditional cash crops—coffee, tea and cotton. But the implications of gender structures for the success of the NTAE promotion strategy, and the implications of this policy shift for gender relations and women's well-being, are not well understood. The research thus sought to provide information that would contribute to "engendering" agricultural policy. It addressed two broad sets of questions concerning the *efficiency* and *equity* of the NTAE policy. First, how would current gender relations, including the gender division of labour and control over resources, affect the NTAE promotion strategy? What factors would be necessary for the desired supply response to policy initiatives to materialize? Second, how would the NTAE strategy, as currently conceived, affect women's well-being and their standing in the household and in society? What would be required for the NTAE promotion strategy to not only contribute to aggregate production, but to do so without adversely affecting any groups in society? Besides reviewing the implications of recent data and research for these questions, the project also carried out participatory rural appraisal exercises and conducted two village surveys in order to address them.

The paper begins with an overview of the analytical approach of the research and then provides information on the national context in Uganda, including the agricultural sector economic policy, and gender issues and public policy. It goes on to look at the rural sector in Uganda, including gender roles in agriculture. Macroeconomic policy in Uganda is then discussed, as is the potential for and the constraints on an agricultural export-led growth strategy. The findings of the field studies are then described, in particular the factors limiting productivity in the smallholder sector

The paper concludes by describing an "ideal" NTAE strategy—one that would lead to agricultural intensification, with increased inputs (labour and non-labour) resulting in increased outputs. Production for own consumption would either remain at current levels, or the income from marketed crops would be sufficient to allow sufficient purchase of food. At this time, however, rural Uganda is not reflected in this scenario. Constraints on increased productivity exist both in terms of input—seasonal labour shortages, lack of access to inputs, lack of credit, lack of knowledge—and in terms of incentives—lack of confidence in markets and pricing, high marketing margins, large price swings resulting in non-ability to purchase food prior to the harvest season.

Women's labour supply is very inelastic, and additional labour burdens on women are likely to be detrimental to the well-being of others in household. Thus increased NTAE production, in the absence of additional inputs, must come from crop switching or an increase in men's labour. The field research found some indication that the gender division of labour is less rigid than is often believed, and that men are prepared to participate more fully in all aspects of agricultural production if the incentives to do so are adequate. But will this imply that men will "take over" women's crops to the detriment of women's position in the household? This remains an open question. Indeed, there is also some indication that women do not welcome the loss of autonomy resulting from more co-operative household production systems.

The paper argues, however, that a more equitable distribution of labour burdens within smallholder households certainly has the potential to benefit women. What Uganda is likely to experience is a shift to a more integrated and co-operative household in the smallholder sector. Whether this will imply a loss of women's autonomy, or an increase in women's influence in a larger sphere, will depend on the characteristics of the particular men and women who are members of each household, as well as on the strength of government initiatives to further the educational, legal, and social status of women.

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This paper was prepared in the context of the UNRISD project on **Technical Co-operation and Women's Lives**, which was funded by the United Nations Development Programme (UNDP).

Abbreviations and Acronyms

AEP	Agricultural Extension Project
CMB	Coffee Marketing Board
FMS	First Monitoring Survey
IDEA	Investment in Developing Exports in Agriculture
HIS	Integrated Household Survey
LMB	Lint Marketing Board
MAAIF	Ministry of Agricultural, Animal Industries and Fisheries
MoFEP	Ministry of Finance and Economic Planning
MOG	Ministry of Gender and Community Development
NARO	National Research Organisation
NGO	non-governmental organization
NRM	National Resistance Movement
NTAE	non-traditional agricultural exports
NTE	non-traditional exports
PRA	participatory rural appraisal
SDA	Social Dimensions of Adjustment
Shs	Kenya shillings
UCBRFS	Ugandan Commercial Bank Rural Farmers Scheme
WID	women in development

1. Introduction[1]

Agricultural policy is at the heart of the new poverty-focused macroeconomic policy in Uganda. Women are central to agricultural production in the country, and agriculture is critically important to women's well-being. It is therefore crucial that Ugandan agricultural policy become more gender-aware, after having long been "gender-blind". The project on which this paper reports sought to contribute to building national capacity for gender analysis in Uganda through a workshop and research process.

The Uganda study selected the promotion of non-traditional agricultural exports (NTAE), one of the keystones of current macroeconomic policy, for further field-based study. Increasing agricultural production is crucial for Ugandan development, and NTAE promotion is now considered an important agricultural intensification strategy, given the demonstrated risks of over-reliance on world markets for the traditional cash crops—coffee, tea and cotton (World Bank, 1996). However, the implications of gender structures for the success of the NTAE promotion strategy, and the implications of this policy shift for gender relations and women's well-being, are not well understood. The Uganda study sought to provide information which would contribute toward "engendering" agricultural policy. It addressed two broad sets of questions concerning the *efficiency* and *equity* of the NTAE policy. First, how will the NTAE promotion strategy be affected by current gender relations, including the gender division of labour and control over resources? What factors are necessary if the desired supply response to policy initiatives is to materialize? Second, how will the NTAE strategy, as currently conceived, affect women's well-being and their standing in the household and in society? What is required so that the NTAE promotion strategy not only contributes to aggregate production, but does so without adversely affecting any groups in society? Besides reviewing the implications of recent data and research for these questions, the project carried out participatory rural appraisal exercises and conducted two village surveys in order to address these questions.

This report is organized as follows. Section 2 gives an overview of the analytical approach taken by the project. Section 3 provides information on the national context in Uganda, including the agricultural sector economic policy, and gender issues and public policy. Section 4 provides information on the rural sector in Uganda, including gender roles in agriculture. Section 5 discusses macroeconomic policy in Uganda, and the potential for and the constraints on an agricultural export-led growth strategy. Section 6 presents findings from the field studies regarding factors limiting productivity in the smallholder sector. Section 7 presents some conclusions.

2. Gender and Macroeconomic Policy in Africa

A focus on the macro policy level in work on gender and development uncovers the systemic nature of gender disadvantage and of gendered perceptions, as the work of Diane Elson, among others, has convincingly

[1] Germina Ssemogerere, Arsen Balihuta and Owor Adipa made significant contributions to this study.

shown (Elson, 1992; 1995). The gender critique of macroeconomic policy making points first to the "invisibilization" of domestic work, largely done by women, upon which the rest of the economy depends. The "strategic silence" (Bakker, 1994) of economic policy analysis with regard to the unpaid sector of the economy implies that this sector is unimportant, and exists in parallel to and independent of the monetized sector. Policy makers thus tend to assume that women's labour time is infinitely elastic. However, the two parts of the economy are in fact highly interdependent. For example, cuts in public expenditure leading to reduced government health services can have implications for women's workload in caring for ill family members; women's subsistence agricultural production (in "kitchen gardens") reduces the reservation wage of household males; cuts in fuel subsidies are often offset by increased women's time spent cooking and in transportation. In fact, women's unpaid work effectively subsidizes the monetized sector in many ways.

A second key feature of the gender critique is that macroeconomic policy making treats markets and institutions as if they were not gendered. Units of analysis are firms and households, which are characterized as if they have no intra-unit relations, and the only significant differences between agents in markets are tastes, income and (sometimes) information. This means that conventional macroeconomic analyses have no way of dealing with situations in which women are systematically excluded from or disadvantaged in credit, labour or output markets, or of understanding the implications of these situations for women's mobility between activities during adjustment, and for their incentives in work effort. The gender blindness of macroeconomics means that primary economic agents are male by default. Thus, in the African context, "farmer" usually means a man. This problem operates not only in analysis but also in policy implementation, with extension services and credit targeted at men.

The centrality of smallholder, household-based farming to the African economies means that much of the debate and research on gender, economics and economic policy has focused on intra-household gender relations and agriculture. Given the dominance of agriculture in Uganda's economy—accounting for about half of GNP and over 90 per cent of export value—as well as the explicit reliance on agricultural intensification as the primary means of "growing out of poverty" (World Bank 1993; 1996), the interrelations between gender and agricultural intensification were identified as the focus of the UNRISD/UNDP project.

There are two issues or perspectives to be examined in relation to macroeconomic policy. One is concerned with the implication of gender relations for the *efficiency* of macroeconomic policy. Within Africa, the central plank of policy has been the restructuring of the agricultural economy toward expanded production of tradable (effectively export) crops through relative price changes and liberalization of markets. Here, gender analyses have focused on factors that prevent or constrain women from being able to take part in the opportunities offered by adjustment, or that mean that they have little or no incentive to do so. These factors include a gender-specific lack of access to markets and resources such as land and credit, a lack of information, and not being paid the marginal return to labour. These problems are seen as arising out of women's unequal burden of domestic

labour, and asymmetric power relations within the household. Thus women are generally excluded from a process of positive feedback between price incentives, increased production, increased revenue and investment in yield-enhancing measures. They cannot respond *independently* to policy measures because they lack independent access to resources, and, while their labour is central to the production of exports crops for their husbands or households, they have little incentive to increase this labour because it is unpaid. In addition, because women are also responsible for household labour and food production, there may also be little room for an increase in the amount of labour time which they can put into export crop production without a decrease in the amount of time spent on domestic work or food production.

Much of the work concerned with gender and efficiency problems in adjustment comes from within a neoclassical tradition (e.g. Collier, 1988; 1994; Haddad et al., 1995) and takes the underlying institutional basis of gender inequalities as given. The emphasis has been on tailoring adjustment measures to make them more efficient within the framework of existing gender relations. As Haddad et al. (1995: 881) put it:

> If . . . adjustment measures ignore the host of non-price mechanisms that hinder the response of women relative to men, adjustment will be impaired. Likewise, if the costs to adjustment measures are expected to be borne disproportionately by women when they are less able than men to bear them, adjustment will ultimately fail.

The other main issue to be examined deals with the implications of macroeconomic policy for gender *equity*. The concern is that, because of existing gender inequalities in markets and institutions, policies aimed at adjustment in the economy may actually make things relatively worse for women. The incentives for expanded production of export crops (or indeed domestic food crops with liberalized food markets) may mean that more labour is expected of women in household farming. But the fact that it is seen as family farming, with the product controlled by a male head of household, may also mean that the extra work is done for no, or minimal, extra return. Expanded production of male-controlled crops may thus impinge on women's time, on other crops they grow under their own control, and on household food security. Depending on the design and implementation of adjustment, crops that were formerly grown for own consumption can become commercialized (in Uganda this has happened with maize), and come under men's control. Overall, these changes may lead to a reduction of women's bargaining power within the household with adverse effects on their welfare (and that of their children). However, some changes under adjustment programmes may also be of relative benefit to women. For example, there is some evidence that the liberalization of food markets has increased women's incomes in Tanzania (Booth, 1990), and that in some cases the balance of power in the household has shifted toward women (Pottier, 1995). In any situation in which intra-household relations are renegotiated, of course, the actual outcome will vary with individual women within individual households. As women's and men's productive spheres become more integrated, some women will have access to broader personal and productive opportunities than they had formerly, while others will lose their former autonomy with little compensation (Sorensen, 1996). Much will

depend on the personal characteristics and resources of the individuals involved.

These concerns raise three questions. The first is *whether, and how far, gender relations may hinder the further growth of agricultural export production*, especially through discouraging productivity growth. The second question is *what the process of growth is doing to women's independent farming, to women's work burdens, to food security and to social reproduction*. The third question is *what the government can do,* in particular, how it can develop the intended policy instruments to address these issues. This research was designed to shed further light on these questions.

3. The National Context

Uganda's economy is predominantly agricultural, with over 90 per cent of the population dependent on subsistence farming. Between 1979 and 1985 the country faced a period of civil and military unrest, resulting in the destruction of the economic and social infrastructure, and the virtual collapse of export agriculture. This seriously affected the growth of the economy and the provision of social services. Until recently, the national political context in Uganda was still dominated by the process of emergence from conflict. In 1986 peace was established and, with the exception of the Northern regions, has been maintained. Political power was formally vested in the National Resistance Movement, which grew out of the army overthrowing the previous regime. This remains the sole political structure.

In the last several years, efforts to reform governance and the economy have emerged as the key political issues. A long and thorough process of consultation culminated in the drafting of a constitution in 1995, which keeps the NRM as the sole political organization. At the same time, an ambitious economic reform programme has been running since the early 1990s. This programme is considered responsible for the transformation of Uganda's economy from one in ruins to one of the few African success stories. The annual growth rate has averaged 6.5 per cent over the last 10 years, and inflation has been brought down from 240 per cent per annum in 1986 to 6.7 per cent in 1996 (Government of Uganda, 1997). This achievement is mainly attributed to the government's commitment to macroeconomic stability and liberalization of the financial system. The domestic economy has also been strengthened by a steady growth of private investment.

Even with this impressive economic growth, however, over 50 per cent of Uganda's population is still living below the poverty line. With a current GNP per capita of US $290, the country still ranks among the 20 poorest countries in the world. Poverty is particularly prevalent in rural areas, although the urban areas also have pockets of high levels of poverty.

Table 1
Selected indicators for Uganda

	1986	1990	1991	1992	1993	1994
GDP real annual growth rate	-0.3	6.1	4.7	3.2	8.5	5.4
Inflation, average annual	-	45.4	24.6	42.1	28.4	7.8
Agriculture as % of GDP	54.4	53.0	49.0	47.8	47.7	45.4
Exports as % of GDP	11.3	6.0	6.1	7.2	5.5	6.1
Imports as % of GDP	13.6	16.9	21.1	22.9	20.8	17.9
Women's share of credit				9.2		
Women's share of land				26.0		
Female literacy rate (%)				49		
Male literacy rate (%)				75		

Source: World Bank, 1996: various tables

3.1 Gender and Public Policy in Uganda

The context of gender relations in Uganda varies somewhat from region to region, but generally, strongly patrilineal and patriarchal structures predominate, with women's economic autonomy and independent access to land being relatively more constrained than elsewhere in East Africa, and certainly more than in coastal West Africa. Under customary law and practice in Uganda women were minors without adult legal status or rights. While legally their status has improved since the drafting of the new constitution in 1995, women still suffer from pervasive *de facto* discrimination.

President Museveni has sent clear signals that he is interested in influencing this situation. One of the steps taken is the creation of Women's Councils, a parallel structure to the Resistance Councils (RCs) that form the base of the political and administrative structure, in which only women stand and vote. This represents an opportunity for women to enter the public realm and to pursue gender-specific interests, but there is also a risk that it will lead to the marginalization of women within the RCs themselves.

Another step was the creation of a WID Ministry in 1988, which has been identified as a key turning point for gender awareness by government officials (Kwesiga, 1994). This ministry has since been renamed and merged with another to become the Ministry of Gender and Community Development (MOG). However, the role of MOG remains largely advisory, working through "gender focal point" officers in ministries where planning decisions are taken and budgets are held, such as the Ministry of Finance and Economic Planning (MoFEP) and the Ministry of Agriculture, Animal Industries and Fisheries (MAAIF).

Outside the government, Uganda also has a fairly strong women's movement, with representatives found in NGOs, academia, and among those

working for donor organizations. The combination of this movement with the existence of the MOG and general government encouragement means that there are potential points of entry and opportunities for influencing policy-making forums.

Much recent discussion of gender has focused on the legal and constitutional rights of women and men (for example, on land rights and representation in the political system). However, there has been much less public discussion of gender issues in the economic sphere. This is also true at the donor level. While World Bank poverty assessments identify women as one major group among the vulnerable, and while it known that women do most agricultural work, gender has not yet been mainstreamed in Bank documents on Uganda, which have been very influential on government thinking and policy making.

The lack of adequate gender-disaggregated micro-level data is an additional hindrance to the development of gender-sensitive policy. While two large micro-level surveys—the 1992/93 Integrated Household Survey (IHS) and the 1993/94 First Monitoring Survey (FMS)—are very useful, there were also considerable inconsistencies both between them and with other secondary sources, most of which did not have gender disaggregated data.

4. The Rural Sector

4.1 Characteristics of the Rural Sector

With a share of 45 per cent of GDP, agriculture continues to dominate the country's economy. Despite increased production of some export crops following liberalization efforts, the rural economy is still characterized by subsistence production. Average agricultural holdings are 1.6 hectares or less and smallholders' production has seen little real growth in recent years, with per capita food production declining by around 30 per cent between 1970 and 1994 (World Bank, 1996). This relatively low agricultural output is explained by several factors: the technology used in the smallholder sector is low, there is very little use of agricultural inputs, soil quality is declining, and lack of information, poor communications and inability to access output markets remain considerable problems.

Agriculture is major source of income in the rural sector for both the poor and non-poor (table 2). *Matooke* (plantain) and tubers are grown largely for own consumption and represent an important portion of the food consumed in rural areas (table 3). Maize and other grains, along with groundnuts and beans, represent a flexible resource, being both consumed and sold according to the food and cash needs of the household. A relatively small proportion of total agricultural income comes from the traditional cash crops—coffee, tea, cotton and tobacco.

Table 2
Major income sources in Uganda (%)

Income source	Poor		Non-poor	
	Rural	Urban	Rural	Urban
Earned income	71.28	73.47	83.73	83.67
Agriculture	59.31	18.03	60.40	6.98
Business	6.75	19.47	13.71	39.82
Employment	3.86	33.31	8.15	35.37
Residual earned income	1.36	2.67	1.47	1.50
Miscellaneous income	28.72	26.52	16.26	16.32
Rent	2.18	3.97	0.01	3.88
Remittances	19.85	19.25	12.30	11.25
Transfers	0.59	0.20	0.13	0.14
Dowry	4.18	1.83	1.72	0.35
Inheritance	1.92	1.29	1.12	0.72
Total income	100.00	100.00	100.00	100.00

Source: Calculated from the Government of Uganda (1992/93).

Table 3
Major sources of agricultural income in Uganda cash and imputed income

Income source	Poor	Non-poor
Matooke, roots and tubers	42.57	49.52
Grains	25.17	18.36
Pulses, seeds and nuts	17.61	17.06
Fruits	2.19	2.21
Vegetables	1.31	1.33
Cash crops	5.94	5.40
(of which coffee)	(3.71)	(3.33)
Annual income	4.95	5.97
Total agricultural income	100.00	100.00

Source: Calculated from the Government of Uganda (1992/93)

Incomplete and segmented markets have a clearly detrimental effect on agricultural production incentives. In the conflict and crisis years, the marketing boards were hardly functioning and farmers received payment for their crops late or not at all. There was a significant withdrawal from formal marketing channels in these years (Sorenson, 1996), with people reverting to subsistence production and using parallel markets. Confidence in formal market functioning has not yet fully returned.

Another significant problem in the marketing system is the gap between farm-gate and retail market prices. Table 4 shows that except for groundnuts, rice and seed cotton, the share of the farmer in the market price in 1992 was below 50 per cent. The high marketing margins have been attributed to the high costs of transportation due to poor feeder roads, primitive sorting and packaging facilities and consequent high spoilage rates, as well as to a lack of competition among buyers and a lack of financial resources and storage facilities which would enable farmers to store their own crops (Uganda Women's Network, 1995; World Bank, 1996).

Table 4
The share of each participant in the market price per crop

Crop	Farmer	Buyer	Trans-porter	Whole-seller	Retailer	Other
Simsim	40.0	2.0	4.0	28.0	7.0	19.0 (exporter)
Finger millet	29.2	29.9	12.4	13.9	14.6	
Sweet potatoes	12.2	4.1	17.3	39.8	26.5	
Irish potatoes	24.0	4.0	17.0	35.0	20.0	
Peas	22.0	2.0	10.0	55.0	11.0	
Groundnuts	57.4	2.1	6.7	31.9	2.1	
Beans and legumes	33.0	3.0	15.0	29.0	20.0	
Maize	17.0	4.0	12.0	12.0	26.0	29.0 (miller)
Rice	56.0	11.0	8.0	7.0	18.0	
Soybeans	27.0	3.0	14.0	39.0	17.0	
Seed cotton	57.0	4.0	16.0	17.0	6.0	
Robusta	43.6	4.6	24.1	20.6	7.1	
Tobacco	28.7	2.9	2.1	66.4	–	

Source: Biganbambah and M. Tsfai (1993).

More recent data, from the report **Economics of Crops and Livestock Production** (Agricultural Policy Secretariat, 1997), indicate that the farmer's share of the price of coffee and cotton has increased to over 60 per cent. These rising shares are the direct fruits of government policies to improve marketing efficiency undertaken in the early 1990s. There are no comparable recent data for food crops, but as discussed further below, the field research conducted for this paper suggests that high marketing margins remain a very real disincentive to agricultural production.

4.2 Poverty in the Rural Sector

In 1992/93 a systematic collection of data was started as part of the structural adjustment package to analyse the Social Dimensions of Adjustment (SDA) policies. The Integrated Household Survey 1992/93 (IHS) found that those households whose head was engaged in food crops agriculture as the major occupation were the poorest; of these 64.1 per cent were not able to purchase the basic requirements for life (table 5). Agriculture provided about 60 per cent of the income for both the poor and non-poor in rural areas (table 2).

The Poverty Eradication Action Plan of 1997 argued that promoting agricultural sector growth would be the best way to ensure broad-based equitable growth with employment in Uganda. Direct fiscal transfers are impractical: in an economy with large semi-subsistence and informal sectors, there are no channels through which transfers can directly raise the incomes of the poor. Transfers contributed only 0.59 per cent to the income of the rural poor and 0.13 per cent to that of the urban poor.

Table 5
Percentage of the poor* by sector of household head, 1992 and 1996

	1992	1996
National	55.6	45.6
Food crops	64.1	58.3
Cash crops	59.6	40.5
Non-crop agriculture	51.7	41.0
Mining	43.4	74.2
Manufacturing	46.3	27.9
Public utilities	43.3	10.9
Construction	38.3	34.6
Trade	26.4	16.7
Hotels	26.6	17.0
Transport/Communications	31.9	14.3
Government services	27.7	26.9
Non-working	59.8	62.1

* Defined as those who cannot afford the monetary cost of purchasing the basic requirements for life.
Source: Appleton (1998)

The pricing and marketing policies of the early 1990s probably prevented the collapse of the coffee sector when the international price of coffee fell in 1992-93, and it seems that these policies were also effective in reducing poverty during the coffee boom of 1994-95 for those households whose head was engaged in cash crop production (particularly coffee) as the main occupation (table 5). However, whether the policies reduced overall poverty in the country is still a matter of controversy. Traditional cash crop agriculture contributes only a small proportion to total agricultural income: 6 per cent for the poor and 5 per cent for the non-poor, as illustrated in table 3. Although coffee is widely grown, some areas in the north and eastern parts of Uganda do not grow any coffee. The bulk of income originating from agriculture—almost 90 per cent—is contributed by food crops (table 3).

Although the World Bank data in table 5 would seem to indicate that poverty has fallen in most sectors, qualitative studies by several NGOs suggest that poverty is perceived to be on the increase. Resource availability to the poor, especially in rural areas, has deteriorated, and the poor report feeling increasingly exploited and helpless. The health of women has deteriorated in the past 10–15 years (Government of Uganda, 1996:28). The Ugandan Government commissioned a study in May 1999 to reconcile these differing quantitative and qualitative claims about poverty trends.

4.3 Gender Roles in Agriculture

Women contribute 70 to 80 per cent of agricultural labour. They are responsible for about 80 per cent of food crop and more than 50 per cent of cash crop production (Sengooba, 1996; Tumusiime, 1996). There is traditionally a gendered division of labour in the household, with women being responsible for cooking, cleaning and taking care of children and other members of the household. In productive work, women and men have assigned traditional roles, particularly in agricultural production and marketing, with men considered responsible for doing the majority of land clearing and women for doing the majority of weeding and post-harvest processing. Women are also often responsible for providing food for the

household, and men for providing other consumption goods. Some crops (particularly plantain and tubers) are considered women's crops, while others (particularly cash crops) are considered men's crops. However, the extent to which traditional gender divisions of labour are adhered to varies by region, socioeconomic status, rural/urban and household categories. For example, in more wealthy households, male or female labour may be hired to perform the tasks that the women or men perform in poorer households. On the other hand, in households headed by women and in some polygamous households, women perform tasks normally done by men.

Men have a clear advantage over women in access to and control over resources. Cultural practices related to land dictate that while women can access land through their relations with a father, husband or brother, in most Ugandan communities women cannot own land. That means that they can till the land to produce food crops, but they may not plant perennial crops, sell the land or use it as collateral without male permission. They may be displaced from their land, or allocated small fragmented plots or marginal lands. Although legal constraints to women's land ownership have been eliminated in the new constitution, women are not always aware of their rights. Men are also primarily responsible for marketing agricultural products, even those primarily grown by women. Women often do not have independent access to this income (table 6).

Table 6
Gender roles in decision-making and marketing

District	Daily outflow of grain from store			Marketing of grain		
	Husband	Wife	Both	Husband	Wife	Both
Rakai	0	95	5	80	7	13
Mpigi	5	95	0	70	25	5
Masindi	5	67	28	75	16	9
Luwere	5	95	0	70	24	6
Lira/Apach	10	90	0	62	23	15
Arua	13	67	20	88	8	4
Tororo/Pallisa	15	85	0	74	18	8
Kabarole	17	83	0	74	18	8
Mukono	20	80	0	70	10	20
Kapchorwa	33	62	5	90	0	10
Kabale	36	62	2	68	11	21
Nebbi	38	42	20	35	17	48
MEAN	16	77	7	71	15	14

Source: Salim M. N. Odongo and Agaona (1993).

The Ministry of Planning and Economic Development (1996), in a minor section of its report, v.2 (i) on "Empowering Women in Development to Strengthen Food and Nutrition Status", acknowledged that one untapped source of agricultural growth to meet Uganda's food security needs and to increase agricultural exports lies in reducing the bias against women in the economic sphere in general, and particularly in agriculture. The recommendations given in the report, while good, are rather general:

> Women's ability to produce food can be enhanced by improving their access to resources (mostly ownership of land), credit, technology, and information. . . . Literacy training for women and education for girls will increase productivity both today and in the future . . . women's health and nutrition status should be protected

> to allow women to fulfil their productive role . . . safety net programmes for women should increase women's income earning potential while reducing the energy or time intensity of their activities to take care of those who depend on them for food and nutrition security and at the same time take care of themselves (p. 32).

However, several institutional and structural factors represent impediments to the realization of these recommendations. A gender bias in agricultural research has been recognized by the government: there is an under-representation of women scientists in the research staff, a shortage of female extension workers, an absence of women farmers in research demonstrations, and a failure to exploit women's knowledge and experience of plants and animals in the development of cropping systems, pest management and identification of research topics. There is a lack of socioeconomic research on gender relations in agriculture, and very few agricultural statistics are accurately disaggregated by gender. These specific problems need to be seen within a general context of gender blindness in research and policy concepts. The response has been to recommend gender sensitization for government researchers and officials, and to encourage women to apply for posts; but agricultural research and extension organizations continue to be dominated by men, and very little has been done in the way of developing concrete policy strategies for gender-sensitive agricultural research.

The outcome of government efforts to extend more credit to women illustrate the problems inherent in programmes that seek to provide specific benefits to women without regard to the underlying gender structures in society. The Uganda Commerical Bank Rural Farmers Scheme (UCBRFS) attempted to make credit more accessible through special features and the reduction of collateral requirements, and hoped that women would constitute 60 per cent of its total beneficiaries. The scheme, however, required women's loan applications to be co-signed by a spouse or male kin. The rationale for this was that men have sole ownership and control of resources in rural areas, thus women by definition could only be considered credit worthy if they were supported by men. In addition, past farming experience was an important criterion for loan approval. Although women are responsible for the bulk of food production and contribute a significant share of labour for cash crop production, their labour was defined as unskilled and supplementary, while men's farming labour was defined as skilled. Thus scheme officials tended to reject women applying for loans in the cash crop sector, and to allocate women's loans primarily for food crops. In addition, the procedures involved in applying for credit involved multiple trips to the bank, at distances up to 50 miles. The time and travelling expenses involved made the application process impossible for most women. The credit scheme also emphasized disbursing loans to groups, requiring that the groups have some form of legal status. Women, while they are often members of informal groups, are often reluctant to register their groups officially, and have little free time for the paperwork necessary to do so. Thus it is not surprising that appraisal reports indicate that the percentage of beneficiaries of the UCBRFS scheme who were women remained low, the highest being 25 per cent in the early years of the scheme, declining thereafter to under 20 per cent. The total amount lent to women was also around 20 per cent (Kenyangi, 1996).

In general, the severe time constraints faced by rural women constitute a significant obstacle to their ability to overcome the biases against them. The tremendous labour burdens they have—which include the acquisition of water and fuelwood, the care of children, the management of multiple pregnancies for themselves and their kin, food production and processing—mean that they are left with very little time to invest in efforts to change the status quo. The technology to which they have access is often primitive. Women find it difficult even to find time to listen to information programmes on the radio, much less to attend training courses, travel to banks, or to find ways to acquire improved agricultural technology and inputs. Any agricultural intensification strategies must therefore seek ways to improve efficiency in the entire rural sector—including in essential household tasks and food processing—if women are to be active participants.

5. Macroeconomic Policy

5.1 The Adjustment Strategy

The continuing popular support for the NRM and Museveni is due in part to Uganda's relative economic stability and growth, in comparison with the previous period of decline that saw per capita incomes halve over 15 years. Starting in 1987, but accelerating after 1991, the Ugandan government has pursued a policy of structural adjustment, and Uganda is currently seen by donors and the World Bank as the African country that has followed policy advice most closely. Uganda has adhered to a classic path of stabilization followed by adjustment, involving the devaluation and eventual floatation of the currency, the reduction of government spending in certain areas, improved incentives for investors, and the liberalization of a range of markets.

Uganda's macroeconomic strategy to restore and promote sustained growth over the period 1987–1995 focused on resource mobilization (Ministry of Planning and Economic Development, 1992). The efforts to mobilize domestic resources focused on control of inflation so that real interest rates would provide the incentives for domestic savings and an efficient allocation of investment. Efforts to mobilize foreign resources, on the other hand, focused on management of the exchange rate and improvement of the marketing system, in order to transmit the price incentive directly to export producers.

As is indicated in table 7, the bulk of Uganda's exports consists of agricultural crops, which, except for tea, are grown primarily by smallholders. The heavy taxes of the 1970s and early 1980s led to a substantial decline in the output of export crops, and the outright disappearance of most exports from official statistics due to smuggling. In 1989, the government set up a task force of nine working groups to study the constraints and policy distortions in the export sector. Their recommendations led to massive reforms, which included exchange rate liberalization to remove the implicit tax on exporters, who were previously paid at the lower official exchange rate; decontrol of producer prices, which had been fixed below the cost of production in an inflationary situation and

were adjusted only once a year; the dismantling of the Coffee Marketing Board (CMB) and the Lint Marketing Board (LMB) to improve marketing efficiency; reform of crop finance to enable exporters to pay cash to the farmers on delivering the produce, instead of the previous late payment by the co-operatives; and the removal of the heavy explicit tax on export agriculture, which used to finance up to 60 per cent of recurrent revenue but which depressed producer prices.

Table 7
Classification of Uganda's exports ($ million) overall

	1996	1980	1987	1990	1993
1. Traditional exports	343.60	317.20	161.65	126.58	419.08
Coffee	338.70	311.20	139.31	106.77	396.00
Cotton	4.30	4.10	5.72	4.29	7.55
Tea	0.30	1.90	3.68	8.10	10.58
Tobacco	0.30	0.00	2.94	7.41	4.86
2. Services exports (NTE)	9.90	26.08	34.55	93.61	144.61
Tourism[1]	2.20	24.31	33.35	29.58	117.39
Transport (and other non-factor services)[2]	0.90	1.77	1.20	64.03	27.22
3. Non traditional exports	-	-	20.79	47.96	172.57
4. Other exports (unclassified)	-	3.10	0.75	7.32	37.10

Notes: (1) Tourism includes official visitors. The figure 64.03 for non-traditional factor services in 1993 is too large and not explained anywhere in the published statistics.
(2) Based on Ugandan usage.
Data provided by the Research Department, Bank of Uganda, 1998.

The outcome of the structural adjustment programme has been mixed. The traditional agricultural export sector, which remains the backbone of the external economy, has seen fluctuation in coffee exports related to slumps and booms in international prices, some growth in tea, and little change in cotton. Much of the growth in GDP has come from increased production and marketing in food crops, and the emergence of non-traditional agricultural exports (NTAE), such as maize, sesame, vanilla, fish and horticultural products. However, despite the stabilization of inflation and some growth, investment remains low, and poverty is still widespread. This latter issue has emerged as a focus for economic policy since the early 1990s, coinciding with the World Bank's New Poverty Agenda. The emphasis on rehabilitation and growth has now been extended to poverty reduction, with central policy planks being labour-intensive employment growth and investment in human capital, plus social safety nets. The new stress laid on human capital may lead to a change in the education and health sectors, which had seen the introduction of fees.

5.2 Non-Traditional Agricultural Exports Promotion Policies: Potential and Constraints

The economic reforms made with respect to the traditional export crops led to increased output, and to an increasing proportion of export crops marketed though official channels. These changes explain the increase in exports earnings for cotton, tea and tobacco from 1990. However, between 1989 and

1993, just as the policy reforms were taking root, the international price of coffee—by far Uganda's most important export—collapsed from $1.8 to $0.8 per kg., a decline of 56 per cent. The earnings from coffee fell from $311.2 million in 1987 to the all-time low of $92.19 million in 1992. Had it not been for the reforms to improve marketing efficiency, the entire coffee sector might well have collapsed.

Although coffee prices subsequently recovered, their slump and Uganda's vulnerability to external shocks of this type created a convincing argument for diversification into non-traditional exports. Apart from tourism and non-factor services, agricultural crops were the next item that could be immediately promoted, as Uganda's industrial sector suffers from shortages of skilled labour and of both foreign and domestic private investment. The policy package adopted intensified market reform by dismantling the Produce Marketing Board for beans and maize and simplifying export procedures to one certificate issued every six months. The requirement to bring in imports of equal value to exports, called dual licensing, which was intended to reduce capital flight, was removed. Another requirement to channel certain commodities to fill barter protocols, mostly from Eastern Europe, was also removed; this further liberalized the marketing of beans, maize, simsim and soybean. Table 8 indicates the performance of non-traditional exports over a period of five years.

The NTAE promotion strategy has been further developed over the years. It forms a major portion of the recent World Bank country study (World Bank, 1996), which argued that economic growth in Uganda must come from the intensification of agriculture and from the expansion of export crop production, and that diversification of export crops is essential because of the risks inherent in over-dependency on coffee. The World Bank report emphasizes price incentives and the need for public investment in infrastructure to bring about a re-orientation in agriculture toward more export crops. To date, the most important NTAE have been crops that had been traditionally grown as food crops (primarily by women) such as maize, beans and cassava. Together, maize and beans account for almost 70 per cent of NTAE. They are considered low value staples, and are sold in the regional market, as are groundnuts, soybeans and bananas. Vanilla (for smallholders) and cut flowers (on estates) are higher value crops that became new exports for the European market, although their total value remains low.

A 1998 Government of Uganda report argues that the agricultural sector as a whole must move from a predominantly subsistence sector to a commercially oriented one. The document acknowledges that poverty in Uganda is predominantly rural and outlines a sector-wide approach to policy development, spelling out the roles for the public and private sectors. The recently enacted land law, which clarifies rights over land, is considered a major step in social policy that will enhance effective utilization of land. The government points out that agricultural transformation will depend heavily upon investments in other sectors, particularly roads, education, health and good governance. Government would like all commercial activities connected with agricultural production, processing, trading, supply of inputs, exports and imports to be carried out entirely by the private sector. The government's role in those sub-sectors will be limited to setting rules and regulations.

For food exports, it is fair to argue that the results of NTAE promotion have been more exogenously determined than policy driven. When there is high demand for certain food crops because of famine or war in neighbouring countries, there is an export boom. The World Food Programme has been the most important market for beans and maize, which have been used to feed refugees from the Sudan, Rwanda, Burundi and Congo. Sesame experienced a short boom in 1990–92 because of a drought in the Sudan, the preferred source of sesame in the world market. Short booms in pineapples, ginger and chillies have failed to gain sustained markets due to such diverse factors as the Gulf War, rising air freight rates, and inadequate processing technology.

Table 8
Non-traditional exports (NTE), $ million

	1990	1993	1996
1. Primary agricultural NTE	18.86	31.90	38.42
Beans	4.15	12.37	6.41
Simsim	5.23	3.19	9.76
Other pulses	0.24	0.75	1.83
Cereals (including maize)	3.32	15.34	13.20
Fruits and vegetables	0.42	0.25	1.14
Cut flowers	..		3.38
Cocoa beans	0.50	..	1.21
Vanilla	..	..	1.49
2. Primary processing NTE	5.46	13.62	54.38
Fish and fish products	1.89	7.87	45.94
Hides and skins	4.07	5.75	8.44
3. Manufactured NTE	1.33	1.15	11.29
Soap	..	..	2.01
Electricity	1.22	1.15	4.09
Hoes	0.11	..	0.01
4. Tourism and non-factor services NTE	34.5	93.61	144.60
Tourism	33.35	29.58	117.30
Transport and other non-factor services	1.20	64.03	27.20
5. Total NTE	55.20	140.28	248.69
6. Unclassified items	0.89	8.62	105.58
Cigarettes	..	..	0.78
Timber	0.14	0.02	..
Gold	..	..	41.89
Other minerals	..	1.27	25.81
Other NTE	0.75	7.32	37.10

Note: Classified according to commodity characteristics and policy relevance, including tourism.
.. negligible values
Data provided by the Research Department, Bank of Uganda, 1998.

Because most of the crops targeted for NTAE expansion are grown by smallholder farmers in the rural areas, several projects meant to increase smallholder production have been implemented by different government-related departments since the early 1990s. The National Research Organisation (NARO) intensified research into planting materials that resist both disease and drought. A project called Investment in Developing Exports in Agriculture (IDEA) was initiated to provide high-yielding planting materials and to encourage farmers to form business and financial linkages to access markets. An Agricultural Extension Project (AEP) was put in place in 1992/93 to disseminate the research results produced by NARO and to encourage increases in productivity by improving farming practices, using the Training and Visit method. The AEP had a special provision meant to ensure that extension services reached women farmers. However, in order to

cut down costs, the scattered smallholders were encouraged to form groups—women and men separately—to access extension services. Between 1993 and 1997, men formed 1,800 groups, youth 300 and women 500. As noted above, women typically avoid joining formal groups, in part due to lack of time and in part due to mistrust of organizers' motives. This meant that women had far less direct access to the higher quality planting materials and improved husbandry practices than did men.

In these and other efforts to promote non-traditional crops, policy makers have made the assumption that farmers will respond to increased prices with increased output. However, given the rigidities in the agricultural sector and the imperfections in agricultural markets, this supply response is far from certain. Another critique of the NTAE promotion strategy has centred on the risks to food security. These critiques are linked, and both hinge on questions of gender structures and gender roles in agricultural production and marketing. An additional concern is the effect that the structural shift in agricultural production will have on women's autonomy and well-being.

The supply response debate

Capital is scarce in the smallholder sector, so confidence in the market must be high for farmers to invest in increased production in response to price signals. In fact, as noted above and discussed further below, there is very little confidence in market functioning in rural Uganda. It is difficult for farmers at planting time to estimate the prices their crops will receive at harvest. Past prices are erratic and give little guidance, and farmers may take such price signals as are available to them into account, but as only one of many factors. They must also consider such things as labour constraints, food security and the risks of a poor harvest due to environmental factors.

In addition, smallholder production remains a "low input-low output" type of farming. Efforts to increase inputs have had little success to date, and smallholders' access to credit and technological inputs remains limited. Even if farmers were to decide to increase NTAE production in response to price signals, therefore, the primary additional inputs into export crops must be land and labour. Although surplus land still exists in some regions, in many cases this would mean switching crops grown on existing land. And, although at certain times of the year there may be underutilized rural labour, seasonal labour constraints are quite severe, especially for women's labour. Therefore additional labour input into export crops is likely to be at the expense of crops grown for own consumption.

In sub-Saharan Africa in general, the supply response to the price incentives of structural adjustment programmes has tended to be disappointing, and it has been hypothesized that inefficiencies resulting from inequitable gender structures are responsible. This is because women generally supply the majority of agricultural labour, but are much less likely to control the income from agriculture, and would therefore, in theory, be less likely to respond to increased prices with increased production.

Evidence from some other African countries has supported this hypothesis. A study done in Tanzania (Tibaijuka,1994) established that an asymmetric and rigid division of labour between the sexes leads to allocative inefficiency

such that farm output from a given quantity of household labour is less than the full-capacity output this labour is cable of producing. The household operates inside its production possibility frontier because of gender inequities. The household is constrained by gender relations from allocating its labour time to respond fully to the prevailing market opportunities. This reduces potential output and exports.

A gender-focused study in Zambia (Wold, 1997) on non-commercial farmers' response to price incentives showed that poor farmers respond to higher prices by reducing marketed output. When smallholders face higher prices for all crops, they are able to meet their cash requirements from a smaller marketed surplus, eat better, but market less. This is the negative income effect of a price change for low-income groups in agrarian household models that outweighs the positive supply response to higher producer prices. Overall nutrition status and market opportunities must improve substantially over a long period of time if farmers are to increase marketed output, for the home market and export. This requires breaking the constraints to higher productivity and market access facing producers, including women producers. A second finding from the Zambian study was that when the relative price of a single crop increased, farmers gave a positive supply response; when the price went down, farmers switched to other corps. However, there was a gender difference in the responses. Male farmers responded to the broad range of price changes, while women farmers responded to only some of the price changes because of their cardinal obligation to feed the family.

The policy makers behind the NTAE promotion strategy are to some degree aware of the constraints on the supply response on smallholder farms. It is fairly well known, for instance, that smallholders' response to price signals tends to be weak (UNCTAD, 1998). The government has acknowledged that, for most rural people, survival depends on food self-sufficiency, and that a monetized lifestyle is foreign. It will thus be necessary, argues a recent government document, to bring about "a massive psychological shift from status to contract relationships" (Government of Uganda, 1998) by means of generating sufficient profitable opportunities for smallholder farmers. According to this document, if smallholders are to be persuaded to diversify into higher valued enterprises, and begin to specialize—which will be the foundation of economic growth—they must be able to trust the markets, especially those for food. They must know that when they need food, at any time during the agricultural year, they will be able to secure it at a reasonable cost. However, policy makers do not show evidence of awareness that they will have to earn the trust of women more than that of men, because it is women who are traditionally charged with responsibility for providing food for the household, and who provide most of agricultural labour in smallholdings. If women cannot trust markets to assure food security for their households, they will not work toward the goal of provisioning through trade rather than through self-sufficiency, no matter how progressive the new approach may sound.

The food security debate

When government policy began to encourage non-traditional agricultural exports, a question arose as to whether the smallholders could grow enough

food for export as well as for their own consumption. Local authorities and parliamentarians habitually gave public speeches to the population urging them to store enough food to see them through the periods between harvests. Many smallholders, however, are unable to do this, and it seems that the poor in particular are net buyers of food (World Bank, 1996).

Uganda's agriculture is rain-fed, and output and domestic prices fluctuate widely in response to rain and drought. Farmers sell food at very low prices during the harvest both out of need and due to lack of efficient storage facilities; food is bought back between harvests at very high prices. Most households grow food for their own consumption and market a small surplus. The households whose food cannot last between harvests face food insecurity. The reduction of household-level food insecurity will require both increased agricultural productivity and an improvement in market functioning sufficient to smooth out seasonal price fluctuations.

Household food security in Uganda is the domain of women (Kyasiimire, 1996). Women play the central role in food production, post-harvest processing, storage and preservation. Most importantly, tradition dictates that women ensure adequate food supplies for the household. Thus, although low returns to labour in farming makes it unattractive to men (Kharono, 1996), women have little choice but to engage in agricultural labour. There is thus a link between the over-exploitation of women's labour, their lack of bargaining power within the household, and low food and agricultural production. The food security implications of this situation may well be exacerbated by the emphasis on cash crop production, and the lack of a clear policy on food security.

Food insecurity is a problem at the national level as well, with the drought of 1992–93 in particular causing concern. Food shortages are frequent in 16 of the 39 districts, with five districts prone to chronic food insecurity. Irrigation, post-harvest storage, and food imports into land-locked Uganda are far too limited to counteract periodic food shortages due to weather fluctuations. Given that many of the NTAE are also food crops, national food security may be enhanced by their promotion. However, it is far from certain that this will be the case, for several reasons. First, NTAE are not meant to displace the traditional (non-food) exports, thus any increase in total marketed food resulting from NTAE promotion must come primarily from land and labour already producing food; as noted above, land and labour constraints mean that increased NTAE production is as likely to be a result of crop-switching as of increased production. Second, a significant proportion of the increase in NTAE sales noted in table 8 is likely to come not from increased production or even from increased sales, but simply from the increase in the use of official marketing channels, as opposed to the unofficial cross-border trade, particularly in maize and beans, which has gone on for many years (World Bank, 1996). Thus NTAE promotion, if it is to enhance food security, must be done through increasing returns to agricultural labour and land.

NTAE promotion and gender relations

Although very little in the original design of the NTAE promotion policies showed gender awareness, the government has recently been increasing its

efforts to acknowledge the role of women in agricultural production in general and in NTAE production in particular. For instance, the MAAIF has produced a "Gender Oriented Policy Document" that proposes to "target" women farmers. The constraints facing women farmers, in particular access to land, time, credit, inputs and information, are more regularly discussed. No systematic integration of gender concerns into agricultural policy had previously taken place, thus the general recommendations now being made appear to be a reaction to the intensive lobbying of Ugandan women, and emerging evidence from the literature elsewhere in sub-Saharan Africa, that these concerns are indeed relevant for the success of agricultural policy.

The growing awareness of gender issues in policy perspectives mostly centres around the relationship between gender and efficiency. Equity issues, on the other hand, have been little discussed. The implications of the NTAE strategy for changing gender relations has not been explored; the extent to which this strategy may change rural women's work burdens and reduce their food security has not been examined; and the question of whether gender conflict within rural households and rural communities will be exacerbated has not been raised. To some extent, the problem is one of data availability. While policy makers have specific data on sources of income at the aggregate level, there are no data to indicate the access to and control of such income by different household members or the utilization patterns of the income. While the general nature of the gender division of labour is known, the influence it has on the needs, interests and choices women and men make when they are faced with options is seldom examined. Other gender issues, such as power relations and the effect they have on decision making in different households, or which local institutions most influence women's and men's attitudes, are seldom raised.

One interesting study does shed light on some of these questions. Sorensen (1996) looked at the historical trend of increasing commercialization of food crops in Busoga, Uganda, and assessed the effects of NTAE cultivation on the renegotiation of gender in the area. She describes the colonial-era gender division of labour and responsibility as being quite clear-cut. Men cultivated the major cash crops (cotton in this case), although women helped with weeding; women were wholly in charge of the plaintain garden, which provided the staple food for the household. The plantain garden was often divided into two sections: one meant for feeding the household, and one that the wife cultivated for herself, and whose produce she could dispose of as she wished. Men's and women's productive spheres were thus separate and complementary, though asymmetrical, with men controlling the majority of household resources. Although women's economic sphere was relatively limited, they had autonomy within it. Their responsibility for food production was not only a duty, but also a right that gave them access to resources as well as a significant measure of independence.

Rural gender relations began to change with the collapse of formal marketing systems for cash crops in the 1970s and 1980s. Men stopped cultivating cotton because they received little payment for it, and turned to food crops, which they were able to market through informal channels. Rice became the major cash crop, although cassava, maize and millet were also marketed. At the same time, the role of plantain as the primary staple began to be supplanted by cassava, which, although it was a lower-status food, was

useful because it could be stored and sold as needed. The distinction between cash crop and food crop thus began to blur, as did the boundaries between men's and women's productive activities.

In the early 1990s, marketing opportunities increased, and the distinction between food crops and cash crops vanished altogether, with all crops being sold at times. As the food crops became marketable, men gained control over them. The cultivation of the new food staple, cassava, is no longer exclusively the responsibility of women. At the same time, because cassava is an inferior food to plantain, women's status as food producers has declined. Women no longer have a traditional right to a plot of land for food production; each woman's access to land must be negotiated with her husband or male kin. Many women do not work plots independently at all, but only work in fields considered to be their husbands'. Wives' control over their marketed produce is also no longer taken for granted, but is a subject of negotiation within the marriage. As one man reported with regard to women's access to resources: "Earlier, the wife had the right of *matooke* [plantain], but today it depends on the goodwill of the husband" (Sorensen, 1996:618).

Most women in Busoga clearly prefer the old social order because of their relative autonomy within it, although it is evident that living standards—in terms of increased accessibility to consumer goods such as radios, motorcycles and clothes—have increased. But Sorensen argues that it is too early to judge the outcome of NTAE expansion for women. Her conclusions are worth quoting at length:

> The change from a complementary system to what could be termed the patriarchal household seems to leave women without formal economic autonomy. Ideal roles are not yet, however, firmly established within the new gender relations. What follows is an intense competition between the sexes over productive resources, with more frequent negotiations in the household now than in the past… [There is a] movement from negotiation on the basis of established roles to negotiation on the basis of not yet firmly established ones. This underscores the difference in the position of [individual] women according to their bargaining potential. Women with strong bargaining potential will be able to evade men's control and enhance their position, whereas women in weaker bargaining positions will not have this possibility and accordingly will lose control of their own and their children's lives. Because of the increased importance of bargaining, the social institution of marriage deserves particular attention in further research. It is within this institution that many men and women negotiate the conditions of exchange of goods, incomes, and services (such as labour) within the household (Sorensen, 1996:619, 622).

6. Gender and NTAE Promotion: Findings from the Field Studies

The first phase of the UNRISD/UNDP research consisted of collecting, reviewing and synthesizing available information relevant to gender and NTAE expansion. The results of this phase were summarized above.

It is clear from these findings that the interaction between gender and NTAE expansion is a complex one, and that, while some dimensions of this interaction are fairly well understood, data are currently insufficient for illuminating other areas, and a number of essential questions are just now beginning to be raised. There is little information available on the agricultural division of labour between women and men in different types of households, or on access to and control over production resources and benefits within the household. Many surveys do not distinguish between male and female-headed households, while some ignore female households altogether. While some of the national data sets reviewed (Balihuta, 1997) had data disaggregated by sex, planners at national and sector levels tend not to use this information. They often use the aggregated data and develop plans in terms of broad categories such as "people", "communities" or "farmers"—rendering the sex disaggregated data redundant. The concept of gender remains foreign to many planners, who do not seem to be comfortable with programming using gender-disaggregated data.

The second and third phases of the research sought to shed further light on some of the questions raised in the first phase. They involved fieldwork in selected villages in two districts: Kitanyatta, in Masindi District, and Gonve, in Mukono district. First, a participatory rural appraisal (PRA) exercise was carried out in July 1997 in the two villages to explore the local assessment of local conditions and problems. The focus group discussion and preference ranking methods were used to provide insights into men's and women's conception of their livelihoods and the constraints that they face as farmers, their explanation for those constraints, and their means of coping with them.

The results of this qualitative part of the study provided both the indicators and the focus of the third phase, which was a questionnaire survey in the same villages, carried out in November-December 1997, in which 396 households participated. The survey was a rather narrow one, focusing on household characteristics, supply response issues, food security and workloads. The sample design endeavoured to include all types of households, which were stratified into low-, medium- and high-income categories. Data collection procedures at the household level were borrowed from Tibaijuka's (1994) activity profile. A village sampling frame already existed from the chairman of the village council and the PRA village mapping exercise in the villages, which had classified the household types in the villages. The random sampling method was used to select households within each household type as in table 10, observing the proportion of each type. The child-headed households were so few that they were not interviewed. In the male-headed households, husband and wife were interviewed separately. The polygamous households which were sampled were handled like female-headed households, with each wife interviewed separately. However, the questionnaire had a question that required each respondent to state their relationship with the female or male head as well as

the husband's name, where applicable. Each respondent was asked to indicate the type of household they came from, as a separate question. A combination of these two questions made it possible to trace households that shared the same male head.

The use of the case study method—which was dictated by time and funding constraints—limited the generalizability of the findings, and the lack of baseline data was an added disadvantage. Unfortunately, some of the survey information suffers from a high level of missing data, non-response or internal inconsistency. Thus we were not able to use, for instance, data on field size. Acreage, sale and price data are problematic, presumably because respondents were being asked to remember details of the previous year's harvest. The other data, including labour data, were judged to be more robust.

6.1 Village Characteristics

Kitanyatta is in Masindi District, in the northwest region of the country. Gonve is in Mukono district in the central region, close to Kampala and bordering Lake Victoria. Resources, including fish, are more abundant in Gonve, and soils tend to be better as well. The primary cash crops in Kitanyatta are food crops—maize, beans and cassava—while the primary cash crops in Gonve are vanilla and coffee. According to Agricultural Policy Secretariat data, coffee and vanilla contribute 70 per cent and 25 per cent respectively of household cash income in Gonve, while maize contributes 74 per cent of household cash income in Kitanyatta (Government of Uganda, 1996/97).

Gonve is a relatively prosperous village, with poverty being significantly higher in Kitanyatta, according to national statistics. Local perceptions agree with these data; the PRA exercise indicated that 68 per cent of households were considered well-off in Gonve, while only 25 per cent were well-off in Kintayatta (table 9).

Table 9
Socioeconomic status of households

Household category	Gonve		Kitanyatta	
	number	%	number	%
Very poor/destitute	11	5.6	41	20.5
Poor	53	26.9	104	54.4
Fairly well off	128	65.0	46	23.8
Very well off	5	2.5	1	0.5

Female-headed households represent around 12 per cent of the sample of 396 households. This is significantly lower than the proportion found in larger, nationally representative surveys, such as the 1992 Integrated Household Survey. The difference may be due to the regions in which Kitanyatta and Gonve are located, to different ways of assessing what a female-headed household is, or to this survey missing some female-headed households.

Table 10
Household type

	Male-headed monogamous %	Male-headed polygamous %	Female-headed %	Child-headed %	N
Gonve	67	18	14	1	197
Kitanyatta	69	20	11	-	199
Both	68	19	12	1	396

6.2 Supply Response

Both of the villages included in the survey seem to have benefited from the price and marketing reforms undertaken as a part of Uganda's structural adjustment programme: the nominal price of coffee increased from Shs 120/kg in 1990 to Shs 700/kg in 1997, while the nominal price of maize increased from Shs 30/kg to Shs 450/kg over the same period (Government of Uganda, 1996/97). The price data collected in the survey, while not definitive, suggest that farmgate prices in the selected villages were only slightly lower than these national-level data would suggest.

It is very difficult to estimate a national-level supply response to NTAE promotion policies for several reasons. First, there are no reliable recent data on total agricultural output. In addition, while some unofficial cross-border trade has presumably been switched to official trade, no estimate exists on past or current unrecorded exports. Finally, there are no reliable estimates of the proportion of crops marketed domestically. It was not possible to ascertain what proportion of staples is produced for own household consumption or is sold locally.

Unfortunately, the prices for most crops grown in Gonve and Kinyatta changed little over the two survey years (1996 and 1997), and thus very little in the way of a quantitative estimate of a local-level supply response can be derived from the survey data. However, the survey and the PRA exercise did yield a significant amount of information on the conditions necessary for a positive supply response to be obtained. This is discussed below.

The surveys in Gonve and Kitanyatta showed some evidence of limited increased production over the survey years. Forty-nine households in Gonve, or 25 per cent of those surveyed, indicated that they had increased labour demands due to increased production over the last season, and 26 households in Kitanyatta, or 13 per cent, reported the same. The data on acreage were not considered reliable enough to draw firm conclusions about changes in cropping area over the two seasons.

The survey gave some indications of factors entering into smallholders' production decisions (tables 11 and 12). Pricing was clearly important for cropping decisions, although it was not the only factor. Confidence in markets was also important, because without this smallholders have little faith in pricing projections. In addition, concern for food security was evident; this also limits supply responses to price changes.

Table 11
Percentage of households increasing or decreasing crops: Gonve (survey data)

Crop	% of hh increasing	Reasons	% of hh decreasing	Reasons
Maize	9	previous famine good price ready market	8	pests lack labour other
Beans	13	previous famine good price ready market	9	lack labour other
Vanilla	15	good price ready market	9	spoils other crops lack labour
Cassava	22	ready market previous famine good price	12	pests other
Coffee	20	good price	4	other
Others*	12	ready market easy to grow	17	bad season other

* Primarily groundnuts and vegetables.

Table 12
Percentage of households increasing or decreasing crops: Kitanyatta (survey data)

Crop	% of hh increasing	Reasons	% of hh decreasing	Reasons
Maize	16	good price previous famine ready market	15	lack of seed bad weather pests
Beans	4	good price previous famine ready market	19	bad weather lack of seed pests
Cassava	18	good price previous famine ready market	10	bad weather lack of seed pests
Coffee	1	no reason given	1	no reason given
Others*	10	good price	13	pests

*Primarily groundnuts and vegetables.

These data suggest that improved pricing, improved markets and increased food security would trigger production increases for most crops. However, it cannot be determined whether an increase in production in any particular crop would be at the expense of another crop—that is, whether total agricultural production would increase, or whether crops would simply be switched. There is some suggestion of a tendency to switch from beans to cassava in Kitanyatta, while in Gonve, the more prosperous village, there is more indication of a slight increase in total production. Constraints on labour and other resources would limit the opportunities for increasing total production; the extent of these constraints in the survey villages is discussed further below.

It was also evident from the PRA data that the factors necessary for production increases—good prices, ready markets and food security—were far from assured in the study villages. In addition, the labour and technological constraints that were identified as reasons for decreasing production were clearly pervasive problems (table 13).

Table 13
Problems limiting productivity identified by farmers, in order of importance (PRA data)

	Gonve	Kitanyatta
Women	1. no market for our crops 2. no new seed varieties 3. no agricultural officers to consult 4. old unproductive soils	1. no money to hire labour 2. no tractors for hire 3. most time spent looking after families 4. no market for our crops
Men	1. low prices for our crops 2. lack of credit facilities 3. limited farm implements 4. lack of extension and veterinary services in our village	1. lack of a viable market for our crops 2. bad feeder roads 3. tractors and oxen too expensive 4. inaccessibility to loans and credit schemes

Both men's groups considered lack of adequate sales opportunities as the biggest problem limiting their productivity. While women in Gonve are also concerned with marketing, women in Kitanyatta show clear evidence of labour constraints. Of note is the fact that neither women's group mentioned inaccessiblity of credit as a problem. Women's lack of interest in credit has been noted in other contexts in which women are primarily responsible for providing staple foods: because they must provide basic needs, they must behave in a very risk-averse manner, which in large part precludes involvement in credit schemes.

Tables 14 and 15 show what women and men believe to be the causes of the problems they identified, and how they cope with these problems.

These tables suggest that the problems confronting men are to a large extent the ones that have been identified and targeted by government programmes for improving the marketing of agricultural products: high costs of transportation, poor storage facilities, little access to credit. It is striking that, in comparison to men, women tend to face problems more in the realm of the process of agricultural production itself: they emphasize poor agricultural technology, poor seeds and soils, and, above all, continual labour constraints.

The qualitative survey and PRA data thus show some potential for a positive supply response to price movements and marketing improvements. This information also makes clear the extent of the problems that smallholders face, and the paucity of resources and coping strategies they have for dealing with these problems. Finally, these data suggest the complexity of the agricultural productivity problem, and the need for policies that deal simultaneously with multiple facets of agricultural production and marketing.

Table 14
Perceived causes of problems, Gonve and Kitanyatta: Men and women (PRA data)

Problem	Perceived causes (men)	Perceived causes (women)
Poor marketing of our crops (low prices and lack of market)	• no competition among buyers • no communication with external market • lack of co-operation among farmers • buyers cheat when weighing produce • government does not care to look for markets for our crops • we have bad feeder roads • no storage facilities, so we sell immediately after harvest when prices are low	• each farmer markets individually • each farmer grows little of many crops • lack of additional labour to produce more • we have no women's leader who is educated enough to give us new ideas • too many middlemen
Lack of implements	• petrol is very expensive so we cannot hire tractors • our produce is bought at low prices • proceeds from our crops are used for very many things • farm implements are very expensive	• large scale farmers own the tractors and do not want to help the ordinary person • men do not allow us to form groups to hire tractors • we cannot afford implements
Poor extension services	• government workers do not like villages • extension workers do not have transportation • the vets sell animal drugs at high prices • extension workers no longer have demonstration gardens in the villages	• government workers only stop at the sub-county headquarters and select a few people to train • politicians who would help us only come when they are looking for votes
Lack of access to loans and credit schemes	• there are no clear processes for farmers to access loans • the money earmarked for farmers does not get to them • our leaders swindle the money meant for loans • the interest charged on loans is more than the farmers can afford • farmers are looked down upon as illiterate • there are too many things to go through before one gets a loan	
Most time is spent looking after families		• some of us are widows • lack of co-operation with husbands (all domestic work is left to women) • husbands are the decision makers, even over their wives' money • husbands control women's movement • it is women who care for children
Poor feeder roads	• government does not care about farmers • workers who repair roads are not paid • road maintenance equipment is used for private work • because there are no trustworthy leaders, contracts for maintenance are awarded to incompetent people	

Table 14 continued	
No money to hire labour for farming	• most time is spent looking after family, especially children • low prices for crops • we plant late due to lack of tractor • women are not decision makers in farming and marketing • we spend more time on the men's gardens • we are responsible for producing food for the whole family • there are no alternative ways of making money apart from farming • we are being ruled by husbands so we cannot make a lot of money
No new seed varieties	• we get no visits from agricultural officers • we do not know where to get seeds
Old unproductive soils	• continuous cropping on same piece of land • no labour to open new land • men care for coffee plantations only • no advice on new farming practices to increase yield

Table 15
Problems and coping strategies, Gonve and Kitanyatta: Men and women (PRA data)

Problem	Coping strategies (men)	Coping strategies (women)
Poor marketing of crops	• we just sell to any buyer at very low prices • we have no choice but to accept being exploited	• we sell to whoever comes • we keep telling visitors about our problems hoping they will tell government • we sell our produce in small quantities at the local market
Lack of implements	• we use hand hoes and grow little	• we use hand hoes • we hire casual labour once in a while
Poor extension services	• we just go without them	• we use traditional methods of farming
Lack of access to credit	• we try to argue that credit facilities should be decentralized to communities without much success	• we plant only what we can manage with our own hands
Most time is spent looking after families		• we have no solution but to work hard • we report our husbands to local leaders
Poor feeder roads	• we do not travel much, we wait for buyers to find us at our homes	
No money to hire labour for farming		• we only plant what we can manage • sometimes children help
No new seed varieties		• we keep replanting our own seed
Old unproductive soils		• we rest the land from time to time • we make do with our low yields • we reduce the number of meals a day in time of scarcity

Given the suggested potential for a positive supply response in the PRA data, the survey attempted to ascertain more exactly the supply response in the two villages. However, as will become clear, problems with the data—especially price data—limited the extent to which this could be done.

Prices for most of the crops produced in the two villages changed very little over the course of the survey. Aggregate national data for crop prices are available (table 16), but they are not complete. In particular, prices for most crops for the years 1995 and 1996 are not available, since surveys were not carried out for these years. This is unfortunate, as these are the key prices for this study, which looks at supply response between 1996 and 1997.

Table 16
National crop prices, 1993–1998 (Shs/kg)

Commodity	1993	1994	1995	1996	1997	1998
Maize	125	160	-	-	450	-
Beans	250	500	-	-	800	-
Vanilla	-	-	4,000	3,000	2,500	2,500
Cassava	65	100	-	-	300	-
Coffee	250	300	-	-	700	-

Data provided by the following: for vanilla, Sekalala Enterprises; all other crops, Agricultural Policy Secretariat, Ministry of Planning and Economic Development.

Because there are variations in prices paid to farmers at the farm gate, the survey was also intended to provide information about prices received by individual farmers or households. This, as with the cropped area, is a derived figure based on reported sales and volume of crops sold. The resulting price per unit data do not look particularly robust. However, the modes agree quite well with the national data for 1997, although being slightly lower.

Three types of indicators for the supply of crops were derivable from the data set: self-assessed crop increase or decrease from 1996 to 1997; an estimate of changes in the area under crops; and changes in sales of crops. Problems with the quality and consistency of these data mean that quantitative estimates of changes in production cannot be made. However, the data give an overall impression of little shift in production between years. More than 75 per cent of households reported no change in cropping, no change in acreage under production, and no change in crop sales. Among the households reporting changes in these variables, almost equal numbers reported increasing production and decreasing production of each crop.

This stasis of production is not too surprising, given the absence of price changes. In addition, the large proportion of "no change" observations in the supply response variables means that regression equations used to draw out supply relationships are likely to be of limited use, since regression is best used where there is a more even distribution of the dependent variable.

Response by type of household

Despite the data limitations noted above, an attempt was made to test for different patterns of production behaviour in different types of households (male- and female-headed, monogamous and polygamous). These tests yielded few useful results. Taken in relation to minimal average price movements between the two years, the results show, as expected, only

marginal changes in planted area on average. It is difficult to identify a pattern, either by crop or by type of household. The strongest positive movements are for maize and cassava are in polygamous households, the strongest negative movement is for beans in female-headed households. For the higher value cash crops of vanilla and coffee, the strongest change in area comes in male-headed monogamous households. Interestingly, for the only crop for which the modal price increases between 1996 and 1997—beans—the response of all types of households is to decrease area planted.

The other measure examined here is crop sales. Again, patterns are hard to identify. Overall, all types of household are selling less maize and beans, and more vanilla. For coffee and cassava there are different responses. Polygamous households seem to be changing their sales of crops the most, especially for coffee. Female-headed households appear to be selling more cassava in 1997.

Supply response for coffee and vanilla by type of household

With coffee and vanilla, sufficient price data exist to allow a more sophisticated analysis. Table 17 shows the results of a simple bivariate correlation of price changes with changes in area planted, while table 18 shows the correlation with volumes marketed. In table 17, none of the Pearson correlation coefficients are significant. The small number of female-headed households growing coffee make correlation in this case impossible.

Table 17
Correlation of price changes with changes in area planted, 1996–97

	Vanilla	Coffee
All households	0.024	-0.131
Female-headed households	-0.322	-

Table 18
Correlation of price changes with changes in crops marketed, 1996–97

	Vanilla	Coffee
All households	-0.193	0.019
Female-headed households	-0.586	-0.007

The correlation results imply first of all a generally low level of relationship between prices and supply, with the exception of female-headed households' marketed supply of vanilla (the only significant result). In the case of vanilla, all households appear to have a negative supply response; for coffee the correlations are more ambiguous.

A more general analysis of supply response, taking into account non-price factors, was also attempted. To identify the factors determining whether households enter into the cultivation of a particular crop, probit equations were estimated. The explanatory variables were socioeconomic status, the

sex of household head, the total area cultivated (as a measure of wealth), a vector of dummies for input use (fertiliser, insecticide, improved seed, and tractor hire), the use of hired labour, and the number of female and male adults in the household. These equations were estimated for both coffee and vanilla. Overall, these equations performed poorly. Both were not significant overall, and although a few of the individual variables were significant, the sex of household head was not.

Finally, for those households growing vanilla or coffee, linear equations for supply response were estimated. The equations included price changes as an explanatory variable.[2] In order to understand the different supply responses of male-headed and female-headed households, it is necessary to estimate the supply response equations separately for the two groups. However, there are so few cases of female-headed households growing these crops in the sample that separate estimation is impossible. Instead, dummies for sex of household head and polygamy were entered as variables in equations estimated for the sample of all households growing the crops. This is not ideal, but is the best that can be done.

The results are shown in table 19, for both crops and using change in area and change in volume of crop marketed as dependent variables. The supply response analysis includes both the price of the crop and of the other main non-food cash crop. "Normal" supply response would have a positive sign for the parameter on the own-price variable, and a negative sign for the other crop. Use of hired labour and family labour, along with land area and a combination of inputs (including fertiliser and tractor use) are included. Finally, there are dummy variables for whether the household is female-headed or polygamous.

[2] Note that these equations were estimated only for households already growing the crop, as opposed to the entire sample. This is because the behaviour of households not growing the crop, in response to various factors, is not observed, but rather their response is entered as zero. This would bias parameter estimates downwards. The standard solution to this problem is the use of the tobit model. However, this was not available, making the above approach necessary.

Table 19 Supply response for coffee and vanilla: Regression results

	Dependent variable			
	Coffee		Vanilla	
Independent variable	**Change in area**	**Change in crops marketed**	**Change in area**	**Change in crops marketed**
Constant	4.5	1638.12	1.5	350.69
Coffee price change	-0.145	-348.8***	-0.11	-4.7
Vanilla price change	1.7*	-42.9	1.2	95.1
Hired labour (female)	0.410	-672.8	-0.03	-111.5
Hired labour (male)	-0.224	319.5	0.17	70.2
No. females	0.33*	-45.1	0.2	-14.9
No. males	-0.229	-3.2	-0.2	26.1*
Total land area	0.067	-2.4	-0.001	2.9
Inputs	-0.456	-76.3	-0.154	-27.3
Female-headed	-0.165	202.0	0.05	-2.9
Polygamous	0.403	254.9	1.08	134.5*
Adj. R^2	.321	.339	-.072	-.117
F	2.135	2.54	0.84	0.77

* significant at the 10 per cent level
** significant at the 5 per cent level
*** significant at the 1 per cent level

Generally the equations for coffee perform rather better than those for vanilla, with adjusted R^2s in the low 0.3 range. Only one variable is strongly related to a supply indicator, which is the coffee price for the volume of crops marketed. This is strongly negative. Female-headedness and polygamy are associated positively with supply changes, but not significantly so. Coffee production seems to involve family female labour more than vanilla does, a result not particularly borne out in the labour data below.

The results on vanilla in the correlation analysis (i.e. a negative supply response) are not borne out here. The only significant variables are for the change in crops marketed, where the number of adult men in the household and polygamy are positively related to a larger supply response.

In conclusion, the quantitative supply response analysis is hampered by the fact that there was little price movement between the two years of the study. The available data show no clear patterns distinguishing female-headed from male-headed households in their supply response behaviour, nor monogamous from polygamous households. This does not necessarily mean that no such patterns exist: the absence of price changes and non-robust production data make it impossible to generalize from these results. It is interesting, however, that there is no suggestion of a positive supply response, and several suggestions that supply response to increased prices might in fact be negative. This possibility will bear a closer analysis, especially in light of survey data from Zambia with similar findings (Wold, 1997). Given the clear interest shown by smallholders in improved prices

and markets, the reason for a negative supply response is likely to lie in constraints on production, and labour appears to be the most binding constraint facing smallholders.

6.3 Labour Constraints

The pervasiveness of concern with labour constraints, especially among women, is evident in the data presented above (tables 13, 14 and 15). These data suggest that labour constraints are binding for agricultural production; evidence from the literature indicates that post-harvest processing imposes an additional labour burden, particularly on women. The primary processing technologies at farm-level in Uganda are primitive, and only small quantities of crops can be processed and stored to benefit from the higher prices obtained for off-season sales. Women bear the brunt of processing food crops; they beat large grains with sticks, crush small grains, particularly millet, against stone, and shell groundnuts by hand.

The survey yielded detailed information regarding labour inputs into different crops in the two villages surveyed (tables 20 and 21). Note that these tables provide information whether or not different types of labour were used; they give no information about how much labour was used, the percentage distribution of labour, or the intensity of labour for any crop. Thus, for instance, table 20 shows that, in Gonve, women in 37 per cent of the households surveyed helped clear land for maize production, but it gives no indication of the proportion of the total land clearance performed by women. Not all households were engaged in all tasks (low figures for fertiliser application and transportation to market, for instance, indicate that little fertiliser was used, and that many households sell their produce at farmgate).

These finding suggest that maize is more of a "men's crop" in Kitanyatta than in Gonve, with male involvement in all aspects of maize production higher in Kitanyatta. The strongest "women's crop" is cassava in Gonve, while there is a rather unexpectedly high level of male involvement in cassava in Kitanyatta, even in the traditional women's tasks of weeding and processing. Indeed, men seem to perform these tasks to a significant extent for most crops. Of course, the data do not indicate what proportion of the total weeding, for instance, is done by men, and it is possible that women still perform the majority of this task. But it is interesting to note that the presumed traditional gender division of labour is neither clearly demarcated nor rigidly enforced. It is also interesting to find that the gender division of labour appears to be stronger in Gonve, which still relies heavily on the traditional cash crops. The gender division of labour is more flexible in Kitanyatta, in which food crops are also cash crops. These findings thus corroborate those of Sorensen (1996) in Busoga, discussed above, who argues that the blurring of the distinction between cash crops and food crops has led to a renegotiation of gender relations. These findings also suggest that men's labour supply may be more elastic than is commonly assumed, and that men will be ready to contribute more labour to traditional women's tasks if constraints on women's labour become binding, and if the conditions for production in which men are interested (a ready market and a good price) exist.

The survey respondents were asked who would supply additional labour if it were needed for increased production. Both men and women were likely to contribute to increased labour burdens, although women were more so (table 22). Given women's existing higher labour burdens, any additional labour requirements are likely, at least initially, to be more onerous for them than for men.

Table 20
Type of labour used by task and crop:
Gonve (n = 197 households)

	Maize				Beans				Vanilla					Cassava						Coffee					
	HM	FM	FF	FC	HM	FM	FF	FC	HM	HF	FM	FF	FC	HM	HF	FM	FF	FC	PM	HM	HF	FM	FF	FC	PM
Land clearance	29	69	73	18	33	76	73	16	32	2	77	41	16	37	1	100	94	28	1	21	1	52	32	11	1
% of hh	15	35	37	9	17	39	37	8	16	1	39	21	8	19	1	51	48	14	1	11	1	26	16	6	1
Land preparation	31	62	104	46	34	70	111	32	35	2	70	66	23	38	2	97	132	36	1	42	3	92	84	27	1
% of hh	16	31	53	23	17	36	56	16	18	1	36	34	12	19	1	49	67	18	1	21	2	47	43	14	1
Planting	4	70	122	36	4	67	132	45	8	3	87	96	31	8	1	94	161	57	1	17	3	107	100	37	1
% of hh	2	36	62	18	2	34	67	23	4	2	44	49	16	4	1	48	82	29	1	9	2	54	51	19	1
Appl. of fertilizer	3	6	6	1	2	4	3	1	3	1	22	10	2	3	1	18	13	4		4	1	32	16	7	
% of hh	2	3	3	1	1	2	2	1	2	1	11	5	1	2	1	9	7	2		2	1	16	8	4	
Pruning/thinning	1	36	39	8	2	19	29	9	3	1	59	45	8	1	0	32	57	17		9	0	105	65	19	1
% of hh	1	18	20	4	1	10	15	5	2	1	30	23	4	1	0	16	29	9		5	0	53	33	10	1
Weeding	9	59	122	38	7	68	136	47	14	2	84	99	32	10	3	94	163	62		18	2	109	105	37	
% of hh	5	30	62	19	4	34	69	24	7	1	42	50	16	5	2	47	83	31		9	1	55	53	19	
Harvesting	3	60	119	42	4	62	135	48	4	1	78	90	23	4	3	75	164	57		10	2	112	129	53	
% of hh	2	30	60	21	2	31	69	24	2	1	40	46	12	2	2	38	83	29		5	1	57	65	27	
Transport home	3	59	116	46	7	56	131	51	3	2	88	103	40	6	0	71	152	53		9	0	109	113	53	
% of hh	2	30	59	23	4	28	66	27	2	1	45	52	20	3	0	36	77	27		5	0	55	58	27	
Processing	2	33	67	19	5	37	90	26	0	0	38	38	9	2	0	37	76	17		4	0	63	70	22	
% of hh	1	17	34	10	3	19	45	13	0	0	19	19	5	1	0	19	39	9		2	0	32	36	11	
Transport to mkt	0	3	8	0	0	4	10	1	5	1	81	98	41	0	0	2	7	0		0	0	44	12	0	
% of hh	0	2	4	0	0	2	5	1	3	1	41	50	21	0	0	1	4	0		0	0	22	6	0	

HM = hired male; HF = hired female; FM = family male; FF = family female; FC = family child; PM = male work party; hh = household

Table 21
Type of labour used by task and crop:
Kitanyatta (n = 199 households)

	Maize						Beans					Cassava						Coffee				
	HM	HF	FM	FF	FC	PM	HM	HF	FM	FF	FC	HM	HF	FM	FF	FC	PM	HM	HF	FM	FF	FC
Land clearance	40	7	121	78	16	0	22	2	85	58	17	28	5	114	75	17	0	1	4	0	0	0
% of hh	20	4	61	39	8	0	11	1	43	29	9	14	3	58	38	9	0	1	2	0	0	0
Land preparation	38	12	109	119	22	2	21	4	78	86	22	22	6	107	121	22	2	1	0	5	0	0
% of hh	19	6	55	60	11	1	11	2	38	44	11	11	3	54	62	11	1	1	0	3	0	0
Planting	20	14	124	49	28	11	11	8	81	101	25	14	8	114	138	29		1	1	5	0	0
% of hh	10	7	62	25	14	6	6	4	41	51	13	7	4	58	70	15		1	1	3	0	0
Appl. of fertilizer	0	0	2	1	1		0	0	1	0	0	1	1	2	1	1		0	0	0	0	0
% of hh	0	0	1	1	1		0	0	1	0	0	1	1	1	1	1		0	0	0	0	0
Pruning/thinning	4	4	49	59	10		3	4	24	29	10	0	0	49	52	13	1	0	0	5	0	0
% of hh	2	2	25	30	5		2	2	12	15	5	0	0	25	26	7	1	0	0	0	0	0
Weeding	31	22	125	146	32		17	11	78	99	31	16	8	109	133	32	2	2	1	5	0	0
% of hh	15	11	63	73	16		9	6	39	50	16	8	4	55	67	16	1	1	1	3	0	0
Harvesting	20	19	113	145	28	9	10	62	96	29		8	5	86	139	27		0	0	4	1	0
% of hh	10	10	57	73	14	5	5	31	49	15		4	3	43	70	14		0	0	2	1	0
Transport home	13	8	115	140	31		5	7	66	98	28	5	4	87	136	29		0	0	4	1	0
% of hh	7	4	58	70	16		3	4	33	50	14	3	2	44	69	15		0	0	2	1	0
Processing	14	5	96	123	29		4	5	54	91	29	3	2	49	66	14	1	0	0	3	1	0
% of hh	7	3	48	62	15		2	3	28	46	15	2	1	25	33	7	1	0	0	2	1	0
Transport to mkt.	1	0	81	67	9		0	0	47	49	9	0	0	57	59	8		0	0	4	0	0
% of hh	1	0	41	34	5		0	0	24	25	5	0	0	28	30	4		0	0	2	0	0

HM = hired male; HF = hired female; FM = family male; FF = family female; FC = family child; PM = male work party; hh = household

Table 22
Sources of additional labour requirements

	Gonve (n = 197)		Kitanyatta (n = 199)	
	Number of households	% of households	Number of households	% of households
Male family	129	65	158	79
Female family	155	79	172	86
Child family	65	33	44	22
Hired labour	56	28	43	22
Exchange labour	2	1	1	1
Other labour	0	0	3	2

Table 23, along with tables 20 and 21, above, provide additional information on the use of hired labour in the two villages surveyed. It is interesting to note the relatively high use of hired labour for maize in Kitanyatta, the poorer village, which would be expected to have less cash available for hiring labour. The data may indicate production patterns which depend more heavily on hired labour, fewer household labour resources, a flexible and low-wage labour market, or a combination of these factors. Table 21 indicates that labour was hired not only for the intensive tasks of land clearance and preparation, but also for the traditionally female-dominated tasks of weeding and harvesting. Indeed, as tables 14 and 15, above, show, women are more likely than men to cite lack of hired labour as a constraint on production, and to be more interested than men in increasing their use of hired labour.

Table 23
Hired household labour, by crop

	Gonve (n = 197)		Kitanyatta (n = 199)	
	Households hiring labour	% of households	Households hiring labour	% of households
Maize	16	8	47	24
Beans	16	8	19	10
Vanilla	22	11	0	0
Cassava	28	14	14	7
Coffee	42	21	1	0
Other crops	22	11	24	12

The importance of hired labour for women, combined with the severity of women's labour constraints, suggests the need for improved labour market functioning in Uganda. Evans's analysis of the rural labour market in Uganda (1992) indicates that hired labour is important for agricultural production. Although the proportion of the population classified as agricultural labourers is very low (because most agricultural workers also have their own plots), the proportion of households hiring labour is relatively high—around 30 per cent for Uganda as a whole. Younger men, often single, seem to enter the labour market to establish themselves financially or to support a young family, and to exit the labour market when their own household is more securely established. Male agricultural labour market participation is highest at ages 10–25, is quite low at ages 25–49, and turns upward thereafter (Evans, 1992). Women tend to seek employment after they become divorced or widowed, and thus presumably turn to the labour market when they are not supported by an adult male and/or have no access to land for their own production. Women have more constraints on their time, so when they do sell labour it is often a "distress sale". Thus, although

in principle women and men receive the same rates of pay for agricultural labour, in fact women are often in an inferior bargaining position and receive lower rates. Both male and female labourers tend to be employed among neighbouring households, and to work on a piecework basis instead of at a daily rate. Because individuals move in and out of the labour force during different life stages, and because most labourers work in their own community, the labour market operates to some extent as a sort of labour exchange system within communities, in which the labour exchange occurs over different stages of the life cycle.

Labour data by household type

The survey labour data were disaggregated and analysed by type of household, crop, and the presence or absence of crop sales. The analysis strongly suggests that labour market constraints are binding in terms of the potential for increasing production of cash crops: the marketing of crops largely depends on the presence of hired labour. These findings are consistent with other studies that have documented seasonal labour bottlenecks in household labour limiting agricultural production. Female-headed households tend to have less access to hired labour, and thus have a limited ability to produce crops for the market.

The data provided in tables 20 and 21, above, were disaggregated (with work party labour being excluded), in order to understand the implications of the adoption of certain crops as market opportunities arise. Labour patterns are examined for households in Gonve adopting vanilla, for households in both locations adopting coffee, and for households in both locations marketing beans and maize. The first comparison is between male and female-headed households (tables 24–31).

Table 24
Percentage of male-headed households in Gonve using labour for vanilla (adopters)

Task	Type of labour				
	Hired male	Hired female	Family male	Family female	Family child
Land clearance	26	2	66	26	7
Land preparation	33	2	59	46	10
Pollinating	4	1	72	67	12
Planting	8	2	80	73	18
Fertilizer app.	3	1	20	11	2
Pruning	3	1	49	28	0
Weeding	14	2	75	75	19
Harvesting	3	2	80	76	26
Transport/field	6	1	75	74	30
Transport/mkt.	0	0	32	14	5

Table 25
Percentage of female-headed households in Gonve using labour for vanilla (adopters)

Task	Type of labour				
	Hired male	Hired female	Family male	Family female	Family child
Land clearance	16	0	8	75	42
Land preparation	0	0	8	92	50
Pollinating	0	0	8	100	42
Planting	0	0	8	100	50
Fertilizer app.	0	0	0	0	0
Pruning	0	0	8	33	25
Weeding	0	0	8	100	58
Harvesting	0	0	8	100	58
Transport/field	0	0	8	92	58
Transport/mkt.	0	0	0	25	8

Table 26
Percentage of male-headed households using labour for coffee (adopters)

Task	Type of labour				
	Hired male	Hired female	Family male	Family female	Family child
Land clearance	29	1	68	29	11
Land preparation	32	1	62	45	14
Planting	13	2	77	64	19
Fertilizer app.	4	1	23	12	5
Pruning	5	0	77	35	6
Weeding	12	2	79	69	19
Harvesting	6	2	79	82	33
Transport/field	5	1	78	74	32
Threshing	3	0	45	45	13
Transport/mkt.	0	0	28	6	4

Table 27
Percentage of female-headed households using labour for coffee (adopters)

Task	Type of labour				
	Hired male	Hired female	Family male	Family female	Family child
Land clearance	18	0	12	70	41
Land preparation	11	0	6	82	47
Planting	6	0	18	82	65
Fertilizer app.	0	0	12	6	6
Pruning	12	0	12	65	47
Weeding	6	0	11	76	59
Harvesting	6	0	12	88	53
Transport/field	6	0	12	82	65
Threshing	0	0	0	47	35
Transport/mkt.	0	0	12	23	12

Table 28
Percentage of male-headed households using labour for maize (all)

Task	Type of labour				
	Hired male	Hired female	Family male	Family female	Family child
Land clearance	17.3	2.0	52.3	36.3	7.3
Land preparation	18.7	3.5	47.7	55.0	12.0
Planting	6.4	4.4	52.6	67.3	16.1
Fertilizer app.	0.9	0.0	2.4	2.0	0.6
Pruning	1.2	1.2	21.4	24.3	3.2
Weeding	10.9	6.7	51.5	67.0	16.1
Harvesting	5.8	5.6	48.0	65.5	16.4
Transport/field	3.8	2.4	48.5	63.5	17.8
Threshing	3.8	1.5	35.4	46.8	11.4
Transport/mkt.	2.9	0.0	24.0	18.7	1.8

Table 29
Percentage of female-headed households using labour for coffee (all)

Task	Type of labour				
	Hired male	Hired female	Family male	Family female	Family child
Land clearance	20.4	0.0	12.2	49.0	16.3
Land preparation	10.2	0.0	10.2	63.3	18.4
Planting	4.1	0.0	20.4	73.5	16.3
Fertilizer app.	0.0	0.0	0.0	0.0	0.0
Pruning	2.0	0.0	2.0	28.6	14.3
Weeding	6.1	0.0	8.2	69.4	26.5
Harvesting	4.1	0.0	12.2	71.4	26.5
Transport/field	6.1	0.0	10.2	69.4	30.6
Threshing	6.1	0.0	10.2	51.0	16.3
Transport/mkt.	0.0	0.0	2.0	18.4	6.1

Table 30
Percentage of male-headed households using labour for beans (all)

Task	Type of labour				
	Hired male	Hired female	Family male	Family female	Family child
Land clearance	12.8	0.6	45.5	30.4	6.4
Land preparation	14.2	1.2	41.7	47.8	12.2
Planting	3.8	2.9	41.2	57.1	15.9
Fertilizer app.	5.8	0.0	1.2	0.9	0.3
Pruning	1.2	1.2	11.9	13.0	3.8
Weeding	6.7	3.5	41.2	58.0	18.3
Harvesting	3.2	3.2	34.5	57.1	17.7
Transport/field	2.6	2.0	34.2	56.5	18.3
Threshing	2.0	1.5	25.2	44.9	12.5
Transport/mkt.	0.0	0.0	14.5	15.4	1.8

Table 31
Percentage of female-headed households using labour for beans (all)

Task	Type of labour				
	Hired male	Hired female	Family male	Family female	Family child
Land clearance	22.5	0.0	6.1	51.0	20.4
Land preparation	12.4	0.0	6.1	63.3	22.5
Planting	4.1	0.0	10.2	71.4	28.6
Fertilizer app.	0.0	0.0	2.0	0.0	0.0
Pruning	14.3	0.0	2.0	24.5	12.2
Weeding	2.0	0.0	6.1	69.4	28.6
Harvesting	4.1	0.0	8.2	67.4	30.6
Transport/field	4.1	0.0	6.1	67.4	30.6
Threshing	4.1	0.0	6.1	51.0	22.5
Transport/mkt.	0.0	0.0	2.0	12.2	6.1

The first obvious pattern is that female-headed households rely much more heavily on family female and child labour than do male-headed households. A second striking result, as is also evident in tables 20 and 21, is the involvement of male family labour. In male-headed households, the input of male and female family labour into a range of activities (with the exception of land preparation and perhaps marketing) is comparable.

Looking at male-headed households, and comparing different crops, it becomes clear that the relative labour input of women into maize and beans is higher than that of men into those crops. There is a higher percentage of households growing vanilla and coffee with men putting in labour to more processes than women. However, there are one or two areas where women are heavily involved in vanilla and coffee (more heavily than their input to maize or beans), which are weeding, harvesting and transporting vanilla, and picking and transporting coffee. Women's labour inputs are mirrored by those of children, but the latter work far less. Wage labour is concentrated in the preliminary heavy tasks of land clearance and preparation, and in weeding, and is largely a male phenomenon. Few households used female wage labour, and female-headed households not at all.

The marketing of maize and beans grew rapidly over the early 1990s in Uganda, partly in response to the market created by the crisis in Rwanda and consequent food aid shipments. As maize and beans on average have a higher female labour input than male, it is important to examine whether expanded production for sale is adding significantly to the labour burden of women. A methodological problem here is that the marketing of maize and beans could signal the sale of a surplus grown specifically for that purpose, but could also signal distress sales. However, the results shown in tables 32–35 suggest that this is usually not the case, because marketed crops are associated with higher labour inputs, implying that these crops were grown specifically for the market. [3]

[3] The numbers in tables 32–35 are ratios, so, for instance, in table 32 the first entry, 3.0, means that male-headed households marketing maize use three times as much hired male labour as male-headed households not marketing maize. A 0.0 means that the numerator is zero – i.e. that marketing households use no labour, while a "-"

Table 32
Relative proportion of male-headed households using labour for maize, marketers versus non-marketers

Task	Type of labour				
	Hired male	Hired female	Family male	Family female	Family child
Land clearance	3.0	3.6	1.5	0.9	1.3
Land preparation	2.7	13.6	1.3	1.0	0.7
Planting	9.2	17.7	1.6	1.3	0.6
Fertilizer app.	5.4	1.0	1.6	2.0	2.7
Pruning	-	-	1.5	1.3	1.6
Weeding	5.0	9.8	1.8	1.3	0.6
Harvesting	15.4	23.1	1.9	1.3	0.9
Transport/field	9.1	-	2.0	1.3	0.8
Threshing	-	-	2.5	1.8	1.9
Transport/mkt.	0.0	0.0	3.7	2.9	2.7

Table 33
Relative proportion of female-headed households using labour for maize, marketers versus non-marketers

Task	Type of labour				
Land clearance	1.7	0.0	3.1	1.4	2.2
Land preparation	0.0	0.0	0.0	1.6	1.9
Planting	0.0	0.0	0.0	1.4	5.1
Fertilizer app.	-	-	-	-	-
Pruning	0.0	0.0	0.0	1.2	2.6
Weeding	0.0	0.0	0.0	1.5	2.8
Harvesting	0.0	0.0	3.1	1.4	2.8
Transport/field	0.0	0.0	3.8	1.5	2.4
Threshing	0.0	0.0	3.8	2.1	5.1
Transport/mkt.	0.0	0.0	0.0	7.7	30.7

Table 34
Relative proportion of male-headed households using labour for beans, marketers versus non-marketers

Task	Type of labour				
	Hired male	Hired female	Family male	Family female	Family child
Land clearance	5.7	-	1.3	1.2	1.7
Land preparation	3.9	17.2	1.4	0.7	0.4
Planting	14.7	25.7	1.6	1.0	0.7
Fertilizer app.	-	-	-	-	-
Pruning	17.2	51.5	1.4	0.4	0.0
Weeding	11.0	17.2	1.6	0.9	0.6
Harvesting	14.3	20.6	1.9	1.1	1.2
Transport/field	8.6	12.9	1.9	1.2	1.2
Threshing	2.9	4.3	3.0	1.4	1.8
Transport/mkt.	0.0	0.0	4.3	2.2	0.0

means that the denominator is zero – i.e. that non-marketing households use no labour.

Table 35
Relative proportion of female-headed households using labour for beans, marketers versus non-marketers

Task	Type of labour				
	Hired male	Hired female	Family male	Family female	Family child
Land clearance	4.8	0.0	0.0	0.0	0.0
Land preparation	9.6	0.0	0.0	1.6	0.0
Planting	48.0	0.0	0.0	1.4	0.0
Fertilizer app.	-	-	-	-	-
Pruning	0.0	0.0	0.0	0.0	0.0
Weeding	0.0	0.0	0.0	1.5	0.0
Harvesting	48.0	0.0	0.0	1.5	0.0
Transport/field	48.0	0.0	0.0	1.5	0.0
Threshing	48.0	0.0	0.0	0.0	0.0
Transport/mkt.	0.0	0.0	0.0	0.0	0.0

In interpreting these tables, several points should be borne in mind. First, the number of female-headed households is much lower than that of male-headed households, and the number marketing maize and beans is lower still. Second, some of the very large proportional increases, such as for hired female labour, are from a very low base.

A striking finding across crops and household type is the higher labour inputs associated with the marketing of crops. Generally, maize production in male-headed households where the maize is marketed is associated with more use of hired male and female labour, and by an increase in family labour, but by a greater increase in male family labour than female labour. Similar results obtain for beans. In female-headed households marketing of maize is associated with higher labour inputs by women and children, but not more hired labour. In the case of beans, the numbers are so small that the data are not that useful.

In sum, analysis of the labour data shows that family labour inputs from both men and women into all crops is ubiquitous, and there is perhaps less of a boundary between male and female tasks than is commonly assumed—although women are covering more of the labour tasks for most crops, as expected. Female-headed households rely more heavily on child labour, and use less hired labour. The marketing of beans and maize is based on the use of more hired labour, and a generally higher level of self-exploitation, but relatively slightly more by men than by women. It is also apparent that the work parties that used to be a source of quick communal labour, especially for labour-intensive tasks, are no longer functioning to a significant extent in the community, and households have become more reliant on the labour market.[4]

[4] The importance of improved labour market functioning for the expansion of marketed agricultural production means that the effect of the AIDS pandemic cannot be ignored (Evans, 1992). AIDS-related deaths and disability affect the most economically active sectors of the population, and are expected to significantly reduce available household labour as well as marketed labour.

6.4 Other Constraints on Production

Marketing

Problems with the market for agricultural products in Uganda—low farmgate prices resulting from high transportation costs, high spoilage rates and limited competition among buyers—were discussed above (section 4.1, table 4). The survey and PRA findings confirmed a generally low level of confidence in market functioning in the survey villages and a perception that farmgate prices were too low (tables 13 and 14). Tables 20 and 21 show that many households are unable to transport their crops to market, rather they wait for buyers to reach them and are thus forced to accept the price offered in the monopsonistic market. Poor feeder roads have been identified as one reason for these market imperfections, and the government has developed programmes meant to improve them. Increasing household access to means of transportation, including bicycles and carts, would be an important complement to this initiative. Household access to transportation would improve access to markets and thus increase competition among buyers; it would at the same time ease women's labour burdens by making fuelwood and water more accessible. It is interesting to note that in a survey in Arua district, the tractors meant to assist in ploughing were in fact used for transportation (Uganda Women's Network, 1995)—an indication of the extent of the transportation deficit in the rural sector.

Lack of credit

Lack of credit has been identified as a problem to be addressed by government programmes, and there are several credit schemes currently in place to channel more credit to smallholders. Improved access to credit is meant to enable households to improve productivity through the purchase of additional inputs and labour, and to smooth out the peaks and troughs in food prices. The survey results confirm that male smallholders would welcome the opportunity to access credit. However, women show much less interest in obtaining credit, and in fact obtain much less. As discussed above, women's role in staple food provisioning requires them to behave in a more risk-averse manner than do men. Men's focus on cash cropping and their reliance on women for daily food needs allow them to accept the higher degree of risk associated with credit. At the same time, women will need more access to cash if they are to purchase the labour inputs they clearly need. Improved food security through better storage and higher productivity will make credit an option for more women; in the meantime, enhanced savings schemes might be an alternative to credit for women.

Limited inputs

The survey results indicated that the use of better agricultural inputs was extremely low in the survey villages (table 36). The participants cited lack of extension services, lack of knowledge, lack of access, and lack of cash as reasons for the low level of agricultural technology employed. It will obviously take a concerted effort on many fronts to break out of this low input-low output equilibrium. A failure to do so will mean that any positive supply response to NTAE incentives will be unlikely to represent an increase in total productivity, but will rather be likely to result from crop switching.

Table 36
Use of agricultural inputs

	Gonve (n = 197)		Kitanyatta (n = 199)	
	Number of households	% of households	Number of households	% of households
Fertilizer	19	10	1	1
Manure	55	28	16	8
Insecticide	23	12	7	4
Improved seed	13	7	20	10
Hired tractor	4	2	7	4
Other	23	12	3	15

6.5 Control and Expenditure of Cash Crop Income

The study findings suggest that, as elsewhere, women in the villages surveyed tend to emphasize food crops and food security more than do men (table 37). Thus, if crop switching occurs in response to NTAE incentives, this might negatively affect both food security and women within the household. Of course, income generation and food security objectives are linked, and if markets are functioning well, switching to the most productive crops in accordance with comparative advantage should be an effective production strategy (Whitehead, 1991). However, given the recent history of prolonged turmoil in the country, the wide seasonal fluctuations in food prices and the wide marketing margins, confidence in markets is low—and probably rightly so.

Table 37
Crops preferred by farmers and why: Gonve
(PRA data)

Women's preferences	Why	Men's preferences	Why
1. Cassava	• family food • can be kept in the dry season • grows in poor soils • can be eaten over a long period without getting tired of it	1. Coffee	• sold for cash • helps to pay school fees • can be stored • can be used to pay tax • easy to look after
2. Beans	• source of protein • is storable until next season • keeps children healthy • first crop grown after dry season	2. Vanilla	• money from it comes in a lump sum • grows well in our soils • helps to pay school fees
3. Sweet potatoes	• can be sold for money • matures fast	3. Cassava	• we can sell some and eat some
4. Plantain	• appreciated as food for the family • easy to prepare for a quick meal; is tasty and satisfying	4. Sweet potatoes	• we eat them

Table 38
Crops preferred by farmers and why: Kitanyatta
(PRA data)

Women's preferences	Why	Men's preferences	Why
1. Maize	• it brings in money • it has a market	1. Maize	• we make money from it • market is sometimes available • it grows fast • we brew beer from it • it helps pay school fees
2. Groundnuts	• protein source • it has a market (although prices are too low for the effort)	2. Groundnuts	• we make money from it • we eat it
3. Beans	• we eat it • it can also be sold • it matures early	3. Cassava	• we eat it • sometimes we sell it • it grows well around here
4. Cassava	• it is good in days of famine • it has a market • can be stored in the soil and picked when needed • can be used for brewing "waragi"	4. Coffee	• it brings in money • it has a ready market

Although the income data from the survey are not robust enough to derive quantitative estimates of income changes, table 39 suggests that over the period 1996–97 Gonve showed signs of an increasing specialization in cash crops, and an increased reliance on the market, with households moving away from maize in particular as a cash crop. Kitanyatta, however, showed the opposite pattern (table 40). It had seemingly fewer expenditures from all cash crops, suggesting a reluctance or inability to increase marketed surplus. This evidence, although partial and preliminary, thus suggests that farmers are not compromising food security in response to NTAE incentives.

Table 39
Expenditure of income from cash crops, 1996 and 1997, Gonve
(number of households)

	1996							1997						
	Food	**Education**	**Clothing**	**Medical**	**Building**	**Business**	**Other**	**Food**	**Education**	**Clothing**	**Medical**	**Building**	**Business**	**Other**
Maize	3	3	2	3	0	0	5	2	0	0	0	0	0	3
Beans	0	3	3	2	0	2	3	0	1	0	1	1	1	2
Vanilla	27	35	31	17	14	2	28	35	32	32	14	24	4	31
Cassava	3	6	6	5	0	0	3	7	4	9	3	1	0	6
Coffee	25	36	40	18	15	3	33	42	50	50	24	23	7	34
Others	2	4	5	0	0	0	2	5	2	6	4	2	0	3

Table 40
Expenditure of income from cash crops, 1996 and 1997, Kitanyatta
(number of households)

	1996							1997						
	Food	**Education**	**Clothing**	**Medical**	**Building**	**Business**	**Other**	**Food**	**Education**	**Clothing**	**Medical**	**Building**	**Business**	**Other**
Maize	16	20	64	19	11	4	40	20	12	66	17	14	3	4
Beans	4	1	18	3	2	0	8	5	1	12	2	1	0	0
Cassava	6	1	21	7	2	0	6	8	1	26	2	2	0	1
Coffee	0	1	1	1	0	0	2	0	0	1	0	0	0	0
Others	14	7	31	3	5	3	27	11	3	27	2	3	5	0

It is interesting to note that cassava is a significant cash crop in both villages, suggesting that it may be useful to take cassava more seriously as an important cash crop in the region. Cassava is an important "famine food" and source of food security. Farmers find it easy to grow and to store, and there is a ready market for it in Kenya, the Sudan, and the Republic of Congo. Increased extension services and the introduction of more pest-resistant varieties may make cassava a readily accepted, efficient and viable cash crop.

The survey also sought an indication of how men and women control productive resources and share the rewards of the cash income from agriculture (table 41).

Table 41
Authorization of expenditure of cash crop income
Gonve and Kitanyatta, 1997 (number of households)

	Gonve (n = 197)				Kitanyatta (n = 199)			
	Husband	Wife	Child	Other	Husband	Wife	Child	Other
Maize	2	1	0	0	71	35	4	4
Beans	3	3	0	0	12	2	0	0
Vanilla	66	43	1	0	0	1	0	0
Cassava	10	11	0	1	22	11	0	0
Coffee	93	44	2	0	1	0	0	0
Other	7	3	1	0	36	15	1	0

The figures in table 41 suggest that women have a significant degree of control of cash crop income, authorizing its expenditure in 30 per cent or more of households. However, the picture is different if the data are disaggregated by total expenditure instead of numbers of households (because of data constraints, this is only possible for vanilla and coffee in Gonve). Table 42 indicates that over 90 per cent of the income from vanilla and coffee is controlled by men.

Table 42
Authorization of expenditure of cash crop income
Gonve (Ugandan shillings)

	Vanilla		Coffee	
1996	**Income**	**%**	**Income**	**%**
Male	12,095,000	90.7	30,086,750	93.0
Female	1,240,500	9.3	2,271,000	7.0
Total	13,335,500		32,357,750	
1997				
Male	14,079,000	90.1	31,704,250	90.1
Female	1,550,950	9.9	3,479,000	9.9
Total	15,629,950		35,183,250	

The survey respondents were asked to state who spent the income earned from the sale of crops and to list the items on which this income was spent. The results, disaggregated by gender, are given in tables 43 and 44.

Table 43
Husbands' and wives' expenditure patterns, number of households (Gonve)

	1996				1997			
	Husband		Wife		Husband		Wife	
	No.	% (rank)	No.	% (rank)	No.	% (rank)	No.	% (rank)
Food	25	13.2(3)	36	26.3(1a)	63	23.4(1)	42	29(1)
Education	36	18.9(1)	26	19(2)	35	13(3a)	26	17.9(3)
Clothing	30	15.8(2)	36	26.3(1b)	47	17.5(2)	34	23.4(2)
Medical	19	10(5)	9	6.6(3)	18	6.7(4)	11	7.6(4)
Land/building	23	12.1(4)	2	1.5(4)	35	13(3b)	4	2.8(5)
Business	13	6.8(6)	1	0.7(5)	16	5.9(5)	2	1.4(6)
Other/labour/ bicycles	14	23.2	27	19.7	55	20.4	26	17.9
Total	190	100	137	100	269	100	145	100

Table 44
Husbands' and wives' expenditure patterns, number of households (Kitanyatta)

	1996				1997			
	Husband		Wife		Husband		Wife	
	No.	% (rank)	No.	% (rank)	No.	% (rank)	No	% (rank)
Food	22	12.2(3)	14	21.2(1)	30	15.1(2)	14	20.3(2)
Education	15	8.3(5)	2	3(4b)	16	8(5)	2	2.9(6)
Clothing	26	14.4(2)	11	16.7(2)	33	16.6(1)	15	21.7(1)
Medical	20	11.1(4)	6	9.1(3a)	21	10.6(4)	9	13(3)
Land	12	6.7(6)	2	3(4a)	15	7.5(6)	3	4.3(5)
Business	35	19.4(1)	6	9.1(3b)	27	13.6(3)	6	8.7(4)
Other/labour/ bicycles	50	27.8	25	37.9	57	28.6	20	29
Total	180	100	66	100	199	100	69	100

The category "other" is a significant one, especially in Kitanyatta, and includes both labour and consumer durables such as bicycles. Unfortunately, labour was not separately coded on the questionnaire. Women were more likely than men to spend their income on food, and clothing was a significant expense for both men and women. The commonly held assumption that women are more likely to spend income that they control on household needs, especially food, tends to be supported by these data. Because women are traditionally responsible for providing food for the household, it is not surprising that food purchases are normally ranked higher for women than for men. However, men also spend a significant proportion of their income on food, and there are also indications that men's expenditure allocations change as the household's needs change. Both men and women increased their expenditure on food between 1996 and 1997 in both Gonve and Kitanyatta—with the absolute increase being greatest for men in Gonve—suggesting that the need for food was greater in 1997 and that men were willing to change their expenditure patterns to meet this need.

7. Conclusions

Uganda has made tremendous strides in advancing the cause of women. A woman vice president is in office, and women's rights are enshrined in the 1995 Constitution. The reservation of seats in parliament for women has meant that almost 20 per cent of the MPs in the National Assembly are women (Tamale, 1997). Women have been promoted to high-profile positions, they are well represented in the civil service, and they have been given preference in university admissions. However, there has been little progress in advancing women's status or their productivity in the smallholder agricultural sector.

The government has emphasized increased agricultural productivity as a prerequisite for poverty alleviation in the rural sector. The 1998/99 budget prioritized the improvement of feeder roads, overall security and universal primary education (Government of Uganda, 1998/99). These policies are intended to educate farmers, stabilize the security situation, and improve transport, and all of these measures would, in the long term, raise farmgate prices and reduce poverty. The need for greater access to crop finance by more traders, improved packaging, storage and transportation were all recognized, although these were left to the private sector.

Given the volatility of the international markets for coffee and other primary exports, the government is depending on the expansion of non-traditional agricultural exports as a source of growth and foreign exchange. NTAE have increased significantly since 1990, at least as a proportion of official exports, and there is also evidence that NTAE have potential for increasing incomes in poor areas. The questions raised by this research concern the gender dimensions of the NTAE promotion strategy: how would gender structures affect the response to NTAE promotion, and how would gender relations and women's well-being be affected, in turn, by structural changes in the agricultural sector. These are questions of *efficiency* and *equity*.

It is clear that the problem of low productivity in the smallholder agricultural sector remains. Increased production of agricultural exports will require not only better prices but also better functioning markets, as well as access to credit and inputs. In addition, the findings suggest that increased access to inputs and labour (or labour substitutes, e.g. tractors, water, mills, fuel) for food (non-cash) crops and for non-agricultural labour demands (i.e., women's domestic work) is important so that crop switching in response to incentives for NTAEs does not endanger food security and marginalize women within the household.

Confidence in marketing is a prerequisite for a positive supply response to improved prices. Some measures already being taken will affect marketing, particularly programmes to improve roads and access to credit. In addition, ways to increase competition among traders should be investigated, as should ways to increase confidence in contract enforcement.

Labour constraints also limit productivity and supply response. This is perhaps a more basic issue, and one in which an understanding of gender structures is imperative. Gender-disaggregated data on agricultural labour,

household labour and uptake of training and inputs should be more systematically collected. Concerted efforts should be made to introduce labour-saving technology, especially in food processing and storage, and to increase household fuel efficiency and water accessibility.

In addition, there is a need to focus more attention on the constraints and imperfections in the smallholder labour market. Some problems in the labour market may be alleviated by the same initiatives meant to improve product markets—in particular, improved feeder roads and access to transportation are necessary for labour mobility. Low-level technology limits the productivity of both family and hired labour. Improved technology, including improved seed varieties and extension services, is necessary to make the returns to labour high enough to enable households to employ labour. There has been some debate about whether the use of improved technology for land preparation (ox-plough or tractor), traditionally a male job, will lead to increased women's burdens in weeding and harvesting. It is clear from our data, however, that even weeding, the task most strongly identified as female, is performed by a significant proportion of men, while women are also involved in land preparation. The women who participated in our survey would clearly welcome increased access to tractors for ploughing, and it would be shortsighted to fail to provide such technology to the greatest extent possible.

Lack of access to credit will also constrain labour hiring. Labour requirements in smallholder households are typically at a peak when cash resources are at their lowest. Credit would seem to be the obvious remedy for this, with the caveat that hired labour would only generate sufficient returns if productivity is raised. But the survey data, which indicate that women not only have little access to credit, but have limited interest in obtaining credit, suggest that other ways to address the labour financing gap should also be investigated. Improved savings schemes might be one way to allow women to obtain sufficient cash to hire labour. Improved storage facilities that would facilitate a more even cash flow throughout the year would also help. This implies that the storage potential of non-traditional cash crops should be taken into account in promotion policies. Maize, for instance, does not store well, while cassava is much more flexible in terms of harvesting, can also be dried and stored.

These issues are primarily concerns of efficiency, but efficiency concerns should not be the only ones. Equity issues must also be addressed when existing social structures become destabilized by macroeconomic policy. It is clear that, even if NTAE policies are economically successful, there is a significant risk that women's status will worsen because of them. It is also possible, as some studies have argued, that this will adversely affect children's well-being and nutrition, as well as household food security. Whether or not this is the case, government should not lose sight of women's rights to equal protection. It should acknowledge that, during the transition of gender relations that is likely to accompany agricultural restructuring, women will be disadvantaged because they will be losing traditional rights, without being in a good position to establish new ones. The government needs to send clear signals that it will work to buttress women's social and economic fallback position within the household. It should support women's legal organizations, ensure adequate educational opportunities for girls and promote employment opportunities for women.

In sum, the ideal NTAE strategy would lead to agricultural intensification, with increased inputs (labour and non-labour) resulting in increased outputs. Production for own consumption would either remain at current levels, or the income from marketed crops would be sufficient to allow sufficient purchase of food. At this time, rural Uganda does not fit this scenario. Constraints on increased productivity exist both in terms of input—seasonal labour shortages, lack of access to inputs, lack of credit, lack of knowledge—and in terms of incentives—lack of confidence in markets and pricing, high marketing margins, large price swings resulting in non-ability to purchase food prior to the harvest season. Women's labour supply is very inelastic, and additional labour burdens on women are likely to be detrimental to the well-being of others in household. Thus increased NTAE production, in the absence of other additional inputs, must come from crop switching or an increase in men's labour. There is some indication that the gender division of labour is less rigid than is often believed, and that men are prepared to participate more fully in all aspects of agricultural production if the incentives to do so are adequate. Will this imply that men will "take over" women's crops to the detriment of women's position in the household? This remains an open question. Indeed, there are some indications that women do not welcome the loss of autonomy resulting from more co-operative household production systems. However, a more equitable distribution of labour burdens within smallholder households certainly has the potential to benefit women. What Uganda is likely to experience is a shift to a more integrated and co-operative household in the smallholder sector. Whether that will imply a loss of women's autonomy, or an increase in women's influence in a larger sphere, will depend on the characteristics of the particular men and women who are members of each household, as well as on the strength of government initiatives to further the educational, legal, and social status of women.

Bibliography

Agricultural Policy Committee, Agricultural Secretariat, Bank of Uganda (1996)

The Export-Led Agricultural Growth Strategies and Relationship with Uganda Poverty Agenda, paper presented at the UNRISD/UNDP/CBR workshop, "A Dialogue on Gender Dimensions of Agricultural Policy", Kampala, 3–4 May 1996.

Agricultural Policy Secretariat (1997)

Economics of Crop and Livestock Production, Ministry of Planning and Economic Development, Kampala.

Appleton, S. (1998)

Changes in Poverty in Uganda 1992–1996, mimeo, Centre for the Study of African Economies, Oxford.

Bakker, I. (ed.) (1994)

The Strategic Silence: Gender and Economic Policy, North-South Institute/Zed Books, London:

Balihuta, A.M. (1997)

Analysis of Household Survey and Monitoring Data, UNRISD (mimeo), Geneva.

Biganbambah, J. R and M. Tsfai (1993).

Marketing of Smallholder Crops in Uganda: Kampala, a report prepared for the Swedish International Development Authority (SIDA)

Booth, D. (1990)

Women in Development: Defining the Issues, World Bank Policy, Planning and Research Working Paper 129, The World Bank, Washington D.C.

Collier, P. (1988)

Women in Development: Defining the Issues, The World Bank, Washington, D.C.

_____ (1994)

"Gender aspects of labor allocation during structural adjustment: A theoretical framework and the Africa experience", in S. Horton et al. (eds.), **Labor Markets in an Era of Adjustment**, ??????

Commonwealth Secretariat (1995)
Incorporating Gender into Food Security Policies in Commonwealth Africa: Phase I, report of a meeting of consultants, Kampala, Uganda, 19–21 June 1995, Economic Affairs Division, Commonwealth Secretariat, London.

Drew, C. (1996)
Women's Role in Non-Traditional Agricultural Export Policy and Practice, paper presented at the UNRISD/UNDP/CBR workshop, "A Dialogue on Gender Dimensions of Agricultural Policy", Kampala, 3–4 May 1996.

Due, J. and C. Gladwin (1991)
"Impacts of structural adjustment programs on African women farmers and female-headed households", **American Journal of Agricultural Economics**, 73(5).

Elson, D. (1992)
"From survival strategies to transformation strategies: women's needs and structural adjustment," in L. Beneria and S. Feldman (eds.), **Economic Crises, Persistent Poverty and Women's Work**.

_____ (1995)
"Gender awareness in modeling structural adjustment", **World Development**, 23(11):1851–68.

Evans, A. (1989)
Gender Issues in Rural Household Economics, IDS Discussion Paper No. 254, Institute for Development Studies, Brighton.

_____ (1992)
A Review of the Rural Labour Market in Uganda, University of Sussex, School of African and Asian Studies (mimeo).

Government of Uganda (1992/93)
Integrated Household Survey, Ministry of Planning and Economic Development, Statistics Department, Entebbe.

_____ (1996)
Poverty Trends in Uganda, Kampala.

_____ (1996/97).
Economics of Crop and Livestock Production, Agricultural Policy Secretariat, Kampala.

_____ (1997)
Poverty Eradication Action Plan, Ministry of Planning and Economic Development, Kampala.

_____ (1998)
Towards a Sector Wide Approach: A Framework for the Modernisation of Agriculture in Uganda, Kampala.

_____ (1998/99)
Background to the Budget, Kampala.

Haddad, L et al.. (1995)
"The gender dimensions of economic adjustment policies: potential interactions and evidence to date", **World Development**, 23(6):881–896.

Kenyangi, G. (1996)
Constraints to Women's Access to Agricultural Credit: The Case of the Uganda Commercial Bank Rural Farmers' Scheme, paper presented at the UNRISD/UNDP/CBR Workshop, "A Dialogue on Gender Dimensions of Agricultural Policy", Kampala, 3–4 May 1996.

Kharono, E. (1996)
Challenges to Food Security, paper presented at the UNRISD/UNDP/CBR Workshop, "A Dialogue on Gender Dimensions of Agricultural Policy", Kampala, 3–4 May 1996.

Kyasiimire, E. (1996)
The Role of Women in Food Security in Uganda, paper presented at the UNRISD/UNDP/CBR Workshop, "A Dialogue on Gender Dimensions of Agricultural Policy", Kampala, 3–4 May 1996.

Ministry of Planning and Economic Development (1996)
Empowering Women in Development to Strengthen Food and Nutrition Status, Kampala.

Salim M. N. Odongo and A. Agaona (1993)
Food Storage and Post Harvest Crop Losses in Uganda, proceedings of a workshop on Export Diversification and its Impact on Food Self-sufficiency in the P.T.A. Region,World Food Programme, Rome.

Pottier (1995)
"Poor Men, Intra-Household Bargaining and the Politics of Household Food Security" in Yngstom et al. (eds.), **Gender and Environment in Africa**, Stockholm.

Sengooba, T. (1996)
Agricultural Research: Strategies to Incorporate Gender. Paper presented at the UNRISD/UNDP/CBR Workshop, "A Dialogue on Gender Dimensions of Agricultural Policy", Kampala, 3–4 May 1996.

Sorensen, P. (1996)
"Commercialization of food crops in Busoga: Uganda and the renegotiation of gender", **Gender and Society**, 10(5):608–624.

Tamale, S. (1997)
When Hens Begin to Crow: Gender and Parliamentary Politics in Contemporary Uganda, Ph.D. Dissertation, University of Minnesota.

Tibaijuka, A. (1994)
"The cost of differential gender roles in African agriculture: A case study of smallholder banana-coffee farms in the Kagera region, Tanzania", **Journal of Agricultural Economics**, pp. 1:45.

Tumusiime, R. (1996)
An Analysis of Women's Access to Improved Agriculture at the Macro Policy Level, paper presented at the UNRISD/UNDP/CBR Workshop, "A Dialogue on Gender Dimensions of Agricultural Policy", Kampala, 3–4 May 1996.

Uganda Women's Network (1995)
Women and Structural Adjustment: A Study of Arua District, Uganda, Kampala.

UNCTAD (1998)
Trade and Development Report, Geneva.

Whitehead, A. (1991)
"Rural women and food production in sub-Saharan Africa", in J. Dreze and A.K. Sen (eds.) **The Political Economy of Hunger**, Vol 1, Oxford University Press, Oxford.

Wold, B. K. (ed.) (1997)
Supply Response in a Gender Perspective: The Case of Structural Adjustment in Zambia, Statistics Norway, Oslo.

World Bank (1993)
Uganda: Growing Out of Poverty, The World Bank, Washington, D.C.

World Bank (1996)
Uganda: The Challenge of Growth and Poverty Reduction, Washington D.C.