



**Gender and Employment in the
Kenya Horticulture Value Chain
DISCUSSION PAPER 8**

By

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Abstract

One of the main features of globalisation has been the enormous growth in commodity chains that span national boundaries. These chains, which link large numbers of poor workers in developing countries with consumers in the North, potentially offer promising opportunities to spread the gains from globalisation to broader segments of the population. The Kenya horticulture industry is a good example of a global commodity chain, and is widely considered a success story for African development, creating substantial opportunities for employment and self-employment. This paper explores the nature of employment in the production and processing parts of the export horticulture value chain. It describes the characteristics of workers currently employed in the sector, and explores the motivations underlying their choice to engage in wage employment. Due to the large numbers of female workers in the industry, the focus of the paper is on the gender dimensions of horticulture employment. The paper shows that there are not only gender dimensions to the consequences for workers participating in the chain (e.g. wages, skills) but that gender itself is a strong determinant for participating in the chain.

We gratefully acknowledge funding for this research from the Department for International Development's Globalisation and Poverty Research Programme. We are also indebted to several Kenyan export companies who will remain anonymous, the Fresh Produce Association of Kenya (FPEAK), and the Horticultural Crops Development Authority (HCDA) for their invaluable assistance. Thanks are also extended to Mary Omosa of IDS, University of Nairobi for managing data collection, and to Neil McCulloch and Masako Ota of IDS, University of Sussex for their generous contribution of quantitative data and continued co-operation. All errors remain our responsibility.

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1. Introduction

One of the main features of globalisation has been the enormous growth in commodity chains that span national boundaries. These chains, which link large numbers of poor workers in developing countries with consumers in the North, potentially offer promising opportunities to spread the gains from globalisation to broader segments of the population.

One way of understanding the emergence, growth and implications of global export industries such as horticulture has been through global commodity chain analysis. This approach, popularised by Gereffi and Korzeniewicz (1994), explores how the linkages between the production, distribution and consumption of products are globally interconnected along commodity or value chains.¹ As an analytical tool, commodity chain analysis is particularly useful in identifying the central role that global buyers play in organising the activities within value chains. Gereffi (1994, 1999), for example, emphasised the importance of what he called "buyer-driven commodity chains", observing that in some industries large retailers, marketers or brand-name companies play the pivotal role in establishing, and controlling geographically-dispersed production and distribution systems without necessarily owning any manufacturing or distribution facilities themselves.² The UK-Africa horticulture value chain exhibits several characteristics of a 'buyer-driven commodity chain'. Powerful lead firms (supermarkets) have created supply networks for the production of horticultural products in several African countries defining not only what is to be produced, but how, when and at what price it is to be produced (Dolan and Humphrey 2000). These supermarkets increasingly determine the production imperatives of horticultural firms upstream in the chain, and indirectly, the employment strategies they adopt.

While the application of a value chain approach to an analysis of poverty is relatively new, it is proving fruitful in identifying the development potential of particular global industries and their prospects for broad based growth. Recent research has shown how certain chains and more specifically certain segments within chains are more easily accessed by local producers, and offer more possibilities for upgrading into new products, functions, or markets.³ For example, the connection between the requirements of EU retailers and the potential for inclusion in the global fresh vegetable chain are now extremely clear. Yet despite the effectiveness of value chain analysis in pinpointing the opportunities for inclusion at different 'nodes' in chains, it has tended to privilege analyses of buyers (and to some extent suppliers) to the exclusion of workers in the chain. Discussions of upgrading, for example, have largely focused on improving the productivity of industry and firms, rather than the productivity of workers themselves. While some innovative work has been done on mapping homeworkers in value chains (McCormick and Schmitz 2001, Carr et al. 2000), overall value chain analysis has been least effective in capturing the employment relations at the production end of the chain.

The research underlying this paper, combined with parallel work being undertaken in South Africa (Barrientos 2002), attempts to begin this analysis. Based on a preliminary analysis of data, it aims to draw out more explicitly the links between the globalisation and the nature of employment in the Kenya horticulture value chain. Due to the 'feminised' composition of the workforce, the study focuses specifically on gender issues in the production and processing segments of the chain. The paper shows that not only is gender a strong determinant for participating in the chain, but that there are also gendered consequences for workers in terms of wages, skill acquisition and development opportunities. It also demonstrates that employment brings positive consequences for workers, but that these

opportunities are contingent upon their position within the value chain, as well as their gender identity.

The paper is organised as follows. Section 2 provides a brief analysis of literature on the linkages between women's labour market participation and gender equity. It then describes the horticulture value chain linking European buyers with African firms, and how the requirements of UK supermarkets have transformed the nature of the industry in Kenya. Section 3 introduces the data on which this paper is based. It describes the characteristics of workers currently employed in the sector, and explores the motivations underlying their choice to engage in wage employment. Section 4 presents the data on the nature of employment in production and processing, focusing specifically on its gender dimensions. Section 5 examines the linkages between wage work and its contribution to household welfare. Section 6 concludes.

2. The Context

2.1 Female Employment in Global Value Chains

One of the key features of buyer-driven commodity chains is that they draw large numbers of workers in developing countries into labour-intensive production, with women frequently comprising the majority of these workers. There is nothing new about this phenomenon. Over two decades ago Elson and Pearson (1981) drew attention to the linkages between the internationalisation of capital and the rise in gender-specific employment strategies. More recently, studies have charted the strong association between female labour and manufactured exports from developing countries, where feminised and flexible labour strategies are deployed to maintain competitiveness in a context of globalization and trade liberalisation.⁴ Similar, though less widely researched, has been the dramatic expansion of female labour in non-traditional or high-value agricultural sectors such as fruits, vegetables and cut flowers.⁵ Early indications suggest that the integration of women into these sectors, particularly in Latin America, shares similar employment characteristics with global manufacturing.

The impact of such feminised employment⁶ patterns on women's welfare has been the focus of considerable debate.⁷ Most early studies were rather pessimistic.⁸ Researchers argued that despite the positive numerical gains associated with female employment, it was based on the 'comparative advantage of women's disadvantage' and characterised by occupational segregation, low wages and poor working conditions (Elson and Pearson 1981, Ehrenreich and Fuentes 1982, Arizpe and Aranda 1981). Recently, however, a more nuanced picture has emerged. Several feminist economists have suggested a positive association between women's wage work and their status in the household, observing that access to wages can create more space for manoeuvre and more options to transcend the parameters of patriarchal and cultural constraint. In Guatemala, for example, women employed in the processing of export horticulture products reported an improvement in their household bargaining power resulting from their contribution to household income streams (USAID 1999). Studies⁹ of garment workers in Bangladesh have also been positive, showing that employment provides tangible economic rewards as well as greater self-esteem, autonomy and social networks (Kabeer 2000). Extending this optimism to other regions and sectors, however, has been more problematic. A recent review of 22 poverty studies from 15 countries, for example, found that women's participation in wage employment failed to achieve equality in gender relations (Gonzalez de la Rocha 2000), and other studies have highlighted the 'time famine' and occupational hazards associated with being at the bottom of a global supply chain.

This variance underscores the conceptual and methodological challenges of identifying the linkages between trade policy, employment trends and the more micro experiences of gender relations in employment. Conceptually, a complete picture of employment in global value chains has often been obscured by a preoccupation with global structural factors. For example, a now sizeable body of literature depicts the growth in female employment (in both manufacturing and agriculture) as an outcome of ‘demand’ factors embedded in the global economy (e.g. liberalisation, deregulation, trade reform) that exert strong competitive pressures on industry to reduce costs through flexible and feminised labour strategies.¹⁰ Women’s position within the value chain, therefore, is largely explained through recourse to capital’s quest for a cheap, compliant and nimble-fingered workforce. However, it is not only macroeconomic policy that influences the structure of the value chain, and the employment patterns within it. A wide range of factors, including the nature of state and regional policy, level of infrastructure and access to technology, as well as the character of markets, influences who gains access to the chain, and how.

At a micro level understanding the form of employment within the value chain requires understanding how labour markets differentiate the opportunities of men and women to engage in work, and shape their experience of that work. Many feminist economists have convincingly argued that labour markets are gendered institutions, which reflect socially constructed gender divisions of labour and women’s responsibility for domestic work and childcare¹¹ that underlies the functioning of productive work (see *World Development* 1995). To a large extent these reproductive responsibilities establish the possibilities and limitations of women’s participation in employment, particularly at certain points in their life cycle, and determine the rewards they are likely to gain from work. Findings from SE Asia, for example, reveal that while young, unmarried and childless women are able to capitalise on labour-intensive industrial strategies, these opportunities are far more restricted for older women, or for with women with children.

Entry into the value chain is also mediated by local dynamics of household and family. It is generally household norms and rules that determine whether women are able to negotiate the allocation of time between paid and unpaid work, maintain control over income, and ultimately whether entry into employment will be beneficial. In SSA specifically, there is increasing evidence to suggest that the structure of gender relations may not only erode women’s potential to benefit from work, but more broadly inhibit the growth prospects of rural economies (Blackden and Bhanu 1999, Evers and Walters 2000, Elson and Evers 1997).

Finally, understanding employment within value chains requires capturing both its qualitative and quantitative dimensions. For example, while there is now a substantial body of work in the area of gender and international trade, there is still a relatively thin understanding of how changes in trade patterns are impacting the experience of women’s lives. In the same way that conventional conceptualisations of poverty have moved beyond a sole focus on income and consumption toward a broader understanding of human poverty, value chain analysis needs to capture both objective data on the tangible aspects of employment (such as skills, wages, and working conditions), as well as subjective perceptions on the meaning and experience of work. Hence, to gain a fuller understanding of employment within value chains, we need to reconcile analyses of global processes and their macroeconomic impacts, with more nuanced empirical evidence from the micro level of household and workers.

2.2 Poverty in Kenya

While Kenya is one of the more developed African countries, poverty remains widespread. The most recent national household survey, the Welfare Monitoring Survey III (WMS), estimated that in 1997 13.4 million Kenyans, just over half of the population, lived below the total poverty line¹² (Kenya 2000a). The population living on less than one US dollar per day has risen alarmingly from 40 per cent in 1994 to an estimated 56 per cent in 2000 (Kenya 2000a).

However, while poverty is pervasive, it is not uniform. Evidence points to differences in the concentration of poverty based on region, sector (i.e. urban versus rural areas), household composition and gender. Overall, women (both within male and female-headed households) are more vulnerable to poverty than their male counterparts (see Table 2.1), stemming from weak entitlements of land, capital, and other productive resources, and limited capabilities due to gender-based disparities in education and domestic responsibilities. The links between gender and poverty are clearly represented in indices of labour force participation. For instance, 69 percent of economically active women work as subsistence farmers as compared to only 43 percent of men, with subsistence farmers among the poorest of the nation's population. Furthermore, only 25 percent of adult women in the population are engaged in formal employment as compared to over 40 percent of their male counterparts (Kenya 2001a).

Table 2.1 Total Poverty Headcount by Gender

| | Urban | | Rural | |
|---------------|-----------|------------|-----------|------------|
| | Household | Individual | Household | Individual |
| Male | 41.07 | 47.22 | 45.88 | 52.66 |
| Female | 52.69 | 62.50 | 47.42 | 54.27 |

Source: Kenya 2000a (Annex Tables 10 and 11)

Note: Household level poverty indicates % of households below the poverty line; individual level poverty indicates % of individuals below the poverty line.

2.3 The Fresh Vegetable Value Chain

One way that Kenya and other sub-Saharan African countries have attempted to reduce poverty and achieve higher rates of growth is by diversifying their export portfolio away from primary commodities into non-traditional exports (ntes) with more auspicious market trends. The export horticulture industry has become one of the most dynamic expressions of these agricultural diversification efforts, and fits squarely within donor support of labour-intensive trade.¹³ The sector has been widely promoted as a way to provide greater opportunities for employment and self-employment, particularly for women.

In Kenya, horticulture has been one of the few success stories in an otherwise lacklustre economy¹⁴ with the sector contributing US\$270 million to the country's overall export economy of US\$1765 million [15%] in the year 2000 (Bawden 2002). Between 1993 and 1999 exports of fresh vegetables from Kenya rose by 53 per cent in volume terms and over 206 percent in value terms, and throughout the 1990s Kenya was the leading exporter of fresh vegetables to the EU¹⁵ (see Table 2.3). By the year 2000, the horticulture sector had become the nation's third largest source of foreign exchange (EPC 2001).¹⁶

Table 2.2 Kenya's Export of Fresh Vegetables, Fruits and Cut Flowers, 1996-2001

| Year | Fruits | | Vegetables | | Cut Flowers | | Total | |
|--------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|
| | Quantity (tons) | Value (Ksh '000) | Quantity (tons) | Value (Ksh '000) | Quantity (tons) | Value (Ksh '000) | Quantity (tons) | Value (Ksh '000) |
| 1996 | 16,869.40 | 769.52 | 32,742.00 | 2,577.11 | 35,212.25 | 4,366.32 | 84,823.65 | 7712.95 |
| 1997 | 17,450.00 | 805.11 | 30,880.00 | 3,116.18 | 35,850.00 | 4,887.75 | 84,180.00 | 8809.04 |
| 1998 | 11,350.00 | 819.53 | 36,800.00 | 4,052.22 | 30,220.00 | 4,856.93 | 78,370.00 | 9728.68 |
| 1999 | 15,595.00 | 1,256 | 46,377.00 | 5,713.00 | 36,992.00 | 7,235.00 | 98,964.00 | 14,204 |
| 2000 | 14,669.02 | 1,098.00 | 43,400.86 | 5,293.40 | 36,480.00 | 7,165.60 | 94,549.88 | 13,557.00 |
| 2001 | 22,702.00 | 1,559.50 | 34,771.00 | 8,034.50 | 423,967.00 | 10,626.90 | 481,440.00 | 20,220.90 |
| Total | 98,635.42 | 6307.66 | 224,970.86 | 28,786.41 | 598,721.25 | 39,138.50 | 922,327.53 | 74,232.57 |

Source: Gachanga 2002, Horticultural Crops Development Authority, Nairobi, Kenya

Overall the sector has benefited substantially from the government's hands-off approach,¹⁷ enabling the industry to expand from a small trade centred on Asian vegetables during the 1960s to an extensive trade that delivers dozens of products to overseas markets today (Jaffee 1995). The vast majority of this produce is destined for Europe (see Table 2.3), where a wide range of fruits and vegetables are supplied during European winter months, and more exotic vegetables and flowers much of the year round.¹⁸

The vast majority of this produce (89.4 percent) is destined for Europe, with the UK market absorbing the lion's share (Table 2) (Gachanga 2002). By 1999 the UK's share of exports surpassed 71 percent, up from 33 percent in 1990 (Humphrey 2002).¹⁹ The growing dependence of Kenyan exporters on the UK market has had important consequences for the production and processing of horticulture products and the nature of employment in the value chain.

For example, in the 1960s produce was grown by smallholder farmers, sold to a small number of Asian family-run exporters, and channeled through wholesale markets to UK retailers. During this period, wholesalers controlled 90 percent of the UK fresh horticultural trade (Gray and Kleih 1997), and their comparatively modest quality and processing standards provided opportunities for a range of overseas producers and exporters to enter the trade. When the UK supermarkets first entered the fresh vegetables trade, they too purchased product from the wholesale market, employing wholesale agents working on a commission basis. However, a system of coordination based on spot market mechanisms could not achieve the specifications for product quality and quantity that supermarkets sought. As a result, by the 1990s, what was once a loose network of arms-length relationships between UK importers and an array of exporters became an explicitly co-coordinated value chain dominated by a handful of UK supermarkets (Dolan and Humphrey 2001). (see Diagram 1).

Table 2.3 Main Export Markets for Fresh Horticultural Produce: Volume Exported (Metric Tonnes)

| Country | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
|-----------------|--------|--------|--------|--------|--------|--------|
| United Kingdom | 17,935 | 19,584 | 21,191 | 22,592 | 26,265 | 24,889 |
| The Netherlands | 17,613 | 18,803 | 25,580 | 28,025 | 32,172 | 24,261 |
| France | 10,352 | 10,490 | 12,034 | 10,371 | 10,975 | 11,922 |
| Germany | 6,467 | 6,630 | 6,334 | 9,292 | 5,769 | 5,074 |
| South Africa | 276 | 433 | - | 916 | 1,163 | 3,391 |
| Belgium | 1,680 | 1,916 | - | 2,283 | 1,452 | 1,777 |
| Saudi Arabia | 644 | 445 | 461 | 831 | 888 | 564 |
| Switzerland | 2,465 | 1,342 | - | 6,163 | 796 | 857 |
| Sweden | 73 | 86 | - | 212 | 540 | 318 |

Source: Horticultural Crops Development Authority, Nairobi, Kenya

This transformation was the outcome of several factors, which together have given rise to considerable employment creation in Africa. The evolution toward a more tightly integrated value chain was driven by several factors, which collectively have changed the nature of employment in Africa. Firstly, over the last two decades, UK retail chains have undergone unprecedented consolidation, expanding tremendously in size and market share, and exercising substantial influence on value chains across a wide range of products (Dolan and Humphrey 2000). In the UK, the combined market share for all nine major multiples in 2001 was 60% (IGD Retail Analysis, 2002), although some sources put the figure closer to 90% (Michaels 2002).

Secondly, during the 1980s the development of own label products became central to supermarket's strategy to enhance margins and maximize market penetration. By 2001, private label market share had reached 43.1 percent in the UK (Tassinari 2001). Fresh fruit and vegetables are a key own brand for retailers, and occupy a strategic position in supermarket competition. In the UK, the retail share of total fresh fruit and vegetables sales increased from 44 percent in 1992 (Nagarajan et al. 1994) to 82 percent in 2001 (Humphrey 2002), with two-thirds of sales derived from just four chains (Fresh Produce Journal 2002: 6). At the same time, putting value into the supply chain through product differentiation and development assumed greater significance, with UK supermarkets competing less on price and more on aspects such as quality and innovation. This led to a marked shift away from standardized products to greater product variety and value added in packaging and processing. Whereas produce was sold loose through greengrocers and supermarkets 20 years ago, today fresh vegetables are increasingly sold in 'prepared' form (e.g. chopped and trimmed, mixed packs of vegetables, pre-washed, or ready-to-microwave packs).²⁰ Most of this processing now takes place in the country of origin, creating significant labour demand in developing countries.

Thirdly, like other buyer driven chains, retailers sought greater organizational flexibility and restructured the functional division of labour between agents in the chain (Gereffi 1994). In particular, they externalized their lower profit functions, outsourcing quality control, monitoring, distribution, and processing to importers and exporters upstream, while concentrating on their core competences of marketing, branding and product design.

The fourth factor leading to more integrated supply chain relationships was the proliferation of mandatory and voluntary standards. The critical driver behind this was the increasingly demanding regulatory environment in the EU including the 1990 UK Food Safety Act and the EU directive 42/2000/EC on Maximum Residue Limits (MRLs) in 2001. At the same time, the last 5-10 years have witnessed growing NGO and consumer concerns regarding the ethical implications of global supply chains. These concerns have filtered down the supply chain in the form of voluntary codes of conduct that cover a range of conditions (e.g. labour, environmental, sustainable production methods etc.) that establish the rules for participating in the chain. All exporters must now implement a number of standards to govern production systems and adopt auditing processes to ensure compliance.

Taken together these factors exerted new pressures on the industry and increased the need for greater control over costs, quality, and efficiency. To achieve this control, UK-based retailers rationalised their supply base, creating much tighter relationships with a select group of 'preferred' suppliers (UK importers and Kenyan exporters). By the end of the century, a tightly-structured supply chain linked a powerful set of UK buyers with a small number of

well-established firms in Kenya, with the latter controlling between 65-75% of all fresh vegetable exports, of which the vast majority were destined for European supermarket shelves (Dolan and Humphrey 2000). This has been good news for those exporters who have secured a position in the chain, providing relatively stable orders, higher margins and some protection against substitution. However, the tendency towards concentration among both exporters and growers²¹ has raised questions on how the benefits of trade can be diffused to broader segments of the population, particularly smallholders whose position in the chain has been eroded by the exacting standards for quality and traceability. While three-quarters of fruit and vegetables in Kenya were grown by smallholders in the early 1990s (Harris 1992), by the late 1990s this figured had radically declined. For example, in 1998 the percentage of fresh produce sourced from smallholders by Kenya's largest exporters was less than 20 percent and by 2001 the figure had slipped even lower (see Table 2.4). While there is still scope for smallholders to supply European wholesale markets, their capacity to supply the multiples has been eroded by the exacting standards for quality, traceability, and standards compliance.

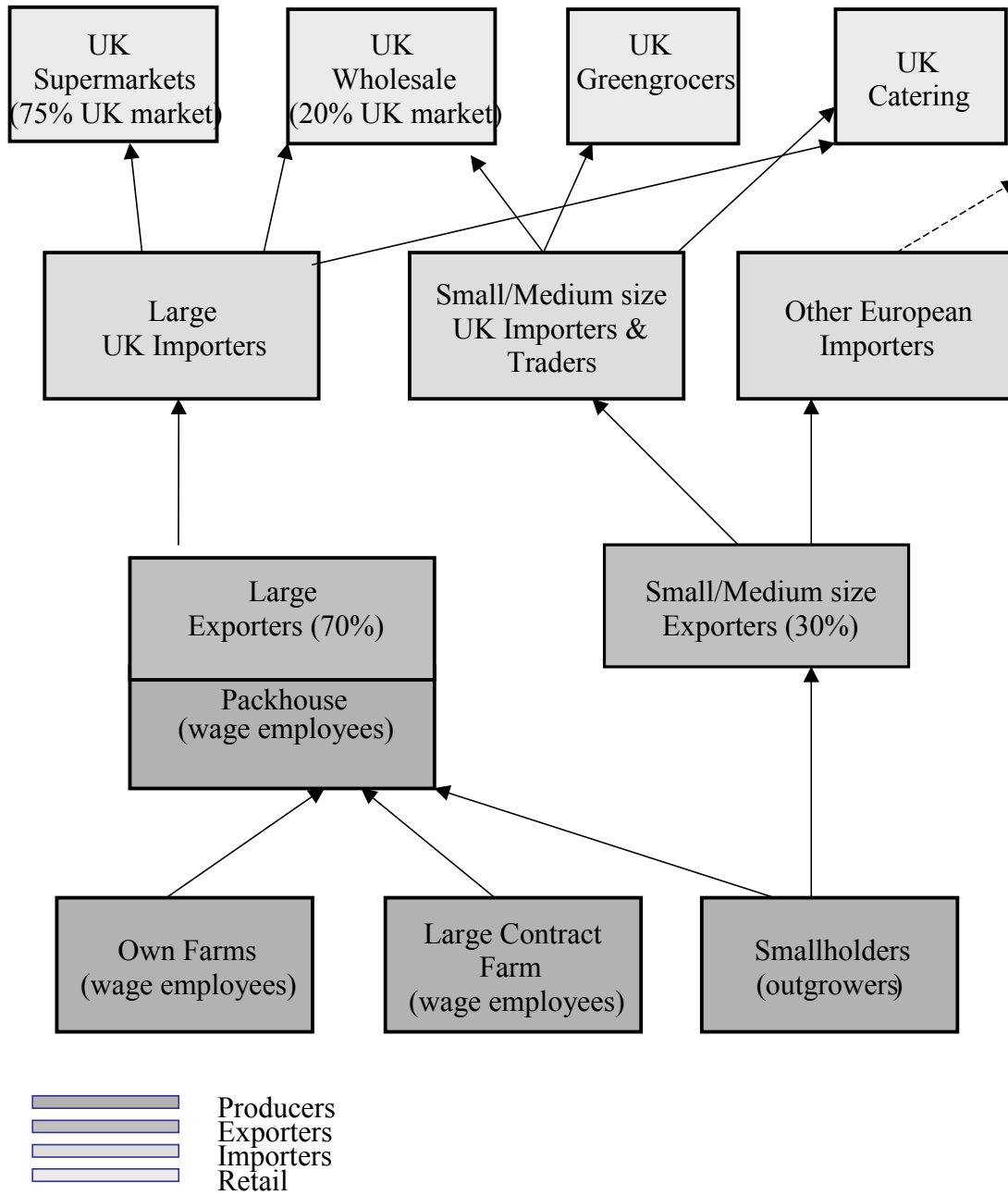
Table 2.4 Source of Supply by Type of Production Unit (%)

| | Own Farm Production or Leased Land | Large Commercial Farms | Smallholders |
|------|---|-----------------------------------|---------------------|
| 1998 | 40 | 42 | 18 |
| 2001 | 50 | 29 | 11 |

Source: Author interviews with leading exporters in Kenya, 1998 and 2001

Diagram 1

Simplified Export Vegetable Value Chain (Kenya/UK)



Given the diminishing role for smallholders and a national unemployment rate approaching 50% (COTU 2001), the quality and level²² of employment provided in the value chain assume greater importance. In the remainder of the paper, we take a closer look at the specific employment patterns in the horticulture chain, and their implications on the livelihoods of workers.

3 Characteristics of Horticulture Workers

3.1 Methods

This paper is based on research conducted with individuals employed in one of Kenya's three largest horticulture companies. Data were collected on two separate surveys undertaken between March and June 2001. The first survey, Field Study 2001, conducted qualitative semi-structured interviews with 53 workers directly employed in the fresh vegetable industry and a second household member drawn from 19 of their households. The second survey, McCulloch and Ota 2001, collected quantitative information on 100 households of horticulture employees from which we drew data on 87 employees. These households were a subset of a much larger household study carried out to identify the economic contribution of export horticulture to poverty reduction in Kenya.²³ All data disaggregated by gender of household head (100 households) is derived from this survey.

All interviews were conducted with individuals that were employed by, or household members of employees working for one of the three of Kenya's largest horticulture firms. Employees were selected from three different parts of the value chain in order to determine whether the nature of insertion into the chain provided different opportunities for workers and their families. These parts consisted of: a) packhouses (PH) in urban Nairobi; b) farms that were leased or directly owned by the export firms (OF) in rural Nanyuki and Timau; and c) large contract farms producing under contract for the exporters (CF) also in rural Nanyuki and Timau. See annex 1 for a breakdown of the sample by gender, employment type and locations. Because of the similarity of the results between employment on own-farm and large contract farms in rural areas, the data for these types of employment are often amalgamated under the general category of 'farm.'

3.2 Demographic Characteristics of Sample Households

Employment in horticulture production and processing shares common elements with other buyer-driven commodity chains such as apparel, electronics, and toys. Most notable is the concentration of female labour, with women constituting 66 percent of sample packhouse and 60 percent of farm workers (see Table 3.1), a figure substantially higher than the proportion of women in wage employment in Kenya as a whole (12 percent in 2000) (World Bank 2002). The proportion of female-headed households (FHHs) in the sample is similarly pronounced; FHHs comprise more than half of all households surveyed (57%), with the proportion slightly higher in urban than in rural areas (63% versus 53%). These figures, however, underestimate the prevalence of female labour in the industry as a whole as sampling was deliberately constructed to capture a range of occupations, including those that represent a smaller share of the workforce.

The female profile of the industry reflects companies' engagement with the value chain as well as the cultural constructions of gender that underlie agrarian processes. For example, on horticulture farms, women's predominance in certain points of the production process partly reflects gendered patterns in African farming systems and distinct spheres of men's and women's work. However, on both farms and in packhouses, feminization is also grounded in

a number of stylized assumptions that equate production imperatives of quality, consistency and speed with ostensibly “feminine” traits of dexterity and conscientiousness. As the chairman of Kenya Horticultural Exporters claimed, ‘Women are better bean pickers. Their hands are smaller and they have more patience for the work than the men.’

Table 3.1 Gender, Marital and Age Composition of Sample

| | Packhouse | | | Farm | | | Total | | |
|-----------------------------------|-----------|-------------|-------|------|-------------|-------|-------|-------------|-------|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| % of workers | 34.4 | 65.6 | 100.0 | 40.0 | 60.0 | 100.0 | 37.8 | 62.2 | 100.0 |
| % headed by gender ⁽¹⁾ | 37.0 | 63.0 | 100.0 | 46.7 | 53.3 | 100.0 | 43.0 | 57.0 | 100.0 |
| % married ⁽¹⁾ | 42.5 | 20.0 | 27.8 | 31.0 | 23.0 | 26.5 | 35.5 | 22.0 | 27.1 |
| % under age 29 | 73.5 | 86.0 | 82.0 | 81.0 | 84.0 | 82.7 | 78.0 | 85.0 | 82.4 |

Source: Field Study, 2001

Note: (1) Calculated from McCulloch and Ota field data, 2001

Secondly, the vast majority of employees in the sector are young and unmarried (see Table 3.1). Eighty-five percent of all women and 78% of all men in the sample are under the age of 29, and nearly half the labour force is under the age of 20 irrespective of gender.²⁴ In all employment categories, there are fewer women married than men (20% and 23% of female packhouse and farm workers in contrast to 43% and 31% of male packhouse and farm workers). As Section 5 suggests, the ‘youthful’ and relatively ‘unencumbered’ age profile of the labour force is an important factor shaping the conditions under which workers enter employment, and their perception of the benefits of that employment.

The age and marital characteristics of sample households also partly explain the small household size found among packhouse and farm workers (2.9 and 2.7 respectively), both of which are substantially lower than the national average.²⁵ Yet household size and more broadly, the nature of household composition are strongly linked to the sex of the household head. For example, as Table 3.2 indicates, the mean household size of male-headed households (MHHs) is significantly larger than FHHs (3.4 to 2.3 respectively).²⁶ This partly stems from the lower number of children living in FHHs, which ranges from 0.7 in Nairobi to 1.3 in rural areas. While MHHs have a higher dependency ratio than FHHs in urban areas (0.7 to 0.5), this is somewhat offset by their higher number of economically active household residents in MHHs (2.3 to 1.6 in FHHs).

Table 3.2 Household Demographic Characteristics by Gender of Household Head

| | Packhouse | | | Own Farm | | | Contract Farm | | |
|------------------------------|-----------|------|------|----------|------|------|---------------|------|------|
| | Both | MHHs | FHHs | Both | MHHs | FHHs | Both | MHHs | FHHs |
| Avg Household size | 2.9 | 3.9 | 2.3 | 2.8 | 3.3 | 2.3 | 2.6 | 2.6 | 2.5 |
| No of males | 1.0 | 1.7 | 0.6 | 1.2 | 1.7 | 0.7 | 1.0 | 1.5 | 0.7 |
| No of females | 1.9 | 2.2 | 1.7 | 1.6 | 1.6 | 1.6 | 1.6 | 1.1 | 1.8 |
| Sex ratio (1) | 0.7 | 0.5 | 0.8 | 0.6 | 0.4 | 0.8 | 0.6 | 0.3 | 0.8 |
| No of children | 1.0 | 1.3 | 0.8 | 1.3 | 1.4 | 1.3 | 1.2 | 1.0 | 1.3 |
| No of infants (0-4) | 0.4 | 0.5 | 0.3 | 0.5 | 0.6 | 0.4 | 0.5 | 0.4 | 0.6 |
| No of children (5-14) | 0.6 | 1.0 | 0.4 | 0.7 | 0.7 | 0.8 | 0.8 | 0.6 | 0.9 |
| No of adults (15-64) | 2.0 | 2.3 | 1.6 | 1.8 | 2.1 | 1.2 | 1.3 | 1.6 | 1.0 |
| No of elderly (65+) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| No of dependants | 0.9 | 1.5 | 0.7 | 1.0 | 1.2 | 1.2 | 1.3 | 1.0 | 1.5 |
| Dependency ratio (2) | 0.5 | 0.7 | 0.5 | 0.7 | 0.5 | 1.1 | 1.1 | 0.5 | 1.5 |

Source: Calculated from McCulloch and Ota field data, 2001

Note: (1) Sex ratio: no of females divided by no of total household members

(2) Dependency ratio: no of people (aged 0-15 and aged 65+) divided by no of people (aged 16-64).

3.3 Migration

For the majority of sample employees, insecurity in asset holdings, coupled with limited farming and wage earning opportunities in their home areas provided the impetus to look elsewhere for employment. As a result, migration features significantly in the livelihood strategies of horticulture employees, and is generally considered a stepping stone out of their poverty. One hundred percent of sample packhouse workers and 86% of farm workers were migrants from other parts of the country. The incidence of migration is equally prevalent among men and women, suggesting that women employed in horticulture may have greater mobility than is commonly witnessed in other parts of Africa.

There was no clear geographical pattern in either the rural-urban or rural-rural migratory flows. Overall, the majority of male packhouse workers had migrated from Eastern and Nyanza Provinces, while the majority of female packhouse workers came from Eastern, Western and Central Kenya. Rural farm workers tended to migrate from the surrounding districts of Eastern and Central Provinces (see annex 2). While several factors contribute to an individual's decision to migrate, it was typically driven by economic imperative. According to most employees (75% of all males and 81% of females), the decision to migrate was foremost a response to the paucity of economic options in their home communities. For women, horticulture employment marked a new process of proletarianization as most had been involved in the informal sector previously, either selling vegetables or charcoal, or engaged in hairdressing businesses. Most men were employed as casual day workers or unskilled workers with little security. None of these activities were sufficient to sustain workers or their families.

However, there were also affiliational (family-related) incentives at play in the migration decision. Individuals, particularly women, rarely migrated without knowing relatives or friends living in the Nairobi and/or the Timau/Nanyuki areas. The presence of kin and social networks, such as brothers, sisters or friends supported them upon their arrival, facilitated their search for work, and often provided them with housing and childcare. This was particularly common in Nairobi where 87% and 80% of male and female packhouse workers respectively had obtained jobs through word of mouth from friends and/or relatives. This was explained by Joy,²⁷ a casual packhouse employee, who said, "I chose to migrate here for work, because I needed a job. I chose this company in particular because it provides transport and lunch and because my mother got me a job here." Likewise, workers on large contract farms tended to secure employment through informal channels (63% of men, 50% of women). This was illustrated by Jacob, a farm worker in Timau, who said, "I migrated to find a job after I finished my studies, and chose this area because my friend and neighbour were both working here. I thought it would be easier to get a job here. My friend introduced me to the company and I managed to get a job." Among female farm workers, however, migration was also an adjunct to male migration, as several women accompanied their husbands to the area.

In most cases, the ties between migrant workers and their community of origin remain strong, both through material (remittances) and physical (labour) assistance. This is reflected in the patterns of returning home, where over 65% of men and women return to their home village at least every two months. This partly stems from the fact that migration is viewed as a temporary strategy, particularly among urban employees. None of the male packhouse workers interviewed considered Nairobi their home; neither did 82% of female packhouse employees. However, the strong ties between workers and their home areas are also a reflection of the fact that a large number of workers have left their children behind in rural

areas. This was particularly high among urban workers, of which 67 percent of men and 58 percent of women had children living elsewhere (in contrast to 50 and 44 percent of male and female farm workers). As Julius, a male packhouse worker explained, “I don’t have enough money to feed and educate my children here in Nairobi”, a sentiment shared by a Lucy, another packhouse employee: “It’s too expensive to bring my children up here, considering our meagre resources.” In addition, as Sections 4 and 5 highlight, the difficulties of negotiating childcare with full time work in the sector render migration with children extremely difficult.

A significant body of research (Potter and Llyod-Evans 1998, Rogaly 1998, Bryceson 2000) supports the claim that the economic benefits of migration are realised at considerable social cost, eroding the fabric of household and community life. Feminist scholars have argued that these costs are often borne disproportionately by children, who are obliged to assume responsibilities for domestic (including sibling care), as well as productive work when their mother’s undertake wage employment, thereby reducing their access to education and other opportunities. Our data suggest an association between children’s work burdens and parental migration (see Table 3.3), however, we need to exercise some caution in interpreting these results. The figures are derived from a small sample and may reflect other household dynamics (e.g. poverty, illness and social/cultural factors) that impose work burdens on children irrespective of their parent(s) migration. Nevertheless, while the majority of school-age children of export horticulture employees are enrolled in school (67% and 78% of PH and farm workers respectively), there is a relatively high incidence of drop-out. This is especially the case among older children in the packhouse workers’ households (33%). This suggests that these children may be taking up additional responsibilities for productive and reproductive work in their parent’s absence (see Table 3.3).

Table 3.3 Percent of Children Assuming Responsibilities of Migrant Parents

| | Children of Packhouse Workers | | Children of Farm Workers | |
|--------------------------|-------------------------------|--------|--------------------------|--------|
| | % Female | % Male | % Female | % male |
| Childcare | 50.0 | 25.0 | 40.0 | 25.0 |
| Care for parents | | 50.0 | 40.0 | 25.0 |
| Food preparation | 50.0 | 12.5 | 40.0 | 37.5 |
| Agricultural work | 50.0 | 12.5 | | 50.0 |

Source: Field Study, 2001

In those cases where children migrated with their parents, responsibility for their care was generally entrusted to one of the parents, relatives, neighbours and/or domestic workers. There were several cases, however, of children being left alone, particularly in the case of female farm workers who lacked the social networks and/or the financial resources to cover their childcare needs. As Susan, a farm worker claimed, “I cannot find anybody to look after my son, and even if I could, I wouldn’t be able to pay them. I leave home very early in the morning, and I’m not able to look after him.” Whilst it is conventionally other adult household members (specifically nonworking members that substitute for mother as child care providers), in their absence the welfare of children may be an important policy consideration, as well as a strong justification for workplace childcare.

Hence, this analysis suggests two notable features of the industry. Firstly, the small size of employee households coupled with other demographic characteristics (marital status, education and migration) indicate that companies (particularly in packhouses) seek a labour

force that is less well educated, unconstrained by local child care responsibilities and with few alternative economic options. Secondly, the availability of social capital underlies the labour market outcomes of men and women in the sector. For women (and to some extent men), the decision to migrate hinges on the potential pool of household labour that can step in and assume their responsibilities for productive and reproductive work. Due to the absence of childcare options, workers with children need to have access to kin (e.g. mothers, sisters, aunts) and/or other social networks at either their home village or at the production site that can care for their children. In both cases, employment in the industry is embedded within, and contingent upon a web of social and economic relations that extend beyond the individual worker.

3.4 Assets and Livelihoods of Horticulture Employees

There is a growing recognition that globalisation and trade openness impact on men and women differently due to variations in their entitlements (e.g. land, capital, labour) and capabilities (e.g. education, skills, experience). These differences shape an individual's options for engaging in employment, where they are likely to be inserted into the value chain, and how wage earning fits into wider livelihood strategies. Our study found that the nature of an individual's and household's asset stocks both helps determine whether someone takes up horticulture employment, and the extent to which they depend on horticulture once they are engaged in it. We discuss both of these aspects in the following paragraphs.

Poverty as a push factor

Poverty-push factors stemming from a scarcity of assets (see Table 3.4) were strong determinants in workers' decisions to migrate in search of employment. Unsurprisingly, while the possession of land, livestock and/or capital tended to keep people on farm, the reverse of this forced them to seek other means of earning an income. Land access is the clearest example of this which, on the evidence available, strongly mediates the livelihood options available to individuals and families. As Table 3.4 indicates, there is a scarcity of land-based entitlements in those households engaged in horticulture. Likewise, the majority of respondents aspired towards saving enough money from horticulture to purchase land and return to smallholder farming, valuing farming pursuits above employment for home consumption and cash needs. Numerous respondents conveyed the sentiments of two workers, one who said, "Yes that is why I am working here. I want to earn money to get myself a plot of my own." The other said, "I work overtime in this farm to make more money to eventually buy land. I want to buy land for my children."

Table 3.4 Assets by Gender of Household Head

| | Packhouse | | Own Farm | | Contract Farm | |
|---|-----------|--------|----------|--------|---------------|--------|
| | MHHs | FHHs | MHHs | FHHs | MHHs | FHHs |
| Land-holding size (owned) acre (1) | 0.9 | 0.0 | 1.3 | 0.1 | 0.3 | 0.2 |
| Proportion of irrigated land | 0.0 | 0.0 | 0.1 | 0.0 | 1.0 | 0.0 |
| Percent of hhs with livestock | 26.7 | 8.0 | 30.0 | 25.0 | 37.5 | 25.0 |
| Durable goods index | 2.4 | 1.6 | 2.1 | 1.1 | 1.4 | 1.3 |
| No of durable goods owned | 10.4 | 9.3 | 10.5 | 8.5 | 8.6 | 8.6 |
| Total value of durable goods | 33,115 | 6,770 | 12,591 | 4,409 | 5,283 | 4,912 |
| Facilities welfare index | 1.3 | 1.2 | 0.5 | 0.4 | 0.5 | 0.5 |
| Total household income | 168,406 | 80,760 | 62,704 | 38,362 | 38,154 | 26,757 |

Source: Calculated from McCulloch and Ota field data, 2001

Notes: (1) Percent of all households in the sample

(2) Durable goods index calculated by McCulloch and Ota (2002) to be:

$$D_h = \sum d_{ih} (1 - P_i)$$

$$P_i = n_i / n$$

Where $d_{ih} = 1$ if household h possesses durable i ; P_i is the probability of having durable good i ; $n_i =$ no of hhs which have durable i ; and $n =$ total no of hhs.

(3) Facility welfare index calculated by McCulloch and Ota (2002) to be:

$$F_h = \sum f_{ih} (1 - P_i)$$

$$P_i = n_i / n$$

Where $f_{ih} = 1$ if household h has access to facility i – the facilities are: access to piped water; being less than 10 minutes to water source; access to flush toilet; and having a cement or concrete floor; $P_i =$ probability of having facility i ; $n_i =$ no of hhs which have a facility i ; $n =$ total no of hhs.

Yet as might be expected, entitlements to land are not uniform. Among sample employees, access to land is strongly differentiated by both gender and location. For example, while there are significant differences between access to land among male and female PH employees (43% and 28% have access to land respectively), among rural farm workers, men and women enjoy comparable access to land (over 40% of all farm workers have access to land). More poignant, however, is the fact that women within MHHs are more likely to have access to land than women in FHHs (50% versus 13.2%). This suggests that women's claims to land are actually fortified through their position as wives, mothers and daughters due to kinship norms that provide women with land use rights through marriage. However, these rights typically hinge on the benevolence of male kin. This was something expressed by Harriet, a farm worker who said, "My brothers might force me to move away from our home, and my child is not assured of any land because I haven't been able to save money to buy any." Different types of access rights also offer different degrees of security. As Linda, a packhouse worker remarked, "My father-in-law can stop accessibility at any time. I have no title deed so I cannot claim ownership." All female employees expressed a desire for land in their own name; however a lack of capital for purchasing land, coupled with the restrictions of partilineal inheritance practices, were considerable obstacles. This was expressed by Rita, a 19 year-old casual farm worker, "Our land is small, and anyway, fathers never give girls land here. I have a baby I am afraid I don't know where I will stay with her." However, in distinguishing between the entitlements of men and women workers, we are often talking about degrees of adversity rather than the difference between rich and poor. While men may enjoy greater security of tenure, they too face vulnerabilities stemming from acute land shortages and severe fragmentation in rural areas. As Joseph, a casual farm worker claimed, "The plot is small and I have to share it with my brothers. When I go home my father never lets me plant what I want on the plot and this makes me angry." In fact, a significant number of men in the sample expressed concerns regarding the availability of land for their children (64%) and farming in future generations.

Livestock, like land access, can also facilitate income security and broaden economic options. While most households have access to livestock (beef cattle, dairy cows, sheep, goats, and poultry), it plays a relatively small part in the economic portfolio of workers and households in the sample. In most cases, livestock was reared solely for household consumption.

Poverty and dependency on horticulture

Most workers and their resident families²⁸ were highly dependent on their income from horticulture employment (see Table 3.5). Specialisation was most apparent among packhouse workers, who participated very little in farming, small enterprises and/or petty trade. This is reflected in the data on monthly household income, which showed a strong correspondence between income levels and the seasonality of packhouse employment.

Table 3.5 Household Income Derived from Paid Employment by Gender of Household Head

| | Packhouse workers | | Owned farm workers | | Large Contract Farm Workers | |
|--|--------------------------|--------|---------------------------|--------|------------------------------------|--------|
| | MHH | FHH | MHH | FHH | MHH | FHH |
| Percent of HH income earned derived from paid employment | 97.5 | 97.5 | 90.3 | 98.8 | 88.8 | 70.6 |
| Amount HH income earned derived from paid employment | 158,842 | 87,914 | 59,512 | 41,322 | 37,716 | 20,538 |
| Percent of HH paid employment income derived from horticulture | 71.2 | 91.0 | 90.0 | 100.0 | 100.0 | 100.0 |
| Amount HH paid employment income derived from horticulture | 113,096 | 80,002 | 53,323 | 41,322 | 37,716 | 20,538 |
| Total Household Income | 162,927 | 90,142 | 65,886 | 41,836 | 42,475 | 29,105 |

Source: Calculated from McCulloch and Ota field data, 2001

For example, the months with the highest personal and household income coincide with the peak months of the export season, when employee's incomes rise due to longer working hours. Conversely, the months with the lowest personal and household income correspond to periods of little or no work. This partially reflects the time burdens of employment that constrain options for supplemental income generating activities. It also stems from gender differences in access to, and control over resources. In particular, land and capital constraints, which disproportionately affect women, were deterrents to women's engagement in farm-based activities. For example, as Table 3.6 shows, only 3.6% of women in male-headed packhouse households participated in farming and none of the FHHs in the packhouse sample did. This suggests that women may be narrowing their employment portfolios, specialising in horticulture to the exclusion of other income generating activities.

Table 3.6 Labour Participation Rate of Households and Workers in Various Activities

| LPR ⁽¹⁾ | Packhouse | | | | Farms | | | |
|---------------------------|--------------------|---------------------|--------------------|-----------------------|--------------------|---------------------|--------------------|-----------------------|
| | MHH ⁽²⁾ | Male ⁽³⁾ | FHH ⁽²⁾ | Female ⁽³⁾ | MHH ⁽²⁾ | Male ⁽³⁾ | FHH ⁽²⁾ | Female ⁽³⁾ |
| Paid Employ. | 100.0 | 64.0 | 100.0 | 74.5 | 100.0 | 69.0 | 100.0 | 77.0 |
| Farming | 26.7 | 8.0 | 0.0 | 3.6 | 28.6 | 32.0 | 18.8 | 24.0 |
| Own enterprise | 26.7 | 16.0 | 4.0 | 3.6 | 14.3 | 6.0 | 0.0 | 3.0 |

Source: Calculated from McCulloch and Ota field data, 2001

Note: (1) Labour participation rate calculated by McCulloch and Ota (2002) is computed as no of people who are engaged in any of work activities divided by adult population (aged 15+).

(2) Percent of Households Engaged in Activity by Gender of HH Head

(3) Percent of Household Members working in Activity by Gender of Individual

The situation was different in rural areas where slightly more workers augmented their horticulture wages with other income generating activities (8% of men and 17% of women). Those who did tended to be casual farm workers, who engaged in farm-based activities as well as petty trade in vegetables, charcoal and clothes during slack periods at the company. Many of these activities were facilitated by the availability of land in proximity to the employment site, which provided the opportunity to grow crops for sale and re-invest the money in petty trade activities.²⁹ While the income from these activities was irregular, it was nevertheless valued. For example, one female casual farm worker regarded selling potatoes as a convenient way of making extra money when ‘rested’ or during the off-season, and others claimed that the little extra income earned from petty trade helped them to meet their basic needs. For example, Jane, a casual farm worker said, “My income is highest in April because I do a lot of hairdressing and also get my payment from work. I have more customers. I have my salary, as well as the income from harvesting and selling pyrethrum and onions.” Gitonga, another casual farm worker said, “I get the most money in February from my salary and because the sales of charcoal and maize are good.’

4 Nature of Employment in the Horticulture Value Chain

The stringent quality standards of UK supermarkets, coupled with ever-increasing pressures on margins, have placed greater importance on the efficiency and organisation of labour in horticultural production. Amidst heightened global competition, the capacity to streamline labour costs,³⁰ while simultaneously maintaining a workforce capable of producing consistently high quality products, has become essential to the competitiveness of African firms. This section explores how these pressures, both internal and external to the chain, have shaped the characteristics of employment in the production and processing of horticulture products.

4.1 Employment Status

Two characteristics of buyer-driven-ness, the emphasis on organizational flexibility and the transfer of lower-profit functions upstream in the chain, have created new patterns of employment within the value chain. These patterns are manifest in the adoption of ‘nonstandard’ work arrangements³¹ and systems of remuneration including Japanese-style efficiency practices such as flexible work systems (functional flexibility), as well as the conventional use of informalized labour (numerical flexibility). The former is evinced in the growth of productivity enhancing innovations such as performance incentives, multi-tasking, and self-managed teams, enabling horticulture firms to (re)deploy labour to diverse tasks in response to market fluctuations and to reduce the costs of supervision. For example, multitasking allows companies to shift workers between packing, grading, trimming and bar-coding, tasks that require somewhat different skills yet command the same level of remuneration. Similarly, the introduction of teamwork deflects monitoring costs by shifting the onus of supervision and responsibility for meeting production targets to the team leader.

Numerical flexibility, or quantitative adjustments in labour intake, is expressed in the growth in ‘non standard’ work arrangements such as casual, seasonal/temporary and contract labour (Storper and Scott 1990). Taken together, these forms of ‘flexible’ work comprise 60 percent and 56 percent of sampled employment in packhouse and on farms respectively. The majority of ‘flexible’ labour is either seasonal or casual, both of which involve a direct employment relationship. The third type of ‘flexible’ work – the externalization of the production process to intermediaries who contract labour – is relatively uncommon.³²

The distinction between casual and temporary labour is often indiscernible. The former tend to be hired on a daily basis and are paid at the end of the day while the latter can be employed for up to 90 days before mandatory conversion to permanent status. However, in practice these definitions are flexibly interpreted. There is little correlation between the classification of work and the nature of tasks performed or the level of remuneration. Both low and high skilled workers can be classified as seasonal, casual or permanent, and similarly employees that are seasonal, casual, or permanent can all fall within the same pay band, whether that is low or high. Rather it is the unregulated and (in)secure nature of flexible' employment that is its defining feature; casual and seasonal workers are hired on an intermittent basis, are excluded from the scope of national labour laws, and work without contracts and/or social protections such as health care, insurance, pensions, or annual, sick or maternity leave. For example, while workers might work for an average of 11 months per year, the number of days worked varies according to the season. In the peak season from October to March, employees work an average of 9.6 hours per day (ranging between 8.5 among men and 10.6 among women), 5.4 days per week. This figure drops to only 2 days per week or less during the low season. The use of flexible labour is also highly gendered, as Table 4.1 shows, with the core of the 'flexible' workforce comprised of women.

Table 4.1 Employment Status, by Gender and Employment Type

| | Packhouse | | Farm | | All | |
|---------------------------|-----------|----------|--------|----------|--------|----------|
| | % Male | % Female | % Male | % Female | % Male | % Female |
| Casual/daily | 33.3 | 66.7 | 20.0 | 46.2 | 23.1 | 52.6 |
| Permanent | 66.7 | 33.3 | 60.0 | 38.5 | 61.5 | 36.8 |
| Seasonal/temporary | | | 10.0 | 7.7 | 7.7 | 5.3 |
| Contract | | | 10.0 | 7.7 | 7.7 | 5.3 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Source: Field Study, 2001

In horticulture, flexibilization is largely a strategy to manage risk and mediate pressures that are both exogenous and endogenous to the value chain. For instance, 'flexible' and other 'non-standard' labour practices have become ubiquitous under globalization as trade liberalization obliges more companies to rationalize their internal operations to remain competitive (Standing 1999: 174). In addition, like other agriculture sectors, flexible labour it is partly related to the seasonal nature of the industry, in which large numbers of workers are required for planting, picking and packing only at certain points of the year (Dolan and Humphrey 2000). However, despite the persistence of seasonal rhythms, technological innovation in the sector has facilitated year round export vegetable production and hence seasonality alone does not account for the persistence of flexibilization.

The real impetus behind today's labour arrangements reflects pressures intrinsic to the value chain, particularly its buyer-driven nature where retail concentration has created a more fiercely competitive landscape for developing country suppliers. At the same time, more countries have brought capacity on stream, enhancing the competition for market share and forcing Kenyan exporters to restructure their labour arrangements to retain their position in the chain. In particular, three main outputs of the chain have made increased flexibility in labour arrangements and payments (e.g. performance-related pay and other incentive schemes) increasingly important.

First, price competition at a retail level has forced the entire chain to become leaner, imposing substantial pressures on producers to reduce costs. Flexible labour practices enable

African exporters to drive down labour costs through the reduction of wage rolls and the avoidance of benefit payments such as social insurance, pension, maternity, sickness and annual leave associated with permanent work.

Second, supermarkets' adoption of just-in-time production methods aimed at reducing inventory control has made elasticity of labour a competitive asset. Exporters can accommodate uncertainties in supply and demand by shifting the risks of production onto a flexible work force that can be rapidly drawn in and out of production. This process is facilitated by the surplus of idle workers in the environs of Nairobi packhouses, providing companies with a 'reserve army of labour' to tap into.

Third, the onus to innovate and develop new products is borne by exporters. However, there are substantial risks entailed in investing in new products. Few become commercially viable and there is often a lag time between market penetration and decisions regarding product adoption. This risk is less severe with a flexible labour force. As Shapiro and Varian (1998:3) note, "If you invest in a new office building and you decide you don't need it, you can recover part of your costs by selling the building. But if your film flops, there isn't much of a resale market for its script." The key issue for export firms, therefore, is to reduce the sunk costs that are associated with product development, and mobility in the use of labour is essential for them to be able to do so.

Finally, related to these outputs is the introduction of category management by supermarkets, an approach designed to increase operating margins through more efficient product development, logistics and sales. Under category management supermarkets group fresh products into a number of categories, such as citrus, legumes, and salads. Within each category the value chain is further consolidated with dedicated suppliers for each category and a category captain operating as the 'lead' supplier. For example, one of the UK's largest supermarkets, Waitrose, has a single supplier for each major category, who supplies them with a smaller range of products yet in far greater volumes. While the long-term impact of category management for African exporters and workers is uncertain, it is clear that as supermarkets rationalize the number of importers, the position of exporters and workers is less stable. For example, when one of UK's leading supermarkets rationalized its import base in 2000-01, one of Kenya's main exporters lost 20 percent of its total export business overnight, forcing it to lay off 50 percent of its packhouse workers. In such tenuous circumstances, it is more 'efficient' for exporters to harness a workforce that can be shifted into and out of production with ease or that can be deployed to different tasks within production.

4.2 Skill

While upgrading into more sophisticated processing has increased the demand for labour in developing countries (particularly in packhouses), this growth does not appear to be associated with an attendant demand for skilled labour. As Table 4.2 indicates, the majority of sampled men and women were engaged in unskilled work. These figures were reinforced by export firms themselves, which estimated that between 10 to 25% of the labour force was comprised of skilled labour.

Table 4.2 Skill Level by Gender and Employment Type

| | Packhouse | | Farm | | All | |
|---|-----------|----------|--------|----------|--------|----------|
| | % Male | % Female | % Male | % Female | % Male | % Female |
| Unskilled/manual work | 66.6 | 79.5 | 36.0 | 87.7 | 41.9 | 84.4 |
| Semi-skilled/on-the-job training | 16.7 | 20.5 | 52.0 | 12.3 | 45.2 | 15.6 |
| Skilled | 16.7 | 0 | 12.0 | 0 | 12.9 | 0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Source: Field Study, 2001 and data derived from McCulloch and Ota field survey, 2001

A closer look, however, indicates that the proportion of workers engaged in unskilled and semi-skilled positions is differentiated by gender. Despite their numerical dominance in the workforce, women are under-represented in skilled employment. Education does not entirely account for these gender differences; most workers in the industry, irrespective of gender, have completed at least a Standard 8 education, indicating relative parity in access to education.³³ However, for the majority of employees, whether casual or permanent, skilled or unskilled, formal education is largely irrelevant to the requirements of their position. As Charity, a permanent farm worker said, 'I am a standard seven leaver and yet am a supervisor.' Likewise, Samson, a male farm worker claimed, 'Education cannot be very important because I don't know how to read and write.' According to several workers the absence of educational requirements was one of the reasons they chose to stay in horticulture. However, while education may be irrelevant in securing a skilled position, previous training is not. For example, several 'semi-skilled' and 'skilled' positions (e.g. sprayers, drivers and mechanics) require certificates and/or prior experience. In this respect, gender differences in human capital prior to entering the industry influence the attainment of skilled positions in it.

Yet the polarisation between skilled and unskilled labour strongly reflects horizontal occupational segregation at the production end of the chain. In both packhouses and on farms a clear gender division of labour prevails, demarcated through colour-coded uniforms (Table 7). In packhouses, the majority of women are involved in highly routinised, dexterous activities where the pace is highly regulated. They prepare vegetables, which includes standard tasks such as sorting and grading as well as value-added activities such as washing, trimming, slicing, and labelling. Men are primarily responsible for sealing packets of vegetables, and loading crates into cold stores. On farms, men are mainly involved in the pre-harvest activities of spraying and irrigating crops, and constructing greenhouses and frames to support growing crops, while women predominate in the harvest and post-harvest stages of production (grading and packing vegetables). Among workers themselves, such gender segmentation was seen as a natural outcome of biological difference. As Phyllis, a casual packhouse worker said, "Men carry items from the fridge because they are heavy and it needs a lot of energy which women do not have. At the same time packing and grading is a light job for women." Similarly Simon said, "Jobs for men are hard and they come at night to irrigate the crops. Women's jobs are easier and suit them better."

This type of occupational segregation is often explained through recourse to either labour supply or labour demand factors. The former suggests that women prefer certain occupations (e.g. 'flexible' work) that enable them to balance work and childcare responsibilities, or that facilitate their entry and exit into the labour market (Anker 1998, Hakim 1996). In contrast, labour demand explanations focus on why employers prefer to hire women (or men) for specific jobs and why opportunities for promotion within firms are gender differentiated. As described above, sex segregation is demand driven with companies' preference for female workers linked to a number of well-documented gender stereotypes. While some task

ascription reflects the division of labour in African agriculture, it again relates to the production imperatives of the chain -- quality, consistency and speed -- which are linked to the ascribed “feminine” traits of dexterity and conscientiousness.

Table 4.3 Division of Job Types by Gender

| Packhouse | | Farm | |
|-----------------|---------------------|---------------------------|-----------------|
| Men's Jobs | Women's Jobs | Men's Jobs | Women's Jobs |
| Electricians | Cleaning | Construction work | Digging |
| Loading | Cleaning vegetables | Digging trenches/terraces | Planting |
| Mechanic | Cutting/slicing | Driver | Weeding |
| Packing crates | Grading/Sorting | Irrigation | Cutting |
| Stacking crates | Packing | Making plant beds | Picking |
| | Sealing | Mechanics | Stringing |
| | Slicing | Spraying | Grading/Sorting |
| | Weighing | | Packing |

Source: Field Study, 2001

4.3 Wages and Benefits

The gender segregation in job categories and skill levels underlies male-female wage differentials in production and processing. At an aggregate level, median wages are typically well above the statutory minimum wage³⁴ and up to 30-50 percent higher than in other comparable industries. This has proven to yield positive benefits at a household level; recent research has shown that horticulture wages provide households with higher incomes than they would be able to obtain through alternative employment (McCulloch and Ota 2002).

However, when wages are unpacked, it is clear that the form (and often level) of compensation reflect pressures intrinsic to the value chain, varying by the segment of the production process, as well as by the gender and employment status of workers. For example, wages earned by packhouse workers are higher than wages paid to farm workers, and wages earned by men are higher than those earned by women. In contrast to other agriculture employment,³⁵ this wage gap is not a product of explicit gender discrimination; rather women's wages are lower than men's due to their concentration in ‘unskilled’ categories of work (i.e., harvesting, packing, grading, and sorting), which are less well remunerated. While men and women are paid the same rate for the same work, they rarely do the same work. This was the case in packhouses as well as on farms where men earned an average of Ksh 8 and Ksh 3 more per hour than women (see Table 4.4).

Table 4.4. Wages by Skill Level and Gender (Ksh per hour) ⁽¹⁾

| | Packhouse | | Farm | | All | |
|---------------------|-----------|--------|------|--------|------|--------|
| | Male | Female | Male | Female | Male | Female |
| Unskilled | 21.0 | 17.8 | 12.8 | 12.6 | 15.0 | 14.7 |
| Semi-Skilled | 22.0 | 23.3 | 17.0 | 14.1 | 17.4 | 19.4 |
| Skilled | 49.0 | | 15.3 | | 23.8 | |

Source: Field Study, 2001 and data derived from McCulloch and Ota field survey, 2001

Note: (1) On April 16, 2001 100 Kenyan Shilling = 1.27065 US Dollar

However, wage levels are only one aspect of income security (and hence reduced vulnerability to poverty), which is also realised through the provision of non-wage benefits (e.g. social protections, insurance, pension etc.) and through employment security and stability. All three companies provided a range of benefits to workers including food, transport to and from work, medical care and less frequently, housing.³⁶ Among packhouse workers the provision of these benefits was widely cited as the most positive aspect of their

employment. This was particularly true for transport, which was seldom provided by other companies and highly valued by employees. While these benefits were not contingent upon employment status, several others (pension, maternity and annual leave, sickness etc.) were restricted to permanent employees. This means that the majority of the workforce (women concentrated in flexible employment) is not afforded a number of basic social protections. While one company had initiated benefits for flexible workers, they are an anomaly in the industry. Pressures for cost reductions, coupled with the copious labour supply, provide companies with strong justification to eschew benefit payments.

The second aspect of income security – employment stability—is also differentiated by employment status. For example, permanent workers are guaranteed a relatively consistent income throughout the year, and are therefore protected from the income volatility associated with the seasonality of the industry. While permanent workers could budget for their personal and household costs based on a guaranteed wage, casual and seasonal workers were never assured of the duration of employment (hours, weeks or months), and often vacillated between periods of high overtime and unemployment.

Table 4.5 Wage Rates

| | Packhouse | | Farm | | All | |
|--------------------|-----------|----------|----------|----------|----------|----------|
| | Male | Female | Male | Female | Male | Female |
| Wages (Ksh) | | | | | | |
| Hourly | 26.8 | 19.0 | 15.4 | 12.8 | 17.3 | 15.4 |
| Weekly | 1,233.4 | 1,115.8 | 748.8 | 704.0 | 832.3 | 877.1 |
| Monthly | 5,344.4 | 4,835.2 | 3,244.7 | 3,050.8 | 3,606.7 | 3,801.1 |
| Annual | 64,131.2 | 58,023.2 | 38,936.8 | 36,609.6 | 43,280.6 | 4,5613.1 |

Source: Field Study, 2001 and data derived from McCulloch and Ota field survey, 2001

4.4 Opportunities for Skill Development and Promotion

In sectors such as horticulture, upgrading into new products, functions, or markets has been key to generating increased employment and to sustaining access to existing markets. Ideally such upgrading should broaden the skills portfolio of the labour force. The majority of respondents claimed to have acquired additional skills while working in horticulture through both on-the-job training and repetitive task performance and regarded these skills as valuable assets for obtaining employment in the future. Nearly all retrenched employees too reported acquiring additional skills through their experience in the industry²². However, there are explicit gender differences in the type of skill acquisition. For example, women cited acquiring the same skills that they are perceived to have an innate capacity to perform. Thus, women on farms reported skills in planting and weeding, and women in packhouses cited topping and tailing, grading and sorting. In contrast, men highlighted the acquisition of mechanical skills, which required some technical expertise (e.g. pump and generator operation, irrigation, and spraying), and which were typically associated with higher wage levels. Men also regarded their skills as a source of job security and protection, as those who had acquired them were considered to be less expendable. However, in both cases, the scope for applying the skills learned in horticulture to employment outside the sector is relatively limited. For instance, when asked what sort of jobs their skills would equip them to do, nearly the entire sample mentioned tasks exclusive to horticulture or to agriculture more broadly.

There was also variation in how men and women perceived the prospects for skills training, promotion and the potential to upgrade their work status. For example, women were less positive about their prospects for skill development than were men, with one-third claiming

that their job did not provide an opportunity to broaden their skills. This likely reflects their predominance in jobs that require only basic skills rather than gender differences in opportunity *per se*. Female packhouse workers, for example, perceived quality controllers and supervisors (who are often women) as most likely to receive training because “people like supervisors and controllers need more training as they have to show others how to do those jobs.” Female farm employees on the other hand, pointed to sprayers and irrigators—jobs mainly performed by men – as those who were most often provided with opportunities for training. Women’s perceptions were also influenced by their concentration in ‘flexible’ employment. For example, several women remarked that the company was reluctant to provide them with opportunities “beyond the table”³⁷ precisely because they were “only casual.”

Nonetheless, with few exceptions most respondents aspired to improve their skills in order to secure a promotion and higher wages, either in their current employment or in another company. As Lucy, a female packhouse worker said, ‘If I had training I could be given a bigger post in the company.... I could be promoted to quality controller or supervisor.’ Workers identified their main obstacle to training as time constraints stemming from long working hours. Several workers recommended that the company alter the shifts “so that the people working in other sections can also go to the sections which train.” However, in general there was a sense that the skills required for promotion or better jobs outside the industry could not be achieved through workplace training. Most employees believed that the skills they needed -- secretarial, book keeping and technical skills -- could only be acquired outside of work and that work schedules and family responsibilities prevented them from acquiring them.

Yet it would be misleading to depict the industry as strategically segregating opportunities for skill development. Firstly, none of the workers themselves identified gender-specific barriers to promotion. As one female farm worker said, ‘With promotion, people are treated as workers and not along gender lines.’ However, while women could be (and were) promoted, they could not cross over into a position defined as ‘male’, as “certain careers ... have been set aside for men and some for women.” The gender segregation of tasks, therefore, potentially functions as a barrier to women’s promotion.

However, in reality, there is very little demand for skilled labour. In contrast to manufacturing sectors where firm competitiveness is linked to the skill profile of workers, there is little demand for skilled labour in the Kenya segment of the value chain. While Kenyan firms have upgraded into new products and functions, such upgrading has not fundamentally altered the type of employment needed to produce and process horticulture products. In fact, there is some indication that upgrading in processing (through technological change) may ultimately lead to more capital-intensive production and the displacement of, particularly female,³⁸ labour as companies strive to invest in labour saving technology rather than the workforce itself.

5 Employment and Welfare

The last section reviewed the nature, conditions and opportunities of employment found in the production/processing segment of the horticulture chain. This section explores the implications of employment for the welfare of households, looking more closely at whether engagement in the sector generates positive development outcomes in the everyday lives of

men and women. From a gender perspective, this not only entails considering the income dimensions of employment but also whether employment is secure, whether or not it exacerbates women's time poverty, and whether or not it is 'empowering.' Based on a preliminary analysis of the data, it focuses on three main questions: firstly, how is the income earned through employment used, and does it facilitate the security and enhancement of livelihoods?; secondly, what are the links between these new economic opportunities and the character of gender relations?; and thirdly, what new options has this employment created, and how does it relate to the wider aspirations of workers?

5.1 Income

Although there is a positive correlation between participation in the industry and the level of household income (McCulloch and Ota 2002), there is not always a neat fit between household income and the welfare of individual members. There is now a sizeable literature highlighting gender differences in the allocation of household income and resources, with women more likely to prioritise basic needs and collective welfare, particularly in relation to children.³⁹ In horticulture, these expenditure patterns are influenced by who controls wages once workers leave the packhouse or farm and how those resources are subsequently managed within households. Given the marital and age complexion of the workforce, and its similarities to other 'feminised' global value chains, one might predict a high proportion of wages controlled, or at least strongly influenced by families in rural areas. However, this is an exception. Among women, the majority of single workers tend to manage their own wages and retain control over how those wages are allocated. In contrast, among married women, income tends to either be jointly managed (with spouse) or entirely under their spouses control.⁴⁰

Among male employees the situation is less varied. While nearly two thirds of men claimed that they pooled their income with either parents or spouse, over 90% retained control over how that money was spent. While a more detailed study is needed to delineate the gender patterns of decision making, management, and control over income, there are two broad tendencies. Firstly, single employees generally manage their own incomes. While they may consult with household members in their home regions (siblings, parents etc.), they ultimately choose how to dispose of their income. In contrast, in married households the management of income is differentiated along gender lines. While men both pool and manage their own wages, women add their wages to the household pot and ostensibly relinquish its management to their husbands. In contrast to much of the literature, there is no clear evidence that male control over women's wages has inspired intrahousehold conflict. Most married households reported consensus around spending preferences,

Irrespective of management considerations, earnings from the industry appear to be making some difference in workers' lives, as well as in their capacity to contribute to the collective welfare of their families. Broadly, the allocation of employment income is channelled toward four main spheres: 1) daily reproduction; 2) expenditures on durable goods; 3) transfers and remittances to household members and kin; and 4) savings/investment.

All workers used their wages to meet basic daily needs such as rent, utilities, fuel, food and clothing. The proportion of men and women allocating their wages to these items is comparable. While there is a slightly higher proportion of female workers displaying a 'preference' toward welfare items (e.g. food, medical care), the difference is fairly small (see Table 5.1).⁴¹

Table 5.1 Employee Allocation of Horticultural Income During Past Month, by Gender

| Expenditure | Packhouse | | Farm | | All | |
|---------------|-----------|----------|--------|----------|--------|----------|
| | % Male | % Female | % Male | % Female | % Male | % Female |
| Rent | 67.0 | 67.0 | 33.0 | 46.0 | 40.0 | 53.0 |
| Utilities | 67.0 | 75.0 | 50.0 | 58.0 | 53.0 | 63.0 |
| Food | 67.0 | 92.0 | 75.0 | 85.0 | 73.0 | 87.0 |
| Clothes | 67.0 | 58.0 | 42.0 | 65.0 | 47.0 | 63.0 |
| School fees | 0.0 | 0.0 | 17.0 | 4.0 | 13.0 | 3.0 |
| Health care | 67.0 | 58.0 | 25.0 | 31.0 | 33.0 | 39.5 |
| Livestock | 0.0 | 8.0 | 8.0 | 0.0 | 7.0 | 3.0 |
| Saving | 67.0 | 75.0 | 58.0 | 46.0 | 60.0 | 55.0 |
| Invest in IGA | 100.0 | 58.0 | 75.0 | 65.0 | 80.0 | 63.0 |
| Repay loans | 67.0 | 52.0 | 36.0 | 15.0 | 43.0 | 18.0 |
| Rent land | 100.0 | 42.0 | 50.0 | 50.0 | 60.0 | 47.0 |

Source: Field Study, 2001

What is noteworthy, however, is the high proportion of workers who purchased a range of productive and non-productive assets with their wages from horticulture. As Table 5.2 indicates, these expenditure patterns exhibit more gender differentiation, with greater numbers of men than women purchasing each of the assets. While several of these assets (e.g. television and cassette players) are ‘luxury’ items and reinforce stereotypes that men spend ‘selfishly’, this misses two important points. Firstly, a considerable number of workers have been able to purchase goods that improve the quality of their daily life, as well as their family’s living standards. One female farm worker, for example, said, “I can now afford to buy good clothes and food for my family.” Another said, “I have utensils, farm implements and I rent a plot where I grow vegetables.” While the significance of these purchases should not be overstated, over 80% of workers said that they would not have been able to buy these items without their job in horticulture.

Secondly, the wages garnered through employment provide men and women with some options for investment, and may be a route toward diversification and security among poorer households. For example, many male workers re-invested their wages in agriculture (e.g. tools and inputs), thereby allowing their households to straddle several different types of agrarian-based activities. Likewise among women, sewing machines and salons were common investments. Again, a significant proportion of employees claimed that they would not have been able to save and/or invest without their wages from horticulture (73% of all male workers and 84% of female workers).

Table 5.2 Percent of Employees that Purchased Durable Goods, by Gender

| | Packhouse | | Farm | | All | |
|----------------------------|-----------|--------|------|--------|-------|---------|
| | Male | Female | Male | Female | Males | Females |
| Radio | 100.0 | 42.0 | 67.0 | 42.0 | 73.0 | 42.0 |
| Cassette player | 67.0 | 17.0 | 67.0 | 46.0 | 67.0 | 37.0 |
| Video Recorder | 0.0 | 8.0 | 0.0 | 8.0 | 0.0 | 8.0 |
| Television | 67.0 | 17.0 | 0.0 | 8.0 | 13.0 | 11.0 |
| Kerosene lamp | 100.0 | 83.0 | 67.0 | 50.0 | 73.0 | 60.5 |
| Gas stove | 33.0 | 25.0 | 8.0 | 27.0 | 13.0 | 26.0 |
| Refrigerator | 0.0 | 8.0 | 8.0 | 8.0 | 7.0 | 8.0 |
| Household furniture | 67.0 | 33.0 | 58.0 | 38.5 | 60.0 | 37.0 |
| Sewing machine | 0.0 | 17.0 | 8.0 | 19.0 | 7.0 | 18.0 |
| Land | 0.0 | 0.0 | 8.0 | 0.0 | 7.0 | 0.0 |
| Livestock | 67.0 | 17.0 | 25.0 | 8.0 | 33.0 | 10.5 |
| Agricultural tools | 67.0 | 25.0 | 42.0 | 11.5 | 47.0 | 16.0 |
| Plough | 0.0 | 0.0 | 8.0 | 4.0 | 7.0 | 3.0 |
| Tractor | 0.0 | 0.0 | 8.0 | 0.0 | 7.0 | 0.0 |
| Bicycle | 67.0 | 0.0 | 0.0 | 11.5 | 13.0 | 8.0 |
| Motorcycle | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Source: Field Study, 2001

There is also a direct link between waged labour in horticulture and the reproduction of rural households through the transfer of remittances from workers to their families in rural areas (see Table 5.3). These remittances are particularly important for households that have lost a key asset -- their daughter or son's labour -- and yet have assumed responsibility for their grandchildren. Eighty-three percent of men and 74% of all women send regular remittances (approximately 6-8 times per year) to family members living elsewhere, ranging from Ksh 560 to 1,167 per month. While this study did not collect information on how remittances might affect the expenditures of receiving households, workers indicated that their families used remittances to educate and feed their children, as well as to invest in renting land and purchasing livestock. This implies that the repatriation of wages may have the potential to reduce household poverty.

Table 5.3 Distribution of Monthly Salary by Gender of Worker

| | Packhouse | | Farm | |
|--------------------------------|----------------|----------------|----------------|----------------|
| | Male | Female | Male | Female |
| Average Monthly wage | 5,344.4 | 4,835.2 | 3,244.7 | 3,050.8 |
| % saved | 36.1 | 19.6 | 29.6 | 21.2 |
| % remitted | 21.1 | 23.2 | 17.7 | 24.4 |
| % given to resident hh members | 15.0 | 17.0 | 34.9 | 15.6 |
| % salary spent | 27.8 | 40.2 | 17.8 | 38.8 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |

Source: Field Study, 2001

5.1 Labour

While the gendered effects of globalisation are most visible in the tangible aspects of employment (wage levels, skills, working conditions),⁴² these factors are shaped by the different positions men and women occupy in the division of labour. In particular, gender inequities in labour burdens interact with employment to create different experiences of work among men and women. For example, for most women the ability to enter wage employment is circumscribed by their domestic responsibilities, which often remain intact in spite of their increased labour force participation (Catagay 2001, Fontana and Wood 2000, Whitehead and

Kabeer 2001), giving rise to the well-documented ‘double day.’ Hence, while women may gain from export-oriented employment, these gains may come at the cost of their personal time, nutritional status and social networks.

Both men and women acknowledged that women performed the bulk of household chores and childcare. This, of course, is widely supported by evidence from other parts of sub-Saharan Africa and indeed the world. However, the male/female, productive/reproductive dichotomy somewhat oversimplifies the relationship between reproductive work and wage employment in the industry, largely because few households fit the nuclear family, unified household model. Related to this is the significance that migration plays in shaping the composition of employee households and the type of labour pool available for household work.

Overall both men (43%) and women (63%) claimed that the long hours at work, coupled with the commuting back and forth, led to time conflicts between their domestic responsibilities and paid work in the sector. One might expect this to be the case and this situation is hardly unique to horticulture. However, there are differences when this is disaggregated by marital status, particularly among men. For example, in packhouses, which contain a higher proportion of married men with resident wives, less than a third of men experienced time constraints. Those men who experienced difficulties in reconciling domestic and paid work tended to be young and single, with few obligations beyond self-maintenance. Interestingly, men perceived stronger conflicts between their obligations to their home villages and their work in horticulture employment (83%) than between the latter and domestic chores. This also likely reflects their need to assist with agriculture work on the family farm.

Similarly, while a relatively high proportion of women experienced labour constraints, this too varied according to their marital, parental and migrant status. For example, unmarried women who had migrated alone encountered fewer difficulties in combining paid employment with domestic work than they had in their home villages. In fact, several women reported that horticulture employment actually relinquished them from many of their previous domestic tasks. While the nature of horticulture work was difficult (repetitive, monotonous, physically tiring), they were released from the arduous chores that characterise a rural women’s life (e.g. fuelwood and water collection). However, in some cases this was achieved at the expense of their kin in rural areas as many of their tasks were transferred to other household members, particularly their parents (19%) and children (19%).

Among unmarried women who had migrated with their children, social networks were integral to the management of domestic labour burdens. This was particularly common in Nairobi, where both men and women called on family and friends to assist them in their reproductive work. As Irene, a packhouse worker recounted, “We report very early -- 7.30[am] and leave at 4[pm]. I have let my sister who lives with me do most of my household work.” It is married women, however, who faced the greatest time poverty, as they had to care for their husband and children, as well as fulfil their responsibilities at the packhouse and/or on farm. There were few examples of men stepping in to lend a hand and most married women claimed that the only way to accommodate their domestic work was to extend their working day. As Phyllis, a farm worker said, “I try to cook for my children late in the evening and early in the morning.” Jane said, “I normally wake up early to prepare my family and leave home at 6:00am.” Hence, juggling the activities of reproductive and productive work was most challenging for women within the confines of marriage, who are constrained by the social norms and expectations governing marital and family relations.

5.3 Perceptions of Horticulture Employment

While both men and women entered wage work in response to economic imperatives, women were more likely to rate employment positively than their male counterparts. For example, 85% of female employees in contrast to 48% of male employees felt that their lives had improved since they began working in the industry (see Table 5.4). These sentiments were strongest among young female packhouse workers, who were most optimistic about the autonomy their earnings engendered and the opportunities for new experiences it had conferred. As Florence, a permanent packhouse worker said, ‘I am self-reliant because of this employment and do not burden my parents ... I also have saved some money to help my younger siblings.’ Another packhouse worker said, ‘I am self-reliant and assist my parent’s financially, and pay school fees for my child.’

Table 5.4 Perception of Living Standard since Working as EH Employee, by Gender of Worker

| | Packhouse | | Farm | | All | |
|----------------------------|-----------|----------|--------|----------|--------|----------|
| | % Male | % Female | % Male | % Female | % Male | % Female |
| Much better off | 20.0 | 14.3 | 6.3 | 15.9 | 9.5 | 15.0 |
| Slightly better off | 40.0 | 68.6 | 37.5 | 54.5 | 38.1 | 61.0 |
| Same | | 5.7 | 12.5 | 4.5 | 9.5 | 5.0 |
| Slightly worse off | 40.0 | 8.6 | 12.5 | 9.1 | 19.0 | 9.0 |
| Much worse off | | 2.9 | 31.3 | 15.9 | 23.8 | 10.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Source: Field Study, 2001

However, not all horticulture workers shared the sanguine assessments of young female packhouse workers. While two thirds of workers rated their experience somewhat positively (both men and women), when asked about areas in which they would like to see improvements they nonetheless raised several issues. These concerns relate to three main areas -- working hours, wage rates, and security of employment -- which are discussed below. However these remarks need to be taken in context; in particular, they need to be qualified by the general sense noted earlier that the industry has made a positive contribution to the lives of workers and their families.

Working Hours

When respondents were asked if they could change one aspect of their employment, many cited working hours. Since the industry is highly seasonal there are prolonged working hours in the peak season (up to 12 hours a day). Further, horticulture products are highly perishable which means that workers often work late to ensure that products are washed, trimmed and packed before the nightly flight to Europe departs. Many workers described a taxing schedule, rising at 4:00am to put in long hours six days a week. These working hours were of particular concern to women, who also had domestic obligations. Complaints about working hours were most apparent among farm workers. As Charles, a male farm worker said, ‘We have to work while it is raining, we leave work late, and we are given workloads that are impossible to accomplish.’ Cynthia, a female worker claimed, ‘The work is heavy and cold, any bonuses are small and we always have problems with transport in the evening.’ Men and women in both packhouses and on farms claimed that hours were too long, resting periods were too few, and that transport was not assured (thereby extending their work day). A number of employees also maintained that working on Sundays prevented them from attending church, eroding the social relationships fostered there. Several employees argued for weekends off or for the company to organise Sunday shifts on a rotating basis.

One way to ensure that such concerns are addressed would be through trade unions. However, few employees are union members (none of the sample packhouse workers and only 33 percent and 38 percent of male and female farm workers). As union membership is contingent upon permanent employment, it effectively excludes the largest section of horticulture workers. Irrespective of membership, though, perceptions toward unions varied. The majority of packhouse workers dismissed unions as costly and a ‘waste of time’. In contrast, farm workers regarded unions more favourably, with several employees crediting the unions with the provision of accommodation and their entitlement to leave. Another way to address employee concerns would be through codes of conduct, which are now promoted as a means of enhancing worker welfare in global value chains. However, while many workers knew that codes were posted on the wall, most did not know what they were. In addition, codes do not cover ‘flexible’ forms of work such as seasonal and casual labour.

Wage rates

The second main area of employee grievance concerned income security, specifically the adequacy of wage provided by firms. Sixty-seven percent of all men and 49 percent of all women regarded their wage levels as lower than other industries in the region, whether domestic or export-oriented. Since this perception is at odds with published data, it most likely reflects the nature and stability of pay in the industry. For example, the view was more prevalent among farm employees, particularly female harvesters, who were paid piece-rates.

Wage levels were also strongly connected to the length of time workers envisaged staying at the company. The vast majority of workers (irrespective of gender) perceived employment in the industry as a short-term strategy, intending to parlay the returns from wage work into investment in agriculture or small businesses. However, a significant proportion of packhouse women claimed that they would like to stay longer, but would leave after three or four years if the salaries did not improve. As one packhouse worker said, “If they increase the salary I will work for years, but if it will remain the way it is I will go away.”

Security of Employment⁴³

While permanent workers exhibited greater concern over wage levels than employment security, the reverse was the case among casual and seasonal workers. Among the latter, there was a strong perception of employment insecurity, largely stemming from the vulnerability of ‘flexible’ workers to redundancy and/or termination in slack periods (see Table 5.5). As one casual worker said, “There is always stress due to not knowing if you are working the following day.” This insecurity was most palpable among female packhouse workers (58%), who predominate in casual, seasonal and ‘unskilled’ employment categories, and are therefore more susceptible to being drawn in and out of the labour force. As a casual female packhouse worker stated, “you are never sure when you will work again.” In contrast, permanent workers articulated less anxiety regarding the continuation of their employment, feeling safeguarded by their employment status and/or skills that were considered more difficult to replace (e.g. irrigation).

Table 5.5 Perceptions of Job Security, by Gender of Employee

| | Packhouse | | Farm | | All | |
|--------------------------|-----------|----------|--------|----------|--------|----------|
| | % Male | % Female | % Male | % Female | % Male | % Female |
| Very Secure | | 8.3 | 8.3 | 12.0 | 6.7 | 10.8 |
| Reasonably Secure | 66.7 | 33.3 | 50.0 | 52.0 | 53.3 | 45.9 |
| Insecure | 33.3 | 58.3 | 41.7 | 36.0 | 40.0 | 43.2 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Source: Field Study, 2001

While flexible employment is not always detrimental to workers,⁴⁴ in horticulture the reliance on ‘informal’ forms of work intensifies the vulnerability of workers. This vulnerability is compounded by the prevalence of migration. For example, as Section 4 highlighted, employment for ‘flexible’ workers can be reduced to 2-3 days a week during the off season. Most workers remain in Nairobi during the rest of the week waiting to be re-employed. This imposes difficulties on migrants; as one casual worker claimed, “I am at times told to go home if the production is low since I am not permanent but it is not that easy. I live far away.” In addition, there is no guarantee of re-employment as labour supply far exceeds demand in the regions surrounding packhouses and farms. Many have left children behind to seek employment and face limited alternative options in Nairobi. For example, among those who were temporarily ‘rested’ in Nairobi packhouses, none found alternative employment in the area. They either did nothing to generate an income, relied on spouses or relatives for support, and/or returned to their home village to sell vegetables. Thus, while mobility into horticulture employment may be an important route out of poverty, it also carries risks.

For those who view their employment unfavourably, why do they stay? Particularly when so many (93% of men and 81% of all sampled workers) rated farming preferable to wage employment? The answer commonly related to the paucity of alternative options available to them in the country. Poverty was widespread, land fragmentation intense and opportunities for employment scarce. While many workers often thought of leaving horticulture employment, they felt that the only avenue open to them would be to return home and sell vegetables, an option that could confer only marginal returns. As one female worker said, “It’s not possible to look for a job elsewhere while here, due to lack of time and the expenses involved in travelling to look for employment. Also, those other places have no vacancies, so I have no alternative other than to stick to what I earn.” Yet others realised the gamble involved in forsaking their employment in the sector. As one farm worker claimed, “I’m scared of gambling because I may try to get a job in another company and miss it. This will mean that I will miss both jobs.”

The above discussion suggests that an individual’s experience of employment is contingent upon a plethora of inter-related factors. These include the motivation for seeking work, their social position (age, gender, marital status etc.) and location within the value chain, as well as the nature of the job itself (employment status, wage level, upgrading opportunities etc). For example, workers who have migrated with their children in tow are more likely to have done so under circumstances of economic duress, which will distinguish their experience from a young single man or woman without family constraints. This is why identifying the factors that underlie an individual’s entry into employment, as well as how those factors are shaped by their position within the value chain, helps to identify the sector’s potential for positive development.

6 Conclusion

Horticultural exports have become one of the most dynamic sectors in international trade, and are increasingly important to Kenya's economy. One way of understanding the opportunities generated by the sector has been through the global value chain approach. This approach is particularly helpful in analysing sectors such as horticulture where powerful global buyers play the leading role in establishing the parameters of the chain, defining what, how, and under what conditions a product is produced, as well as who gets included and excluded from the chain. It is through value chain analysis, for example, that we have been able to identify the linkages between the governance exercised by UK supermarkets, the concentration of the horticulture supply base, and the concomitant shift away from smallholder production to wage employment in Africa.

This paper has analysed the employment found in the production and processing segments of the Kenya horticulture value chain. To date little research has been conducted on the circumstances under which workers seek employment, or on the levels, type and composition of employment that is generated by the industry. This paper has begun this analysis, identifying some of the main features of wage employment in the sector, and its implications for workers in the chain.

The first of these features relates to the significance that migration plays in the composition of the workforce. Both packhouses and farms are highly dependent on workers who have migrated to horticulture production areas from other parts of the country. The majority of these migrants have relatively weak entitlements to land and capital, and have left their home villages under conditions of economic hardship. However, the decision to migrate is not an isolated one; it is nested within the labour resources available in the household (e.g. to accommodate reproductive and productive work), as well as to the presence of social networks at the production site (e.g. to facilitate job opportunities and housing). Social capital thus figures strongly in a worker's ability to migrate, as well as in their capacity to obtain and sustain participation in horticulture work.

Second, this research reinforces findings on employment in other 'buyer-driven' commodity chains, particularly labour-intensive manufacturing sectors such as garments and electronics, which are highly reliant on female labour. In both packhouses and farms, the majority of the workforce is comprised of young, single women. Most of these women are concentrated in 'flexible' forms of work such as casual and seasonal labour that are not covered by national labour regulations, social protections or codes of conduct. As a result these forms of employment tend to encompass greater income and employment insecurity stemming from the unpredictability of work and the absence of non-wage benefits.

Third, the horticulture labour market is segmented by gender. In both packhouses and on farms women and men are concentrated in specific job categories with visible demarcations between what is regarded as 'men's work' or 'women's work.' There is limited scope to cross into positions occupied by the opposite gender and a limited range of mobility within gendered categories, with men concentrated in somewhat higher skilled positions. Overall, however, export horticulture is a labour intensive industry with little demand for the type of skilled labour found in manufacturing or technology sectors. While more processing is now performed upstream in the chain, this processing remains largely dependant on unskilled manual labour.

These employment characteristics reflect several intersecting tendencies, some of which are intrinsic to the chain and others which reflect the wider context within which the chain operates. The paper discussed, for example, how migration into horticulture was a response to poverty push factors in rural areas. In contrast, the feminisation and flexibilisation of the workforce is linked to the seasonality of the industry coupled with the competitive pressures of globalisation. For example, trade liberalisation and deregulation have exerted greater pressures on Kenyan exporters to streamline their production costs. Flexible employment, which allows exporters to tailor labour force to supply and demand, facilitates these cost reductions. At the same time the requirements of EU supermarkets have given rise to increasing concentration and more exacting controls over monitoring of labour and production processes. This means that exporters in the chain are less likely to source from smallholders, and more likely to have a centralised workforce that can be easily monitored while producing a consistently high quality product. The nature of employment in the chain, therefore, is not simply a matter comparative advantage but rather of competitive advantage based on cost and quality.

While the type of employment in the Kenya horticulture chain may not be ideal, this needs to be qualified by several points. The most significant is the perception among employees that participation in the industry has made a positive impact on their life. This view was strongest among female packhouse workers (the majority of the workforce), who attributed a new-found sense of autonomy and ‘empowerment’ to their horticulture wages. Yet irrespective of gender and/or employment status, the wages garnered through employment have clearly elicited some positive outcomes. A high proportion of workers were able to purchase a range of assets with their wages from horticulture, which improved the quality of their life, as well as their family’s living standards. Most workers also reported sending remittances to their home villages, saving money, and investing in land, agriculture, or other small income generating businesses. This suggests that the wages garnered through employment may be a pathway to future security for workers and their families.

Thus, this paper has shown that employment in the production and processing segments of the chain presents somewhat of a mixed picture. On the one hand, many workers are very positive about their employment experience and the opportunities it has afforded them. In fact, given high unemployment and landlessness among the rural poor in Kenya, workers in the sector could be viewed as the lucky ones. They not only have jobs, but the wages and working conditions in the industry are generally better than those found elsewhere. However, this does not mean that the type and quality of employment in the sector could not be improved. The analysis suggests that the greatest shortcoming of horticulture employment is the prevalence of casual ‘flexible’ work that gives rise to both income and employment insecurities. Horticulture companies capitalize on the willingness of workers (particularly women) to be more flexible, putting aside their family responsibilities and leaving their children behind to work in the industry. This is the hidden cost of flexible production. The downside of such flexibility could be ameliorated by providing equal access to benefits (e.g. annual and sick leave, maternity protection etc.) to all workers irrespective of their status. This could be particularly important in a country such as Kenya, where the capacity of the state to provide basic services has been eroded by years of fiscal crisis. However, it also raises the wider question of whether the horticulture industry, and the private sector more broadly, should bear responsibility for delivering development goals such as poverty alleviation and gender equality.

Annex 1. Samples of Study

| | Urban (Nairobi) | | | Rural (Timau, Nanyuki) | | | Rural (Timau, Nanyuki) | | |
|---|--------------------|----|-------|---------------------------|----|-------|---------------------------|----|-------|
| | Packhouse | | | Owned Farm | | | Contract Farm | | |
| Gender | M | F | Total | M | F | Total | M | F | Total |
| No of households ¹ | 15 | 25 | 40 | 20 | 20 | 40 | 8 | 12 | 20 |
| No of workers Qualitative ² | 3 | 12 | 15 | 8 | 13 | 21 | 4 | 13 | 17 |
| No of workers Quantitative ³ | 4 | 31 | 35 | 9 | 27 | 36 | 5 | 11 | 16 |
| Combined Quantitative and Qualitative | 7 | 43 | 50 | 17 | 40 | 57 | 9 | 24 | 33 |

- Note: (1) McCullough and Ota Field Survey, 2001
 (2) Qualitative Field Study, 2001
 (3) Drawn from McCullough and Ota Field Survey, 2001

Annex 2: Location of Worker's Home Villages

| | PH | | Farm | | All Males | All Females |
|----------------------|--------|----------|--------|----------|-----------|-------------|
| | % Male | % Female | % Male | % Female | | |
| Laikipia | | | | 8.0 | | 5.2 |
| Meru | | | 17.0 | 50.0 | 13.0 | 34.1 |
| Kitui | | 8.3 | | | | 2.8 |
| Muranga | | 8.3 | | | | 2.8 |
| Kisii | 33.3 | | | | 7.0 | |
| Machakos | 33.3 | 17.0 | 8.3 | | 13.0 | 5.2 |
| Embu | | | | 4.0 | | 2.8 |
| Nyeri | | | 17.0 | | 13.0 | |
| Tharaka Nithi | | | 8.3 | | 7.0 | |
| Kisumu | | | | 8.0 | | 5.1 |
| Bungoma | | 8.3 | | | | 2.8 |
| Nyandarua | | 8.3 | | 4.0 | | 5 |
| Makueni | | 8.3 | 8.3 | | 7.0 | 2.8 |
| Kirinyaga | | 8.3 | | | | 2.8 |
| Kakamega | | 8.3 | 8.3 | 4.0 | 7.0 | 5 |
| Uasin Gishu | | 8.3 | | | | 2.8 |
| Bondo | 33.3 | | | 22.0 | 7.0 | |
| Vihiga | | 8.3 | | | | 2.8 |
| Missing | | 8.3 | 32.8 | | 26.0 | 18.0 |
| Total | 99.9 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Source: Field Study, 2001

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ENDNOTES

1 Various authors have developed this idea in different ways (Hopkins and Wallerstein, 1986; Gereffi and Korzeniewicz, 1994; Wilkinson, 1995; Porter, 1990 etc.), adapting the idea of a chain of inter-firm linkages to particular circumstances and sectors.

2 Gereffi distinguishes between two basic types of commodity chains – buyer and producer-driven. In the latter the commodity chain is governed by companies that control key technology and production facilities (manufacturers) and are typical of capital- and technology-intensive industries such as automobiles (Gereffi 1994).

3 See various papers in IDS Bulletin edited by Gereffi and Kaplinsky (2001).

4 For example, see Pearson (1998), Beneria et al. (2000), Joekes (1987), Özler (1999), Fontana et al. (1998), Wolf (1992), Kabeer (2000), and Cagatay and Özler (1995).

5 Female employment in NTAEs has been well documented in Latin America. See Collins (2000), Meier (1999), Thrupp (1995), Barrientos et al. (1999) and Reynolds (2002).

6 This paper adopts Standing's (1999a) use of the term 'feminization' to denote employment that is both numerically female dominant and less secure.

7 See Özler (1999) for a review.

8 An exception to this is Linda Lim's (1990) argument that female participation in export-oriented employment improved the position of women workers in the 1980s.

9 See Amin et al. (1998), Kibria (1998), Paul-Majumder and Begum (2000), and Dannecker (1998).

10 See recent collection of studies in Balakrishnan (2002).

11 This has been termed variously as the 'reproductive' or 'care economy': the unpaid work that is typically undertaken by women to ensure the survival and well-being of household members (Elson 1999, Sen 1999).

12 The poor are defined as those who cannot afford basic food and non-food items. In 1997 the minimum cost to satisfy a daily 2250 calories requirement was estimated to be Ksh 927 per person per month in rural areas and Ksh 1,254 in urban areas (World Bank 2000). The Welfare Monitoring Survey of 1997 defined the national poverty level as Kshs 1,238.86 and Kshs 2,648.04 per person per month for rural and urban areas respectively (Kenya 2000b).

13 Export vegetables entail a much higher rate of labour absorption than traditional export crops. For example, Kenya's most widely grown horticultural export crops -- snow peas and French beans -- require 600 and 500 labour days per hectare respectively (Little 1994).

14 The economy has been in steady decline for the last five years, with GDP growth sliding from 4.6 per cent in 1996 to negative 0.3% in 2000 (Kenya 2001b).

15 Kenya was the largest exporter of the vegetables included in categories HS 0708 and 0709 to the EU in 1997 and 1999 and the second largest exporter of vegetables in HS 0709 in 1997. The HS 0708 category refers to 'leguminous vegetables, shelled or unshelled, fresh or chilled' and HS 0709, 'other vegetables, fresh or chilled', which includes artichokes, asparagus, mushrooms, sweet peppers, capsicums, etc. (1998, 1999 Eurostat data cited in Humphrey 2002).

16 In the year 2000, the top five exports were tea (18.7%), transportation (16.6%), horticulture (11.3%), tourism (10.4%) and petroleum products (5.0%), accounting for approximately 62% of total exports (Export Promotion Council 2001).

17 In the early to mid-1990s, this hands-off policy included the liberalisation of Kenya's foreign exchange control regime, the streamlining of importation procedures (for equipment, planting materials, and other inputs), and the government's withdrawal from its efforts to manipulate the airfreight market (Thoen et al. forthcoming).

18 In 1999, 95% of vegetables exported from Kenya were supplied to Europe, 3% to the Middle East and 2% to regional markets (Harris 2000).

19 This is for exports in HS category 0708.

20 Although the average compound annual growth of vegetable exports between 1995 and 1999 was 5.34%; it was 3.7% for unprepared vegetables, but 11.2% for prepared vegetables (McCulloch 2002).

21 Dijkstra (2001) has documented a similar process of concentration among non traditional agricultural exports in Uganda.

22 Direct employment in the horticulture sector is estimated at 500,000 people. Estimates suggest that each employee supports an average of 8-10 people (HCDA, personal communication 2002).

23 See McCulloch and Ota (2002), or contact Dr. Neil McCulloch at n.mcculloch@ids.ac.uk for information on this survey. We thank them for this data but unless otherwise noted, the analysis and views expressed here are our own.

24 However, these demographic characteristics may change. For example, Fussell (2000) has shown that the young, unmarried *maquiladora* workforce of yesterday has been largely replaced by married women with children.

25 The Welfare Monitoring Survey (WMS) of 1997 reported an average household size of 3.5 for urban areas and 4.9 for rural areas. These figures vary by income level. The Second Poverty Report on Kenya estimated average household size to be 5.3 and 4.0 among the poor and non-poor respectively (Kenya 2000a).

26 Household members consist solely of those who were resident at the employment site. Family members in the place of origin were not included in household composition figures.

27 Pseudonyms have been used to protect the anonymity of respondents.

28 Understanding how horticulture employment fits within and inter-relates with other household income streams requires tracing the economic and social ties between individuals at the production site and their families in rural areas. By isolating the survey to packhouse and farm locations, this study only captured the economic undertaking of employees and their co-resident spouses (among those who were married), and hence provides only a partial view of the household.

29 For example, a few male farm workers grew horticulture crops under contract to supplement their wage.

30 Labour costs now typically range between 30% - 50% of farm gate costs (Interviews with exporters, 2001/2002).

31 Non standards forms of employment typically fall out-side the standard employment relation and include temporary, part-time, contract employment and self-employment. See Carre et al. (2000) for a review of literature on the growth in various forms of non standard employment.

32 While 20 percent of the workforce on one of Kenya's leading exporters was engaged in contract labour in 2000, they too reported a dramatic reduction in their use of contract labour.

33 Overall, urban packhouse workers were the best educated of horticulture employees, averaging 11.3 and 10.3 years of education among men and women respectively. The lowest mean educational level of 8.6 years was reported amongst female rural farm workers, while that of male farm workers was slightly higher at 9.4 years.

34 Legal Notice No. 60 and No. 61 defines the statutory basic minimum wages as Ksh 147.10 per day/3,059 per month in Nairobi and Ksh 130 per day/1,632 per month in rural areas.

35 In Kenya as whole, women's agriculture wages are on average 77% of men's (World Bank 2002).

36 These benefits were more common in packhouses than on farms, with none of the contract farms providing transport or medical and only half of them furnishing food.

22 Qualitative interviews were conducted with thirteen workers who were retrenched by a Kenyan exporter in 2001.

37 This refers to the tables on which products is processed and packed.

38 For example, Fleck (2001) has recently shown that as maquila employment became more capital and skill-intensive, women's labour was replaced.

39 For example, economist Duncan Thomas (1990) documents how the unearned income accruing to women in Brazilian households raises the probability of child survival by 20 times that of a comparable increase in the unearned income of the father. Similar evidence has been put forth by Kanbur and Squire (1999), Buvinic (1997), Kennedy (1989), Hoddinott and Haddad (1995), and Dwyer and Bruce (1988) all suggesting that the income under female control has a different effect on household expenditure patterns than income earned by men.

40 See Kabeer (2000) for discussion on the distinction between the management and control of household income.

41 However, since the study did not collect data on the value of expenditures, or the percent of total income allocated to various items, it is not possible to determine whether men and women display divergent spending preferences.

42 Issues concerning occupational health in the industry will be addressed in a separate paper.

43 In this paper security of employment entails protection against dismissal or arbitrary loss of employment (Standing 1999b: 168).

44 For example, Hakim (1996) argues that women will self-select 'informal' employment since it offers them the opportunity to combine productive and reproductive work. Positive aspects of homework in Turkey have also been documented by Eşim (2000).