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Worker welfare on Kenyan export vegetable farms

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ABSTRACT

The paper analyses farm worker welfare on three different types of farms in Kenya producing vegetables for export. The three types of farms differ by certification to international production standards as well as by size. A multidimensional approach measures welfare using human capital, income, physical and mental health, and life satisfaction. The findings suggest that GlobalGAP certification has a positive impact on worker welfare as farm workers are given more training. Workers on large certified farms earn more than those on small farms but also show more health problems. Certification on small farms is associated with higher satisfaction of workers with their life compared to workers on non-certified small farms. From a development policy perspective this paper does not support a clear cut policy on which types of farm to support as overall benefits of a support strategy will depend of the number of beneficiaries reached through the different farm types.

Introduction

The globalization of agricultural value chains has led to profound changes in the structures of trade, production and employment (Barrientos et al., 2010). It accounts for growing employment in different sectors such as agriculture (Gereffi, 2006). In particular horticulture provides new opportunities with high returns to land and labour as compared to agricultural food crops (Weinberger and Lumpkin, 2007). Global demands for high quality food supply have also led to the growth of international production standards (Swinnen and Maertens, 2007). These impose requirements on agricultural producers regardless of their location. This development has raised the question of whether international production standards marginalise small-scale farmers in developing countries due to investment requirements that they may not be able to meet, access to information and extension services, limited human capital and organizational skills (for example Okello and Swinton, 2006; Humphrey, 2006; Asfaw et al., 2009). However, it was also shown that in Senegal even if small-scale producers exit the market employment effects due to increased wage labour on large scale farms may offset some of the negative effects (Maertens and Swinnen, 2009). Cramer et al. (2008) show for Mozambique that large agricultural enterprises tended to pay higher wages than other farms although amount of pay and mode of payment varied greatly. However, while on the one hand horticulture can create employment, these jobs might be low wage jobs that may contribute little to the alleviation of poverty (Ortiz and Aparicio, 2007). Changes in value chains can take different trajectories for workers including economic upgrading via moves to higher paid activities and social upgrading through better rights and entitlements (Barrientos et al., 2010).

Kenya's horticulture sector is a good example of the globalization of an agricultural value chain. Kenya is one of the leading exporters of vegetables, cut flowers and tea into the EU25 (European Union, 2006). The shares of horticultural export values of total export values (excluding tea and coffee) increased from 16% to 23% between 2001 and 2005 (Republic of Kenya, 2006).[1] Value chains in the export market for horticultural commodities can be distinguished in those that do not require international standards and those that do. The former are mostly served through production on smallholder outgrower farms while the latter are served by a mix of production on smallholder outgrower as well as large scale farms (Mausch et al., 2009). The sector is a major source of employment. In 2005, it is estimated that more than 50,000 people were in wage employment in the sector (Dolan, 2005).[2] Due to high returns to la-

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[1] It is important to note that the available data is subject to many problems – one of those problems is that the composition of crops in the horticulture export data of the Kenyan Horticulture Crops Development Authority (HCDA) is inconsistent among different periods (Jaffee, 2003).
[2] Dolan excludes coffee in her estimation.

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bour in comparison to traditional agricultural commodities (Weinberger and Lumpkin, 2007), positive links with the overall economy such employment opportunities in the post-harvest sector (McCulloch and Ota, 2002) and other multiplier effects, promoting fruits and vegetable commodities for export is a promising development strategy (Diao and Dorosh, 2007). Improving standards in the Kenyan formal domestic market for horticultural products has also been shown to have positive labour market effects (Neven et al., 2009).

This paper aims to contribute to understanding the implications of globalization of agricultural value chains using the example of Kenyan vegetable exports as an example. The focus of the paper is a comparison of farm worker welfare on small not certified farms, small GlobalGAP certified farms and large GlobalGAP certified farms all producing for the export market. By means of this comparison, the paper strives to capture the effect of farm size as well as certification on farm worker welfare. GlobalGAP (formerly EurepGAP) is a European retailer-developed business-to-business process standard that addresses product safety, environmental, health, worker and animal concerns (www.globalgap.org).

The effect of farm size on worker welfare is important against the background of the debate on the future of small farms (see e.g. IFPRI, 2005) and the policy discussion on growth, employment and poverty reduction (Cramer et al., 2008). Analysing the difference in farm worker welfare on small-scale internationally certified versus small-scale non-certified farms contributes to understanding the link between the change in chain governance and social and economic upgrading trajectories (Barrientos et al., 2010). The paper complements the work by Maertens and Swinnen (2009) and Colen et al. (2012), who analyse the effect of GlobalGAP certification on farm worker welfare in Senegalese horticultural export farms. Dimensions of farm worker welfare assessed are wages, duration of contract and contract type (Colen et al., 2012). The present study conceptualizes and measures welfare in terms of income, training, physical and mental health. The present study bases on a survey of 316 farms workers sampled randomly from the three different types of farm and is analysed by ordinary least square as well as multiple indicators multiple causes models.

The paper is structured as follows: in the next section, the conceptual framework and methodology describe the mechanisms that are at work between welfare and the type of farm a worker is employed on. The following section describes the survey design and results of the econometric models. The paper concludes with suggestions for policy designs that take farm size and private food production standards into account.

Conceptual framework and methodology

Agricultural production conditions influence the welfare of labourers engaged in the sector. It is first of all necessary to define welfare in the context of farm workers. This requires finding indicators that can describe relevant aspects of poor people's well-being and that can be compared. In general, well-being is multi-dimensional and entails the following dimensions: material living standards, health, education, personal activities including work, political voice and governance, social connections and relationships, present and future conditions of environment, economic as well as physical insecurity (Stiglitz et al., 2009: 13).

The present paper considers four welfare dimensions for an elementary evaluation of farm worker welfare: human capital, income and physical as well as mental health. In addition, the paper assesses self-stated life satisfaction. The welfare dimensions allow for a welfare comparison amongst workers on three different farm types that are typical for Kenyan export vegetable production: small non certified farms, small GlobalGAP[3] certified farms as well as large GlobalGAP certified farms. At the time of the survey all large farms had been GlobalGAP certified.

GlobalGAP operationalizes its principles through control points, which are organized as (i) major musts, i.e. compulsory requirements, which must all be adhered to; (ii) minor musts, of which 95% must be adhered to; and (iii) recommendations. At the time of the study GlobalGAP major and minor musts chiefly addressed consumer's food safety concerns, which is reflected in 15 out of 49 major musts and 43 out of 99 minor musts being in the category of crop protection. This can indirectly take effect on farm worker welfare, for instance via a switch to less hazardous pesticides. Two major and 15 minor musts directly referred to worker health, safety and welfare (EurepGAP, 2004). The latter two major musts detail the equipment of workers with suitable protective clothing and the storage of clothing separately from crop protection products. Training of farm workers who handle crop protection or dangerous substances are minor musts. At the time of the survey no further major compliance criteria with an effect on farm worker welfare such as adherence to national labour legislation, maternity pay, sick leave, and worker councils were in place. Two minor musts and one recommendation dealt with such aspects of worker welfare in general.[4] In this study, workers include formally and informally employed staff excluding family labour.

We hypothesise that workers on larger farms are more likely to acquire higher levels of training and therefore have specific knowledge and skills due to a higher degree of specialisation on larger farms (Putterman, 1983; Ekong, 1983). Larger farms are expected to pay higher wages in order to retain specialised labour and to reduce monitoring costs (Pollak, 1985). No difference is expected in physical health between large and small farms, because different types of health problems offset each other between the two farm types. For example, work on larger farms is more specialised, which means the same tasks are performed repeatedly and, therefore, ergonomic problems occur (Dolan, 2004; Rainbird and O'Neill, 1995). On smaller farms, inappropriate handling of obsolete pesticides (e.g. the reuse of pesticide containers for water storage, bathing and cooking, see Repetto and Sanjay, 1996), may lead to more pesticide-related problems. In the present study this is more likely on small non-certified farms. Mental health is hypothesised to be better on small-scale farms because of better direct communication between hierarchy levels.

GlobalGAP certified farms are expected to invest more into training because they have a higher demand for better educated workers in order to comply with the standard. To attract and keep these highly-skilled workers, they are expected to pay higher wages. We expect GlobalGAP to score better on physical health due to the improved working conditions. Examples for an improvement in these conditions are the use of less toxic pesticides and a more appropriate use of protective clothing (EurepGAP, 2004). With respect to mental health, the GlobalGAP minor musts and recommendations dealing with farm worker welfare in general specify that a member of the management needs to be responsible for worker health and welfare, that living conditions need to be

[3] This study was conducted when EurepGAP, Version 2.1 (October 2004) was relevant. It was introduced by the Eurep working group which was founded in 1997 by thirteen of the largest retailers in Europe (Busch et al., 2005). Since then EurepGAP has changed its name and logo to GlobalGAP, arguing that its proclaimed role in promoting the harmonization of good agricultural practice schemes had moved beyond Europe. The name change was announced at the 8th EurepGAP Conference, the EurepGAP Asia Conference, held in Bangkok on 6th and 7th September 2007. Therefore, throughout this paper the term GlobalGAP is used, and can be considered as synonymous to EurepGAP.

[4] In 2005 GlobalGAP piloted the project, Good Social Practices in Agriculture', which specified some of such compliance criteria (Heise et al., 2007).