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SYNOPSIS OF [ESSP WORKING PAPER 96](#)

Synopsis: Food processing, transformation and job creation: The case of Ethiopia's enjera markets

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Given the importance of agriculture in developing economies, food processing industries often dominate employment and value addition in the industrial sector in these settings. For example, it is estimated that the food processing industry in Ethiopia employs one million people, around 2 percent of the economically active population. However, the way in which Ethiopia's food processing industry is changing and how it functions is little understood. We study the markets in urban Ethiopia for commercial ready-to-eat *enjera*, the traditional staple pancake of the country. We find that these commercial *enjera* markets are rapidly growing, employing more than 100,000 people in urban Ethiopia, many of whom are women. Moreover, *enjera* is now being prepared by mixing flour from locally produced teff with that of imported rice, thus absorbing an important part of the rapidly growing rice imports (almost 200 million USD in 2015) to the country and leading to higher profits for those enterprises engaged in this type of mixing. Increasing numbers of *enjera*-making enterprises (EMEs) are emerging, and those that supply the growing urban food service sector are being up-scaled to cater for growing demand. Larger *enjera*-making companies have better quality products, different procurement mechanisms and technologies, and higher value-added. These findings are important for policy debates in Ethiopia on food system transformation, employment creation, and international trade.

INTRODUCTION

Agricultural markets are quickly changing in developed and developing countries alike. In developing countries, an important cause of this food system transformation is the rapid growth of cities along with the parallel rapid emergence of an urban middle class. Urban populations often have significantly different diets than rural ones and are willing and able to spend more money on food, both inside and away from the home. Processed foods are also becoming relatively more important in the food consumption of urban households, but the way that food processing industries are changing and how they function is little understood.

This research explores food processing enterprises within the manufacturing sector in Ethiopia. Specifically, we focus on commercial aspects of *enjera* making and its relation to rice imports used in the mixing of *enjera*, the characteristics of *enjera*-making enterprises (EMEs), and the changing nature of the workforce, notably women, engaged in *enjera*-making for growing urban markets.

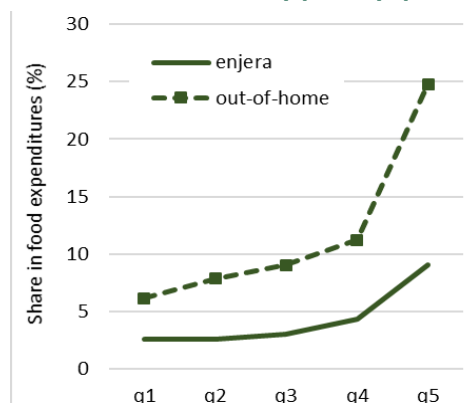
We use primary data collected in three cities in Ethiopia – Addis Ababa, Dire Dawa, and Nekemte. Together, these different sized cities represent a good cross-section for our study. In total, we obtained information for 243 mills, 345 *enjera* sellers, and 214 *enjera*-making enterprises. Each EME is categorized as small, medium, and large, based on the number of people employed.

FOOD PROCESSING AND ENJERA MARKETS

It is estimated that almost one million people are engaged in food processing in Ethiopia, or around 2 percent of the economically active population of the country (defined as those aged 15 to 64 years). Food processing has a high share of the manufacturing sector in Ethiopia, standing at 60 percent in 2011.

A large number of households prepare their own *enjera*. However, using data from the 2011 Ethiopian Household Income, Consumption, and Expenditure Survey, we find that the commercial market for ready-to-eat *enjera* is growing, particularly among the rich urban population, as well as for eating out-of-home (Figure 1).

Figure 1: Share of *enjera* and out-of-home expenditures in total food expenditures in urban areas, by poverty quintile



Source: Authors' calculations based on HICES, 2011

Note: q1=poorest; q5=richest quintile.

ENJERA SELLERS AND ENJERA-MAKING ENTERPRISES

We consider four types of *enjera* outlets – large and small wholesalers, retailers, and *gulits* (informal micro-sellers of *enjera*). We compared the pattern of sales of *enjera* outlets by type in the three study cities. *Enjera* retailers are the most important of all outlets. The majority of sales outlets are run by women – for example, 91 percent of *gulit* sellers are women. The exception to this is the larger wholesalers – men run 55 percent of such outlets. We also find a strong link between the educational level of the outlet manager with the size of the operation. Moreover, most *enjera* sellers are relatively new to the business, with 90 percent having been in business for less than 10 years.

Small EMEs dominate *enjera* production in all three cities, with 90 percent of the *enjera*-making activities carried out in private houses. This compares to 51 percent and 23 percent of medium and large EMEs, respectively, operating out of private houses. We further note that about 20 percent of all EMEs, both large and small, have received support from the government through loans.

Employment generation by EMEs and the retailing sector is substantial. It is estimated that more than 30,000 people are

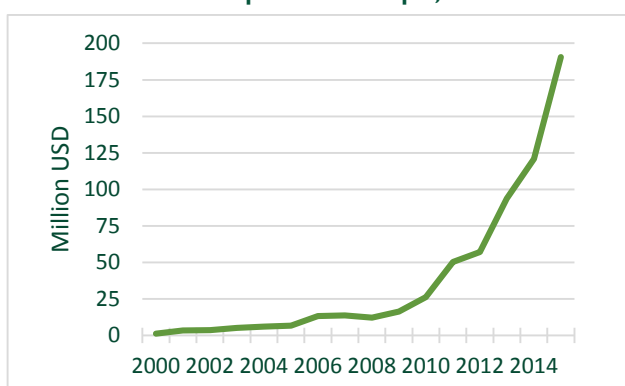
involved in enjera-making or retailing in these three cities, or more than 100,000 people in urban Ethiopia overall. EMEs can therefore be considered one of the most important employment generating sub-sectors in Ethiopia's cities.

PATTERNS IN PROCUREMENT AND SALES

Despite changes over the past 10 years in how customers obtain the grain they consume, nationally an overwhelming majority of cereals are still milled and sold at the mills. The process of producing enjera from this milled grain by individual households still dominates. However, we find that commercial enjera consumption in urban Ethiopia has increased significantly over the past ten years and that EMEs are quickly emerging to supply this market.

Our analysis shows too that the quality of inputs used in enjera making varies across different outlets. Significant mixing of teff flour with the flour of other cereals takes place. These mixing patterns differ between EMEs and by city. Overall, there is more mixing with different cereals other than teff by smaller EMEs, which leads to different input costs between large, medium, and small EMEs. Mixing with rice is especially common in Addis Ababa, and is a relatively new phenomenon with important implications for agricultural trade. Imports of rice are rapidly increasing in Ethiopia (Figure 2), even as growing exports of fresh enjera to places with large populations of Ethiopians continues to rise as well.

Figure 2: Value of rice imports to Ethiopia, 2000 to 2015



Source: Ministry of Trade

EMPLOYMENT, PRODUCTIVITY AND TECHNOLOGIES

The majority of employees in EMEs are women, often lower-skilled. In general, the smaller the EME, the higher the share of family laborers. Strong links are also observed between the size of the enterprise and the type of technology used. The majority of small EMEs rely on *mitads*, the baking plates used to prepare enjera, that are heated with wood, with electric *mitads* being less important. The lack of electricity and its unreliability influences such choices, particularly in small EMEs, as well as the perceived initial costs and running costs of electric *mitads*.

Regarding productivity and profit for the three size categories of enterprises, we find that large EMEs produce about six times as many enjera per day as EMEs in the small size category, using different technologies. When comparing flour costs and enjera

prices, larger profits are made by the larger EMEs that sell enjera at relatively higher prices, but they also face slightly higher input costs, given their focus on quality. Smaller EMEs find it challenging to compete in these more demanding food service sector markets for ready-to-eat enjera. Furthermore, we assess the impact of the color of enjera, along with price and associated factors. We note that the more expensive very white enjera is associated with the use of flour with a higher composition of magna and white teff as well as rice.

RESULTS AND DRIVERS OF CHANGE

From our research, we find number of factors driving changes in commercial enjera markets.

1. The rise in opportunity costs of women. Women are increasingly participating in the workplace, and there is more intense competition in labor markets.
2. The growth of cities, the takeoff of employment in services or manufacturing sectors, and income growth, has all led to a higher share of the population relying on out-of-home consumption, buying enjera instead of preparing it themselves.
3. The steady rise in mixing teff flour with that of imported rice to make enjera, affecting the country's international trade balance. Rice has superior characteristics of whiteness and flexibility, and favorable price changes of rice in recent years, compared to teff, have impacted trade in the cereal.
4. Better use of technologies has enabled larger EMEs to produce more enjera per day, have higher value addition, and to be more profitable than the small micro-enterprise EMEs, even though such small firms are quickly emerging.

POLICY IMPLICATIONS

These findings have a number of policy implications on food system transformation in Ethiopia and elsewhere:

1. As the economies in developing countries grow and urbanization takes off, as in Ethiopia, greater attention towards off-farm agricultural activities is required. These activities have important impacts on employment, prices, and, therefore, on the food security for both urban and rural populations.
2. The rapidly growing urban markets that shape agricultural and food economies should be taken into consideration as, increasingly, cities are becoming engines of economic transformation.
3. As agricultural economies and cities develop, along with changes in diets and food preferences, international trade often becomes more important and deserves more attention.
4. More focus is needed to stimulate local, import-substituting rice production, given the changing food preferences, as well as to help alleviate foreign exchange scarcity in Ethiopia.



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