

**African women in food processing: a major, but still underestimated sector of their contribution to the national economy**

Paper prepared for the International Development Research Centre (IDRC)

Jacques Charmes

Centre of Economics and Ethics for Environment and Development (C3ED)  
University of Versailles-Saint Quentin en Yvelines (France)  
Statistics Program of WIEGO (Women in Informal Employment:  
Globalizing and Organizing)

December 2000

## **African women in food processing: a major, but still underestimated sector of their contribution to the national economy**

The current and documented knowledge which is available on the informal sector, especially on women in the informal sector, clearly indicates that it is a tertiary-oriented sector (most of the activities are in trade and services) and the figures on women are even more biased towards these activities.

In countries where wage employment represents a very small share of total employment (as it is the case in most African countries), women in the labour force are mostly found in agriculture, trade and services. As family workers in agriculture and petty street vendors of goods and services, women generate a very low contribution to GDP, not only because those activities are generally weakly productive, but also because their employment status requires the use of low productivity hypotheses in the absence of data.

But there is another reason why female activities in manufacturing, and especially in food processing, are underestimated: a very high share of these activities are undertaken as secondary activities and are generally hidden behind subsistence agriculture.

Such are some of the reasons which require further in-depth investigation into female activities in food processing, not only in order to better estimate their actual contribution to the economy, but also because more appropriate policy measures could be designed to help their empowerment.

The paper intends to explore, in several African countries, the real involvement of women in the activities of food processing by screening the whole spectrum of their activities in agriculture, food processing industries, trade of foodstuffs, and catering and selling prepared meals. The countries are selected on the basis of availability of recent and numerous data which can highlight the phenomenon and allow the selection of representative samples in the related activities. **Burkina Faso** for instance has regularly collected data on secondary activities in its population censuses and household surveys, since 1985 and the secondary activities of women have had a strong impact on the estimates of female contribution in National Accounts. **Benin** has carried out a comprehensive survey on urban informal sector, including street vendors, in 1992 and has repeated it in 1999. Moreover, it has implemented a national time-use survey in 1998. **Kenya** carried out a National Baseline Survey on Informal Sector and Micro and Small Enterprises in 1999, which can provide a good basis for further analyses and ad hoc sample selection. **Tunisia** is also an interesting case because female participation rates are low in this country, but food processing is a kind of home-based work which is extensively undertaken by women and is still poorly documented.

In a first section, we will examine the main and still current reasons of the underestimation of women's participation to the labour force and of their contribution to GDP. Then in a second section, several case studies based on national statistical data will exemplify the issue raised in this paper leading to some recommendations for data collection and design of policy measures.

## **1. Current underestimation of women' participation and contribution in African economies.**

Over the past decades, women's participation rates and their share in the total labour force has increased almost everywhere, due to the efforts made to better capture them in the labour force (with probing questions and time-use questions). To-day in sub-Saharan Africa, the share of women in the labour force has reached a level which is comparable with industrialised countries. Although they have steadily increased, these indicators are still lagging behind in North Africa (and in the Middle East).

Table 1 hereafter aims at situating the countries to be examined, in their regional context. In this respect, it must be reminded that North Africa is the region which still experiences the most rapid increase of the labour force with annual growth rates at more than 3%, while Eastern and Southern Africa have known lower rates.

Women's economic activity rate and share of the labour force are the lowest in Tunisia (although the indicators of this country are higher than the sub-regional averages), and they are the highest in Benin and Burkina Faso (and to a lesser extent in Kenya), those three countries standing ahead compared to their sub-regional averages. This is to say that the countries selected for this study are not really in a critical situation as to the measurement of their female labour force.

Tables 2 and 3 shows the structures and trends of two major components of the labour force in these countries: self-employment and the informal sector provide the bulk of the jobs outside agriculture, and one can expect that women be in the majority in both of these components of the labour force, at least in sub-Saharan Africa.

Africa is the part of the world where the share of self-employment (including unpaid family workers) has the more dramatically increased (nearly doubling) over the past three decades, especially in sub-Saharan Africa, and particularly in Eastern Africa (with the exception of Middle Africa). The share of self-employment in female non agricultural labour force follows approximately the same trends, which means that the growth in self-employment is mainly due to women.

In the years 1990, self-employment is predominant in sub-Saharan Africa (except in Southern Africa, but probably because of an overestimation of unemployment) where it represents more than 2/3 of the non-agricultural labour force, and this structure is even more accentuated for women, as more than 4/5 of those employed outside agriculture are self-employed.

Self-employment is therefore a major component of the informal sector in Africa (table 3): it comprises 90 per cent of total employment in the informal sector in sub-Saharan Africa, against 51.5 per cent in North Africa (and 49.4 in Latin America, and 56.6 in Asia). As a result, wage-employment in micro-enterprises is very low in sub-Saharan Africa (around 10 per cent) with Kenya, Burkina Faso and Mali outstanding in the upper segment (16.8, 13.1 and 11.0 respectively).

**Table 1: Levels and trends in participation rates in Africa.**

Countries/Regions	Adult (15+) economic activity rates (in %)		% women in the adult labour force 1995-97
	1995-97		
	Women	Men	
<b>NORTH AFRICA</b>	<b>29</b>	<b>77</b>	<b>26</b>
Algeria	24	76	24
Egypt	22	73	22
Libya	23	78	21
Morocco	40	79	34
<i>Tunisia</i>	<b>35</b>	<b>79</b>	<b>30</b>
<b>WEST AFRICA</b>	<b>65</b>	<b>88</b>	<b>43</b>
<i>Benin</i>	<b>75</b>	<b>84</b>	<b>49</b>
<i>Burkina Faso</i>	<b>77</b>	<b>90</b>	<b>47</b>
Côte d'Ivoire	44	88	32
Gambia	70	90	44
Ghana	81	83	51
Guinea	78	87	47
Guinea-Bissau	57	91	40
Mali	72	90	46
Mauritania	64	87	44
Niger	70	93	44
Nigeria	48	87	36
Senegal	61	86	42
Togo	53	87	39
<b>MIDDLE AFRICA</b>	<b>59</b>	<b>86</b>	<b>42</b>
Cameroon	48	86	37
Chad	67	88	44
Gabon	63	84	44
<b>EASTERN AFRICA</b>	<b>73</b>	<b>88</b>	<b>46</b>
Eritrea	75	87	47
Ethiopia	58	86	40
<i>Kenya</i>	<b>74</b>	<b>89</b>	<b>46</b>
Tanzania	83	89	49
<b>SOUTHERN AFRICA</b>	<b>60</b>	<b>84</b>	<b>42</b>
Madagascar	69	89	44
Mauritius	39	80	33
Mozambique	83	91	49
Namibia	54	81	41
South Africa	46	79	37
Zimbabwe	67	86	45

Source: compiled on the basis of table 5D, United Nations (2000), **The World's Women 2000, Trends and Statistics**, New York, 180p.

**Table 2: Share of self-employment in non-agricultural labour force, by sex and industries**

	% of self-employed in non-agricultural labour force			% of self-employed in female non-agricultural labour force		
	1970s	1980s	1990s	1970s	1980s	1990s
<b>Developed regions</b>	<b>11.8</b>	<b>11.8</b>	<b>13.7</b>	<b>10.4</b>	<b>9.7</b>	<b>11.1</b>
<b>Africa</b>	<b>28.3</b>	<b>48.1</b>	<b>54.6</b>	<b>38.1</b>	<b>59.3</b>	<b>62.8</b>
<i>Northern Africa</i>	23.0	18.8	34.0	15.2	15.2	25.9
<i>Sub-Saharan Africa</i>	29.6	54.9	66.9	43.8	70.3	81.2
Eastern Africa	27.5		61.0	40.4		79.3
Middle Africa	34.1	58.4	72.5	54.9	80.4	96.4
Southern Africa	12.6	16.8	22.6	21.8	28.5	28.9
Western Africa	40.0	70.0	79.7	48.4	86.1	88.6
<b>Latin America</b>	<b>28.8</b>	<b>30.2</b>	<b>37.8</b>	<b>28.6</b>	<b>29.2</b>	<b>32.1</b>
<b>Asia</b>	<b>28.6</b>	<b>29.7</b>	<b>31.9</b>	<b>27.9</b>	<b>26.7</b>	<b>28.7</b>
<b>WORLD</b>	<b>22.6</b>	<b>27.6</b>	<b>28.4</b>	<b>24.0</b>	<b>28.4</b>	<b>27.6</b>

**Source:** Charmes J. International compilation of population censuses and labour force surveys. Elaborated for ILO programme "Improving the quality of women's employment". Figures result from non-weighted means by region for 93 countries.

At world level, sub-Saharan Africa is the region where the informal sector is culminating with nearly 3/4 of the non-agricultural labour force, having dramatically increased over the past decade (from 2/3 to 3/4). In the informal sector, the share of women is higher than their share in the total labour force (51% against 43%) and fits with their share in the total population. On the contrary, in Tunisia (and this is true for North Africa although detailed data available) the share of women in the informal sector is lower than their share in the total labour force (18.1% against 26%).

For women in sub-Saharan Africa, the informal sector represents more than 91.5 per cent of the total job opportunities outside agriculture (against 70.7 per cent for men) and 94.3 per cent of these jobs are performed under a status of self-employed, and only 5.7 per cent as paid employees (against 15.8% for men). This is an indicator of their vulnerability and of the fact that they have less easy access to the protected jobs (although a more and more important part of the so-called formal jobs are unprotected and insecure).

Table 4 shows the distribution of women in the various industries within the informal sector.

A typical feature of the informal sector arises from table 4: in sub-Saharan Africa, industries (including manufacturing and construction) account for only 26.5 per cent of total employment in the informal sector (which is mainly tertiary, and especially trade-oriented, with 45.5 per cent of total employment).

For women, those features are even more accentuated. Only 22.6 per cent of those engaged in the informal sector are performing industrial activities (against 53.3 per cent in trade).

**Table 3: Gender characteristics of the informal sector in Africa (1991-96)**

Regions / countries	% of the informal sector in non agricultural employment	Share of women	Women engaged in the informal sector in % of total female non-agricultural employment	Men engaged in the informal sector in % of total male non-agricultural employment	% of self-employed in the informal sector			% of wage-employed in the informal sector		
					Total	Women	Men	Total	Women	Men
<b>North Africa</b>	<b>50.3</b>				<b>51.5</b>			<b>48.5</b>		
Egypt	65.3				38.1			61.9		
Morocco	56.9				71.7			28.3		
Tunisia	48.7	18.1	38.7	52.1	44.6	100.0	77.4	55.4	0.0	32.6
<b>Sub-Saharan Africa</b>	<b>74.8</b>	<b>51.0</b>	<b>91.5</b>	<b>70.7</b>	<b>90.0</b>	<b>94.3</b>	<b>84.2</b>	<b>10.0</b>	<b>5.7</b>	<b>15.8</b>
Benin	92.8	61.5	97.3	83.1	95.5	98.4	95.3	4.5	1.6	4.7
Burkina Faso	77.0				86.9			13.1		
Chad	74.2	53.4	96.5	58.8	97.7	98.2	96.8	2.3	1.8	3.2
Guinea	71.9	36.6	84.2	61.3	93.0	97.0	100.0	7.0	3.0	0.0
Kenya	71.6	60.3	83.1	59.1	83.2	94.5	66.3	16.8	5.5	33.7
Mali	94.1	58.7	96.4	91.0	89.0	91.6	85.2	11.0	8.4	14.8
Mauritania	75.3				97.1			2.9		
Mozambique	73.5									
Niger		38.3								
Senegal	76.0									
South Africa	20.4	61.4	30.4	13.6	77.9	86.2	61.8	22.1	13.8	37.2
Zaire	59.6									
Zambia	54.	48.1								
<b>Latin America</b>	<b>56.9</b>	<b>48.9</b>	<b>54.1</b>	<b>51.1</b>	<b>49.4</b>	<b>51.4</b>	<b>54.8</b>	<b>50.6</b>	<b>48.6</b>	<b>45.2</b>
<b>Asia</b>	<b>65.4</b>	<b>39.9</b>	<b>74.2</b>	<b>63.5</b>	<b>56.6</b>	<b>50.3</b>	<b>60.2</b>	<b>43.4</b>	<b>49.7</b>	<b>39.8</b>

Source: Table elaborated on the basis of estimates by Charmes (1999a and 1999b).

In Benin, only 13.3 per cent of women in the informal sector are engaged in manufacturing activities, but they represent up to 42.8 per cent of total employment in these activities. Kenya is outstanding for its very low share of industries in informal sector, and an even lower share for women (4.0 per cent). By African standards, and also by world standards, the indicators for Benin and Kenya are very low.

**Table 4: Distribution of employment in the informal sector by industries (1991-96)**

<b>Countries</b>	<b>Industries</b>	<b>Trade</b>	<b>Services</b>	<b>Total</b>
	Both sexes			
<b>Tunisia</b>	47.4	23.5	24.4	100.0
<b>Benin</b>	24.6	50.9	19.9	100.0
<b>Burkina Faso</b>	33.1	44.2	22.7	100.0
<b>Chad</b>	12.3	59.2	29.2	100.0
<b>Guinea</b>	37.2	39.1	23.7	100.0
<b>Kenya</b>	12.8	26.5	60.7	100.0
<b>Mali</b>	32.9*	47.8*	19.4*	100.0
<b>Niger</b>	40.7	32.7	26.6	100.0
<b>South Africa</b>	11.1	21.9	65.1	100.0
<b>Zambia</b>	18.2	63.6	18.2	100.0
<b>Sub-Saharan Africa**</b>	<b>26.5</b>	<b>45.5</b>	<b>27.6</b>	<b>100.0</b>
<b>Latin America</b>	<b>23.2</b>	<b>34.0</b>	<b>42.8</b>	<b>100.0</b>
<b>Asia</b>	<b>36.3</b>	<b>30.9</b>	<b>32.9</b>	<b>100.0</b>
	Females			
<b>Benin</b>	13.3	78.6	4.8	100.0
<b>Chad</b>	5.7	68.6	25.8	100.0
<b>Guinea</b>	19.7	61.5	18.8	100.0
<b>Kenya</b>	4.0	22.1	73.9	100.0
<b>Mali</b>	30.6*	53.6*	15.8*	100.0
<b>Niger</b>	74.6	18.7	6.7	100.0
<b>South Africa</b>	5.7	13.6	79.5	100.0
<b>Zambia</b>	10.0	70.0	10.0	100.0
<b>Sub-Saharan Africa**</b>	<b>22.6</b>	<b>53.3</b>	<b>22.3</b>	<b>100.0</b>
<b>Asia</b>	<b>31.6</b>	<b>34.4</b>	<b>33.9</b>	<b>100.0</b>
<b>Latin America</b>	<b>14.4</b>	<b>38.5</b>	<b>47.1</b>	<b>100.0</b>
	Share of females			
<b>Benin</b>	42.8	92.2	20.5	61.5
<b>Chad</b>	24.5	61.8	47.1	53.4
<b>Guinea</b>	19.4	57.5	29.0	36.6
<b>Kenya</b>	19.0	50.2	73.3	60.3
<b>Niger</b>	70.1	21.9	9.7	38.3
<b>South Africa</b>	36.1	44.2	86.7	61.4
<b>Sub-Saharan Africa**</b>	<b>35.2</b>	<b>56.7</b>	<b>35.9</b>	<b>51.0</b>
<b>Asia</b>	<b>28.7</b>	<b>47.3</b>	<b>40.2</b>	<b>38.8</b>
<b>Latin America</b>	<b>28.4</b>	<b>51.0</b>	<b>44.6</b>	<b>46.0</b>

Note: Totals may not equal 100.0 due to unclassified.

\* Paid employees not included.

\*\* Without South Africa.

Finally, table 5 hereafter indicates the contribution of the informal sector and of women in the informal sector to the GDP in various countries. It aims at highlighting the underestimation of women's activities in national accounting.

Without regarding their underestimation in the labour force, it is clear that in most countries, the share of women in informal sector GDP is much lower than their share in informal sector employment, at the exception of Burkina Faso. The gap between the two indices is particularly important for Kenya.

**Table 5: Size and contribution of informal sector and of women in informal sector in 6 African countries.**

Industrial sectors / countries	Informal sector in % of				Women in informal sector in % of			
	Total employment	Non agricultural employment	Total GDP	Non agricultural GDP	Informal sector employment	Total GDP	Non-agricultural GDP	Informal sector GDP
<b>Total</b>	<b>23.5</b>	<b>73.8</b>	<b>24.1</b>	<b>35.5</b>	<b>50.9</b>	<b>12.2</b>	<b>19.8</b>	<b>49.7</b>
Benin	41.0	92.8	27.3	42.7	59.7	14.0	21.8	51.3
Burkina Faso	8.6	77.0	24.5	36.2	41.9	19.3	28.6	78.8
Chad	11.5	74.2	31.0	44.7	53.4	13.9	27.8	44.8
Kenya	28.8	71.6	18.4	25.0	60.3	7.9	10.7	42.9
Mali	13.3	78.6	23.0	41.7	71.9	14.8	26.1	64.4
Tunisia	37.8	48.7	20.3	22.9	18.1	3.2	3.6	15.8
<b>Industries</b>	<b>76.8</b>		<b>39.2</b>		<b>45.2</b>	<b>23.2</b>		<b>41.5</b>
Benin	97.0		61.9		42.8	26.5		42.8
Burkina Faso	86.0		71.3		88.5	63.1		71.3
Chad	72.6		33.4		24.5	16.3		66.5
Kenya	55.7		11.8		19.0	2.2		11.6
Mali	91.7		35.5		73.2	26.0		35.5
Tunisia	58.0		21.4		23.4	5.0		21.4
<b>Trade</b>	<b>93.9</b>		<b>59.3</b>		<b>59.9</b>	<b>35.6</b>		<b>58.2</b>
Benin	99.1		69.8		92.2	64.3		69.7
Burkina Faso	94.7		45.7		65.9	30.1		45.7
Chad	99.2		66.7		61.8	41.2		66.7
Kenya	84.9		61.5		50.2	27.3		54.4
Mali	98.1		56.7		81.3	46.1		56.7
Tunisia	87.6		55.6		7.9	4.4		55.7
<b>Services</b>	<b>57.5</b>		<b>25.9</b>		<b>36.2</b>	<b>7.6</b>		<b>25.5</b>
Benin	70.7		9.5		20.5	1.8		8.8
Burkina Faso	56.5		57.5		10.7	6.2		57.9
Chad	49.7		34.0		47.1	16.0		34.0
Kenya	70.9		15.4		73.3	2.5		3.4
Mali	66.1		25.5		48.5	16.9		34.8
Tunisia	31.1		13.7		17.3	2.4		13.9

Source: based on own calculations presented in Charmes (1999b).



The explanation is quite simple: in Burkina Faso, women's secondary activities have duly been taken into account, while they have not been included in Kenya, although they have been recorded and measured in this country. More generally, the multiple activities of women are a major concern for a better measurement of women's contribution to the economy, especially in the agro-food sector.

Unfortunately, data on secondary activities are scarce and their collection is still challenging labour statisticians. Labour force surveys and time-use surveys have recently been addressing this issue in more and more countries.

Another reason explaining the potential underestimation of women's contribution to the output is related to the preceding issue: the bulk of female labour force, especially in the informal sector, is in trade, not to mention agriculture. Trade is very often the last stage of very much diversified female activities starting with growing agricultural products or collecting natural products, processing them (food products, mats and baskets, textiles, etc.) and finally selling them. Where only this last stage (trade) is captured, or the first one (agriculture or gathering), then the value added of female activities is often underestimated.

In the following section, we are going to try to look at those two issues through a more detailed examination of the available statistics.

## **2. The capture of food processing activities in labour force surveys and national accounts: an assessment of potentialities and weaknesses through several case studies .**

In-depth analyses of employment data are usually difficult and scarce because cross-classifications of detailed industries (even at 1-digit classification) by status of employment and sex are not often available, due to the limited sample size (for household surveys) or to the limited number of published tables (for population censuses). Moreover, data on pluri-activity or multiple jobs are still very rare.

It is only at the 2-digit level of the classification of industries (ISIC) that agricultural and food industries ("manufacture of food products") show up, and at the 3-digit classification that the detailed food industries can be distinguished as well as the detailed goods for sale.

The problem is the same with the classification of occupations (ISCO) which is sometimes preferred to the ISIC in some sub-Saharan African countries: it is also necessary to go to the 3-digit to clearly distinguish the detailed activities in agro-food processing, trading and catering.

In this paper, it has not been possible to go beyond the 2-digit classification of the ISIC or ISCO, but it is clear that a programme aiming at highlighting the issues raised here would require an access to data bases (especially data from population censuses) for a systematic cross-classification of the following variables:

- industries or occupations,
- status in employment,
- sex.

- urban/rural,
- multiple jobs,

and, where possible (but at a necessarily less detailed level of the cross-classification):

- age group,
- type of workplace: home, street, establishment...
- part-time or full-time (or by number of hours or days worked).

The case studies analysed hereafter intend to help to design a methodology which could be used at a broader level in order to improve our knowledge of a major economic activity for women.

## 2.1. Burkina Faso

Among the various case studies, Burkina Faso is especially interesting for the reasons previously mentioned: a long experience in measurement of multiple activities, particularly in rural areas and the use of informal sector surveys and multiple activities surveys in national accounts.

Table 6 shows that, when comparing the estimates of informal sector employment (Charmes 1989) with the data on secondary activities in the 1985 population census, the informal sector which was mainly urban (54.5%), male (59.1%) and tertiary (75%) as to the main activities, becomes mainly rural (85%), female (68.9%) and manufacturing (52.3%) when including the secondary activities and referring to the total number of jobs.

**Table 6: The impact of pluri-activity on the size and structure of the informal sector: Burkina Faso 1985.**

	MAIN ACTIVITIES *		MULTIPLE JOBS **		TOTAL NUMBER OF JOBS	
	number	per cent	number	per cent	number	per cent
Urban	120,000	54.5	13,000	2.0	133,000	15.0
Rural	100,000	45.5	652,000	98.0	752,000	85.0
		<b>100.0</b>		<b>100.0</b>		<b>100.0</b>
Men	130,000	59.1	145,000	21.8	275,000	31.1
Women	90,000	40.9	520,000	78.2	610,000	68.9
		<b>100.0</b>		<b>100.0</b>		<b>100.0</b>
Production	55,000	25.0	405,000	60.9	460,000	52.3
Services	165,000	75.0	260,000	39.1	425,000	47.7
		<b>100.0</b>		<b>100.0</b>		<b>100.0</b>
Total Informal Sector	220,000		665,000		885,000	
per cent of total labour force (or total number of jobs)		5.5				17.7
per cent of non agricultural labour force (or total number of jobs)		70.0				90.8

**Source:** Personal calculations from the 1985 Population Census, see: Charmes J. (1989, 1996a, 1998b).

**Notes:** \* main jobs held by persons occupied in the informal sector.

\*\* number of secondary or additional jobs in the informal sector held by persons occupied in both formal, informal and agricultural sectors.

The reason for that is the huge number of women, who have been recorded as active in agriculture (as independent or family workers), and who are also engaged in food and agricultural products processing in their second jobs. There are actually as many men as women engaged in secondary activities, but more than 3/5 of male secondary activities are in agriculture. Table 7 shows that the phenomenon seems to have increased over the years, especially for men (a sign of the urbanisation process).

**Table 7: Trends in secondary activity rates in Burkina Faso.**

	1985 population census			1991 demographic survey			1994-95 priority survey		
	Men	Women	Total	Men	Women	total	Men	Women	Total
Urban	7.9	7.0	7.6	15.4	12.1	14.3			18.3
Rural	27.2	25.2	26.5	27.7	24.3	26.0			31.6
Total	26.4	24.1	25.1	26.4	23.4	24.9	34.5	25.8	30.2

Source: Charmes J. (1998b).

Although the year 1985 is already far in the past, it is the year for which the more detailed data have been made available on the secondary activities, and it is consequently easier to highlight the phenomena we want to stress. Tables 8 and 9 show the importance and the characteristics of secondary activities in the labour force.

**Table 8: Gender distribution of employment by detailed industries by main and secondary activity in Burkina Faso, 1985.**

	Men			Women			Women / Men in secondary activities
	Main	Secondary	% (*)	Main	Secondary	% (*)	
<b>Agriculture</b>	<b>1,860,864</b>	<b>290,070</b>	<b>13.5</b>	<b>1,846,628</b>	<b>42,468</b>	<b>2.3</b>	<b>14.6</b>
<b>Manufacture of food products</b>	<b>1,903</b>	<b>1,892</b>	<b>49.8</b>	<b>2,788</b>	<b>54,837</b>	<b>95.2</b>	<b>2,898.4</b>
- sorghum brewery (dolo)	39	203	83.8	2,733	54,837	95.3	27,913.3
<b>Textiles-clothing-leather</b>	<b>13,085</b>	<b>99,585</b>	<b>88.4</b>	<b>27,366</b>	<b>186,597</b>	<b>87.2</b>	<b>187.4</b>
<b>Trade</b>	<b>37,168</b>	<b>61,103</b>	<b>62.2</b>	<b>73,857</b>	<b>172,768</b>	<b>70.1</b>	<b>282.8</b>
- fruit, vegetables,	628	2,140	77.3	11,970	17,432	59.3	814.6
- doughnuts	163	413	71.7	6,264	45,594	87.9	11,039.7
- sorghum beer (dolo)	73	491	87.1	5,024	51,945	91.2	10,579.4
<b>Total non agricultural (including all other activities)</b>	<b>185,384</b>	<b>230,093</b>	<b>55.4</b>	<b>131,373</b>	<b>447,826</b>	<b>77.3</b>	<b>194.6</b>
<b>Total (including all other activities)</b>	<b>2,046,248</b>	<b>520,163</b>	<b>20.3</b>	<b>1,978,001</b>	<b>490,294</b>	<b>19.9</b>	<b>94.3</b>

Source: Personal compilations of the 1985 population census by detailed occupations, Charmes (1989).

Note: (\*) per cent of secondary activities as compared to main and secondary activities.

In overall, around 20 percent of the total number of jobs in the economy are undertaken as secondary activities, by men as well as by women. But for the non-agricultural jobs, these share is respectively of 4/5 for women and 55% for men. Men are more often engaged (13.5%) in secondary agricultural activities than women (2.3%). It means that for men, the activities undertaken outside agriculture are more often looked at as better and more rewarding than agriculture itself, while for women, such activities are too tightly linked to, and dependent from agriculture (casual and seasonal), so that they cannot be looked at as principal activities.

**Table 9: Distribution of secondary activities by sex and industries in Burkina Faso, 1985.**

	Men		Women	
<b>Agriculture</b>	<b>290,070</b>	<b>55.8</b>	<b>42,468</b>	<b>8.7</b>
<b>Manufacture of food products</b>	<b>1,892</b>	<b>0.4</b>	<b>54,837</b>	<b>11.2</b>
- sorghum brewery (dolo)	203		54,837	11.2
<b>Textiles-clothing-leather</b>	<b>99,585</b>	<b>19.1</b>	<b>186,597</b>	<b>38.1</b>
<b>Trade</b>	<b>61,103</b>	<b>11.7</b>	<b>172,768</b>	<b>35.2</b>
- fruit, vegetables,	2,140	0.4	17,432	3.6
- doughnuts	413		45,594	9.3
- sorghum beer (dolo)	491		51,945	10.6
<b>Total non agricultural (including all other activities)</b>	<b>230,093</b>	<b>44.2</b>	<b>447,826</b>	<b>91.3</b>
<b>Total (including all other activities)</b>	<b>520,163</b>	<b>100.0</b>	<b>490,294</b>	<b>100.0</b>

**Source:** Personal compilations of the 1985 population census by detailed occupations, Charmes (1989).

“Dolo” (traditional sorghum beer) is a typical example of such a seasonal activity which nevertheless provides higher income than agriculture. It is undertaken as a secondary activity 20 times more often than as a main activity, and another 20 times more as a commercial activity, which is rather unreliable because sellers are usually also producers. Following the identification of this huge share of secondary activities in the informal sector, and especially in food processing, a survey was implemented in 1989 which found that value added generated by rural secondary activities for “dolo” was nearly 20% the level of the activity in urban main activity (mainly because of seasonality). Taking account of these results (a number of operators 20 times higher, for a value added 5 times lower, but without counting the sellers), the estimates for National Accounts were re-evaluated by nearly 4 times, and the agricultural and food industries rose up to nearly 10% of total GDP (with the informal sector taking a lion’s share of 3/4 of the industry).

In National Accounts, value added for trade is estimated by product, based on profit margins, but it is obvious that such estimates are not made for products such as “dolo” and that a solution incorporating these sellers in food processing would be preferable. The question of doughnuts sellers is exactly the same: there is no category for them in manufacturing and they just show up in trade, so that they are not taken into account in the value added of the informal sector (although their number is as

high as in the case of dolo). In both cases, the figures for main activity is rather small compared with the huge figures for secondary activities (in manufacturing as well as in trade): one can understand then why national accountants do not usually bother about these activities.

Food processing as a main activity (including sales of processed food) involves 10.7 percent of female non agricultural labour force, but it represents more than 31.1 percent of non-agricultural secondary activities which are more than 3 times numerous than main activities.

If we would take the similar non market activities into account (not even speaking of preparing meals, an activity which is still out of the boundaries of economic activity, according to the 4<sup>th</sup> revision of the SNA), the contribution of women in the informal sector to GDP would be quite higher. One can note that the textiles-clothing-leather sector has similar characteristics and could also weight heavily in the re-estimation of national accounts in countries such as Burkina Faso.

Burkina Faso is certainly one of the most interesting case studies for the purpose of this research, because it has started to collect data and show the way towards a better account of female activities, both in labour force and in national accounts. A detailed analysis of the 1996 population would provide exceptional information if cross-classifications are organised by detailed occupations, employment status, and by sex, for both main and secondary activities. Also the cross-classification of detailed main occupations by detailed secondary occupations, by sex would give a radically new insight in a major cause for underestimation of women's activities.

## **2.2. Kenya.**

Until recently, in fact until the 1994 Welfare Monitoring Survey II and the 1999 national baseline survey on Micro and Small Enterprise, employment from the supply side was not very well known and population censuses and household surveys had provided very tiny figures on employment of the labour force. As a result, data on employment were coming from the demand side (enterprise surveys, administrative records). In this context, the knowledge of the female labour force is even more debatable.

However, both surveys have highlighted the high share of women in total employment (53.6% in 1994 and 53.4% in 1999) as well as their even higher share in agricultural employment (59.8% in 1994 and 54.4% in 1999), illustrating the same phenomenon already stressed for Burkina Faso: men are more inclined than women to look at their non-agricultural activities as their main activities.

**Table 10: Structure of the labour force in Kenya 1999.**

Sectors	Total employed population					
	Females	%	Males	%	Both sexes	%
Agriculture	4,173,071	60.9	3,503,515	58.5	7,676,587	59.8
Industries	143,069	2.0	703,362	11.7	846,431	6.6
Trade	539,586	7.9	613,645	10.3	1,153,231	9.0
Services	2,000,145	29.2	1,165,213	19.5	3,165,358	24.6
<i>TOTAL</i>	6,855,871	100.0	5,985,735	100.0	12,841,607	100.0
<b>Total non agricultural</b>	2,682,800	39.1	2,482,220	41.5	5,165,020	40.2

Source: CBS, ICEG, K-Rep, National MSE Baseline Survey, 1999. (table 4.2).

As a result of their high share in agriculture, women are very few in industries. And as in 1994, their number in services is 1.7 times the number of men.

Compared to the total employed population, the Micro and Small Enterprise sector (MSE) accounts for not much more than 36 percent of the non-agricultural employment (table 11 below), which is far from representing the share of the informal sector, estimated at 71.6 percent. Such a gap (which counts nearly 2,000,000 persons, of whom 3/4 are women in tertiary activities) is a major issue for the understanding of women's activities in Kenya: it means that, despite the efforts made to capture these women within the MSE sector, neither the interviewers nor the respondents have considered their activities as real enterprises.

**Table 11: The MSE sector in the non-agricultural employed labour force, Kenya, 1999.**

Sectors	Total employed population						
	Females		Males		Both sexes		Share of MSE %
	Total employed	Employed in MSEs	Total employed	Employed in MSEs	Total employed	Employed in MSEs	
Agriculture	4,173,071	-	3,503,515	-	7,676,587	-	-
Industries	143,069	63,372	703,362	236,668	846,431	300,040	35.4
Trade	539,586	594,932	613,645	577,382	1,153,231	1,172,314	101.7*
Services	2,000,145	132,271	1,165,213	276,385	3,165,358	408,656	12.9
<i>TOTAL</i>	6,855,871	790,575	5,985,735	1,090,435	12,841,607	1,881,010	14.6
<b>Total non agricultural</b>	2,682,800	790,575	2,482,220	1,090,435	5,165,020	1,881,010	36.4

\* Such a discrepancy is quite normal, as one cannot expect to obtain equal figures from the households and from the enterprises in a sample survey.

Source: CBS, ICEG, K-Rep, National MSE Baseline Survey, 1999. (table 4.3).

From there, one can infer that the dramatic underestimation of women in manufacturing activities (especially in food processing) finds its source and explanation in this huge figure in the services sector. It could be that processing of food and agricultural products had been taken as services activities, because the raw materials or intermediary consumption originate in the agricultural sector and are consequently looked at as provided for free to the producer (exactly as for the miner or for the tailor who receives the materials from his client) and, for the same reasons, had not been recorded as micro-enterprises. Unfortunately, the conclusion is only that

further household surveys should address this issue seriously and make provision to cope with it.

The detailed disaggregation of activities cannot overcome this difficulty. Two assumptions were necessary to obtain table 12 on the basis of the distribution of MSEs by sex of the entrepreneur: the first one consists to calculate employment by applying the average size of 1.8 workers per enterprise; the second one consists in admitting that the sex of the entrepreneur is a proxy for the sex of the workers (once again, such an exercise proves the necessity have access and work on the data base itself).

The number of women engaged in manufacturing is low (half the number of men) and most of them are in textiles. The number of women in food processing is particularly low (only 0.7% of women working in MSEs), contrasting with their huge number in agriculture, in retail trade (more than 79% against 63% for men) and of course in services unrecorded as MSEs.

**Table 12: Distribution of employment in MSEs by sex of entrepreneur (\*) in Kenya, 1999.**

	Men		Women		Both sexes	
<b>Manufacturing</b>	<b>181,618</b>	<b>17,2%</b>	<b>94,723</b>	<b>9,3%</b>	<b>276,341</b>	<b>13,3%</b>
- Food and beverage	39,807	3,8%	7,216	0,7%	47,023	2,3%
- Textiles and leather	35,678	3,4%	73,499	7,2%	109,177	5,3%
<b>Retail trade</b>	<b>668,575</b>	<b>63,1%</b>	<b>802,723</b>	<b>79,2%</b>	<b>1,471,298</b>	<b>71,0%</b>
- Food, drink and tobacco					88,874	4,3%
- agricultural products					354,520	1,7%
Restaurants	65,185	6,2%	70,243	6,9%	135,428	6,5%
Other services	142,805	13,5%	40,241	4,0%	183,046	8,8%
<b>Total non agricultural</b>	<b>1,058,780</b>	<b>100,0%</b>	<b>1,014,071</b>	<b>100,0%</b>	<b>2,072,851</b>	<b>100,0%</b>

**Source:** CBS, ICEG, K-Rep, National MSE Baseline Survey, 1999. (table 4.3).

**Note:** the sex of entrepreneur is taken as a proxy for the sex of workers, because of unavailability of the required tables and the mean size of enterprise has been used to obtain total employment.

Finally, table 13 attempts to compare the total labour force by sex and industries, as of the 1999 baseline survey (including the unrecorded MSEs) with employment in the formal sector as given by the CBS Statistical Abstract and Economic Survey: the balance is assumed to be a good estimation of employment in the informal sector to be compared with the previous tables. It should be noted, however, that several assumptions had to be made in order to obtain these estimates. The availability of a baseline survey should have avoided such procedures, and a recommendation would be to encourage more in-depth analyses of the survey in the near future.