Research Report

DFID-RNRRS-CPHP: Project R7485

Facilitating the effective production and marketing of processed food products by small-scale producers in Zimbabwe

Output 3.2: Report on Focus Group Discussions

March 2002


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1. INTRODUCTION

1.1 Background

Consumer demand for processed food products is rapidly expanding throughout Sub-Saharan Africa (Richter, Basler and Franzen, 1996; SMALLFOOD, 1999). Such demand has led to a considerable growth of small-scale agro-processing activities (McPherson, 1991; USAID, 1998). The growing popularity of street foods and convenience and snack foods in the developing world—in urban areas in particular (Dia, 1997; Griggs, 2000; FAO, 1999; Natural Resources International, 2000), may provide opportunities for peri-urban-based poor people to earn an income from processing foodstuffs.

Evidence from Zimbabwe suggests that food habits and tastes are changing fast, pressurising producers to change their cropping patterns (Sena, 1997). Sena relates this to the growth of the largely urban middle class in Zimbabwe, with households switching from the conventional fresh greens (e.g. rape, covo and spinach), to a diet with a higher consumption of non-traditional vegetables (e.g. cauliflower, broccoli, squashes, mange tout, baby marrow) and fresh fruit. Sena cites the case of TM supermarkets in Chitungwiza (a high-density, i.e. low-income suburb of Harare[8]), which is now the largest outlet for baby marrow—a vegetable which was previously only consumed by Zimbabwe's white population (Ibid.). In his in-depth qualitative study of consumption patterns among Zimbabwe's new urban elite in Mutare, Belk (2000:3) suggests that "canned foods have replaced fresh foods in part".

In Zimbabwe, both fresh and processed fruits and vegetables fall under the horticultural sector. The sector also encompasses cut flowers. Horticulture represents Zimbabwe's fastest growing industry, averaging a growth rate in excess of 30% per annum over the last decade, i.e. 1990-2000 (Inter-African Trade Promotion Programme, 2000b). Horticultural production in Zimbabwe increased dramatically from 13.1 tons in 1989 to 30.3 tons in 1997, earning the country significant amounts of revenue and foreign exchange (Jackson,

[8] It is important to note that most Zimbabwean cities (including Harare) still "reflect colonial planning traditions designed to promote racial segregation" (Brown, 2001:319). The characterisation of residential areas into high-, middle- and low-income areas is essentially based on policies of racial segregation of population into residential areas. "Modern planning has reinforced this historic polarisation, and the former racial divide has become an income divide in the post-independence city" (Brown, 2001:321).

1997). Although the export market represents the major force behind the recent growth in the production of fruits and vegetables in Zimbabwe[9]—supplying fresh produce to international markets during their agricultural off-season, local demand for produce is also significant. Poole et *al.* suggest that three factors have encouraged increased horticultural production for the domestic market in Zimbabwe. These include increased urban demand as a result of increased rates of urbanisation, a rise in incomes for a section of Zimbabwe's urban population (i.e. growth of the middle class), and associated changes in consumer tastes (Poole, Kydd, Loader, Lynch, Poulton and Wilkin, 1999; Sena, 1997). Benhura and Chitsiku (1990) suggest that changes in consumption patterns among the people of Mutambara (near Wengezi) for example, reflected periods of social change, i.e. processes of urbanisation and industrialisation (Mmakola, Kirsten and Groenewald, 1997 citing Benhura and Chitsiku, 1990).

Research carried out by Dia (1997) in West Africa suggests that urbanisation and demographic change have significant effects on both the quality and quantity of food demanded. Dia (1997) and Wiggins, Otieno, Proctor and Upton (2000) suggest that urban consumers, especially middle-class consumers, may be prepared to pay for food of a higher quality, as well as for food that passes more stringent norms of hygiene and safety. As food habits change, the type of products requested by consumers and the ways in which they are purchased also changes, e.g. a move from staples to higher-value products such as livestock and dairy products and fresh and processed fruits and vegetables (Aragrande, 1997). Such changes usually affect markets, in this context the geographical spaces that are dedicated to the trading of produce, their number, size, specialisation and location (Ibid.).

Zimbabwe's urban population grew at over 5% per annum between 1982 and 1997 (EIU, 1998; CSO, 1994). Urban population growth shall no doubt impact upon consumption patterns. Increasing urbanisation is likely to mean a rise in the proportion of meals taken outside the home, and therefore to an increase in demand for catering, convenience and snack foods, as those at work are unable to return for midday meals (Dia, 1997; Wiggins *et al.*, 2000). Consumption of ready-made items, whether at home, in the street, at the workplace, at school, or in restaurants, has become a common feature of consumption

[9] Horticulture is the third largest agricultural commodity after tobacco and livestock. In addition, it is acknowledged as the second largest foreign exchange earner after tobacco, accounting for between 3.5-4.5% of GDP (Heri, 2000).

patterns in urban areas (Dia, 1997). Research suggests that street foods are a growing sector of the processed foods market in the developing world (Natural Resources International, 2000), as the need to commute to distant work places stimulates a greater reliance on street food (FAO, 1999).[10]

Furthermore, changes in the urban way of life may lead to an increase in the number of women who participate in the labour market (FAO, 1999; Wiggins *et al.*, 2000), and who have correspondingly less time to spend preparing foodstuffs for household consumption. Convenience foods and/or processed foods are likely to be preferred, requiring less preparation time compared to fresh produce. In the case of horticultural produce this may mean an increase in demand for convenience products such as canned or frozen vegetables, pre-cooked or ready to cook (i.e. washed and diced) vegetables, pre-prepared soup mixtures, canned or preserved fruits, fruit juices and fruit jams for example.

Precise data on that segment of Zimbabwe's food sector, which relates to processed horticultural products, and on small-scale fruit and vegetable processing in particular, is scarce. During the early 1990s, 96% of all fruits and vegetables produced in Zimbabwe were consumed as fresh produce within the domestic market. No more than 2% were exported as fresh produce and the rest processed (Inter-African Trade Promotion Programme, 2000a). The processed fruit and vegetable sector in Zimbabwe has grown in recent years. During the last decade, exports of fruit pulp[11] to South Africa for example, have increased. In 1995, 4% of South Africa's imported fruit pulp (210 tons) came from Zimbabwe (62% was procured from Malawi and the remaining 34% from outside the SADC region). By 1999, Zimbabwe was exporting 320 tons of fruit pulp[12] to South Africa, at a value of just over US$260,000, which represented 10% of all South African fruit pulp imports (Inter-African Trade Promotion Programme, 2000a).

The food processing sub-sector in Zimbabwe has grown rapidly from 13% of manufacturing GDP in 1980, to 26% in 1991 (Manderstam Consulting Services, 1994).

[10] Urban households often incur substantial travel costs (time and money), since transportation and communication systems in most cities are poor and inefficient. This imposes limitations on home consumption of meals (Wiggins *et al.*, 2000).
[11] Fruit pulp includes fruits, nuts and other edible parts of plants, otherwise prepared or preserved, whether or not containing added sugar or other sweetening matter or spirit, not elsewhere specified or included.
[12] Zimbabwean fruit pulp exports included groundnuts, other nuts, pineapple, citrus fruit, pears, peaches and other fruits.

According to a pre-investment study for agro-industries in Zimbabwe, carried out by Price Waterhouse in 1994, on behalf of the Ministry of Industry and Commerce, and the Food and Agricultural Organisation (Price Waterhouse, 1994), large-scale urban-based commercial companies control over 90% of the commercially marketed agro-industrial produce in Zimbabwe. The sector includes products such as maize meal, edible oils, canned fruit and vegetables, canned, frozen and preserved fish, canned and preserved meat, peanut butter and other products (Murphy, 1996). By contrast small-scale (largely rural-based) food processing enterprises—for the most part operated by women,[13] mainly cater for subsistence production and supply local consumers through local informal markets. Murphy suggests that only limited quantities of foodstuffs processed by rural micro- and small-scale enterprises are commercially marketed outside the locality of production. Murphy (Ibid.) relates this to the structure of consumer demand in Zimbabwe.

Consumer demand for food products in Zimbabwe may be broadly divided into two categories—a small high-income market segment and a large market segment with low disposable income.[14] The larger fraction of Zimbabwe's low-income population is scattered in rural areas (including rural towns and villages), but also includes the urban population living in high-density suburbs of the cities. The communal areas for example, receive very small quantities of processed foods from the formal sector, as the majority of rural inhabitants cannot afford to buy products processed by large firms. Such households exhibit low purchasing power and generally consume foodstuffs that have been processed at the household or local level (Ibid.). However, Manderstam Consulting Services (1994) suggest that canned foods "represent a progressive lifestyle to which middle- and low-income households aspire. The modern, urbanised appeal of industrially processed foods is growing as a supplement to the customary diet of traditional households in Zimbabwe". However, the low-income market segment is very price-conscious, given that the real value of their cash incomes is shrinking (Ibid.).

[13] For example, in their comparative study of micro- and small-scale enterprises across various African countries, Mead and Liedholm (1998) found that 66% of micro- and small-scale enterprises in Zimbabwe were owned by females. It is worth noting that 69% of MSEs in the Zimbabwean sample were one-person enterprises.

[14] Average monthly earnings in Zimbabwe were estimated at US$42 per month during 1998-1999; 80% of Zimbabwe's population earns less than US$100 per month (Belk, 2000). About 40% of this income is spent on food (Belk 2000 citing Mhone, 1993).

"The high-income or low-density segment comprises mainly non-indigenous families, European and Asian, but which since Independence has included a rising class of successful, well-educated, indigenous Zimbabweans" (Manderstam Consulting Services, 1994). This small segment of high-income consumers is mainly catered for by large-scale agro-industrial food manufacturers which mass-produce convenience food products. These capital-intensive factories mainly serve urban and peri-urban markets through formal outlets such as supermarkets. Their products tend to have sophisticated packaging materials and are promoted by extensive marketing campaigns.

Janssen, Ashby, Carlier and Castaño (1992:175) suggest that in developing societies, "actual food supply may well provide an unreal idea about consumer food preferences among most of the population" and may lead to the development of products that suit the better-off (i.e. the minority) at the cost of the poor". Furthermore, the pricing of foodstuffs may not reflect the actual purchase intentions of the majority of the population, i.e. the purchasing power of low-income households. According to the 1998 Human Development Report, 61% of Zimbabwean households continue to live in poverty, 45% can be classified as 'very poor' (UNDP, Poverty Reduction Forum and IDS, 1998). Over the last two years, households have experienced a significant decline in their purchasing power however, and the price of some basic commodities has gone beyond the reach of the poor (See Table 1).

Table 1. Percentage increases in price of basic commodities during Jan 2000 - Apr 2001

Commodity	Quantity	Price ($) this week	Price ($) last week	Change since last week (%)	Change since Jan 2000 (%)
Sugar	1kg	27.60	27.60	Nil	75.6
Cooking Oil	750 ml	57.20	55.90	2.3	28.1
Mealie-meal	10 kg	169.5	185.00	15.5	47.7
Bread	Loaf	22.30	22.30	Nil	63.6
Meat	1kg	114.8	114.8	Nil	37.1
Tomatoes	1kg	46.20	46.20	Nil	259.6
Tea Leaves	250g	42.30	42.30	Nil	63.4
Margarine	1kg	76.95	76.95	Nil	47.1
Milk	500 ml	18.10	18.10	Nil	58.3
Vegetables	Bundle (Rape)	15.60	15.60	Nil	110.8
Vegetables	Head (Cabbage)	27.80	27.80	Nil	135.8
Bath Soap	Tablet	30.55	30.55	Nil	75.2
Washing Soap	Bar	36.15	36.15	Nil	43.6
Petroleum Jelly	200g	33.20	33.20	Nil	135

Source: The Financial Gazette, 12 April 2001.

Janssen et *al.* (1992:181) highlight the importance of identifying consumer preferences in the developing world and designing marketing strategies to supply new products that meet

these preferences. Given the nature of consumer demand in Zimbabwe, i.e. purchasing power is concentrated in a small segment of the population, while a large market segment exhibits low disposable income (Murphy, 1996), small-scale food processors may have an important role to play in the processed food sector. A large untapped potential market for new products may exist in Zimbabwe, shaped by the preferences and purchase intentions of the majority of the population, i.e. low-income households, who may not be able to pay for the elaborately processed and packaged foodstuffs manufactured by large-scale agro-industry.

Malhotra (1998:52) points out that "in spite of its usefulness, consumer preference research has not gained due acceptance in developing countries." This rests on the fact that developing countries are primarily oriented towards production considerations rather than marketing. Hence there is little concern for profits through customer satisfaction for example. Supply—rather than demand, is the key concern.

Consumer research is substantially lacking in the developing world, and Zimbabwe is no exception. Few studies have considered the nature of current (and future) demand for foodstuffs, and in particular in relation to high-value foodstuffs.[15] This study seeks to bridge some of the gap, placing emphasis on a particular food sector—i.e. processed fruits and vegetables. By considering the preferences and purchase intentions of low-, middle- and high-income urban households in Zimbabwe, the study seeks to question what role (if any) micro- and small-scale horticultural enterprises can play in the processed fruit and vegetable sub-sector.

1.2 Focus of the research

The research presented forms part of a wider study funded by the United Kingdom Department for International Development (DFID), entitled 'Facilitating the effective production and marketing of processed food products by small-scale producers in Zimbabwe (R7485).'

[15] Manderstam Consulting Services (1994) however, did carry out a detailed study of the potential demand for citrus juice products and tomato-based products in Zimbabwe.

The main overall objectives of the project are:

- To estimate the potential additional return to small-scale producers of manufacturing and marketing processed horticultural and/or fruit crop products.

- To identify the knowledge and infrastructural requirements to enable small-scale producers to access potential markets for processed horticultural and/or fruit crop products.

- To identify constraints to the effective manufacture and marketing of processed horticultural and/or fruit crop products by small-scale producers.

- To identify potential mechanisms to overcome such constraints.

Preliminary work carried under the project include a retail survey to assess the existing market for processed horticultural products in peri-urban areas of Zimbabwe (Proctor, Henson and Bhila, 2001). The survey documented the range of processed fruit and vegetable products currently found on the shelves of 34 formal and informal retail outlets across high-, medium- and low-density suburbs of Harare. The survey included supermarkets and grocers, speciality shops/tourist outlets, street traders, and stalls and kiosks in formal as well as informal markets. The study highlighted the wide variety of processed fruit and vegetable products currently found on formal and informal retail markets. Among the key findings suggested were that large-scale food manufacturers dominate the processed horticultural sector in Zimbabwe. The predominance of key players provokes the question as to the barriers to entry for small-scale enterprises in Zimbabwe's processed food sector.

Furthermore, the findings highlight the existence of class-related food preferences in urban society. Certain categories of processed fruits and vegetables were more predominate in some suburbs of Harare than others. Dried vegetables—one of the most accessible products in monetary terms, were significantly more predominant in high-density areas, i.e. low-income areas. By contrast, higher-value products such as pickles, chutneys and relishes were seldom found in retail outlets in high-density suburbs. Packaging

requirements also varied among outlets across the different income areas. In low-density areas, jam products tended to be sold in glass containers, whereas in outlets in low-income areas, the same product was more likely to be sold as a canned product (Ibid.). Such evidence would seemingly point to the fact that consumer requirements regarding the packaging of foodstuffs may potentially differ across income group.

1.3 Objective of the focus group discussions

As a follow on from the retail survey, the research team sought to consider consumer preferences, in terms of processed fruits and vegetables. The main objective of the focus group discussions was primarily to appreciate consumer perceptions, feelings and attitudes—particularly that of urban consumers, towards processed fruit and vegetable products in Zimbabwe. The focus groups were carried out with urban consumers, given that the evidence available suggests that they have greater access to higher-value products such as processed fruit and vegetables, than rural households do. Through the focus group discussions, the research team also sought to gain a preliminary insight into how consumers perceived products processed by both small-scale food processors and large-scale agro-industrial food manufacturers. Furthermore, the team sought to assess whether consumer perceptions were related to quality—and therefore food safety concerns, or whether other factors predominated. Finally the team sought to appreciate whether consumer perceptions and preferences were differentiated by class or socio-economic group.

The specific aim of the focus group research was:

- To provide first-hand experience of urban consumer attitudes, perceptions, and decision making related to consumption patterns of processed fruit and vegetables.
- To consider any variation in consumer preferences of processed fruit and vegetables, among low-, middle- and high- income urban consumers, and among consumers from different ethnic backgrounds.
- To consider whether consumer lifestyles and demographics may potentially influence consumption patterns of processed fruit and vegetables.

- To consider consumer perceptions of processed horticultural products manufactured by both large-scale urban-based agro-industry, and micro- and small-scale enterprises.
- To provide key information for the development of a formal consumer survey, which will be applied with low-, middle- and high-income consumers in Harare. It is anticipated that the findings of the focus groups will aid in the development of question wording and sequencing of the survey.

1.4 Organisation of the report

This paper reports on the findings of the focus group discussions, which were carried out with high-, medium- and low-income urban consumers in Harare during August 2001. Section 2.1 gives a brief review of the focus group methodology as a research tool. Section 2.2 describes the procedure used to recruit and select participants for the focus group discussions. Section 2.3 considers the structure and characteristics of the focus groups that were formed from the recruitment procedure. Section 3 highlights the key issues of concern highlighted by focus group participants with respect to the processed food sector. Section 4 presents a summary of the key findings and considers the implications of these for the next phase of research, i.e. the formal consumer survey.

2. METHODOLOGY

2.1 Focus groups as a qualitative research method

Focus groups can be defined as "a small, temporary community, formed for the purposes of the collaborative enterprise of discovery. The assembly is based on some interest shared by the panel members, and the effort is reinforced because panellists are paid for the work" (Templeton, 1994).

Focus groups act as a method of data collection for qualitative research, providing in-depth information relating to the way people feel, think or act in a specific manner, i.e. consumers' perceptions, feelings and attitudes. It is a flexible research method as probing aids in the exploration of unanticipated issues. Moreover, due to the fact that focus groups place people in real-life situations, the dynamic nature of group interaction is captured (Makatouni, 1999 citing Krueger, 1988).

The focus group methodology has been adopted in a wide variety of research fields—such as public health, marketing and participatory agricultural research, or has simply been used as an educational tool. Focus groups have proved a valuable research method in terms of obtaining impressions on new products or concepts and furthermore in terms of generating information for the development of new products or concepts (Abundis, Abernathy, Ghee, Durazo and Luna, 1990). The technique allows for in-depth probing of people's knowledge, attitudes, practices and problems. The technique is designed to focus on a limited range of topics, with participants discussing their ideas under the guidance of a moderator. For active dialogue, Mettrick (1993) recommends that the number of participants in a focus group may range between four and 10 individuals. As Kreuger points out, the group should be homogeneous in order to avoid inhibitions (e.g. due to very differing circumstances of individuals) and by contrast capture the dynamic interaction of participants (Makatouni, 1999 citing Krueger, 1988).

2.2 Recruitment and selection of focus group participants

A questionnaire (Appendix 1) was designed for the purpose of recruiting participants for the focus group discussions. Third year undergraduate students from the Institute of Food, Nutrition and Family Sciences, of the University of Zimbabwe, conducted 500 questionnaires with consumers at different (largely retail) points throughout Harare.[16] The points were dispersed across high-, medium- and low-density areas (Table 2). The questionnaire targeted female heads of households in particular, given that these individuals are essentially those responsible for the purchase and preparation of foodstuffs consumed at the household level. The questionnaire captured information relating to the socio-economic status, ethnic group and age group of the respondent. The questionnaires were completed over a five-day period.

Table 2. Sites in Harare where questionnaires were distributed

Name	Classification (population density)
Arcadia	Middle
Avondale	Middle/Low
Belvedere	Low
Borrowdale (Sam Levy)	Low
Eastgate	CBD
First Street Mall	CBD
Hatcliffe	High
Hatfield	Middle/Low
High Glen (Glen View, Glen Norah and Budiriro)	High
Highfield (Machipisa)	High
Highlands (Chisipite)	Low
Kambuzuma	High
Mabelreign	Middle
Masasa Park and Queensdale	Middle
Mbare (Musika and Ardbennie)	High
Mount Pleasant (Bond Street, Arundel)	Low
Rezende Street	CBD
Tafara	High
University of Zimbabwe Campus	N/A
Warren Park	High
Westgate	Low

Note: CBD- Central Business District

Of the 500 completed questionnaires, 398 respondents tentatively agreed to participate in focus group discussions. The 398 positive responses were subsequently divided into three groups—high-, medium- and low-income, according to the socio-economic group of the

[16] The points were largely retail in origin in that they consisted of shopping centres or high streets for example.

respondent's household, based on gross household earnings per month. Only 42 of these positive responses coincided with respondents from high- and middle-income households—356 related to individuals from low-income households. Low-, middle and high-income households were differentiated as follows:

- Low-income: <Z$20,000 per month
- Middle-income: Z$20,001 - 30,000 per month
- High-income: >Z$30,001 per month

Those who indicated that they could not participate in the focus group discussions cited several reasons including lack of time and indecision due to social constraints (such as the need to consult their husband). Unfortunately no focus group could be constructed to represent Harare's Asian community due to the difficulties in recruiting females, due to religious and cultural constraints.

Focus group participants were randomly selected from each socio-economic group and subsequently contacted and asked to participate in a focus group session. Seven focus groups were held in all. Each session was planned in advance with a potential group of eight participants. However, on the actual day the session was due to take place, some participants pulled out at the last minute and hence there was some variation in group size. For example, although a sizeable number of females from Zimbabwe's white community indicated an initial interest in participating in the focus group discussions, many cancelled on the last minute due to time constraints.

2.3 Structure of the focus groups

Table 3 presents the focus groups that were constructed based on income group and ethnicity. The focus groups were primarily based on income group, i.e. constructed according to the socio-economic status of the respondent's household. This was considered the key criteria upon which to base the focus groups, given the different degrees of purchasing power among Harare's urban population and ultimately the impact this may have upon household consumption patterns of largely high-value products such as

processed fruits and vegetables. In general information on income status was fairly transparent.

Although ethnicity was also given consideration (given the importance of cultural specificity and its influence upon household consumption patterns), socio-economic status was given priority. As already highlighted, the research team experienced difficulties recruiting female participants from Harare's Asian and white communities. Although consumption patterns may also be differentiated by generation (i.e. the eating habits of older and younger generations may differ[17]), the focus group participants were not differentiated by life cycle[18], although an effort was made to include this issue within the discussions.

Table 3. Composition of the focus groups

Focus group/ (date)	Income group	Ethnic group	Number of participants
1 (22/8/2001)	Middle	African	7
2 (24/8/2001)	High	African	6
3 (27/8/2001)	Low	African	7
4 (28/8/2001)	High	African	8
5 (29/8/2001)	Low	African	7
6 (30/8/2001)	Low	African	8
7 (31/8/2001)	High	European/African	4 (3E/1A)*

* Various individuals cancelled at the last minute and hence this group had significantly fewer participants than others.

2.4 Conducting the focus groups

The discussions were held in the Faculty of Science boardroom, at the University of Zimbabwe in Harare. Staff at the Institute of Food, Nutrition and Family Sciences provided participants with transport to and from the venue. A facilitator—who had knowledge of the food-processing sector in Zimbabwe and was fully acquainted with the objectives of the

[17] This may also be related to origin of the individual, i.e. whether or not they have migrated to Harare from a rural area. This provokes the question as to the changes in consumption patterns upon relocation from rural to urban areas.

[18] The life cycle of the household is determined by the age of the female head, i.e. usually the senior or cohabiting female. This determines the stage of the reproductive life of the household, i.e. whether it is in expansion (the female is between 15-29 years), in dispersion (30-44 years) or replacement (45 years or more). In the replacement phase, adult sons and daughters are replacing the labour effort of their parents.

study, led each session. The main role of the facilitator was to encourage and facilitate discussion by all participants. Two other observers were present at each session. The discussions were conducted after working hours and participants were given a monetary token in appreciation of their time. Participants were seated in a rectangular fashion and sample products were put on display in order to promote discussion. The discussions were recorded on tape with the permission of all those present.

3. THE FINDINGS

Based on the guidelines in Appendix 2, the focus group participants were asked about the variety of fresh and processed fruits and vegetables consumed at the household level.

3.1 Consumption patterns of fresh fruit and vegetables

Tables 4 and 5 list the range of fresh fruits and vegetables consumed respectively, by participants across the various income groups.

Table 4. Fresh fruits consumed by households

Common name of fruit	Scientific name*
Apples	*Pyrus malus*
Avocados	-
Bananas	*Musa* sp.
Grapes	-
Guavas	*Psidium* sp.
Hute	*Syzygium cordatum*
Lemons	-
Mangos	*Mangifera indica*
Nzviru	*Vangeria infausta*
Maroro	*Annona senegalensis*
Masau	*Ziziphus mauritiana*
Matamba (monkey oranges)	*Strychnos coculoides*
Matohwe (snot apples)	*Azanza garckeana*
Matufu	*Vangueriopsis lanceflora*
Matunduru	*Garcinia huillensis*
Mawuyu (baobab fruit)	*Adansonia digitata*
Mazhanje	*Uapaca kirkiana*
Mulberries	*Morus alba*
Nartijies	*Citrus reticulata*
Nhengeni	-
Nhunguru	*Flacourtia indica*
Oranges	*Citrus sinensis*
Paw paws	*Carica papaya*
Peaches	*Prunus persicae*
Pears	*Pyrus communis*
Pineapples	*Ananas comosus*
Strawberries	*Fragaria annannassa*
Tsubvu (black plum)	*Vitex payos*
Tsvoritsvoto	*Dovyalis cafra*
Mapfura (marula plum)	*Sclerocarya caffra*

Note: *Source of scientific names: Maundu, Ngugi and Kabuye, 1999; Tredgold, 1986.

In general, middle- and high-income consumers consumed a wider range of fresh fruits and vegetables than consumers in the low-income group. The former groups tended to consume other non-traditional fruits and vegetables including mushrooms, broccoli, cauliflower,

pears and strawberries, which were not usually consumed by low-income households—perhaps reflecting the latter groups' lowered access to these products in monetary terms. Traditional vegetables were consumed less frequently among upper-income households, and mostly when in season.

Table 5. Fresh vegetables consumed by households

Common name of vegetable	**Scientific name***
Broccoli	-
Butternuts	-
Cabbage	*Brassica oleracea*
Carrots	-
Chinese cabbage	-
Covo	*Brassica carinata*
Cow pea leaves (nyemba)	*Vigna unguiculata*
Cualiflower	-
Cucumbers	*Cucumis* spp.
Derere (Jute)	*Corchorus asplenifolius*
Garlic	-
Green beans	*Phaseolus* sp.
Green pepper	*Capsicum* sp.
Lettuce	-
Madhumbe	*Dioscorea* sp.
Mushrooms	-
Nyevhe (cat's whisker or spiderflower)	*Cleome gynandra*
Okra	*Abelmoschus esculentus*
Onions	*Allium cepa*
Peas	*Pisum sativum*
Pumpkin leaves	*Cucurbita maxima*
Rape	*Brassica olerance* var. *acephala*
Shallots	-
Spinach	-
Tomatoes	*Lycopersicon esculentum*
Tsunga	*Brassica juncea*

Note: * Source of some of the scientific names: Gaurino, 1997 (ed.)

Regular items such as cabbages, tomatoes, rape, covo, spinach, onions and okra were generally affordable. Such vegetables were eaten together with the staple cereal preparation, *sadza*, and were often consumed twice a day, especially among low- and middle-income households. When prices increased in the supermarkets or at the market, consumers (particularly low- and middle-income consumers) tended to purchase smaller quantities or obtain the produce from alternative sources such as direct from nearby farms or when they visited rural areas. Some low- and middle-income consumers also indicated that they grew such vegetables in their gardens.

Low- and middle-income households consumed fresh fruit on a daily basis. Fruit type could vary from day to day, although bananas were said to be cheaper and tended to be

consumed more frequently. Such households suggested they spent between Z$20-50 per day on fruits alone. Total expenditure on fruits could easily be as high as Z$1,000 per week among high-income households, given the high cost of deciduous fruits such as apples. One high-income participant pointed out that she was a vegetarian and had a very high budget for fruits and vegetables, between Z$5,000-6,000 per month. Among high-income households, fresh produce was usually purchased on a daily basis. Various high-income consumers suggested that price was not such an issue when it can to purchasing fruits and vegetables, but rather care was taken to purchase high quality produce.

> *"I love my fruits and vegetables, that's my main food, and I go for the best". [E. Kadzima: High-income]*

> *"Prices don't mean anything because I love my fruits." [G. Parsons: High-income].*

Another consumer in the high-income group said:

> *"The price does not matter to me." [T. Zvandasara: High-Income].*

Among the consumers of European descent, the team noted a preference for imported and exotic fruits such as apricots and currants. Traditional fruits such as matohwe, matamba, masawi, matamba, mazhanje and mawuyu were more popular among middle- and low-income groups.

Various consumers mentioned particular health benefits to fresh fruit and vegetable consumption. Some participants pointed out that they had children and thought it important that they consumed fresh produce.

> *"The kids are still growing up and they need lots of energy and nutrients." [F. Chibondo: Middle-income]*

In general however, fresh fruits and vegetables were seen as good sources of vitamins and nutrients and therefore the main reason why they were consumed. One high-income consumer said:

> *"I eat fruits and vegetables mainly for the vitamins…. My dietician told me that fruits and vegetables are good for your skin. I try and avoid rough skin and pimples." [J. Madongonda: High-income]*

The nutritional benefits of fresh fruit and vegetables were also appreciated among low-income consumers.

> *"Vegetables are my main source of roughage as well as vitamins." [L. Sanyanga: Low-income]*

Various low- and middle-income consumers indicated that it had become almost a tradition to include vegetables in their main meal. Vegetables added variety to the staple *sadza* (maize meal paste) diet.

> *"I like my meals with vegetables, especially sadza." [Yambiya: Middle-income].*
>
> *"I always buy vegetables because I cannot eat a meal without vegetables. So I have to buy vegetables everyday." [G.H. Mangoye: Middle-income].*

3.2 Consumption patterns of processed fruits and vegetables

Canning, bottling and dried fruits and vegetables were some of the methods of processing which participants were familiar with. Consumers seemed unaware of candying as one method of processing and presenting fruits, and therefore tended not to consume such products. Tables 6 and 7 summarise the variety of processed fruits and vegetables (respectively), which were consumed by the various participants.

Although low-income households tended to consume fewer processed fruits and vegetables than the other groups, they did consume more of the traditional dried leafy green vegetables than middle- and high-income consumers. Among the reasons cited to explain the relative low consumption of processed fruits and vegetables among low-income consumers, included:

- **Insufficient funds to purchase processed fruits and vegetables**
  For example one focus group participant commented:

  > *"I will wait for the fruits to be in season. [The reason] we don't buy tinned fruits is because we don't have [the] money [to do so]. You cannot buy tinned peaches when you don't have tomatoes in the house. Its better to buy jam……. than tinned peaches."[T. Rugonye: Low-income]*

- **Not accustomed to consuming processed fruit and vegetables**

  One consumer said:

  > *"It's not part of the tradition in my household [to buy tinned fruits…], we just don't eat them." [C. Chari: Low-income].*

- **Concern and in some cases misinformation regarding the safety of processed food products** (e.g. fear of food poisoning due to chemicals in metal containers)

- **Preference for fresh fruit and vegetables**

- **Greater access to fresh fruit and vegetables**

  Some participants produced vegetables in their gardens. For example, one participant commented:

  > *"I grow most of the vegetables that we eat in my garden and I rarely buy them from the market." [M. Katemanyoka: Low-income]*

Table 6. Processed fruits consumed by households

Category of processed fruits	**Fruit**
Dried fruits	• Mangoes • Masau • Sultanas • Matohwe (*Azanza garckeana)* • Mauyu (*Adansonia digitata)*
Fruit juices	• Granadilla • Guava • Orange • Pineapple
Fruit jam/jelly/marmalade	• Apricot jam • Marmalade jam • Mixed fruit jam
Canned/bottled fruits in juice/water	• Guava halves • Mangoes • Peach halves • Pears • Pineapple pieces
Frozen fruit	-
Other preserves (relish/chutney/pickles)	• Fruit flavoured yoghurt

The most commonly cited processed fruit products consumed by the low-income group included fruit jam products (especially the 'Sun Jam' brand) and fruit juices (especially Mazoe orange crush). Low-income consumers seldom purchased canned fruit for example,

but did consume a small range of canned vegetables. Some low-income participants indicated that they did consume traditional wild fruits (matohwe–*Azanza garckeana,* masau-*Ziziphus mauritiana* and mauyu–*Adansonia digitata*) which had been sun-dried. These were mainly purchased from vendors in Mbare Musika market for example. On further probing however, some low-income consumers indicated that they processed dried fruits and vegetables within their home and seldom purchased such products. One or two participants suggested they processed products such as mulberry jam within their home and sold it to colleagues at work places.

By comparison, traditional sun-dried fruits and vegetables (e.g. nyevhe mufushwa,[19] *Cleome gynandra*) were not very popular among high-income consumers. The consumers of European descent in particular were largely unfamiliar with traditional fruits and vegetables. One high-income consumer admitted:

> *"I don't know [the] names of the traditional fruits and vegetables but my boyfriend usually goes to Mbare to buy them." [S. Broster: High-income]*

The main reason they (high-income white consumers) cited to explain this unfamiliarity with such products was that their local supermarkets and retail outlets tended not to stock such products, whether fresh or processed. For example, one participant from the high-income group said:

> *"We cannot have them because they are not available [in the shops]." [V. Corbett: High-income]*

Some high-income consumers indicated an interest in purchasing masau jam for example, but could not find it in their local store. One consumer remarked:

> *"Masau jam… If it [were] on the market, I would buy it!" [S. Broster: High-income].*

Canned and dried vegetables were the main types of processed vegetable products purchased by the consumers interviewed. Low-income consumers indicated that they tended to purchase processed vegetables once a month, usually at the end of the month. The main products they purchased were canned baked beans, which were reserved for

consumption when there were guests, during weekends or when unplanned circumstances forced them to do so, for example due to power failures or when they arrived home late and consumed such products for convenience.

Table 7. Processed vegetables consumed by households

Category of processed vegetable	**Vegetable**
Dried vegetables	• Beans • Nyemba (*Vigna unguiculata)* • Nyevhe leaves (mufushwa) • Nyimo (bambara groundnut) • Okra • Pumpkin leaves • Rape • Tomatoes • Tsunga (Indian mustard) • *Vigna subterranea*
Juices made from vegetables	-
Jam made from vegetables	-
Canned/bottled vegetables in juice/water/brine	• Baked beans • Peas • Whole tomatoes
Frozen vegetables	• Peas • Tomatoes
Other preserves (relish/chutney/pickles)	• Tomato puree

Among the middle-income group, some consumers indicated that they purchased fresh fruit and vegetables more frequently than processed. Fresh vegetables such as tomatoes were purchased at supermarkets or at Mbare Musika in bulk and then stored in the freezer for future use, instead of buying canned tomatoes for example. However, middle-income households also purchased dried vegetables in bulk, usually once a month or whenever they went to the rural areas, which were stored for future use.

Participants in the high-income group bought their processed fruits and vegetables in bulk at the end of the month, e.g. a carton of 24 x 240g baked beans, peach halves and pineapple pieces. Additional requirements were bought during the week according to need, e.g. when visitors were expected, or if they needed to prepare a special dish. Processed fruits and vegetables were not used as a substitute for fresh produce, but each had a specific function in consumption patterns. For example, young green beans were either boiled/blanched or fried and used as relish while baked beans were usually consumed for breakfast. One

[19] Mufushwa is the generic name used to denote all dried vegetables.

unmarried participant from the middle-income group seemed to prefer processed fruit and vegetable products because they were easy to prepare, suggesting that processed products introduced some sort of convenience factor.

> *"When I get home from work, I am so tired I [just] want to prepare a quick meal. I don't have time to prepare [a meal] from scratch. That's why I like processed vegetables." [B. Chitiyo: Middle-income]*

3.3 Retail purchases of fresh and processed fruit and vegetables

Participants from low- and middle-income groups generally purchased fresh fruits and vegetables from street vendors, Mbare Musika market or from supermarkets. High-income consumers were more likely to purchase produce from supermarkets or from specialist shops.

Some low-income consumers were conscious of price and had the perception that street vendors sold cheaper produce. However, hygiene was a factor that influenced where they would purchase both fresh and processed fruits and vegetables. For example, numerous participants suggested they would only buy fresh produce from selected vendors, who gave more regard to hygiene for example. One participant commented:

> *"I check to see if the vendor is smart, because if you cannot dress well then it's not possible that your produce is hygienic." [M. Makope: Low-income].*

Another participant added:

> *"Hygiene is very important. Not every vendor is dirty. There are some who are smart." [J. Zvoma: Low-income]*

Those who bought fresh fruit and vegetables from supermarkets suggested that the fresh produce sold there was kept under cooler and more hygienic conditions compared to street vendors. However, some consumers disagreed and suggested that the fresh produce sold in supermarkets was often less fresh than that sold in Mbare Musika market or from some street vendors.

Generally, high-income consumers considered buying fresh fruits and vegetables from street vendors unsafe. One participant in the middle-income group for example, reported noticing that some street vendors stored their produce in unhygienic conditions overnight, which put her off buying produce from them.

> *"Some keep their produce in storm water drains overnight... and I don't think its good." [F. Chibondo: Middle-income]*

One low-income consumer commented:

> *"Sometimes [street vendors] don't change the water in the dish." [T. Rugonye: Low-income].*

The main supermarket chains frequented by the focus group participants included TM, OK, Food Chain Group, Luck 7, Spar and Bon Marche. Additionally some high-income consumers mentioned Rokos (Five Avenue), Lukulus, and Jaggers as other supermarkets where they purchased fresh produce. In general, the decision to buy from selected retail outlets was often influenced by accessibility and convenience (e.g. an outlet which was accessible on the way to or from work). Among high-income consumers however, the quality of produce sold there, was the main factor that influenced them to purchase fresh fruits and vegetables from a particular retail outlet.

3.4 Micro- and small-scale processing versus large-scale agro-industry

Most participants across all income groups recognised processed fruit and vegetable products in the context of foodstuffs (canned fruits and vegetables, fruit jams and juices for example) which were manufactured by highly sophisticated large-scale commercial agro-industries. Few consumers suggested that they were familiar with processed horticultural products manufactured by micro- and small-scale enterprises. Some suggested they had heard of small-scale processors involved in the production of fermented milk, yoghurt and peanut butter, but had not seen any of their products on supermarket shelves. They commented that such products were more likely to be sold through kiosks at or near the processing centre, or friends and relatives may have sold small quantities of such products through their social networks on behalf of the enterprise owner. Some consumers

suggested that such processors tended to make their products for a localised market, i.e. the foodstuffs produced were largely sold with the same community.

Across all income-groups, brands such as Heinz™, Cashel Valley™, RYL Farm™, Rabroy™ and Marlon™ were recognised as higher priced foodstuffs and foodstuffs produced by agro-industrial manufacturers. The majority of participants indicated that although they did not have an insight into how large-scale food companies conducted their operations, they were of the opinion that their products were of superior quality than that processed by micro- and small-scale enterprises, and were justifiably higher priced.

> *"I assume that established manufacturers have been approved .... and once the product is on the shelves, then they should have been checked." [L. Sanyanga: Low-income].*

Interestingly enough, some low-income consumers were of the opinion that in-store economy brands of jam products and baked beans, such as TM's Super Savers™[20] and OK's Pot 'O'Gold™, were likely to have been produced by small-scale processors, mainly because of their lower price. There was a perception among some low-income consumers that lower priced products indicated lower quality products.

Some focus group participants suggested that small-scale processors did not have the means with which to produce high quality foodstuffs. For example some consumers were concerned about the processing equipment used by small-scale processors to manufacture foodstuffs and furthermore the premises from which they operated. For example, one participant from the low-income group said:

> *"I don't know how they [small-scale processors] process their products, I don't know [what] their machinery is like." [I. Marowa: Low-income]*

Some consumers in all income groups suggested that they were reluctant to purchase products manufactured by small-scale processors because they perceived them to adopt poor hygiene standards (staff and equipment) during processing. This was either based on personal experience or on what they heard from others about certain cottage industries. Most participants understood small-scale processing in the context of informal home-based

[20] ™ - This indicates that the brand name is a registered trademark.

operations. Most felt that small-scale processors should operate from registered premises and not from backyards and homesteads, as consumers lacked confidence in products produced under such conditions. One low-income consumer said she was discouraged from purchasing jam from a small-scale enterprise in Glen View after observing that the woman making the jam had little regard for personal hygiene.

> *"The woman who was making jam in her backyard was most times shabbily dressed and her baby would follow behind her, naked and crying. When I think of the conditions, I don't want to buy [her products]. If they could be given money to buy machinery and find suitable working places… [then maybe I'd buy their products]." [I. Tanyanyiwa: Low-income]*

When asked whether she had had an opportunity to ever visit a large-scale agro-industry, the same participant said no, but believed that the large-scale processors were visited by inspectors and therefore should operate under hygienic conditions.

3.5 Food Safety

"Food safety is an integral part of food quality" (Van Twisk, 1997:9), and is the responsibility of everyone in the food chain, including processors and consumers. Consumers suggested that large-scale food manufacturers adhered more strictly to food safety issues because they operated from approved premises. Consumers want to be assured of the processing environment under which products are processed by micro- and small-scale enterprises. During the focus group discussions, the question of adherence to hygiene standards among small-scale enterprises was an important issue among consumers from all income groups. One participant from the low-income group commented:

> *"I want to see if the premises are healthy, [especially] if [small-scale processors] are operating from their home." [I. Marowa: Low-income]*

One low-income participant suggested:

> *"[Small-scale processors] should be given money to buy machines and find suitable working places and also to buy the required ingredients." [C. Chari: Low-income]*

Most however, pointed out that they had not experienced any particular problems with products manufactured by such enterprises, but agreed that their negative attitude was based on perceptions of informal sector food processors. On the other hand, even though they could not verify the practices of large-scale food manufacturers, they believed they were guaranteed high quality products from this sector.

The negative perception that consumers held of small-scale processing was based on the idea that small-scale enterprises may face capital constraints at the outset of their business and may be inclined to take measures to reduce costs. Some focus group participants believed that small-scale processors prioritised profits over quality aspects, and associated this with the initial low capitalisation of small-scale enterprises. Referring to jam produced by small-scale processors, a participant from the low-income group commented:

> *"Some of the small-scale processors may be forced to use less [ingredients] because they don't have sufficient money. The Government and other organisations should assist them." [E. Mufote: Low-income]*

However, food safety issues were not exclusive to the small-scale sector. One middle-income participant pointed out that one of her children had experienced an allergic reaction after consuming canned fruits produced by a large-scale food manufacturer, which she suggested were due to the additives used in such products. A similar experience was also recorded among the high-income group. One participant suggested that she did not purchase a particular brand of product because it contained a lot of colouring and additives. She pointed out that her son had experienced a food allergy after consuming a particular product, which she suggested was due to an intolerance to the additives and colorants used in the product. A further participant (middle-income) associated canned products with negative consequences to health. She reported that a friend who worked within the food industry had advised her that the packaging used to can products contained a lot of *"chemicals"*, which had been associated with cancer. She pointed out that she no longer consumes canned products, saying:

> *"A friend of mine told me that canned foods are full of chemicals. [They] are not good for your health." [F. Gava: Middle-income]*

Food safety issues and hygiene concerns were therefore important criteria among some consumers when it came to deciding which brand of product to purchase, what type of

packaging they preferred, and furthermore whether they purchased products manufactured by micro- and small-scale enterprises or large-scale agro-industry. The majority of participants were surprised however, by the food safety concerns mentioned (above) and pointed out the need for more information regarding such issues.

3.6 Packaging

Most consumers cited packaging and labelling as factors that they considered important, particularly when deciding whether or not to buy a new product on the market, including those produced by small-scale processors. Most participants checked products against packaging deformities, and furthermore that the product displayed a label and an expiry date. Consumers considered packaging as an important criterion upon which to judge the quality of a product. For example, one low-income consumer noted the negative effect which poor packaging could have on consumer decision making and preferences.

> *"Small-scale processors should improve their packaging. If the packaging is not good, you start to wonder whether the product was properly processed." [K. Rugonye: Low-income]*

High-income consumers also shared similar concerns. It appeared that if the quality of packaging was not up to a standard acceptable to the consumer, consumers lost confidence in the product. This was true even when the packaging did not pose a threat to the actual safety of the product for example. One high-income consumer mentioned that poor packaging was one reason why she chose not to purchase items produced by small-scale processors.

> *"Some small-scale processors may be producing good quality products, but we do not eat them because their packaging is not attractive." [Mrs Togara: High-income]*

Another participant commented:

> *"Packaging means a lot…. By just looking at the packaging, you can easily say [if it is produced by a large-scale or a small-scale processor]." [E. Kadzima: High-income]*

Another participant from the same income group said:

> *"I get attracted by the packaging. Packaging means a lot to me." [W. Santu: High-income]*

Numerous consumers mentioned that packaging was one area which they would like to see small-scale processors improve upon. Some consumers across all income-groups were of the opinion that small-scale processors used cheaper quality raw materials for processing and packaging in order to reduce costs and therefore undercut the prices of large-scale food manufacturing companies. Some consumers suggested that this may have actually been to the detriment of their potential market.

3.7 Product specifications

Low-income consumers rarely bought products in bulk, but tended to purchase smaller quantities more frequently. Participants in the low-income group preferred smaller package sizes, which they could afford considering their low disposable incomes, which were under strain due to the current escalating prices of basic food commodities. On participant commented:

> *"We expect small-scale [processors] to produce products that suit our pockets." [M. Katemanyoka: Low-income]*

Low-income consumers did not seem to place particular preferences on the types of packaging or containers used to package products (e.g. cans versus glass), but like most participants agreed that in general packaging should be appealing and attractive to the consumer, regardless of the materials used. However, on evaluating the products on display, a few participants across all income-groups commented that jam products packaged in glass containers were particularly attractive.

3.8 Labelling

Criteria such as labelling and the application of expiry dates on products were also important in terms of evaluating products, though mainly by high- and middle-income

consumers. For example, if a product was near its expiry date, it was assumed that it had deteriorated and would not taste good. Generally, consumers noted that large-scale food manufacturers provided better quality labelling on their products. With respect to labelling aspects, participants suggested they looked for labels that were attractive. However, consumers also thought it important that food manufacturers included nutritional information, such as the energy and protein content of the foodstuff on product labels. Some consumers stated that they would not be inclined to purchase products that did not exhibit expiry dates on their labels or which exhibited poor quality or home-made labels. One high-income consumer stated:

> *"The label should be attractive. The label looked like someone had just done it on the computer." [Mrs. Togara: High-income]*

Participants suggested that packaging materials should be of an attractive nature and any visual or pictorial stimuli displayed on the label should broadly correspond to the product contents. For example, one consumer mentioned that a label exhibiting a cat was not attractive for canned fruit products, as was the case of 'Black Cat products'.

Some participants suggested that processors needed to improve the labelling of dried fruit products in particular, as consumers tended to be more unfamiliar with these types of products. For example, one consumer commented on the packet of dried apples on display, which did not have a label on it. The low-income participant suggested:

> *"We know apples as being attractive fruits. So there should be attractive packaging including a picture of the fresh apple [on this packet] and a label [that states that] it is dried. Then we would want to buy it." [I. Tanyanyiwa: Low-income]*

Another consumer added:

> *"If you were to put the dried guava and honey rolls into the fridge, someone may think they are sausage rolls. If you compare [them] with the jam [on display], it's easy to see its jam. The packaging and labelling [of the product] should be improved to make it easily recognisable [what the product is]." [A. Banga: Low-income]*

Innovative packaging of indigenous processed fruits and vegetables was thought to be essential in order for such products to be attractive to middle- and high-income consumers.

In general, the quality of packaging materials used and labelling aspects proved important in terms of consumer decision-making processes regarding product choice. Low-income consumers however, suggested that the price was the overall deciding factor. Among the middle-income group, some participants suggested they would stick to their regular brand regardless of the fact that a cheaper alternative may exist.

3.9 Brand loyalty

Unlike low-income consumers, middle- and high-income consumers showed particular allegiance to brand names and tended to purchase products that were manufactured by large-scale agro-industrial food processors. Consumers suggested that they used popular brands such as Heinz, Mazoe and Cashel Valley as reference points for quality. One high-income consumer commented:

> *"I don't want to buy a product [if] I don't know who produced it. I will go for the ones I know." [W. Santu: High-income]*

Consumers associated agro-industrial food manufacturers with consistent and reliable products.

> *"I prefer products from the large-scale processors rather than the small ones because the products [from the former] are reliable and guaranteed and they have expiry dates." [S. Makunde: High-income]*

Some participants in all income groups noted that they were discouraged from buying certain products due to the brand names adopted. Some names were inconsistent with the contents of the product e.g. Black Cat products were actually a range of canned fruit products. In other cases, brand names were made up of praise names or totems[21] (e.g. Samaita or Nyati), which were related to a particular ethnic group and were not considered positive for the sale of products. This point was strongly debated. One participant said:

[21] Totems are used by both the Shona and Ndebele people in Zimbabwe. These delineate the ethnic groups into sub-groupings and were originally designed to define relationships and avoid intermarriages. Totems are represented by animals, e.g. Nyati is buffalo. People with such a totem normally do not eat the animal or part of the animal involved. They are also used in traditional spiritualism as a way of addressing ancestors and elders and are poetically presented, praising the ethnic group.

> *"Names are important to identify the products." [S. Katsande: High-income]*

A participant from the low-income group noted that:

> *"Some Christians don't want to be addressed by their totems, e.g. Musiyamwa. So if you name your product [Musiyamwa Strawberry Jam], they will not buy [it]. Some may associate Musiyamwa with bad things like bad manners, or if they have had bad experiences at the hands of one of the Musiyamwas, they will be discouraged from buying [products which use this totem]." [E. Mufote: Low-income]*

Traditional Shona or Ndebele names of fruits were not seen as problematic by the majority of the consumers, when displayed on products, e.g. 'pure mazhanje fruit jam.' However, one high-income consumer commented:

> *"The products should have a general name…. preferably an English name." [J. Matiza: High-income].*

It emerged that consumers generally associated local names with a lower level of professionalism. They often related local names to the small-scale food-processing sector, which largely consisted of backyard enterprises and cottage industries. They believed that *"…small-scale processors did not do things properly."*

If consumers were unable to afford certain brands of products in situations of price increases and high inflation, some low- and middle-income consumers suggested they would look for alternative (cheaper) brands or products. The process of looking for cheaper alternatives included buying a small quantity of the product and trying it before it was put on the shopping list. Considering that middle- and low-income groups only bought a limited range of processed fruits and vegetables such as jams and occasionally canned fruits, there was a likelihood of them dropping a particular product from their shopping list when they could not afford it. One participant from the low-income group said:

> *"If I find the product too expensive, I will leave it and go home ……. I will start planning again." [L. Dandajena: Low-income]*

3.10 Food standards

None of the participants mentioned the Zimbabwe food standards logo (Standards Association of Zimbabwe) as a means of evaluating the quality of a product. However, on further probing and upon being shown the SAZ label, most consumers recognised it and said it was a feature that could influence their decision to purchase a particular product. Some suggested that SAZ accreditation was therefore important in terms of guaranteeing the quality of products on sale. One low-income consumer acknowledged the role of the association and commented:

> *"The Standards Association of Zimbabwe and health inspectors should be strict with the quality of new products". [F. Chibondo: Low-income]*

3.11 Imported products

Some consumers associated imported brands of products with high quality foodstuffs. For example, some high-income consumers suggested they preferred imported products because they perceived them to be of higher quality than local brands. One participant from the high-income group pointed out:

> *"I compared local [canned] pears and South African [canned] pears, and [the] South African pears look much nicer.* [The same participant went on to say] *If I can get KOO, I will take KOO." [V. Corbett: High-income]*

KOO is a South African brand of processed food product. Through the experience of comparing this brand with local products, the consumer in question found the imported product to be of better quality. Although it was not confirmed during the focus group session, there is a tendency among upper-income households in Zimbabwe of preference for imported products. This is not only in relation to the fact that wealthier households purchase imported products in search of superior products of 'international quality' (Manderstam Consulting Services, 1994). However, it may also relate to the notion of defining and establishing social class through non-indigenous consumption patterns, i.e. the consumption of imported products. Greater social status is attached to the consumption of imported products—"there is a strong glamour of foreign products, conspicuously more

modern than Zimbabwe's own" (Ibid.). Throughout the developing world, high-income consumers have aligned their demand to imported brands and foreign consumption patterns, modelling these on European and North American habits for example, which are actively fostered by advertising campaigns.

3.12 Benefits of purchasing products processed by small-scale enterprises

In contrast to all this however, some consumers believed that small-scale processors had an active role to play in the food sector and could actually be producing high quality products. In fact, consumers suggested that this was a necessary requirement if they were to compete with large-scale food manufacturers. One low-income consumer suggested:

> *"..... their products could of high quality because they want to compete with large-scale processors." [M. Makope: Low-income].*

Some consumers were of the opinion that small-scale processors should take advantage of the lower quantities of food they handle to concentrate on quality, in order that they may compete with those products manufactured by large-scale companies. Among the few participants who had knowingly bought products produced by small-scale processors, some cited benefits such as cheaper products. For example, a participant from the low-income group commented that:

> *"The price was better and the taste was almost the same [as jam produced by large-scale food manufacturers]." [I. Tanyanyiwa: Low-income]*

Another low-income consumer pointed out:

> *"There is no reason why I should not buy from small-scale processors because some [of the people involved] are the same people who were retrenched and were operating the machines at large-scale companies." [C. Kasiyandima: Low-income]*

Many participants seemed surprised, even excited when shown some sample products produced by micro- and small-scale enterprises during the focus group sessions. Several low-income consumers for example remarked that the canned marmalade jam produced by the Rusitu Valley Jam Canners Co-op looked *"...attractive."* Numerous consumers

seemed genuinely impressed by the quality of packaging on the sample products and admitted that they had not expected such (seemingly) high quality products to be made by small-scale processors. Numerous consumers suggested that they would be very keen to taste some of the sample products displayed, and the fact that they had been processed by small-scale enterprises would not deter them from doing so. One white high-income consumer said:

> *"I would consider buying the dried vegetable [if its spinach]. I eat a lot of [dried spinach] during lunch at work because we cook for ourselves, you see." [V. Corbett, High-income]*

Table 8 lists the variety of products which consumers mentioned as possibilities which small-scale processors could get involved in. It is interesting to note that several participants suggested they would like indigenous (processed) fruit and vegetable products made available on the market. In fact, they thought that small-scale processors would be particularly adept at providing such products. High-income consumers of European descent mentioned fewer possible products, and those that they did suggest did not include indigenous fruits and/or vegetable products.

Consumers suggested that small-scale processors needed to adopt effective marketing strategies in order to enhance the prospects of consumers purchasing their products. One participant from the high-income group suggested that:

> *"To attract people to their products, [small-scale processors] should expose them through demonstrations. If somebody says to me [Look at this product, taste it], I may buy it if I like it." [W. Santu: High-income]*

Some consumers were more pessimistic however, and suggested that since such products would be relatively new to the market it would be difficult for small-scale processors to gain consumer confidence. This not only related to confidence regarding the quality of the product, but furthermore small-scale processors would have to attract consumers to products which some consumers were largely unfamiliar with.

Table 8. Suggested products for production by small-scale processors

	PROCESSED PRODUCT
PROCESSED FRUITS	
Dried fruits	• Masau • Tsubvu
Fruit juices	-
Fruit jam/jelly/marmalade	• Hacha (*Parinari curatellifolia*) jam
Canned/bottled fruits in juice/water	• Matamba • Matohwe • Tsubvu • Tsvanzva (fruit of mutsvanzva tree)
Frozen fruit	-
Other preserves (relish/chutney/pickles)	• Other dried fruits
PROCESSED VEGETABLES	
Dried vegetables	• Mushrooms • Nyevhe • Okra • Okra (powdered) • Tomatoes • *Vigna unguiculata* leaves
Juices made from vegetables	-
Jam made from vegetables	-
Canned/bottled vegetables in juice/water/brine	-
Frozen vegetables	• Pumpkin leaves • Tomatoes
Other preserves (relish/chutney/pickles)	• Crushed fresh garlic • Pickled garlic • Vacuum packed sliced onions

4. CONCLUSIONS

4.1 Summary of findings from focus group discussions

Both price and quality are important considerations for consumer preferences in urban Zimbabwe. Price was the overriding factor that influenced consumer food preferences among low-income urban consumers. Given the current socio-political climate—high inflation, a reduction in real wages and an increase in commodity prices, the purchasing power of such groups has significantly declined. Among the middle-income group, although price was important it was not always the overriding factor; product quality was more important for some middle-income consumers. By contrast, price was not a significant consideration for the purchase intentions of high-income urban consumers. Quality and food safety were seemingly the main factors that influenced the purchase intentions and consumer preferences of this group.

Low-income urban households consume a narrower range of fresh and processed fruits and vegetables than upper income groups. However, they do consume a wider variety of traditional varieties (fresh and processed) than middle- and high-income consumers. Participants in high- and middle-income groups tend to consume fresh and processed fruit more frequently than low-income consumers. High-income households in particular have a preference for exotic fruits and vegetables—processed and fresh. Expenditures on fresh fruit ranged between Z$600-1400 per month for low- and middle-income households, and reached as high as Z$6,000 per month among high-income (vegetarian) households.

While there has been a switch from the conventional leafy greens to exotic horticultural varieties among certain consumer groups, some traditional foodstuffs (e.g. dried leafy green vegetables) continue to play an important part in the urban diet. This is particularly true of low- and middle-income consumers who share a general liking for such products. High-income consumers suggested that the main reason they do not purchase foodstuffs made from indigenous horticultural varieties is because such products are not available in supermarkets or other retail outlets in the consumers' residing areas. However, the opposite cause-effect may also hold; absence of local demand may be the reason why local outlets do not stock these food items. Some high-income consumers expressed a genuine interest

in these products however, particularly jams made from indigenous or wild fruit varieties for example.

Attitudes to processed fruits and vegetables did not vary significantly among income groups. For example, preliminary findings would seem to suggest that life cycle has little impact on urban consumption patterns, i.e. the eating habits of younger and older generations are similar. Intergenerational influences on consumer behaviour were not readily observed during the focus group discussions; however, this will have to be verified during the formal consumer survey.

Changing lifestyles—"patterns in which people live and spend time and money" (Ratchford, 2001 citing Engle, Blackwell and Miniard, 1995) again had little influence on consumption patterns of processed fruits and vegetables. Changes due to urban living, e.g. greater female participation in the labour market, did not necessarily mean increased consumption of ready-made or processed food items (e.g. canned or frozen vegetables, ready to cook vegetables, canned or preserved fruits, fruit juices and fruit jams). Such products may not have the same convenience appeal as in labour-scarce economies of the industrialised world (Manderstam Consulting Services, 1994), as most high-income households in Zimbabwe employ staff in their homes, to provide domestic services such as food preparation and laundry services for example.

Furthermore, there were no great distinctions in eating patterns due to ethnic considerations. Socio-economic status seemingly had more influence over purchasing patterns than cultural specificity.[22] For example, low-income consumers were more likely to consume dried fruits and vegetables, as these tended to be more accessible in monetary terms. High-income consumers were more likely to purchase products based on non-traditional or exotic varieties.

The findings suggest that the majority of focus group participants—regardless of income group, indicate a preference for foodstuffs manufactured by agro-industrial companies. A significant number of participants expressed reluctance to purchase food processed by

[22] However, it must be pointed out that only one focus group included consumers of European descent—three in all. Furthermore, the team had difficulty in recruiting consumers from Harare's Indian community to partake in the exercise.

micro- and small-scale enterprises, as they believed they followed poor hygiene practices in largely unregistered premises. After having been shown some sample products produced by micro- and small-scale enterprises however, some consumers indicated that they would consider purchasing products from the informal sector, as they were genuinely impressed by the appearance of the products on display.

However, this does not obscure the concerns that consumers have with food products processed by informal enterprises. Product quality and consistency are paramount to consumer acceptance, particularly among middle- and high-income groups. Food safety concerns—cleanliness of the processing environment and the equipment used, the hygiene practices adhered to by staff, and health concerns regarding actual product content, are examples of just some of the concerns voiced. Consumers (middle- and high-income) suggested however, that if micro- and small-scale processors adopted strict hygiene and sanitation procedures in their enterprises (reflected in licensing of premises and fulfilment of SAZ accreditation) they would be more willing to consume their products. Consumers recognised a need for small-scale processors to use formal food quality standards such as the Standards Association of Zimbabwe (SAZ) quality mark, as a marketing tool for their products. Low-income consumers however, emphasised the need for small-scale enterprises to manufacture foodstuffs to suit their pocket; i.e. they wanted quality products at low cost.

Numerous focus group participants highlighted the importance of product attributes such as packaging and labelling for consumer preferences and purchase intentions. Consumers suggest that small-scale processors need to improve the quality and consistency of packaging materials they use and adhere to guidelines laid down by the Standards Association of Zimbabwe regarding food labelling. Products must be packaged in unit sizes acceptable to consumers and visual and pictorial stimuli adopted on labelling must adequately reflect product contents.

Product familiarity—if not brand loyalty, is important for some consumers, particularly those among the high-income group. Some consumers exhibited considerable degrees of brand loyalty or allegiance to a particular brand or product class. The influence of brand specific knowledge meant that some consumers were reluctant to switch brands and/or try new products, but continue to purchase products they have used in the past. Furthermore,

some perceived imported products (particularly from South Africa) to be of superior quality to locally processed products. Packaging and labelling of imported products was considered to be more attractive. Faced with such competition, it is essential that small-scale processors establish themselves as professional enterprises, marketing good quality branded products.

Market logistics may currently inhibit urban consumption of foodstuffs processed by the small-scale sector. Various consumers suggested they were not aware of the existence of small-scale food-processing enterprises, nor familiar with their products. Consumers suggested that small-scale processors needed to vigorously market their products through in-store promotions and other marketing strategies. This would not only inform consumers of the availability of their products but also help encourage consumers to switch to new products and/or brands. New product development may be critical for the economic survival of Zimbabwe's small-scale food processing sector. Small-scale processors have the potential to establish new products based on indigenous fruits and vegetables of which their knowledge is vast. Furthermore, this may mean they can avoid obvious competition with agro-industrial food companies, who have shown limited interest in the development of such food products. Potential new or niche markets may be found for products, by targeting particular groups of consumers characterised by income or ethnic variables for example. One constraint to all this however, is the unwillingness of some formal retail outlets to place products on their shelves, which have not met SAZ approval.

4.2 Implications of focus group research for consumer survey

Zimbabwe's horticultural sector has witnessed change, with a significant move from traditional to exotic crops—largely fuelled by the growth in export demand for fresh produce. Exotic fresh fruits and vegetables—crops that have failed to meet export grades, are frequently found on the tables of local urban households. Furthermore, the growth of the horticultural sector may open up new possibilities for local food processing—largely geared to supplying urban centres with canned and frozen products, as well as pre-washed, sliced or diced, ready to cook vegetables for example. However, little is know about consumer demand and expectations of locally processed horticultural foodstuffs. Research on food preferences to identify acceptance parameters among different social groups is

lacking. Little is known about the differences in purchasing patterns caused by price differentials or the impact of class-related food preference structures upon consumer requirements.

In order to answer such questions and to test whether the findings of the focus groups are indeed indicative of consumer attitudes generally, the research team will conduct a formal consumer survey with a representative sample of high-, middle- and low-income households. [23] A total of 500 households will be surveyed across various suburbs of the greater Harare area.

The focus group discussions have played an important part in highlighting the key questions to be included in the consumer study. Some of these are detailed below:

- What function do processed fruits and vegetables play in the local urban diet? What are the potential benefits which consumers associate with processed fruit and vegetables?

  Life cycle or intergenerational influences on consumption behaviour, lifestyle and related issue of convenience, and seasonality of fresh produce are just some of the factors that may influence household consumption patterns of processed fruits and vegetables. Little is known about the nature of demand for such foodstuffs and consumer expectations of them generally. Socio-cultural and socio-economic factors may also influence consumer preferences and requirements.

- How do consumers evaluate product quality in terms of processed fruits and vegetables?

  Further consideration needs to be given to the criteria adopted by high-, middle- and low-income groups to evaluate product quality. Packaging, labelling, use of brand names, expiry dates, nutritional information, (local and international) food standards, and pricing considerations are just some of the factors that need to be considered. If micro- and small-scale food processors are to understand the nature of market demand

[23] The survey will focus on household consumption patterns of processed fruits and vegetables. However, particular emphasis will be placed on the study products—dried fruit (including fruit confectionery), dried vegetables and fruit jams and marmalades.

and indeed the needs of consumers themselves, they must appreciate the level of importance which consumers place on such factors.

- How do consumers perceive food products manufactured by micro- and small-scale enterprises? What constraints are micro- and small-scale processors likely to face in Zimbabwe's food sector?

  It would seem that key to overcoming some of the barriers to entry to the market (e.g. gaining consumer confidence, particularly in the area of food safety), is the need to gain a deeper understanding of consumer perceptions of small-scale food processing enterprises generally.

- What are the over-riding factors that would encourage consumers to substitute foodstuffs manufactured by large-scale agro-industrial companies for those produced by small-scale processors?

  The importance of such factors as price, quality, product consistency, packaging, food safety and standards, licensing and regulation for example, is little understood in terms of consumer decision-making processes.

- What are the potential strengths which small-scale food-processing enterprises may build upon to attract consumers?

  Potential benefits exist for consumers by purchasing products processed by micro- and small-scale enterprises. In some cases, they market 'home-made' high quality foodstuffs that are not available to the general public, i.e. products made from indigenous fruits. In others, they offer imitations of products available on the formal market but at a lower price. Furthermore, some processors have developed new product lines. Organic products, products made from indigenous and/or wild fruits and vegetables, and products which develop new combinations of flavours (fruit jams) for example, are just some possibilities which may have potential for wider acceptance on the market.

These and other questions will be dealt with further in the formal consumer survey conducted in the greater Harare area. By detailing the needs, expectations and perceptions of urban consumers, the research team hopes to compile accurate, reliable, and valid information regarding consumer preferences, which will prove valuable to micro- and small-scale enterprises entering the market for processed fruit and vegetables products.

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List of Appendices

Appendix 1: Questionnaire used to recruit focus group participants

University of Zimbabwe-Reading University (UK)

The Department of Agricultural and Food Economics - The University of Reading and the Institute of Food, Nutrition and Family Sciences – The University of Zimbabwe are involved in a joint research project to consider the production, marketing and consumption of processed fruits and vegetables in Zimbabwe. To meet the objectives of the study, several techniques are being used including conducting discussions with consumers. Our target group is female consumers. Please assist by completing this form/questionnaire. The information obtained will be used only for the purposes of this study and shall be confidential. If you have any queries regarding any aspect of this questionnaire, please contact Dr. Henry Gadaga, The Institute of Food, Nutrition and Family Sciences, University of Zimbabwe; Telephone 303211 extension 1413.

1. Name: _____

2. Contact address: _____

_____

_____

3. Telephone: _____

4. Fax: _____

5. E-mail: _____

6. Age (years):

21-25	_____
26-30	_____
31-35	_____
36-40	_____
41+	_____

7. Ethnic Group:

African	_____
European	_____
Asian	_____
Mixed	_____

8. Are you currently employed?

Yes	_____
No	_____
Self-employed	_____

9. What is your gross household income **band** per month? (Z$)

0 - 3,000	_____
3,001 - 10,000	_____
10,001 - 20,000	_____
20,001 - 30,000	_____
more than 30,001	_____

10. Educational level:

up to Form 2/ZJC	_____
up to O'level	_____
up to A'level	_____
Undergraduate	_____
Postgraduate	_____
Professional diplomas	_____

11. Give two brand names of processed fruit and/or vegetable products that you know of:

A) _____

B) _____

12. What is your level of knowledge of food processing?

Basic	_____
Good	_____
Excellent	_____

13. How often do you buy fruits?

Everyday	_____
Once a week	_____
A few times a week	_____
Once a month	_____

14. Would you be willing to take part in a group discussion with other female consumers on the above subject?

Yes	_____
No	_____

Appendix 2: Guidelines for conducting focus groups

The facilitator should commence the discussion by briefly welcoming all participants. He/she should then ask each participant to introduce herself by name. The facilitator should highlight the nature of the research being conducted and the purpose of the focus group discussions, stressing the importance of their contribution and participation and explain the manner in which the discussion shall take place. The facilitator should reassure the group of the confidentiality of the information and assure them that the tapes will be used for the sole purpose of the research project.

Consumption patterns of fresh fruit and vegetables
Which types of fresh fruit and vegetables does your household consume?
How often do you consume them?
Why do you consume these particular fruit/vegetables?
When does your household consume fresh fruit and vegetables *(as snacks etc.)*?
How often do you purchase fresh fruit and vegetables? Typically, how much do you buy at a time?
Where do you (usually) purchase fresh fruits and vegetables? Why?
(e.g. supermarket, local market, on the street, neighbour etc.)

What factors are important when choosing where to buy fresh fruits and vegetables?
(e.g. convenient location, reputation of retailer, cleanliness/food safety, availability of credit etc.)

Do household consumption patterns (of fresh fruit and vegetables) vary by season? How and why?
Have household consumption patterns of fresh fruit and vegetables changed over time? If so, how and why?

Consumption patterns of processed fruit and vegetables
Which types of processed fruit and vegetable products does your household consume? How often do they consume them?
Why do you consume these particular products?
When does your household consume processed fruits and vegetables *(as snacks etc.)*?
How often do you purchase processed fruit and vegetables? Typically, how much do you buy at a time?
Where do you (usually) purchase the products? Why?
(e.g. supermarket, local market, on the street, neighbour, local processor etc.)

What factors are important when choosing where to buy processed fruits and vegetables?
(e.g. convenient location, reputation of retailer, cleanliness/food safety, availability of credit etc.)
Do household consumption patterns (of processed fruit and vegetables) vary by season? How and why?
Have household consumption patterns of processed fruit and vegetables changed over time? If so, how and why?

Reasoning for purchase of fresh versus processed fruit and vegetables
What is the relationship (if any) between the consumption of fresh fruit and vegetables and processed products? For example:

- Only purchases processed fruits and vegetables during the dry season when availability of fresh produce may decline.
- Prefers to buy processed products instead of fresh produce given that the former is more convenient and require less preparation time.
- Prefers to buy fresh produce given that they have a higher vitamin content?
- Prefers to buy fresh produce given that it is cheaper.

Consumer knowledge of processed product(s):
Which factors are important to you in terms of deciding to purchase processed fruits and vegetables? And why? For example:

- Quality (SAZ or other) and consistency of food product
- Price
- Shelf life (compared to fresh produce)
- Availability throughout the year
- Nutritional content/value
- Colour
- Presentation and appearance of the product: nature and quality of packaging, etc.
- Availability to purchase unpacked product
- Units in which the product may be purchased
- Brand of product

How important is each of these factors? Could you put the factors in order of preference, ranking them from the most important to the least important (e.g. 1 to 6 if 6 criteria are highlighted by the group).
What (if any) information do you check that the product label states? Why?

Packaging:
How do you decide between the different varieties of packaging available (e.g. canned jam versus jam sold in glass containers, packaged versus unpackaged mufushwa)?
Have you ever experienced problems with packaged products, For example:

- Canned products which have not been sealed appropriately,
- Rusting lids on glass containers etc.

What products or packaging material was involved?
Had such packaging affected the quality of the product?
Have such experiences influenced your purchasing habits? If so, in what way?

Food manufacturers and processors:
Do you consider where/by whom a product has been manufactured prior to purchasing it? Why?
Do you differentiate between products produced by the small-scale sector and those produced by the large-scale sector? How and in what way do you differentiate them?
What criteria do you use in your selection process?

Small-scale processors:
Do you (usually) purchase products processed by small-scale processors? What products do you purchase?
From whom (individual/location)?
Do you have any particular connection with this processor?
How would you rate the processed fruits and vegetables produced by small-scale processors?
And for the different criteria which you mentioned above (Question 4)?

Have you encountered any particular problems with products made by small-scale processors?
In your opinion, how could processed fruit and vegetable products produced by small-scale processors be improved?

Large-scale processors:
Do you purchase products processed by large-scale processors? What products do you purchase?
How would you rate processed fruits and vegetables produced by large-scale processors?
And for the different criteria which you mentioned above (Question 4)?

Have you encountered any particular problems with products made by large-scale processors?
In your opinion, how could processed fruit and vegetable products produced by large-scale processors be improved?
Do you prefer to purchase processed fruit and vegetable products manufactured by small- or large-scale processors? Why?

Brands of processed fruit and vegetables:
Do you tend to purchase particular brands of product? Which brands?
Why do you buy these brands?
Have you always consumed these brands?
For how many years have you been buying these brands?
Have you encountered any particular problems with these brands of products?
How do you generally find out about the various processed fruit and vegetable products available? (tasting in supermarkets, advertisements, word of mouth etc.)

Processing of fruits and vegetables within the home:
Do you process any fruits and vegetables in your own home (e.g. dried vegetables, jam etc.)?
When did you start processing this product at home?
Which products do you process? How often?
In what quantities?

Appendix 3: List of focus group participants

Name	Ethnic group*	Income group**	Age group
Mrs E. Chikwava	A	High	36-40
Mrs M. Sibanda	A	High	-
Mrs E. Kadima	A	High	-
Ms Chitambo,	A	High	-
Ms Muchichwa	A	High	-
Mrs Zvandasara	A	High	-
Mrs Mtandwa	A	High	-
Ms Makunde	A	High	26-30
Ms J. Zvoma	A	Low	31-35
Mrs I. Marowa	A	Low	36-40
Ms C. Dongo	A	Low	21-25
Mrs L. Sanyanga	A	Low	26-30
Mrs M. Sanyanga	A	Low	31-35
Mrs E. Mhembere	A	Low	-
Mrs Manyika	A	High	31-35
Ms S. Chimombe	A	High	31-35
Ms Katsande	A	High	21-25
Mrs Matiza	A	High	31-35
Mrs Santu	A	High	36-40
Mrs Madongonda	A	High	31-35
Mrs Makope	A	Low	26-30
Mrs Rugonye	A	Low	26-30
Mrs Mutogo	A	Low	26-30
Mrs Mutyavaviri	A	Low	26-30
Mrs Kakono	A	Low	36-40
Mrs Chari	A	Low	31-35
Mrs Katemanyoka	A	Low	36-40
Mrs N. Nyawiri	A	Middle	31-35
Mrs Gawa	A	Middle	31-35
Mrs Mangoye	A	Middle	36-40
Mrs Muhlohla	A	Middle	26-30
Mrs Chitiyo	A	Middle	31-35
Mrs Chibondo	A	Middle	36-40
Miss G. Dzingiso	A	Middle	21-25
Mrs Nyambiya	A	Middle	21-25
Mrs Marezu	A	Low	36-40
Mrs Dandajena	A	Low	36-40
Mrs Kasiyandima	A	Low	36-40
Mrs Mfote	A	Low	31-35
Mrs Banga	A	Low	31-35
Mrs Tanyanyiwa	A	Low	36-40
Mrs Mlambo	A	Low	21-25
Ms Gillian	E	High	31-35
Ms Corbet	E	High	36-40
Ms S. Broster	E	High	36-40
Mrs Togara	A	High	21-25

Note:
*A = African, E = European
**Income group (Gross income per month, Z$):

Low	< Z$20 000
Middle	= Z$20 001-30 000
High	>Z$30 001