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# RiskMap Food Security Baseline: Final Report for Lesotho

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# **FINAL RISKMAP REPORT, LESOTHO**

By William Moseley and Julia Earl

Save the Children Fund (UK)  
February 1997





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## Acronyms and Terms

Basotho	The major ethnic group in Lesotho
Dagga	Marijuana
DMA	Disaster Management Authority
Donga	Gulley
Joala	Traditional beer
SCF(UK)	Save the Children Fund (United Kingdom)
Sesotho	Language of the Basotho people

## **Introduction**

This report was written as part of the SCF(UK) Risk Mapping project. The information contained in this report is a set of baseline data which will be employed by the RiskMap computer program. The report is organized into a description of the RiskMap approach, an introduction on Lesotho as a whole, followed by a series of reports on the five different food economy zones found within Lesotho. The profiles for each area are largely based on household surveys conducted in 1993 and 1995<sup>1</sup> as well as a total of 45 key informant interviews<sup>2</sup> conducted in August of 1996 in all ten of Lesotho's districts. The report treats the livelihoods of Lesotho's rural population (82% of the total) only and does not address the situation of urban dwellers. This content of this document is very descriptive in nature and simply presents the baseline data as it will be loaded onto the RiskMap computer programme. This report is not a vulnerability assessment nor does it analyse problems related to food security and propose potential solutions. However, when this baseline information is combined with annual production and market access data, it should indicate areas vulnerable to food insecurity. The RiskMap software and baseline data set for Lesotho will be completed in early 1997.

## **The RiskMap Project**

The SCF(UK) RiskMap Project was begun in March 1992 at the suggestion of the Director of the FAO Global Information and Early Warning System (GIEWS) with European Community (EC) funding. The initial aim of the project was to devise a methodology for introducing economic and social information into the calculation of local food deficits, in order to go beyond the conventional food balance approach which looks only at national production, food stocks, population and consumption data. This method does not always take account of how food production varies across a country, nor of how people in different areas gain access to food. Thus, on some occasions, the risk of hunger in a given area has been exaggerated, whilst on others, acute dangers of certain groups have been masked by a picture of overall sufficiency. Respecting these limitations, an approach has been developed which centres on the question of how people survive and on the economic and social connections that enable them to do so. Sources of information include existing documentation combined with 'key informant' data. The approach has been translated into a computer program called RiskMap which seeks firstly to make information (of a type normally available only to the 'expert' or found in the 'grey' literature of agencies or in archives) easily available to the average user; and secondly, to allow the user to manipulate a basic set of this information in order to estimate the possible effect on food supply of a particular event or events affecting the specific population.

The project is currently in its third phase of EC funding. By the end of 1996, the project will have revised and improved the RiskMap software and developed a database for 15 African countries, including Lesotho.

## **Key Concepts and Methodology**

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<sup>1</sup>Surveys conducted by Sechaba consultants. The 1993 survey involved 1700 households and the 1995 survey 2359 households.

<sup>2</sup>Of these 45 interviews: 14 were general discussions, 25 were full length interviews with civil servants or NGO employees about a specific food economy zone, and 6 were interviews using PRA techniques at the village level. See following section for discussion of "key informant."

This section explains a number of key concepts and methods which are essential for understanding how data has been gathered, analysed, organized and presented for this report.

Food Economy Zone/Area (FEZ/FEA): A food economy zone or area is a geographic area or group of people wherein the overwhelming majority of households can be said to gain their food and cash income through the same methods. The population of each FEZ is subdivided into three socio economic types: rich, mode and poor. Within a FEZ, any two households in the same socio economic strata should attain food and cash income through the same methods and in roughly the same proportions.<sup>3</sup> FEZs are often discrete geographical units, but in some cases several different FEZs may occupy the same area (e.g. fishing people living in the same geographical area as agricultural people). It is also not necessary that a FEZ be connected geographically. For example, differing land tenure systems in the same area may mean that areas with basically the same food economy are split up from one another. Despite being geographically separated, the individual areas may be part of the same FEZ.

Key Informant: In the world of information about poor, rural populations, a "key informant" is someone who is consulted because it is believed he or she has sufficient knowledge of a group or given population, or can usefully describe a subject area (e.g. local market patterns). Depending on the information required, key informants can be found at any level: village, district, provincial or national. They may be government workers or NGO (Non-Governmental Organization) employees, teachers, representatives from village organisations (farmers' union, women's' union), traditional leaders, traders or religious leaders.<sup>4</sup>

Techniques from Participatory Rural Appraisal (PRA): All village level interviews conducted during this study were undertaken using PRA techniques. PRA is a collection of techniques designed to help illiterate informants fully express their understanding of a situation. If done properly, use of these techniques should engender empowerment and a sense of pride in informant's knowledge.

Poor, Mode & Rich: In collecting its data, RiskMap looks at three segments of the population: the poorest 10%, the richest 10% and the mode. When RiskMap examines the poorest 10% and richest 10% of the population it is by no means saying that only 10% of the population is poor or that 10% is rich. Rather, RiskMap is trying to understand the situation of the bottom 10% of households as well as that of the top 10% of households. For RiskMap, the mode is the most frequently occurring type of household in terms of wealth. In statistical jargon, the mode is distinct from the "mean" or "average" (the sum of observations divided by the number of observations) and the "median" (the value of the middle item in a list of statistics that are arranged in order of magnitude). The information for the poorest 10%, along with that for the richest 10% and mode will eventually be put together, and through a process of linear interpolation, the computer will develop a profile for the entire population.

### Income Distribution

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<sup>3</sup> Clark, Paul. 1996. RiskMapping Report, Kenya - Turkana District, SCF(UK). Mimeo London.

<sup>4</sup>The SCF(UK) Household Food Economy Approach to Food Security Assessment, pp. 12.



In order to more accurately interpolate between the poor, modal and rich groups described above, RiskMap tries to understand the distribution of wealth within a community. Through discussion with local key informants, the research team sought to identify an appropriate indicator of wealth for a given area (e.g. goat ownership, acres of land cultivated, annual income, etc). After identifying normal holdings of such items for the richest and poorest 10% of the population, the research team split this wealth indicator into five equal groupings or quintiles (e.g. 0-2 goats, 3-4 goats, etc). The researchers then asked participants to indicate the proportion of the local population that would fall into each group. The proportion of the population falling into each wealth quintile is reported in this report as well as the percentage of the population falling within and below the mode. By identifying where the modal group lies as well as the proportion of the population within and below this point, the RiskMap computer program may then better estimate the situation for all 10 population deciles. Where it was not possible to estimate the wealth distribution within a community, it is assumed that 70% of the population falls below the mode.<sup>5</sup>

Annual Household Food Consumption: Household size varies by food economy zone in Lesotho, ranging from a high of 5.9 persons in the Mountains and the Southern Lowlands to a low of 5.25 persons in the Northern Lowlands<sup>6</sup>. As a general rule, it was assumed that the average person would need 16 kgs of maize meal per month if this is all he/she was consuming.<sup>7</sup> As such, Lesotho households will consume from 84 to 94.4 kgs of maize meal per month. (See *Value of Cattle and Assets in Terms of Annual Food Needs*). While some households obviously face acute periods of caloric deficiency, it is assumed that this could not be sustained over time and is, therefore, not a “normal year” situation.

Normal Year: The majority of information presented in this report is for a normal year. A normal year was determined by asking the key informants to examine the last 6 years and identify which were bad, good and in-between or average years. The in-between or average year(s) was taken as the normal year. Key informants were then asked to respond to the majority of questions based on what the prevailing situation would have been in such a normal year.

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<sup>5</sup>This is an average figure for a “typical” developing country.

<sup>6</sup>Household size based on surveys conducted by Sechaba consultants in 1993 and 1995.

<sup>7</sup>Assuming the average person needs a minimum of 1900 kcals per day (see following footnote) and that the caloric value of white maize meal is 360 kcals/100g (Young. 1992. Food Scarcity and Famine: Assessment and Response. Page 106), then the average person needs .53 kgs per day or 16 kgs per month.

Food Equivalents of Meat: The figure of 1900 kcal per day has been used as the minimum requirement for the average person.<sup>8</sup> The caloric value of meat and fish consumption was converted to a percentage of annual food needs so that it could be compared to dietary contribution of other food sources. This was done by dividing the total caloric value of meat (produced on farm) consumed during the year by the annual caloric needs of a 5.25 - 5.9 person family.

Surplus Food Production: Surplus food production is defined as any grain production which supersedes annual requirements.

Surplus Income: This is income remaining after all normal year purchases have been made.

Non-Food Production: This income category includes a variety of activities involving the sale of goods that have either been collected in the countryside or produced from raw materials. Activities commonly found in this category include the direct collection or production and sale of: firewood, thatch, wild food and game meat, home brewed beer, crafts, etc. If these goods are being purchased and resold, then such income does not fall under this category, but rather “other trade.”

Other Trade: This income category is primarily composed of all activities involving the buying and reselling of goods for a profit (small shops, buying and selling of grain, vegetables, used clothes, etc). It may also include revenue from the provision of some types of services or earnings from the renting out of property (e.g. renting out of plough and oxen teams or leasing of land).

Value of Cattle & Assets in Terms of Annual Food Needs: In this report, the value of all cattle and assets is frequently expressed as a percentage of annual food needs. This was done by converting assets to cash, and then cash to grain at normal year prices. The standard prices for maize meal, livestock and assets vary by food economy zone. The resale value for physical assets is commonly taken to be half the purchase price of such items. We note that the RiskMap computer software will automatically change livestock values in a drought year (e.g. prices will fall via the use of an elasticity if livestock sales increase) and increase grain prices based on changes in market supply and demand.

Redistribution: Redistribution refers to the proportion of surplus income and food which the rich normally give as free gifts to deficit households within the community.

### Main Elements of the Food Economy

Each food economy zone presentation has a sub-section entitled “main elements of the food economy.” This section is simply a ranking of different types of activities/food sources in terms of their importance to food acquisition in a given FEZ. The ranking reflects the order of importance for modal households in the FEZ. Those categories contributing the greatest proportion of food are ranked first. If some food is purchased, then sources of cash are listed based on the degree of their contribution to food purchase. For example, if 50% of food is purchased and 50% of income is derived from livestock sales, then 25% of food is acquired through livestock sales.

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<sup>8</sup>1900 kcals has been used as the minimum energy consumption requirement per day per person. This figure does not refer to adults but to a ‘per capita’ requirement, i.e. the mean requirement across the age range in an averagely composed developing country population.



### **A Few Comments on Data Collection and Potential Bias**

Lesotho was both interesting and challenging as a country for the RiskMap research team as the rural economy is somewhat differently structured than that of the typical African country. The researchers found that they had to continually encourage key informants to think broadly about the poor, middle and rich in a rural economy where there are often high levels of employment and landlessness. Nevertheless, the researchers believe that key informants often had a tendency to focus on more agriculturally oriented households (those with land and less employment or remittance income) when describing the different income groups (the very nature of the questions may encourage such a bias). As the Sesotho word for wealth is nearly synonymous with high levels of cattle ownership, it was often difficult to accurately identify the poor, middle and rich groups. Fortunately, the research team had access to household survey data collected by Sechaba Consultants in 1993 (1700 households) and 1995 (2359 households) to give a more complete picture. Some of the Sechaba data has been included in the appendix so that the reader may examine it separately if he/she wishes (the results of the 1993 and 1995 surveys were averaged). In some instances the data meshed well while in other cases there were considerable differences. The RiskMap interviews also contained certain types of information that were not available in the Sechaba surveys. The RiskMap interviews may suffer from some of the problems described above. The Sechaba data, on the other hand, reflects the general situation of both urban and rural households in each food economy zone rather than the purely rural focus of the RiskMap approach. After considerable debate, it was decided to simply average the mean figures from the two Sechaba surveys with the information collected by the RiskMap team. The hope is that the potential agriculture bias of the RiskMap data will be balanced out by the urban influence in the Sechaba surveys. This is an imperfect process, but we hope it has resulted in a reasonably accurate picture of the way in which rural households survive in Lesotho.

## **Background on Lesotho**

The current nation of Lesotho is a bit unique to Africa in that when it gained Independence in 1966 it was restored to a previously existing state. Part of current day Lesotho existed in the former kingdom of King Moshoeshoe in the late 1700's and early 1880's. The first King's empire stretched far into the current Orange Free State in South Africa. The low-lying plains located there provided fertile agricultural land to the Lesotho state. However, due to Boer encroachment in the 1800's much of this land was lost. The current country has more than six times the population of its predecessor as well as less than half of the agricultural land which it once encompassed.<sup>9</sup> Although Lesotho has four distinct geological zones, the Lowlands, the Foothills, the Mountains and the Senqu River Valley, it is dominated by hills. Due to the acute shortage of arable land, the mountainous terrain, livestock overgrazing and population pressure Lesotho is engaged in a severe environmental crisis. Related to this are implications for agricultural productivity which is limited. Despite the dire environmental and agricultural circumstances in Lesotho, due in large part to remittance income from South Africa, many households are not as one might assume, food insecure during normal years.

## **Geography**

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<sup>9</sup>UNICEF, 1994, p. 1.  
*RiskMap Lesotho Report, 1997*

Lesotho is a small land-locked country surrounded entirely by The Republic of South Africa. Its area is approximately 30,300 km<sup>2</sup>.<sup>10</sup> It is situated between 28° and 30° South. All of the land is at a height greater than 1500 metres.<sup>11</sup> Due to these unique geographic and topographic characteristics, Lesotho is free from the tropical diseases which are problematic in many other African countries. The Maloti Mountains run down the center of the country. The Drakensberg Mountains are in the east, and the Drakensberg Escarpment forms the northeast border with South Africa. Although the soils on the Maloti are rich, they are very shallow and subject to sheet erosion. (This is particularly exacerbated by intense overgrazing which is estimated to be at 150-300% of estimated carrying capacity<sup>12</sup>.) In addition to highland or mountainous areas, Lesotho also has lowland plains although even these are found at an elevation of 1500-1600 metres. The Northern Lowlands are the most productive part of Lesotho agriculturally, however this land is being lost through gully erosion and urbanisation.<sup>13</sup> The amount of arable land in Lesotho today is estimated at 300,000 hectares which is equivalent to 9% of the total area.<sup>14</sup> Reported rates of erosion in Lesotho are quite extreme ranging as high as 6100 tonnes per square kilometre per year<sup>15</sup> or 40 million tons of soil annually, 18-20 tons from every hectare which is equivalent to 2% of topsoil every year.<sup>16</sup> Another major geographic feature of Lesotho is the Senqu River which has its origins in the Maloti. It is one of the largest rivers in Southern Africa (known as the Orange River in South Africa). Lesotho has a very temperate climate with temperatures ranging from -6° C to 32° C. There is high diurnal variation as high as 18 degrees. Frost and snow are common in the Highlands and not unknown in Maseru the capital.

The top environmental crises which have been identified in Lesotho include: 1. Declining food self-sufficiency; 2. Acute shortage of wood fuels; 3. Rapid erosion; 4. Rapidly expanding populations; and 5. Overstocking.<sup>17</sup> Any of these phenomena individually or collectively may play a role in influencing household food security.

Although many different sources divide Lesotho into four geographical zones, the RiskMap program has designated five food economy areas (dividing the Lowlands into northern and southern zones).

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<sup>10</sup>Ibid. 1994, p. 9.

<sup>11</sup>Ibid.

<sup>12</sup>Ibid. The source cited for this figure is the Lesotho Government Ministry of Planning, 1987. Newer thinking suggests that the figure may be somewhat lower.

<sup>13</sup>Ibid.

<sup>14</sup>Ibid. And FEWS, 1996, p. 1.

<sup>15</sup>Ibid. Source cited: Lunden, Stromquist & Chakela, 1986.

<sup>16</sup>UNICEF, 1994, p. 12. Harrison cited.

<sup>17</sup>UNICEF, 1994, pp. 11-12. Harrison cited.

The five food economy areas include the following: the Mountains<sup>18</sup>, the Foothills, the Northern Lowlands, the Southern Lowlands and the Senqu River Valley.

### **Rainfall**

Rainfall in Lesotho is problematic. Although the sheer quantity during a given year might be viewed as good for agriculture, when it falls and how might actually be of little, no or even detrimental value to crops. In some instances more than a tenth of the annual rain falls within an hour.<sup>19</sup> Roughly two out of every five years is a “bad” rainfall year in Lesotho.<sup>20</sup> Rainfall in Lesotho varies quite a bit based on location within the country. The northern farming areas of the country receive the greatest amount of rain as compared to the rest of the country. Crop failure is always highest in the southern parts of the country.<sup>21</sup> Lesotho’s five food economy areas receive the following amounts of rain on average: Northern Lowlands: 800-1,000 mm, Southern Lowlands: 800 mm, Foothills: 600-1,000; Mountains: 800-1,200 and the Senqu River Valley: 600.

### **Population**

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<sup>18</sup>While there are some differences between the Northeast and Southeast Mountains (e.g. the Northeast receives more rainfall), the RiskMap team did not find these differences significant enough to constitute separate food economy zones.

<sup>19</sup>Sechaba, p. 39.

<sup>20</sup>Sechaba, 1995, pp. 37-38.

<sup>21</sup>Sechaba, 1995, p. 39.  
*RiskMap Lesotho Report, 1997*

Lesotho is a bit unique as an African country in that it is composed almost entirely by the Basotho people. The total population of the country is estimated at 2 million people of which 82% are rurally based and 18% are urban.<sup>22</sup> Urbanisation rates are quite high. In Maseru, the capital, the urbanisation growth rate is between 7-11% per annum.<sup>23</sup> About 41% of the population is under 15 years of age.<sup>24</sup> The population growth rate is high: 2.6-2.9% per annum.<sup>25</sup> However AIDS is predicted to have a significant impact on these rates. Therefore, the population growth rate in Lesotho is predicted to slow down to 2.6% by the year 2,000.<sup>26</sup> A WHO computer program predicts that by 1997, Lesotho will have: 82,000 HIV positive adults, 9,298 adult AIDS cases, 8,800 HIV-positive children and 3,118 AIDS cases for children.<sup>27</sup> A very significant feature of Lesotho's population is that a large portion of Basotho men work in South African mines. Therefore, given the migrant labour situation, there is a de jure and a de facto population in Lesotho. The de facto population refers to the people who are actually living in Lesotho. The de facto population has a high female to male ratio; for every 100 females there are 95 males.<sup>28</sup> However, this ratio is expected to stabilise as we move towards the end of the century. This is due in part to two factors, one is that South Africa is retrenching foreign miners thus Basotho are returning to Lesotho. Secondly, however, those miners who have obtained some sort of residency status due to the length of time they have spent in South Africa, are now able to have their families join them there. Given the high ratio of women to men, there are many female-headed households in Lesotho.

## **Food Production**

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<sup>22</sup>World Bank, 1995, p. 21.

<sup>23</sup>UNICEF, Exec. Summary

<sup>24</sup>UNICEF, 1994, Exec. Summary.

<sup>25</sup>Ibid.

<sup>26</sup>Ibid. And pp. 4-5.

<sup>27</sup>UNICEF, pp. 4-5; and Sechaba pp. 46-47.

<sup>28</sup>Sechaba, pp. 47-48. UNICEF, pp. 2-4.  
*RiskMap Lesotho Report, 1997*



Of Lesotho's total area of 30,350 square kilometres, roughly one quarter constitutes the main crop farming region. This zone averages 1500 metres above sea level. The rest of the country is dominated by the Maloti Mountains.<sup>29</sup> Although the climate of Lesotho is very beautiful for someone not living off the land, features such as clear skies, brisk winters, warm but not hot summers, and intense short downpours of rain contribute to make crop farming very difficult.<sup>30</sup> Maize is the preferred staple crop in Lesotho despite the fact that it is not well-suited to the climate particularly given the vagaries of rainfall. The three main cereal crops in Lesotho are maize, sorghum and wheat. In the Lowlands and Foothills, the dominant crops are: maize, sorghum and beans where as in the Mountains wheat and peas are prevalent. A quarter of the rural population owns no land to cultivate. Food crop production is increasingly playing a smaller role in household food security. More than half of the cereals consumed in the country are most often accounted for from imports.<sup>31</sup> While the program focuses on the rural areas of Lesotho, it must be noted that urban agriculture (gardens, stall-fed animals, fruit trees and chicken husbandry) is rapidly overtaking rural agriculture in economic importance.<sup>32</sup>

### **Livestock**

Lesotho is renowned for its beautiful mountains and images of herdboys watching over family flocks grazing on the hillsides. Livestock is culturally very important to the Basotho. Wool and mohair sales are more significant than meat sales. The woolen products are exported to European markets via South Africa. Livestock holdings are greater in the Mountains than any other region of the country. Livestock holdings in Lesotho include: cattle, sheep, goats, chicken, pigs, donkeys and horses. Due to the responsibilities which boy children have for herding, they have lower rates of primary school enrollment than girls across ecological zones, regions and despite whether their household is male or female-headed.<sup>33</sup>

### **Food Flows**

Half of the cereals consumed in Lesotho originate in South Africa during normal years. Economies have been liberalised in South Africa and much of the Southern Africa Region recently. In theory, this should result in cheaper maize prices for the Basotho. Some of Lesotho's developmental priorities have been reoriented away from the promotion of staple crops and to substantial changes in grain pricing and market restrictions.<sup>34</sup> Additionally, subsidies on inputs are being phased out progressively and higher producer prices are being introduced to encourage farm output.<sup>35</sup> Within

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<sup>29</sup>Sechaba, 1995, p. 37.

<sup>30</sup>Ibid.

<sup>31</sup>FEWS, p. 7.

<sup>32</sup>Personal correspondance with John Gay, Sechaba Consultants, 2 January 1997.

<sup>33</sup>World Bank, 1995, p. 26. Additionally, due to the fact that this trend also occurs in urban areas, it is believed that many Basotho view mining in South Africa as a more viable economic activity than searching for work after having obtained a formal education.

<sup>34</sup>FEWS, p. 1.

<sup>35</sup>Economist Intelligence Unit, 1995, p. 55.

Lesotho, surplus producers in the Northern Lowlands have traditionally traded grain for livestock from the Mountain zone.

### **Wild Foods**

Wild food consumption is very important to the rural Basotho particularly the poor. During normal years, consumption as a percentage of annual food needs can range from 0-15%. Almost all of the wild foods cited by participants are wild vegetables. This said, during drought years they virtually completely disappear and are hence unavailable as a source of food. A key feature of the wild foods in Lesotho is that they are available during the hungry season; i.e. at the beginning of the rainy season before the new harvest is in and after the previous one has been depleted.

### **Cash Crop Production**

Cash crops include quite a wide variety of produce in Lesotho. In the Mountains, cash crops include: wheat, marijuana (“dagga”), and vegetables. In the Lowlands they include: beans, potatoes, vegetables, marijuana, pumpkins, and maize. Luxury food crops designated for export comprise asparagus, peaches and strawberries.<sup>36</sup> In any case, cash crop production is not as significant a contributor to household income as employment/remittance income, wool and mohair sales or trade.

### **Employment/Labour**

The importance of income from employment and remittances in Lesotho cannot be understated. Employment and remittance income is the most significant source of cash in all areas of the country, with it being the least significant in the Mountain zone (the poorest area of the country). It must be noted that household wealth (and hence the RiskMap divisions of poor, mode and rich) correlates very highly with the proportion of non-local income obtained from employment and remittance. (That is, households with higher proportions of remittances are wealthier and those with smaller proportions are poorer.) Remittance income from Basotho miners working in South Africa has historically been a mainstay of the Lesotho economy. This said, many key informants indicated that remittance income from South Africa had declined considerably in recent years. Employment opportunities in Lesotho, especially the Lesotho Highlands Project appear to be taking up some of the slack. While the RiskMap program aggregates employment and remittance income, it must be said that the two sources of income behave quite differently. These are also the sources of income for two quite different groups of people. That is, employment provides income to employees while remittances primarily provide income to the wives of miners working in South Africa.<sup>37</sup>

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<sup>36</sup>Economist Intelligence Unit, p. 56.

<sup>37</sup>Personal correspondence with John Gay, Sechaba Consultants, 2 Jan. 1997.  
*RiskMap Lesotho Report, 1997*

## **Discussion of the Data and Lesotho's Food Economy Zones**

A total of five food economy zones were identified in Lesotho which closely resemble the country's well known agro-ecological zones: lowlands, foothills, mountains and Senqu river valley. The only deviation from this was to split the lowlands into north and south at a point just south of Maseru (the Qeme Plateau). A difference in rainfall patterns (better and more consistent rain in the north) is the main reason for this division.

On a general note, there is higher dependency on agriculture and animal husbandry in the mountains, Senqu River Valley and foothills than the lowlands. This means that the former will be much more susceptible to the effects of drought than the latter. Annual fluctuation in grain prices is also much higher in the mountains than the lowlands (exacerbating the problem for deficit households). The research team generally found the importance of remittance income to be lower than indicated in other surveys. Many key informants felt that this had declined considerably in recent years. Employment opportunities in Lesotho, especially the Lesotho Highlands Project, appear to be taking up some of the slack. Marijuana did show up as a major cash crop, especially in the foothills and the Senqu River Valley. The consumption of wild vegetables appears to be very important for the poor, yet this almost drops to zero in a drought year. While the rich hire the poor for piece work as a form of assistance, there appears to be limited "free" gift giving within communities. The school feeding program is an important form of structural food relief, accounting for 2.5% of the nation's annual food needs on average (see appendix). The following paragraphs briefly describe the major characteristics of each of Lesotho's five food economy zones.

**1. Northern Lowlands** This is the most productive area of the country with the highest population density. The most important aspects of this food economy are food crops, employment/remittances and trade. Food crops and employment are of similar importance to the household food economy of this area. While production is high for those who farm full time, it is much less significant on average as many households only farm part-time or not at all. Food crops account for approximately two fifths of the annual food needs for the typical family. The major food crops are: 1) maize, 2) sorghum, 3) beans, 3) wheat, 4) peas, 4) vegetables and 5) potatoes. Employment accounts for close to two-thirds of the annual income for the typical household. This employment is fairly evenly split between remittances from South Africa, employment at other locations in Lesotho and local piece work. Trading activities also account for around a sixth of income for the typical household. The average household size in this zone is 5.25. The approximate population of this area is 451,000.

**2. Southern Lowlands** The most important aspects of this food economy are food crops, employment/remittance and trade. Agriculture is only marginally more important, and less reliable, as a source of food than employment and remittance. The most important food crops are maize, sorghum and wheat. The majority of food is purchased, and with the notable exception of the poor, the largest source of income is employment and remittance. Trading is the second most important source of income for rich and modal households. Trade involves the hawking of fruit, mealies (maize meal), clothes and cosmetics as well as the operation of small businesses. The population of this area is estimated at 291,000. The average household size is 5.9.<sup>38</sup>

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<sup>38</sup> Average household size from 1993 and 1995 Sechaba surveys.

**3. Foothills** The most important aspects of this food economy are food crops, employment/remittance and livestock. Households in this area are more dependent on crop production for food than any other part of the country. The major food crops are maize, sorghum and beans. Employment is the largest source of cash income for all three wealth groups. The bulk of employment income for rich and modal households is remitted from South Africa. The sale of animal products (wool and mohair sales in particular) is the second largest source of income for rich and modal households. Sheep and goats are the most commonly kept types of animals. The average household size in the area is 5.7. The Foothills population is approximately 324,000.

**4. Mountains** The most important aspects of this food economy are food crops, employment/remittances and livestock. Food crops account for a third to two fifths of annual food needs for the typical household. The major food crops in this area are: wheat, maize, peas, sorghum, lentils and potatoes. Employment accounts for approximately two fifths of annual income for the typical household. Animal husbandry, particularly of sheep, is of great significance as compared to other areas of the country. Sales of animal products account for roughly a quarter of income for the modal family. The average household size in this zone is 5.9. The approximate population for this area is 271,000.

**5. Senqu River Valley** The most important aspects of this zone are food crops, employment, gifts/relief and livestock. This zone is a deficit producer of grains. Food crops satisfy roughly a third of annual food requirements for the average household in the area. The major food crops are: maize, sorghum, beans, wheat, peas, and potatoes. Ability to earn cash income has a direct impact on food security as the typical household purchases half of its food. Employment is of great importance and accounts for approximately half of all income for the typical household. Gifts from the better off, school feeding and various other forms of government relief (e.g. social welfare payments) also account for more than a tenth of annual food needs for modal families. Finally, animal husbandry (particularly goats and sheep) account for small amounts of meat consumption and from a tenth to a fifth of income for the typical household. The average household size in this zone is 5.6. The approximate population of this area is 324,000.

**Table A: Food Economy Zone Populations**

Food Economy Zone Name	Approximate Population <sup>39</sup>
1. Northern Lowlands	451,000
2. Southern Lowlands	291,000
3. Foothills	324,000
4. Mountains	271,000

<sup>39</sup>Population numbers derived using World Bank proportions (1995 Lesotho Poverty Assessment, Page 21) and 1995 population figures from Water Resources Management: Policy and Strategies (TAMS & Sechaba, 1996), pages 193 and 204.

5. Senqu River Valley	225,000
TOTAL	1,562,000 (a)

a. This is approximately 82% of the total 1995 Lesotho population of 1,907,401.<sup>40</sup>

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<sup>40</sup>Population estimates from: Water Resources Management: Policy and Strategies. Final Report. By TAMS Consultants in association with Sechaba Consultants. September 1996. Page 193.  
*RiskMap Lesotho Report, 1997*

## 1. Northern Lowlands <sup>41</sup>

### Summary of Food Economy

This is the most productive area of the country with the highest population density. The most important aspects of this food economy are food crops, employment/remittances and trade. Food crops and employment are of similar importance to the household food economy of this area. While production is high for those who farm full time, it is much less significant on average as many households only farm part-time or not at all. Food crops account for approximately two fifths of the annual food needs for the typical family. The major food crops are: 1) maize, 2) sorghum, 3) beans, 3) wheat, 4) peas, 4) vegetables and 5) potatoes. Employment income accounts for close to two-thirds of the annual income for the typical household. This employment is fairly evenly split between remittances from South Africa, employment at other locations in Lesotho and local piece work. Trading activities also account for around a sixth of income for the typical household. The average household size in this zone is 5.25.<sup>42</sup> The approximate population of this area is 451,000.

### Main Elements of the Food Economy

The main elements of the food economy (from most to least important) are: 1) food crops, 2) employment/remittances<sup>43</sup>, 3) trade, 4) non-food production, 5) livestock, 6) cash crops, 7) relief/gifts and 8) wild foods.

### Geography and Rainfall

This area is located in northwestern part of country. The southern border extends just south of Maseru to the Qeme Plateau. The western and northern boundaries are formed by borders with South Africa. The eastern border is formed by the Maloti Mountains. The zone includes land below 1750 m in elevation. As one moves eastward above this elevation the zone transitions to the foothills and eventually the mountains. The area includes portions of the districts of Maseru, Berea, Leribe and Butha Buthe are found in this FEZ. Average annual rainfall for the area is 800-1000 mm.

### Sources of Food

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<sup>41</sup>Information in this section is largely based on: six, full profile key informant interviews; household surveys conducted in 1993 and 1995 by Sechaba Consultants; and various secondary sources.

<sup>42</sup>The average household size for this area was derived from Sechaba surveys conducted in 1993 and 1995.

<sup>43</sup>Food crops and employment have nearly the same weight as elements of this food economy.  
*RiskMap Lesotho Report, 1997*

Own food crop consumption in this zone, although high relative to the rest of the country, accounts for less than half of annual food needs for modal families. Among poorer households it contributes a bit over a fourth of annual food needs and makes no contribution to the rich.<sup>44</sup> The most significant source of food in the Northern Lowlands is purchase which contributes just over half of annual food needs for modal households. It is more significant for both the rich and the poor accounting for nearly all food needs for the former and about two thirds for the latter. Wild food consumption makes a minor contribution to modal households (0-5%) and a bit more for the poor (0-10%) while it is insignificant among the rich. Gifts and relief make the same contribution to modal and poor households as wild foods while for the rich they also account for 0-5%. Fishing is insignificant in this zone across income groups. Milk and meat consumption is virtually insignificant in the area apart from the rich for whom it contributes 0-5% of food needs.

**Table 1.1: Sources of Food Table** (% Annual Food Needs)

Sources of Food	Poor	Mode	Rich
Own Foodcrops	25-30%	35-45%	0%
Milk/Meat	0%	0%	0-5%
Fishing	0%	0%	0%
Wild Foods	0-10%	0-5%	0%
Gift/Relief	0-10%	0-5%	0-5%
Purchase	60-65%	50-60%	95-100%
Total	85-115%	85-115%	95-110%

### *Food Crop Production*

The major food crops (from most to least important) are: 1) maize, 2) sorghum, 3) beans, 3) wheat, 4) peas, 4) vegetables and 5) potatoes. Beans are typically intercropped with maize. The rich are an unusual case as they actually grow crops that could feed the family for six months but prefer to sell all of this and purchase their food. 78% of households have fields in this zone.

### *Wild Foods*

Wild food consumption makes a small but important contribution to annual food needs of poor and modal households in the Northern Lowlands. The wild foods which are consumed in this area include the following: *theepe/thepe* (Aug/Sept. - Dec./Feb.), *seruoe* (Oct. - Dec./Jan.), *qhela* (June - Aug., Oct. - Dec.), *tenane* (June - Aug/Sept.), *papasane* (year-round), *tlhakoekhomo* (Aug. - Sept.), *sepitsa* (Aug. - Dec.), *bobatsi* (year round), *semetsing* (all year), *sepaile* (Nov. - Jan.), and *sebitse* (Nov. - Jan.).

### *Fishing*

Fishing was not found to be a significant source of food or cash for any of the economic groups in this area.

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<sup>44</sup>The rich actually grow food crops that could feed the family for six months. However, they prefer to sell all of this and purchase their food.

### Sources of Cash

The most significant source of cash for modal households in the Northern Lowlands is employment and remittance income, accounting for over half of their annual income. It is less significant for poor and rich households, but remains nonetheless the largest source of income across all three income groups. Other trade is the second largest source of cash in this zone for modal households. Livestock sales, cash crop sales and non-food production all contribute equally to the annual incomes of typical households (5-10%). Non-food production makes a greater contribution to poorer households (25-40%) than for the mode. Livestock sales are more significant among richer households than for the modal and poor households contributing 10-20% to annual income.

**Table 1.2: Sources of Cash** (% of annual income)

Sources of Cash	Poor	Mode	Rich
Employment & Remittance	35-45%	55-65%	40-60%
Livestock Sales	5-10%	5-10%	10-20%
Cash Crop	5-10%	5-10%	0-15%
Non-Food Production	25-40%	5-10%	0-5%
Other Trade	5-15%	10-20%	15-25%
Total	75-120%	80-115%	65-125%

### Employment and Remittance

Employment and remittance income is the most significant source of cash among all three income groups. It contributes 55-65% to typical households, about 50% for the rich and just over a third for the poor. As throughout Lesotho, remittance incomes from South Africa (mining in particular) are significant in this zone. However, within country and local sources of employment are equally and even more important in several cases. The poor garner the majority of their income from in-country sources; largely urban centres. Modal households gain the most from South Africa, while the rich acquire over half of their income from local sources. In contrast with other Southern African countries such as Zimbabwe and Malawi, only a very small percentage (5%) of income is garnered from local piecework for poor household members.

**Table 1.3a: Employment and Remittance** (% of employment income)

Socio-Economic Grp.	Locally	Within Country	Neighbouring Country	Distant Country
Poor	5%	55-60%	35-40%	0%
Mode	25-30%	35%	35-40%	0%
Rich	55-60%	20-25%	20%	0%

**Table 1.3b: Employment Markets and Locations**

Location	Name of Town/Country and Rank
Local	Local Piece Work
Within Country	1) Maseru, 2) Maputsoe, 3) Thaba Tseka, 4) Butha Buthe, 4) Teyateyaneng, 5) Mafeteng
Neighbouring Country	South Africa



### *Livestock*

The sale of livestock products (mohair, wool and animal sales) make a contribution to the annual income of poor, modal and rich households. Similar to poor agricultural communities throughout the region, their contribution to rich households is greater than to poor and modal households. They provide 10-20% of annual income for the rich and 5-10% for the mode and poor. Likewise, milk and meat consumption is greater among rich households than the poor and mode. It contributes 0-5% of annual food needs for the rich while remaining insignificant for the other two income groups. Livestock holdings in this area encompass a fairly diverse group of animals which includes: cattle, goats, sheep, chickens, pigs, donkeys and horses. A modal household would typically own: 2-3 cattle, 3-4 goats, 7-9 sheep, 5-7 chickens, 0-1 pigs and 0-1 donkeys. Even poor households own one head of cattle on average. In general, only the rich own a horse.

**Table 1.4: Livestock Holdings** (livestock numbers)

Livestock Type	Poor	Mode	Rich
Cattle	1	2-3	5
Goats	1	3-4	12
Sheep	0-1	7-9	20
Chickens	7	5-7	13
Pigs	0-1	0-1	1-2
Donkey	0-1	0-1	1
Horse	0	0	0-1

### *Cash Crop Production*

Cash crop sales are most significant for the rich for whom they account for 10-20% of annual income. These sales contribute 5-10% of the annual income for poor and modal households. The major cash crops produced in the Northern Lowlands (from most to least important) are: 1) beans, 2) vegetables, 3) potatoes, 3) peas, 3) sunflower, 4) dagga or marijuana (grown in foothills by lowland people) and 4) maize.

### *Non-Food Production*

Non-food production is a significant source of income in this zone. For modal households it contributes 5-10% of annual income. For the rich it is less important providing 0-5%. However, it is quite significant for the poor in that it provides 25-40% of annual income.

The types of non-food production income generating activities which occur in this zone include: traditional beer, wild food, firewood, and thatch sales. In this case, cooking and selling food items was included in this category as well.

### *Trade*

Trade is a significant source of income in the Northern Lowlands. Among modal households, it contributes 10-20% of annual income. It is greater for the rich, 15-25%; and less for the poor: 5-15%. A variety of trading activities occur in this area. Some of them include: small cafe/restaurant owners, taverns, transport businesses, shops, hawking, clothing sales and animal trading.

### Surplus Production and Income

Surplus food and cash production do not occur during normal years for poor households in this area. Modal households also do not typically produce food surpluses. However, on average, they have cash surpluses equivalent to nearly a quarter of their annual food needs (20-25%). Rich households do much better in terms of surpluses, with food surpluses equivalent to nearly half of their annual food needs (45-50%) and surplus cash production equal to 80-85% of annual food needs.

**Table 1.5: Surplus Production and Income** (% of annual food needs)

Surplus Type	Poor	Mode	Rich
Surplus Food Production	0%	0%	45-50%
Surplus Cash Production	0%	20-25%	80-85%

#### Assets and Savings

None of the three income groups in this zone are reported to have food stocks during normal years. Cash savings are low, accounting for 0-10% of annual food needs for poor households, 25-30% for the mode and just about a year's worth (100-110%) for the rich. Livestock assets are the most significant asset among all three groups. When livestock is sold and converted to food (at normal year prices) it could provide from just under a year to one and a half year's worth of food for poor households, two and a half to four years of food for modal households and about eight years for the rich. Physical assets in this area when sold and converted to food at normal year prices could provide over three years worth of food for poor households, roughly three and half for the mode and over twelve for the rich.

**Table 1.6: Assets and Savings** (% of annual food needs)

Asset Type	Poor	Mode	Rich
Food Stocks	0%	0%	0%
Livestock	85-150%	260-415%	780-865%
Cash Savings	0-10%	25-30%	100-110%
Physical Assets <sup>45</sup>	230%	360%	12305-12310%

#### Income Distribution and the Mode

Using cows and income as indicators of wealth, the following wealth distribution was derived: 1st wealth quintile: 30% of population; 2nd wealth quintile, 25% of the population; 3rd wealth quintile, 20% of the population; 4th wealth quintile, 15% of the population; 5th and richest wealth quintile, 10% of the population.

#### Cereal Markets and Food Flows

Deficit area. Some grain is traded to mountain area of country. Cereal markets: Leribe (Hlotse), Teyateyaneng, Maseru and Butha Buthe. Average price for 1 kg maize meal between January and June is 1.5 maloti.

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<sup>45</sup>Based solely on data from 1993 and 1995 Sechaba household surveys. Includes the value of the following assets: radio, TV, vehicle, tractor and houses.

Other Markets and Prices

*Livestock Markets:* Local and Maseru

*Wool and Mohair:* Europe via South Africa

*Cash Crop Markets:* Maseru, Maputsoe and South Africa (dagga)

*Other Trade:* South Africa

*Non-Food Production:* Local

**Table 1.7: Asset Prices**

Item	Price	Item	Price	Item	Price
TV	1500	Cultivator	350	Radio	200
-	-	planter	1200	Bicycle	450
plough	150	ox cart	1500	vehicle	10000

**Table 1.8: Livestock Prices**

Animal	Price	Animal	Price	Animal	Price
chicken	20	pig	300	donkey	450
goat	150	cattle	1000	horse	1000
sheep	200	-		-	

How People Cope with a Bad Year

Wild food availability decreases in dry years. The rich give 0-5% of their surplus to deficit households.

Seasonality

x = plant, \* = harvest

Type	Jan	Feb	Mar	Apr	May	Jun	July	Au g	Sep t	Oct	No v	Dec
Maize					*	*	*			<b>X</b>	<b>X</b>	
Sorghum					*	*			<b>X</b>	<b>X</b>		
Beans	*	*	*							<b>X</b>	<b>X</b>	<b>X</b>
wheat					<b>X</b>	<b>X</b>					*	*
veg								<b>X</b>			*	
Rain	.	....	....						....	....	....	.

## 2. Southern Lowlands <sup>46</sup>

### Summary of Food Economy

The most important aspects of this food economy are food crops, employment/remittance and trade. Agriculture is only marginally more important, and less reliable, as a source of food than employment and remittance. The most important food crops are maize, sorghum and wheat. The majority of food is purchased, and with the notable exception of the poor, the largest source of income is employment and remittance. Trading is the second most important source of income for rich and modal households. Trade involves the hawking of fruit, mealies (maize meal), clothes and cosmetics as well as the operation of small businesses. The population of this area is estimated at 291,000. The average household size is 5.9.<sup>47</sup>

### Main Elements of the Food Economy

The main elements of the food economy of the Southern Lowlands are listed in order of importance as follows: 1. Food crops, 2. Employment/Remittance, 3. Trade, 4. Livestock, 5. Non-Food Production, 6. Cash Crops, 7. Relief/Gifts, 8. Wild Food.

### Geography and Rainfall

The Southern Lowlands are comprised of the lower lying area in the southwestern part of the country with elevations of 1750 m and below. The northern border begins south of Maseru at the Qeme Plateau. The eastern border is formed by the Maloti Mountains. The western edge is formed by its border with South Africa. This food economy area extends as far south as the Mapfutseng River. It includes portions of the districts of Maseru, Mafeteng and Mohale's Hoek. This is the most drought prone area of the country. The average annual rainfall is 800 mm. This is the most drought prone area in the country.

### Sources of Food

Although own food crop production is the most important element of this food economy, purchased food (from a variety of sources) is the largest contributor to annual food needs for modal (55-60%), poor (65-70%) and rich (60-70%) households in the Southern Lowlands. The second largest source of food is own food crops for all three groups as well accounting for 20-50% for the mode, 10-30% for the poor and 15-45% for the rich. The remaining sources of food make minor or insignificant contributions to annual food needs. Fish consumption is insignificant in the area. Wild foods are most important among poor households contributing 0-10% to annual food needs while they provide 0-5% to typical homes and nothing for the rich. Gifts and relief while small do provide 5-10% of food to the poor and 0-5% for both the mode and rich. Relief for modal and rich households is largely a result of the School Feeding Programme. Milk and meat consumption from own holdings is rather small: 0% for the poor, and 0-5% for the mode and rich.

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<sup>46</sup>The information in this section is based on 5 informant interviews, data from Sechaba surveys and secondary sources.

<sup>47</sup> Average household size from 1993 and 1995 Sechaba surveys.  
*RiskMap Lesotho Report, 1997*

**Table 2.1: Sources of Food Table** (% Annual Food Needs)

Sources of Food	Poor	Mode	Rich
Own Foodcrops	10-30%	20-50%	15-45%
Milk/Meat	0%	0-5%	0-5%
Fishing	0%	0%	0%
Wild Foods	0-10%	0-5%	0%
Gift/Relief	5-10%	0-5%	0-5%
Purchase	65-70%	55-60%	60-70%
Total	80-120%	75-125%	75-125%

### *Food Crop Production*

Foodcrop production is significant in the zone. Modal households obtain 20-50% of their annual food needs from own crops produced. The poor acquire 10-30% and the rich 15-45%. The types of foodcrops cultivated in this area in order of importance include: 1) maize, 2) sorghum, 3) wheat, 4) beans, 4) peas, 5) pumpkin. It is worthy to note that 13-20% of households in this area have no fields.<sup>48</sup> Land shortages, soil eroins and erratic rainfall are the key limiting factors to improved agricultural production.

### *Wild Foods*

Wild food consumption makes a small but important contribution to the annual food needs of residents in the Southern Lowlands. They are most important to the poor as they provide 0-10% of annual food needs, 0-5% for the mode and 0% for the rich. A variety of wild foods grow in the Southern Lowlands. They include the following (with the months they are available indicated in parentheses after each wild food name): *Seroue* (Sept-Dec), *Tenane* (Sept-Dec), *Qhela* (Sept-Dec), *Theepe* (Sept-Dec), *Leharasoana* (May-Aug), *Sepaile* (Sept-Dec), *Leshoabe* (Sept-Dec), *Papasane* (Sept-Dec), *Sepatlapatla* (June -Aug). (All of the wild food names listed are in the vernacular Sesotho.)

### *Fishing*

Fish as a source of food or cash is negligible in this zone.

### Sources of Cash

The largest source of cash for modal families in this area is derived from employment and remittances; accounting for over half of annual income in those households. It is far less significant for the poor providing a maximum of a quarter of annual income while for the rich it provides from between half and three-quarters of annual income. Other trade which takes a variety of forms is the second largest source of income for modal and rich households. Non-food production however is the second largest for the poor. Livestock sales and cash crop sales provide the balance to all three income groups.

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<sup>48</sup>1993 and 1995 Sechaba household surveys.  
*RiskMap Lesotho Report, 1997*

**Table 2.2: Sources of Cash** (% of annual income)

Sources of Cash	Poor	Mode	Rich
Employment & Remittance	10-25%	50-65%	45-75%
Livestock Sales	10-25%	5-15%	5-20%
Cash Crop	5-10%	0-10%	5-15%
Non-Food Production	45-50%	5-10%	0-5%
Other Trade	0-10%	10-20%	10-20%
Total	70-120%	70-120%	65-135%

### *Employment and Remittance*

Employment and remittance is the largest source of income for modal and rich households in the Southern Lowlands providing 50-65% of annual income for the former and 45-75% for the latter. It is a far less important source for poor households contributing only 10-25%. The primary source of employment for the poor is local piecework. As with the rest of Lesotho, in the Southern Lowlands the primary source of neighbouring country remittances is South Africa. Modal households obtain the majority of their income from this source. The rich gain most of their employment income from within country sources, primarily urban centres.

**Table 2.3a: Employment and Remittance** (% of employment income)

Socio-Economic Grp.	Locally	Within Country	Neighbouring Country	Distant Country
Poor	70-75%	5-10%	25%	0%
Mode	25-30%	25-30%	45-50%	0%
Rich	0%	50-60%	40-50%	0%

**Table 2.3b: Employment Markets and Locations**

Location	Name of Town/Country and Rank
Within Country	1) Maseru, 2) Mafeteng, 3) Mohale's Hoek, 4) Leribe, 5) Thaba Tseka, 6) Quthing, 7) Butha Buthe, 8) Quacha's Nek, 9) Berea
Neighbouring Country	1. South Africa

### *Livestock*

Milk and meat consumption from own sources is small in this zone. It accounts for 0-5% of annual food for modal and rich households and makes no contribution to annual food needs for the poor. The sale of livestock products as a source of cash do play a role in this food economy zone. They are the third largest source of income for modal and rich households accounting for 5-15% and 5-20% of income respectively. Among poor households livestock product sales are the second most important source of cash which provide 10-25% of income. A typical household in this area would normally possess 3-4 head of cattle, 10-11 goats, 15 sheep, 13-14 chickens, a pig, and 0-1 donkeys and/or horses.

**Table 2.4: Livestock Holdings** (livestock numbers)

Livestock Type	Poor	Mode	Rich
Cattle	0-1	3-4	5-6
Goats	1	10-11	10
Sheep	2	15	15
Chickens	5-7	13-14	18-19
Pigs	1	1	1
Donkey	0	0-1	0
Horse	0	0-1	0-1

### *Cash Crop Production*

Cash crop sales are one of the least significant sources of income for modal families in the Southern Lowlands. It is their fifth largest source of cash which provides 0-10% of annual income. It is also one of the less significant sources of income for the richer and poorer households; the fourth largest in both cases. The types of cash crops which are cultivated in this area include the following in order of importance: 1) Vegetables, 2) Beans, 3) Sunflower, 3) Potato, 3) Peas.

### *Non-Food Production*

Non-food production is a significant source of income in this food economy area; the most significant source for poor households accounting for nearly half of their annual income. It is far less substantial for modal and rich households but plays a role nonetheless. It is the fourth largest source of income for modal households and fifth for the rich. A variety of non-food production activities are undertaken in this area which include: 1) Beer brewing, 2) craft sales, 2) wild food sales, and 2) cooking/baking. (These activities have been listed in order of importance. In cases where a given activity has equal importance the same number has been attributed to one or more activities.)

### *Trade*

Trade is the second largest source of annual income among modal households in the Southern Lowlands. It provides 10-20% of cash annually. It is also the second largest source of income for rich households providing the same percentage of income. In contrast, it is quite small for poorer households providing only 0-10% on average, which is the fifth largest source of cash. The types of trading activities which occur in this zone include the following: buying and selling or hawking: fruit, mealies (maize meal), clothes and cosmetics as well as operating small businesses.

### Surplus Production and Income

In the Southern Lowland food economy area none of the respective income groups have any surplus food production. Additionally, the poor households also do not have any surplus cash production. Modal households however, on average, could purchase approximately 15% of potential annual food needs from surplus cash. The rich could purchase just over half of their annual needs employing surplus cash.

**Table 2.5: Surplus Production and Income** (% of annual food needs)

Surplus Type	Poor	Mode	Rich
Surplus Food Production	0%	0%	0%
Surplus Cash Production	0%	15%	55-60%

#### Assets and Savings

Poor, mode and rich households in the Southern Lowlands do not have any food stocks during normal years. Livestock holdings, when converted to cash then food at normal year prices could provide substantial amounts of food for all three groups. The poor could acquire just over one half a year to nearly one and a half year's worth of food; the mode from five and a half to seven and a half; and the rich from over seven to over eight and a half year's worth of food. With regard to assets and savings, cash savings are far less substantial than livestock holdings. They could provide a quarter of a year of food for both modal and poor households while just over one year's worth of food for rich households. Physical assets such as radios, TVs, houses, etc. when translated to food at normal year prices could provide nearly four year's worth of food for poor households, just over five for the mode and over ten for the rich.

**Table 2.6: Assets and Savings** (% of annual food needs)

Asset Type	Poor	Mode	Rich
Food Stocks	0%	0%	0%
Livestock	60-140%	565-755%	720-865%
Cash Savings	25%	25%	105-110%
Physical Assets <sup>49</sup>	365-370%	515%	1765-1770%

#### Income Distribution and the Mode

The 1st and poorest quintile accounts for 20-25% of population; the 2nd quintile, 20-25% of the population; the 3rd quintile, 25-30% of the population; the 4th quintile, 10-15% of the population; and the 5th and richest quintile, 15% of the population. Approximately 65-80% of the population falls within and below the mode.

#### Cereal Markets and Food Flows

This is a deficit area in terms of cereal production. Grain is largely imported from South Africa. Grain markets: Mafeteng, Maseru, Mohale's Hoek. The average price of maize meal between January and June was reported to be 1.5 Maloti per kilogram.

#### Other Markets and Prices

*Livestock Markets:* Mafeteng, local, Mohale's Hoek, Maseru and Quthing. Wool and Mohair are exported to Europe via South African ports.

*Cash Crop Markets:* Local, Mafeteng, Mohale's Hoek.

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<sup>49</sup>Based solely on data from 1993 and 1995 Sechaba household surveys. Includes the value of the following assets: radio, TV, vehicle, tractors and houses.



*Other Trade:* Local, South Africa.

*Non-Food Production:* Local.

**Table 2.7: Asset Prices (Maloti)**

Item	Price	Item	Price	Item	Price
Hoe	-	Cultivator	975	Radio	200
Ax	-	Tractor	10,000	Bicycle	240
Plough	430	Ox cart	600-1000	Vehicle	10,000
Furniture	-	House	1500 per room	TV	1500

**Table 2.8: Livestock & Grain Prices (Maloti)**

Animal	Price	Animal	Price	Animal	Price
poultry	20	pig	320	donkey	500
goat	185	cattle	1250	g. fowl, etc.	-
sheep	230	horse	1200	1 kg Maize Meal	1.5

#### How People Cope with a Bad Year

Additional wild food consumption does not occur in bad years.

Redistribution: 10-15% of surplus of rich given to deficit households in the area.

#### Seasonality

This section presents the seasonality of the major crops, rains and other activities. For crops, the first set of dates is the planting time while the second set of dates is the harvest time.

Sorghum/maize: Oct/Nov/Dec - April/May

Beans: Oct/Nov/Dec - March/April

Peas: April - Dec

Vegetables: September - February

Sunflower: Nov - Jan

Rains: Start in September, falter in Jan and Feb, continue in Feb and March.

Wool sold between Sept and Jan.

Mohair sold between Jan and April

Livestock sold between Jan and April

### 3. Foothills

#### Summary of Food Economy

The most important aspects of this food economy are food crops, employment/remittance and livestock. Households in this area are more dependent on crop production for food than any other part of the country. The major food crops are maize, sorghum and beans. Employment is the largest source of cash income for all three wealth groups. The bulk of employment income for rich and modal households is remitted from South Africa. The sale of animal products (wool and mohair sales in particular) is the second largest source of income for rich and modal households. Sheep and goats are the most commonly kept types of animals. The average household size in the area is 5.7.<sup>50</sup> The Foothills population is approximately 324,000.

#### Main Elements of the Food Economy

The main elements of the Foothills food economy are as follows listed in order of importance: 1. Food crops, 2. Employment/remittance, 3. Livestock, 4. Trade, 5. Non-food production, 6. Cash crops, 7. Relief/Gifts, 8. Wild Food.

#### Geography and Rainfall

The average annual rainfall in the Foothills food economy area is 600-1000 mm. More rain falls in the north than the south of zone. This food economy zone comprises an area on the western side of the Maloti Mountains. The Foothills food economy area in Lesotho broadly encompasses the transitional area between the Lowlands and the Mountains. It includes areas at intermediate elevations 1750-2250 metres. Most of the land is sloped which accentuates erosion problems induced by over intensive cultivation and grazing by livestock. It includes portions of the districts of Butha Buthe, Leribe, Berea, Maseru, Mafeteng and Mohale's Hoek.

#### Sources of Food

The primary source of food for modal and rich households in the Foothills is own food crops. It provides somewhat over half of annual food needs for the mode and nearly three quarters for the rich. Own food crops are the second most important source of food for the poor providing between a quarter and a third of food needs. Purchase is the second largest source of food for modal and rich households while it is the first most significant for the poor providing well over two thirds of their food. Fish as a source of food is insignificant in this zone. The remaining sources of food: milk and meat consumption, wild foods and gifts/relief make minor or negligible contributions to the annual food needs of poor, modal and rich households in this area. The poor receive the same amount of gifts/relief that rich and modal households do; 0-5%. This is due to supplementary school feeding programs for children regardless of economic status. (However, it should be noted that the poor are less likely to attend school.)

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<sup>50</sup>The average household size estimate is based on data from the 1993 and 1995 Sechaba household surveys.  
*RiskMap Lesotho Report, 1997*

**Table 3.1: Sources of Food Table** (% Annual Food Needs)

Sources of Food	Poor	Mode	Rich
Own Food crops	25-35%	50-60%	65-70%
Milk/Meat	0%	0-5%	0-5%
Fishing	0%	0%	0%
Wild Foods	0-5%	0-5%	0%
Gift/Relief	0-5%	0-5%	0-5%
Purchase	60-70%	35-40%	25-30%
Total	90-110%	85-115%	85-115%

### *Food Crop Production*

Own food crops is the largest and most significant element of this food economy. As such, it is more vulnerable to food insecurity due to drought than are the Lowlands. Food crops account for over half of the annual food needs for modal households. They provide over two thirds for rich households. They are the second most significant source of food for poor households providing about a third of annual food needs. The food crops which are cultivated in this zone include the following in order of importance: 1. Maize, 2. Sorghum, 3. Beans, 4. Peas, 5. Wheat, 6. Potatoes. It is important to note that 21-28% of households in the Foothills have no fields.<sup>51</sup>

### *Wild Foods*

Wild food consumption is a small but significant source of food in the Foothills food economy. It provides 0-5% of annual food needs to poor and modal households. Wild game is very rare in Lesotho. Thus wild foods are composed primarily of fruits and vegetables. Those which grow in the area include: *Papasane* (all year), *Tenane* (Aug-Nov), *Leharasoana* (Aug-Nov), *Leshoabe* (Aug-Nov), *Mololo* (Aug-Nov), *Theepe* (Oct-Feb), *Seroue* (Sept-Jan), *Bobatsi* (all year), *Sepaile* (July-Jan), *Mabelebele*, *Qhela* (May-Aug). (The names of wild foods listed are in the vernacular, Sesotho.)

### *Fishing*

Fish as a source of food or income is not significant in this zone.

### Sources of Cash

Employment and remittances are the largest source of cash for all three income groups. They provide over half of annual income for modal households, roughly half for the rich and over a quarter for the poor. The second largest source of cash for modal and rich households is the sale of livestock products. However, they are the smallest contributor in poor households. The third largest source of cash for modal households is other trade which includes a variety of activities. Cash crop sales and non-food production provide the remaining contributions to the annual incomes of modal households in the Foothills. Non-food production is a very important source of cash for poor households garnering over a quarter of yearly income.

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<sup>51</sup>Data from 1993 and 1995 Sechaba household surveys.  
*RiskMap Lesotho Report, 1997*

**Table 3.2: Sources of Cash** (% of annual income)

Sources of Cash	Poor	Mode	Rich
Employment & Remittance	25-45%	55-60%	40-60%
Livestock Sales	5-10%	10-15%	10-25%
Cash Crop	5-15%	5-10%	10-20%
Non-Food Production	20-35%	5-10%	0-10%
Other Trade	5-15%	5-15%	10-15%
Total	60-120%	80-110%	70-130%

*Employment and Remittance*

Employment and remittances are the largest source of income for poor, mode and rich households in the Foothills. They account for over half of all cash for modal families, roughly one half for richer households and over a third among poor households. The poor obtain the majority of their employment locally conducting piecework. The mode and rich however gain most of their employment income from a neighbouring country, South Africa. Within country employment in this zone is significant for all three income groups. It is composed primarily by work in urban centres.

**Table 3.3a: Employment and Remittance** (% of employment income)

Socio-Economic Grp.	Locally	Within Country	Neighbouring Country	Distant Country
Poor	75-80%	5-10%	5-20%	0%
Mode	20%	25%	55%	0%
Rich	0%	35%	65%	0%

Note: Unable to rank employment markets.

**Table 3.3b: Employment Markets and Locations**

Location	Name of Town/Country and Rank
Within Country	Maseru, Mophale's Hoek, Butha Buthe, Thaba Tseka, Leribe/Hlotse, Maputsoe.
Neighbouring Country	South Africa

*Livestock*

Milk and meat consumption in this zone is small. It contributes 0-5% to annual food needs for modal and rich households. The poor do not obtain substantial amounts of their food needs from milk and meat sources. Livestock product sales are a fairly substantial source of income in the Foothills area. They are the second largest source of income for modal households (10-15%). They are also the second largest for the rich providing 10-25% of annual income and are the least significant for the poor providing only 5-10%. The types of livestock owned in the Foothills include cattle, goats, sheep, chickens, pigs, donkeys and horses. A modal household in this area would typically own 3-5 cattle, 10-15 goats, 16-17 sheep, 7-8 chickens, 0-1 pigs, 0-1 donkeys and 0-1 horses. The poor have very limited holdings, however they do own one head of cattle on average.

**Table 3.4: Livestock Holdings** (livestock numbers)

Livestock Type	Poor	Mode	Rich
Cattle	1	3-5	6-7
Goats	2-3	10-15	30-35
Sheep	2	16-17	30-35
Chickens	3-6	7-8	9-10
Pigs	1	0-1	0-1
Donkey	0	0-1	1
Horse	0	0-1	1

#### *Cash Crop Production*

Cash crop sales are a small but significant contributor to the incomes of modal, poor and rich households in the Foothills area. They are the fourth most significant source of cash for the mode providing 5-10% of annual income and are third most important for the rich providing 10-20% as well as the poor contributing 5-15%. The types of cash crops grown in this area listed in order of importance are as follows: 1) Vegetables, 2) Beans, 3) Daga (Marijuana), 4) Potatoes and 4) Wheat.

#### *Non-Food Production*

Non-food production is a small source of income for the modal and rich households in this area providing 5-10% and 0-10% to annual incomes respectively. However, it is very significant for the poor and is the second largest source of cash garnering 20-35% of yearly income. The types of non-food production activities which occur in the Foothills include the following: beer brewing, wild food sales, craft sales, cooking, firewood and grass sales.

#### *Trade*

Trade is a relatively small source of income in the Foothills food economy area. It is the third largest source of income among modal and poor households, while it is fourth for the rich. The types of trading activities which occur in this area include the following: small businesses, used clothing trade, fruit trade and cafes.

#### Surplus Production and Income

Food surpluses are not produced during normal years by any of the economic groups in this area. The poor do not typically have any surplus cash. Modal households, during normal years, would have enough surplus cash to purchase approximately a third of a year's worth of food. The rich would be able to purchase nearly half a year's worth of food using surplus cash.

**Table 3.5: Surplus Production and Income** (% of annual food needs)

Surplus Type	Poor	Mode	Rich
Surplus Food Production	0%	0%	0%
Surplus Cash Production	0%	35%	45-50%

#### Assets and Savings

In the Foothills food economy area neither the poor, mode nor rich have any foodstocks during typical circumstances. All three groups have livestock holdings which when converted to cash then food at normal year prices could provide food for their respective households for varying lengths of time: about a year and three-quarters for the poor, from six to ten years for the mode and over fourteen years for the rich. All three groups have much smaller amounts of cash savings. The poor have only enough to provide 0-5% of annual food needs, the mode 20-30% and the rich 60-75%. The physical assets of each group when converted to food could potentially provide three years of food for the poor, four for the mode and over twelve for the rich.

**Table 3.6: Assets and Savings** (% of annual food needs)

Asset Type	Poor	Mode	Rich
Food Stocks	0%	0%	0%
Livestock	170-180%	660-1025%	1485-1740%
Cash Savings	0-5%	20-30%	60-75%
<sup>52</sup> Physical Assets	300%	410-415%	1220%

#### Income Distribution and the Mode

The research team was unable to collect data for this. Assume that 70% of the population falls within and below the mode.

#### Cereal Markets and Food Flows

This is a deficit area. Import grain from South Africa. Markets: 1) Mohale's Hoek, 1) Qacha's Nek, 1) Butha Buthe, 1) Maputsoe, 1) South Africa, 1) Hlotsoe, 2) Mount Moorosi, 2) Sananteng, 2) Pitseng, 2) Khaboe, 2) Kolojune.

#### Other Markets and Prices

*Livestock* Markets: Butha Buthe, Leribe, Hlotse, Pitseng, Maputsoe, Mohale's Hoek, Local. Wool and mohair is exported to Europe via South African ports (Durban).

*Cash Crop Markets:* local, S. Africa (Marijuana), Butha Buthe, Maputsoe (Beans), Hlotse.

*Other Trade:* Local

*Non-Food Production:* Local

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<sup>52</sup>Based on data from 1993 and 1995 Sechaba household surveys. Includes the value of houses, TV, radio, vehicle and tractor.

**Table 3.7: Asset Prices**

Item	Price	Item	Price	Item	Price
Hoe		Cultivator		Radio	200
Ax		House	1500/room	Vehicle	10,000
Plough		ox cart		Tractor	10,000
Furniture		wheelbarrow		TV	1500

**Table 3.8: Livestock Prices (Maloti)**

Animal	Price	Animal	Price	Animal	Price
poultry	15	pig	300	donkey	500
goat	180	cattle	1500	g. fowl, etc.	
sheep	280	horse	1000	1 kg maize meal	1.5

How People Cope with a Bad Year

Wild food consumption declines in bad years. There is no income redistribution from rich to poor.

Seasonality

Maize: Sept/Oct/Nov - May/June

Sorghum: Sept/Oct/Nov - May/June

Beans: Sept/Oct/Nov - Feb/March/April

Potatoes: Nov/Dec - March/April/May

Daga: Aug - Dec/Jan

Rain Oct-Nov, break in Dec-Jan, Feb-April

## 4. Mountains <sup>53</sup>

### Summary of Food Economy

The most important aspects of this food economy are food crops, employment/remittances and livestock. Food crops account for a third to two fifths of annual food needs for the typical household. The major food crops in this area are: wheat, maize, peas, sorghum, lentils and potatoes. Employment accounts for approximately two fifths of annual income for the typical household. Animal husbandry, particularly of sheep, is of great significance as compared to other areas of the country. Sales of animal products account for roughly a quarter of income for the modal family. The average household size in this zone is 5.9.<sup>54</sup> The approximate population for this area is 271,000.

### Main Elements of the Food Economy

The main elements of the food economy (from most to least important) are: 1) food crops, 2) employment/remittance, 3) livestock, 4) non-food production, 5) relief/gifts, 6) wild foods, 7) trade and 8) cash crops.

### Geography and Rainfall

In terms of surface area this is the largest food economy area. The Maloti Mountains form its western border with the Foothills zone. The Drakensberg Mountains are in the centre of this zone. An escarpment running down the northeast of the mountains forms the boundary of this food economy area (FEA) as well as the border with South Africa. The Zone is inter-mixed with the Senqu River Valley FEA in the South. All of this area is above 2250 m in elevation. The zone includes the districts of Mokhotlong and Thaba-Tseka in their entirety. It also includes portions of the districts of Butha Buthe, Leribe, Maseru, Mohale's Hoek, Qacha's Nek and Quthing. Rainfall varies between 800 mm and 1200 mm per annum. Rainfall is higher in the north and lower in the south of this zone.

### Sources of Food

Purchase with a variety of sub-components is the largest source of food for all three income groups in this zone. The second largest source of food is own food crops. Fish is insignificant for all three economic groups. Milk and meat, wild foods and gifts/relief play small but contributing roles to the overall balance of annual food needs in the Mountain zone.

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<sup>53</sup>Information in this section is largely based on: eight, full profile key informant interviews; household surveys conducted in 1993 and 1995 by Sechaba Consultants; and various secondary sources.

<sup>54</sup>The average household size data is derived from the 1993 and 1995 Sechaba household surveys.



**Table 4.1: Sources of Food Table** (% Annual Food Needs)

Sources of Food	Poor	Mode	Rich
Own Foodcrops	25-30%	35-40%	30-40%
Milk/Meat	0%	0-10%	5-10%
Fishing	0%	0%	0%
Wild Foods	0-10%	0-10%	0-5%
Gift/Relief	5-15%	0-10%	0-5%
Purchase	50-60%	45-50%	50-55%
Total	80-120%	80-120%	85-115%

#### *Food Crop Production*

Own food crops are the second largest source of food for all three income groups in the Mountains.

Own food crops provide over a third of annual food needs to modal and rich households and just over a quarter for the poor. The major food crops (from most to least important) in this area are: 1) wheat, 2) maize, 2) peas, 3) sorghum, 3) lentils, 3) potatoes, 3) beans and 3) vegetables.

#### *Wild Foods*

Wild foods provide a small but meaningful contribution to annual food needs in the Mountain zone. They are one of the third most significant sources of food for modal households garnering 0-10% of food needs. They are the fourth most significant source of food for poor and rich households providing 0-10% and 0-5% respectively. The types of wild foods which are consumed in the Mountain are include the following: *sepaile* (Sept./Oct. - Feb./March), *seruoe* (Oct. - Feb./March), *theepe* (Oct. - Feb./March), *tenane* (Oct. - Feb./March), *quela* (Aug. - Feb/March), *bobatsi* (Sept/Oct. - Feb./March), *semetsing*, *papsane* (Sept./Oct.-March), *majakane*, *leshoabe* (Sept. - March) and *lefokotsahe* (Sept. - March).

#### *Fishing*

Fishing is not significant as a source of food or income for any of the economic groups in this zone.

#### Sources of Cash

The most significant source of cash for modal and rich households in the Mountain area is employment and remittance income. It is the second most important source for poor families following non-food production which is quite a large cash source for the poor. Livestock sales as a source of annual income are extremely important in this zone. They are the second largest contributor to the annual incomes of modal and rich households and are the third for the poor. Cash crop sales, non-food production and other trade all vie as the third most significant source of cash in modal households.

**Table 4.2: Sources of Cash** (% of annual income)

Sources of Cash	Poor	Mode	Rich
Employment & Remittance	20-30%	25-55%	35-65%
Livestock Sales	10-15%	15-35%	10-40%
Cash Crop	0-20%	5-15%	0-15%
Non-Food Production	40-45%	5-15%	0-5%
Other Trade	5-15%	5-15%	5-15%
Total	75-125%	55-135%	50-140%

*Employment and Remittance*

Employment and remittance is the largest source of cash for modal and rich households in the Mountain zone. It provides from a quarter to just over a half of annual income for typical households while it contributes roughly one to two thirds of income for the rich. It is the second largest source of income for poor households providing roughly a quarter of all cash garnered annually. Modal households in this area obtain the bulk of their employment and remittance income from remittances sent from South Africa. That said, the division of income earned by location is very closely split among sources corresponding to just under a third from local sources, roughly a third from within-country sources and just over a third from a neighbouring country (South Africa). Poor households in contrast earn nearly all of their employment income locally conducting piecework. The rich obtain nearly equal proportions from within-country sources (namely urban centers) and South Africa which contributes just a bit more.

**Table 4.3a: Employment and Remittance** (% of employment income)

Socio-Economic Grp.	Locally	Within Country	Neighbouring Country	Distant Country
Poor	90%	5-10%	0-5%	0%
Mode	25-30%	35%	35-40%	0%
Rich	5%	45%	50%	0%

**Table 4.3b: Employment Markets and Locations**

Location	Name of Town/Country and Rank
Local	Local Piece Work
Within Country	Highlands Water Project and Civil Service in 1) Maseru, 1) Thaba Tseka, 2) Leribe/Maputsoe, 2) Butha Buthe
Neighbouring Country	South Africa

*Livestock*

Milk and meat consumption in this zone follows patterns found in other parts of rural agrarian Southern Africa. That is, it is negligible among poor households; provides a small but important proportion of annual food needs for modal households (0-10%) and a slightly larger proportion for the rich (5-10%). Livestock product sales as a source of income follow somewhat similar patterns in that they are smallest for the poor (their third largest source of income) and larger for the mode and rich (their second largest source of cash). For the poor they provide just over a tenth of annual income while for the mode and rich they contribute an average of a quarter. Livestock are an

important feature of life in the Mountains. The majority of income obtained from livestock product sales is derived from wool and mohair not meat. Sheep and goat holdings are among the largest in the country for all three income groups. (They are larger than in the Lowlands or Foothills. Sheep holdings are similar to those of the Senqu River Valley). Basotho ponies (horses) are widespread in the Mountains. Even poor families have 0-1 horses on average. A typical household in this area would own: 4-6 cattle, 8-9 goats, 20-24 sheep, 5-6 chickens, 0-1 pigs, 1-3 donkeys and 1-3 horses.

**Table 4.4: Livestock Holdings** (livestock numbers)

Livestock Type	Poor	Mode	Rich
Cattle	1-2	4-6	8-11
Goats	5-7	8-9	20-26
Sheep	8-11	20-24	40-70
Chickens	5-7	5-6	6-7
Pigs	0	0-1	0
Donkey	0	1-3	1-4
Horse	0-1	1-3	2-3

#### *Cash Crop Production*

Cash crop sales are one of the third most significant sources of cash in modal households providing about a tenth of annual income. They are fourth most important for the rich and the poor contributing just under a tenth for the former and a tenth on average for the latter. The major cash crops (from most to least important) in the Mountain area include the following: 1) potatoes, 2) vegetables, 3) wheat and 3) marijuana or dagga.

#### *Non-Food Production*

Non-food production is one of the third most significant sources of income for the mode in this area providing a tenth of annual income on average. In contrast, it is nearly insignificant for the rich as it contributes just 0-5% of annual income. Contrasting in the other direction however, it provides a substantial amount of cash to poor families in the Mountains, nearly one half of annual income. Non-food production activities are varied in the zone. The type of activities which occur in this area include: beer, craft, firewood, fodder, and wild food/game sales.

#### *Trade*

Trade is another small but important source of cash to all three income groups. It provides about a tenth of annual income to poor, mode and rich households. The types of trading which occurs in the Mountain zone includes the following activities: small businesses, shops, cafes, restaurants, hawking, clothing and field rental.

#### Surplus Production and Income

Poor, mode and rich households do not have any surplus food production in the Mountain food economy area. The poor also do not have any surplus cash production. The mode and rich do have some surplus cash, but it is very limited. Cash surpluses acquired during normal years, when converted to food could provide roughly a quarter of annual food needs for modal households. For the rich, they could provide just under a half.

**Table 4.5: Surplus Production and Income** (% of annual food needs)

Surplus Type	Poor	Mode	Rich
Surplus Food Production	0%	0%	0%
Surplus Cash Production	0%	20-30%	40-50%

#### Assets and Savings

None of the three economic groups have any food stocks during normal years in the Mountain food economy area. Livestock holdings when converted to cash could provide fairly substantial amounts of food at normal year prices. For the poor, their livestock are roughly equivalent to one to two and a half year's worth of food. Modal households livestock assets are considerably greater thus providing from four and a quarter to nearly seven year's worth of food. The livestock holdings of the rich are the greatest of all; when converted they are equivalent to eight and a half to thirteen year's worth of food. In contrast to livestock assets, cash savings are quite limited in this area. For the poor they could provide less than 5% of annual food needs, less than 10% for the mode and between a third and two-thirds for the rich. Physical assets when converted to annual food needs are fairly substantial although less than livestock. In poor households they are equal to one and a half year's worth of food; among the mode they translate to about two year's worth; and among the rich they are equivalent to nearly eight year's worth of food.

**Table 4.6: Assets and Savings** (% of annual food needs)

Asset Type	Poor	Mode	Rich
Food Stocks	0%	0%	0%
Livestock	130-250%	425-690%	850-1330%
Cash Savings	0-5%	0-10%	35-60%
<sup>55</sup> Physical Assets	150%	195-200%	795-800%

#### Income Distribution and the Mode

The 1st and poorest quintile contains 30% of population; the 2nd quintile, 15%; the 3rd quintile, 20%; the 4th quintile, 15%; and the 5th and richest quintile, 20%. Approximately 55% of the population falls within and below the mode.

#### Cereal Markets and Food Flows

This is a grain deficit area. Most of the grain coming into the area is either from South Africa or the Lesotho lowlands. The average price for maize meal between January and June is 2.2 Maloti per kilogram. This price is higher than that found in other areas of the country. The major markets for grain are: 1) Thaba Tseka, 1) Mantsonyane, 1) Mokhotlong, 1) Mphaki, 2) Mashai, 2) Mapholaneng, and 3) Butha Buthe. The average price of maize meal between January and June was reported to be 2.2 Maloti per kilogram.

#### Other Markets and Prices

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<sup>55</sup>This information is based on 1993 and 1995 Sechaba household surveys. Assets considered include: houses, TV, radio, vehicles and tractor.

*Livestock Markets:* 1) Thaba Tseka, 1)Mantsonyane, 1) Mokhotlong, 1) Mphaki, 2) Quthing, 2) local, 2) Mashai, 3) Sehonghong and 3) Qhoalinyane.

*Cash Crop Markets:* 1) Thaba Tseka, 1)Mantsonyane, 1) Mokhotlong, 1) local, 2) Quthing, 2) Mashai, 3) Mohale's Hoek, 3) Qacha's Nek, 3) Sehonghong.

*Other Trade:* South Africa

*Non-Food Production:* Local

**Table 4.7: Asset Prices (Maloti)**

Item	Price	Item	Price	Item	Price
Hoe		Cultivator		Radio	200
Ax		Tractor	10000	House	1500/room
Plough		Maize meal	2.2/kg	Vehicle	10000
Furniture		wheelbarrow		TV	1500

**Table 4.8: Livestock Prices (Maloti)**

Animal	Price	Animal	Price	Animal	Price
poultry	20	pig	400	donkey	550
goat	135	cattle	1100	horse	1000
sheep	175	-	-	-	-

Floor price for sheep = 100 maloti; Floor price for cattle = 700 maloti

#### How People Cope with a Bad Year

Rather than adopt new strategies, households tend to intensify existing ones. Wild food consumption cannot increase as its availability decreases dramatically in dry years. The rich give approximately 5-10% of their surplus production and income to deficit households.

Seasonality: x = plant, \* = harvest

Type	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec
Wheat	*	*	*	*			X	X	X	X	X	*
Maize					*	*			X	X		
Lentils/ Peas	*	*						X				*
Rain	....	....	....								....	....
Snow						....	....					
Piece Work		....	....	....								
Wool & Mohair Sales						....	....	....				

Upland Graze	....	....	....	....							....	....
Lowland Graze						....	....	....	....			
Livestock Sales					....	....	....	....				

## 5. Senqu River Valley <sup>56</sup>

### Summary of Food Economy

The most important aspects of this zone are food crops, employment, gifts/relief and livestock. This zone is a deficit producer of grains. Food crops satisfy roughly a third of annual food requirements for the average household in the area. The major food crops are: maize, sorghum, beans, wheat, peas, and potatoes. Ability to earn cash income has a direct impact on food security as the typical household purchases half of its food. Employment is of great importance and accounts for approximately half of all income for the typical household. Gifts from the better off, school feeding and various other forms of government relief (e.g. social welfare payments) also account for more than a tenth of annual food needs for modal families. Finally, animal husbandry (particularly goats and sheep) account for small amounts of meat consumption and from a tenth to a fifth of income for the typical household. The average household size for this area is 5.6.<sup>57</sup> The approximate population of this area is 324,000.<sup>58</sup>

### Main Elements of the Food Economy

The main elements of the food economy (from most to least important) are: 1) food crops, 2) employment/remittance, 3) gifts/relief, 4) livestock, 5) non-food production, 6) trade, 7) cash crops, 8) wild foods and 9) fishing.

### Geography and Rainfall

This food economy zone is dominated by the geography of the Senqu river valley. It is much lower in elevation (1500-2000 metres as compared to 2000-3250 metres) than the surrounding mountainous area and suffers from a rain shadow created by this topography. The mean annual rainfall in this zone is the lowest in the country at 600 mm.<sup>59</sup> The river often dries up for part of the year, particularly in June and July. The soils are dark and volcanic in origin. The bulk of this zone is found in the districts of Quthing, Mohale's Hoek, Qacha's Nek and Thaba-Tseka. There are also very small portions of the river valley found in Maseru, Leribe and Mokhotlong.

### Sources of Food

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<sup>56</sup>Information in this section is largely based on: six, full profile key informant interviews; household surveys conducted in 1993 and 1995 by Sechaba Consultants; and various secondary sources.

<sup>57</sup>Household size derived from 1993 and 1995 Sechaba Household Survey data.

<sup>58</sup>Population numbers derived using World Bank proportions (1995 Lesotho Poverty Assessment, Page 21) and 1995 population figures from Water Resources Management: Policy and Strategies (TAMS & Sechaba, 1996), pages 193 and 204.

<sup>59</sup>Rainfall data from 1986 LHWP feasibility study rainfall map in: Sechaba Consultants. 1995. Lesotho's Long Journey: Hard Choices at the Crossroads. Page 38.  
*RiskMap Lesotho Report, 1997*

Purchase is the largest source of food for poor and modal households at 50-60% and 45-55% of annual food needs. Poor households complete their diets with food from own crops (15-25%), gifts/relief (10-20%)<sup>60</sup>, wild foods (0-15%) and fish (0-5%). Modal or typical households round out their food requirements with own crops (30-35%), gifts/relief (10-15%), milk/meat (0-5%) and wild foods (0-5%). The rich obtain the majority of their food from their own crops (50-55%), followed by purchase (35-45%), milk/meat (0-10%) and gifts/relief (0-5%).

**Table 5.1: Sources of Food Table** (% Annual Food Needs)

Sources of Food	Poor	Mode	Rich
Own Foodcrops	15-25%	30-35%	50-55%
Milk/Meat	0%	0-5%	0-10%
Fishing	0-5%	0%	0%
Wild Foods/Hunt	0-15%	0-5%	0%
Gift/Relief	10-20%	10-15%	0-5%
Purchase	50-60%	45-55%	35-45%
Total	75-125%	85-115%	85-115%

### *Food Crop Production*

This area is a deficit producer of grains. Food crop production accounts for 50-55%, 30-35% and 15-25% of annual food needs for the rich, mode and poor respectively. The major food crops are (from most to least important): 1) maize, 2) sorghum, 3) beans, 4) wheat, 5) peas, and 6) potatoes, pumpkins and vegetables. Both rich and modal households typically have the means to practice animal traction. Approximately 21% of households in this zone have no fields.<sup>61</sup>

### *Wild Foods*

Wild food collection is almost exclusively limited to the collection of certain wild vegetables which account for 0-15% of annual food needs for the poor and 0-5% for the mode. The rich also consume such vegetables but they are more apt to purchase rather than collect these themselves. Villagers consistently put great stress on the importance of these vegetables but the research team has rounded these estimates downward as the caloric value of these plants is limited. The Sesotho names for wild vegetables collected in this area include: *thepe*, *seroue*, *sepaila*, *qhela*, *lehararasoana* (all year), *leshoabe*, *selae*, *tlhaka-ea-khomo*, *papasane*, *sebitsa* and *tenane*. With the exception of *lehararasoana*, all of the aforementioned wild foods are generally available between October and March. The availability of these wild vegetables is significant as it coincides with the hungry period for many rural Basotho.

### *Fishing*

The Senqu River Valley is the only food economy zone in Lesotho where fishing is of any significance. Fishing was reported to account for 0-5% of annual food needs for the poor as well 0-

<sup>60</sup>This is food that primary school students receive from the school feeding programme (see Appendix III), relief from the government (especially social welfare payments) and gifts from better off members in the community.

<sup>61</sup>Statistic from 1993 and 1995 household surveys conducted by Sechaba Consultants.  
*RiskMap Lesotho Report, 1997*

5% of income for this group. Rich and modal households had minimal to no involvement in this activity. The seasonality of fishing appears to differ according to area. Some key informants\ described collective fishing arrangements that took place when the river begins to try up in June and July. Others reported fishing when the river was full of water between October and March.

### Sources of Cash

Purchase accounts for 50-60%, 45-55% and 35-45% of annual food needs for the poor, mode and rich respectively. The largest income source for all three groups is employment and remittance which accounts for approximately half of income for the typical household. Modal households earn the balance of their income from livestock sales (10-20%), non-food production (10-15%), trade (10-15%) and cash crop sales (10-20%). After employment (40-60% of annual income), the rich earn cash from livestock sales (20-25%),

**Table 5.2: Sources of Cash** (% of annual income)

Sources of Cash	Poor	Mode	Rich
Employment & Remittance	35-50%	40-60%	40-60%
Livestock Sales	5-10%	10-20%	20-25%
Cash Crop	5-10%	5-15%	5-10%
Non-Food Production	25-35%	10-15%	0-5%
Other Trade	5-15%	10-15%	10-15%
Fishing	0-5%	0%	0%
Total	75-125%	75-125%	75-115%

### *Employment and Remittance*

Employment and remittance is the largest source of income for the poor, mode and rich at 35-50%, 40-60% and 40-60% of annual income respectively. The poor earn the bulk of their employment income from local piece work (85-90% of employment income), followed by remittances from South Africa (5-10%) and other locations in Lesotho (0-10%). Modal households earn similar proportions of income from local piece work (35-45% of employment income) and remittances from South Africa (35-50%). The balance of employment income is remitted from other locations in Lesotho (15-20%). The majority of employment income for the rich is received in the form of remittances from South Africa (55-70%), with the remainder coming from non-local employment within Lesotho (30-45%). The majority of non-local employment in Lesotho for persons from the Senqu River Valley is for the civil servants or Lesotho Highlands Development Project in: 1) Maseru, 1) Thaba Tseka, 2) Mafeteng, 3) Mahale's Hoek, 4) Leribe, 5) Quthing and 6) remaining district towns.



**Table 5.3a: Employment and Remittance** (% of employment income)

Socio-Economic Grp.	Locally	Within Country	Neighbouring Country	Distant Country
Poor	85-90%	0-10%	5-10%	0%
Mode	35-45%	15-20%	35-50%	0%
Rich	0%	30-45%	55-70%	0%

**Table 5.3b: Employment Markets and Locations**

Location	Name of Town/Country and Rank
Local	Local Piece Work
Within Country	Work as civil servants and for Lesotho Highlands Dev't Project in: 1) Maseru, 1) Thaba Tseka, 2) Mafeteng, 3) Mohale'Hoek, 4) Leribe, 5) Quthing, 6) remaining district towns.
Neighbouring Country	South Africa

### *Livestock*

Income from livestock, wool and mohair sales accounts for 5-10%, 10-20% and 20-25% of annual income for the poor, mode and rich respectively. Mohair and wool sales account for a much larger share of this income than actual animal sales. Mohair is sold in May and June while wool is sold from September to December. Wool and mohair is sold to private traders or collectively by cooperatives. These goods are transited through South African ports for sale to the European market. The typical household in this area would have: 2-4 cattle, 22-23 goats, 10-11 sheep, 13-14 chickens, 0-1 pigs, 1 donkey and 1 horse. Goats are more common in the Senqu Valley as compared to higher elevations where sheep are more the norm.

**Table 5.4: Livestock Holdings Per Household** (livestock numbers)

Livestock Type	Poor	Mode	Rich
Cattle	1-2	2-4	7
Goats	4-5	22-23	50
Sheep	6	10-11	60
Chickens	4-5	13-14	24-26
Pigs	1-2	0-1	1
Donkey	0-1	1	2-3
Horse	0	1	2-3

### *Cash Crop Production*

Cash crop sales account for 5-10%, 5-15% and 5-10% of annual income for the poor, mode and rich respectively. The major cash crops (from most to least important) are: 1) beans, 2) potatoes, 3) vegetables, 4) marijuana or *dagga*, and 5) pumpkin.

### *Non-Food Production*

Non-food production is proportionately most important for the poor where it accounts for 25-35% of annual income. Brewing traditional beer and selling wild vegetables and firewood is the chief way this income is earned. The mode and rich earn progressively smaller shares of income from these

activities at 10-15% (mode) and 0-5% (poor) of annual income. Beer brewing is more important for these groups, with craft and firewood sales accounting for a small amount as well.

#### Trade

Trade accounts for 10-15% of annual income for the rich and mode and 5-15% of income for the poor. Buying and selling clothing, jewellery and cosmetics are the most common items traded. The rich also tend to have small businesses such as cafes, shops and restaurants. The rich were also said to make money from renting out their plough and oxen teams.

#### Surplus Production and Income

None of the households in this zone were said to have surplus crop production in normal years. Surplus income for rich and modal households was reported to be equivalent to 20-25% and 45-55% of annual food needs respectively.

**Table 5.5: Surplus Production and Income** (% of annual food needs)

Surplus Type	Poor	Mode	Rich
Surplus Food Production	0%	0%	0%
Surplus Cash Production	0%	20-25%	45-55%

#### Assets and Savings

None of the household types in this area were reported to keep foodstocks that would last beyond the next harvest. When livestock holdings are converted to grain at normal year prices, the rich, mode and poor would have the respective equivalent of 1650-1715%, 505-645% and 170-270% of annual food needs. Cash savings for the rich could purchase just over a year of food (100-110% of annual food needs). Assets commonly held by the rich include: plough, cultivator, harrow, planter, cart, 2 saddles, radio, house, TV, furniture and fields. The resale value of these items is equivalent to 445% of annual food needs. Cash savings for modal households could satisfy a third of annual food needs. Assets commonly held by this group include: plough, planter, cultivator, saddle, house, radio, furniture and fields. The resale value of these items is equivalent to 315-320% of annual food needs. The poor have savings which could satisfy 0-10% of annual food needs. The resale value of a house and fields is equal to 170-175% of annual food needs.

**Table 5.6: Assets and Savings** (% of annual food needs)

Asset Type	Poor	Mode	Rich
Food Stocks	0%	0%	0%
Livestock	170-270%	505-645%	1650-1715%
Cash Savings	0-10%	30-35%	100-110%
Physical Assets	170-175%	315-320%	445%

#### Income Distribution and the Mode

PRA exercises with villagers using income, shoats and cattle as indicators of wealth revealed the following wealth distribution: 1st wealth quarter, 25-30% of population; 2nd wealth quarter, 40-50% of population; 3rd wealth quarter, 15-20% of population; 4th and richest wealth quarter, 10% of population. Approximately 65-80% of the population falls within and below the mode.

#### Cereal Markets and Food Flows

This is a grain deficit area. Much of the maize coming into the zone is from South Africa (as is the case generally for the entire country). Grain is purchased at the following locations: 1) Qacha's Nek, 1) Sehonghong, 1) Quthing, 2) Matatiele (South Africa), 2) Mashai, 2) Mount Moorosi, 2) Mphaki, 3) Makunyapune, 3) Mohale's Hoek, 4) Linakang, and 5) Matabeng. The average price of maize meal between January and June was reported to be 1.65 maloti per kg.

#### Other Markets and Prices

*Livestock Markets:* 1) Qacha's Nek, 1) Mashai, 1) Sehonghong, 1) Thaba Tseka, 1) Mphaki, 1) Tosing, 2) Moyeni

*Cash Crop Markets:* 1) Quacha's Nek, 1) South African Traders, 1) Locally, 1) Thaba Tseka, 1) Quthing.

*Wool and Mohair:* Exported to Europe via South African ports.

**Table 5.7: Asset Prices** (in Maloti)

Item	Price	Item	Price	Item	Price
saddle	680	cultivator	600	radio	200
plough	340	planter	775	plough	340
poor-rich furniture	1000 - 2000	vehicle	10000	TV	1500

**Table 5.8: Livestock Prices** (in Maloti)

Animal	Price	Animal	Price	Animal	Price
chicken	15	pig	250	donkey	430
goat	150	cattle	900	horse	700
sheep	210	-	-	-	-

#### How People Cope with a Bad Year

Rather than adopt new strategies, households tend to intensify existing ones in difficult years. Wild food availability declines dramatically in dry years. It is estimated that the rich give approximately 5-10% of their surplus income to deficit households.

#### Seasonality

x = planting time, \* = harvest time

Type	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec
Maize					*	*	*	*		X	X	
Sorghum					*	*				X	X	X
Beans			*	*	*					X	X	X
Vegetables	*	*	*					X	X	X		
Wheat	*	*			X	X	X	X			*	*
Peas				*	*	*				X	X	
Potatoes									X			*

Dagga		*	*						X	X	X	
Rain	.	....	....						....	....	....	.
Peak Piece Work	....	....										
Grazing <sup>62</sup>	<b>H</b>	<b>H</b>	<b>H</b>	<b>H</b>	<b>H</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>H</b>	<b>H</b>
Wool / Mohair Sales					<b>M</b>	<b>M</b>			<b>W</b>	<b>W</b>	<b>W</b>	<b>W</b>

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<sup>62</sup>H=High Pasture, L = Low Pasture.  
*RiskMap Lesotho Report, 1997*

## **Appendix I: Key Informants**

### **General**

1. Bant Bryer, Field Director, Save the Children Fund (UK), Maseru
2. Paul Mokoai, Drought Transport Manager, Save the Children Fund (UK), Maseru
3. John Bailes, Advisor, Lesotho Council of NGOs, Maseru
4. Mr. Ziedberg, Representative, European Union, Maseru
5. Mr Seboka, Senior Economic Planner and Team Leader, NEWS, Maseru
6. Mrs. Ntholi, Economic Planner, NEWS, Maseru
7. Mr. Neo Ramero, Preparedness Officer, Red Cross, Maseru
8. Dr. Matthew Okai, Representative, FAO, Maseru
9. Mr. John Gay, Sechaba Consultants, Maseru
10. FMU, Maseru
11. Mr. Sopaeng, Adventist Disaster Relief Agency (ADRA), Maseru
12. Mrs. Ntsiki, FNCO, Maseru
13. Mr. Joseph Kabore, Country Director, WFP, Maseru
14. Mr. Ntjapeli Matlanyani, Lesotho Council of NGOs

### **1. Northern Lowlands**

1. Mr. Koali, Min of Ag, TY, Berea
2. Mrs. M. Mphole, Min of Ag, TY, Berea
3. Mrs. MH Mahlelebe, Min of Ag, TY, Berea
4. Group of villagers at agriculture training centre near Matlanyane, Berea
5. Mr. Michael Ntsoaole, District Rural Development Officer, Leribe
6. Mr. Moeketsi, Driver, Save the Children Fund (UK), Maseru
7. Mr. Thulo Moeletsi, Marketing Officer, Min of Ag, Butha Buthe
8. Mr. Lintoa Monnapula, District Agriculture Officer, Min of Ag, Butha Buthe

### **2. Southern Lowlands**

1. Mr. Motsepa, Coordinator, Caritas, Mohale's Hoek
2. Mr. Joseph Makhube, Caritas, Mohale's Hoek
3. Qalabane Village members (10 km west of Mafeteng)
4. Sello S. Maltere, District Extension Officer, Ministry of Agriculture, Mafeteng
5. Beng Mabitso, Home Economist, Ministry of Agriculture, Mafeteng
6. Rose Rafolatsane, District Disaster Management Officer, Mafeteng
7. Amelia Mohapi, Red Cross, Mafeteng
8. S. B. Lethoko, District Extension Officer, Ministry of Agriculture, Mohale's Hoek

### **3. Foothills**

1. Halejoetse E. Molata, District Rural Development Officer, Mohale's Hoek
2. Ntsoaki Mohapi, Rural Development Assistant, Mohale's Hoek
3. Pastor Matete, Adventist Disaster Relief Agency (ADRA), Butha Buthe
4. Miss Noi, Mr. Sakoali, Mr. Maile and Mr. Matata, Ministry of Agriculture, TY, Berea
5. Mr. Mabaso, District Extension Officer, Ministry of Agriculture, Leribe
6. Mrs. Motsehi, Area Supervisor, Ministry of Agriculture, Leribe

7. Mrs. Modenane, Nutrition Officer, Ministry of Agriculture, Leribe
8. Mr. Michael Poka, DAO, Ministry of Agriculture, Leribe
9. Mr. Ntsupa, District Crop Officer, Ministry of Agriculture, Leribe
10. Mrs. Kamohi, Poultry Assistant, Agriculture Resource Centre, Mahobong, Leribe
11. Mrs. Makonetsane, Nutrition Assistant, Agriculture Resource Centre, Mahobong, Leribe.
12. Ms. Raditapapole, Cooperative Assistant, Agriculture Resource Centre, Mahobong, Leribe.

#### **4. Mountains**

#### **5. Senqu River Valley**

1. Mr. Motsamai Mokoto, District Agricultural Officer, Min of Ag, Qacha's Nek
2. Mr. Mohafa, Cooperative and Extension Assistant, Min of Ag, Qacha's Nek
3. Mr. PM Mare, Acting District Agricultural Officer, Min of Ag, Quacha's Nek
4. Mrs. Borotho, Red Cross, Quacha's Nek
5. Ha Lekholoane Village, Thaba Tseka District
6. Mr. Letuka Mohapi, District Extension Officer, Min of Ag, Thaba Tseka
7. Koali Village, Quthing District
8. Mr. Motsamai Thaele, Extension Agent, Min of Ag, Seforong, Quthing District

#### **Acknowledgements**

1. Mr. MJ Lepele, Director, Sechaba Consultants, Maseru
2. Mrs. Phoolopo, Chief Nutrition Officer, Dept of Field Services, Ministry of Agriculture
3. Mr. Leteketa Malopo, Chief Executive, Disaster Management Authority, Maseru
4. Mr. Frank Peacock, TAMS Consultants, Maseru
5. Mr. Bernie Hutchinson, School Feeding Programme Manager, SCF(UK), Maseru
6. Mr. Musa, District Secretary, Butha Buthe
7. Mr. Matsela Mphafi, District Secretary, Thaba Tseka
8. Mr. Steven Mathiba, District Secretary, Leribe
9. Mr. Shadrack Jimson, District Planning Officer, District Secretary's Office, Quthing
10. Ms. Lisema Ramaila, District Disaster Management Officer, Mohale's Hoek
11. Mr. Ramabanta Majoro, Deputy District Secretary, Mohale's Hoek
12. Mr. Lefa Lipholo, District Secretary, Mafeteng
13. Mr. Tumisang Rasekolana, Berea District Secretary, Teyateyaneng, Berea
14. Mr. Mathews Tebatso Seitheko, Driver, SCF(UK), Maseru
15. Ms. Seipati Makumane, Secretary, (SCF(UK), Maseru

\* Please note, where a title has not been included with a person's name it is because the research team was unaware of that individual's preference. No disrespect is intended.

## Appendix II: School Feeding Programme Calculations

**Table I. School Feeding as a Percentage of Annual Food Needs by Food Economy Zone**

Food Economy Zone	School Feed as % Food Needs (a)	% 1995 Pop of School Age (b)	% of School Kids Receive Food (c)	% of School Age Kids in School (d)	% Food Needs Per Food Econ Zone
South Lowlands	21.0%	25.0%	42.6%	82.8%	1.9%
North Lowlands	21.0%	25.0%	25.9%	82.8%	1.1%
Foothills	21.0%	25.0%	31.7%	81.3%	1.4%
Mountain	21.0%	25.0%	92.7%	67.6%	3.3%
Senqu River Valley	21.0%	25.0%	94.5%	74.6%	3.7%

a. School ration includes 150 grams of maize meal, 40 grams of pulses and 15 grams of oil for a total of 809 kcals out of 1900 needed per day. With children in school 180 days per year, the school feeding programme accounts for 21% of annual food needs for primary school students.

Source: Save the Children Fund (UK)

b. This is the % of the population between the ages of 5-14 (not an exact match, but close to the age range of most primary school students). Source: GOL and TAMS Consultants. 1996. Water Resources Management: Policy and Strategies. Page 193.

c. Food Economy Zone statistics estimated from district numbers. District level statistics from Save the Children (UK).

d. Figures from Lesotho Poverty Assessment. World Bank. 1995. Page 27.

**Table II: Percentage of Primary School Students Covered by District and by Food Economy Zone, 1996**

District	% Kids Fed	% Food Econ Zone				
		South Lowlands	North Lowlands	Foothills	Mountain	Senqu
Thaba Tseka	0.938				0.333	0.
Butha Buthe	0.012		0.2	0.2		
Leribe	0.389		0.3	0.2		
Berea	0.21		0.3	0.2		
Maseru	0.386	0.3	0.2	0.2		
Mafeteng	0.385	0.5				
Mohale's Hoek	0.589	0.2		0.2		
Quthing	0.995					0.
Quacha's Nek	0.974				0.333	0.
Mokhotlong	0.873				0.333	0.
% Children Fed in Food Econ Zone		0.43	0.26	0.32	0.93	0.

### Appendix III: Sources of Income from 1993 and 1995 Sechaba Household Surveys

<b>Northern Lowlands</b>							
Income Group	Employ	Livestock	Crops	Production	Trade	Other	Total
95 Poorest 10%	0.1667	0.1667	0.1667	0.3333		0.1667	1.00
95 Adjusted	0.200	0.200	0.200	0.400			1.00
93 Poorest 10%	0.2			0.256	0.144	0.4	1.00
93 Adjusted	0.333			0.427	0.240		1.00
Poorest 10% Ave	0.267	0.100	0.100	0.413	0.120		1.00
95 Mode	0.7408	0.01075	0.02854	0.04644	0.3541	0.1035	1.28
95 Adjusted	0.630	0.009	0.024	0.039	0.301		1.00
93 Mode	0.6084	0.0119	0.01626	0.09293	0.05227	0.2182	1.00
93 Adjusted	0.778	0.015	0.021	0.119	0.067		1.00
Mode Avg	0.704	0.012	0.023	0.079	0.184		1.00
95 Richest 10%	0.8186	0.0223	0.009504	0.01624	0.2517	0.04772	1.17
95 Adjusted	0.729	0.020	0.008	0.014	0.224		1.00
93 Richest 10%	0.7535	0.00354	0.00249	0.1166	0.06561	0.0582	1.00
93 Adjusted	0.800	0.004	0.003	0.124	0.070		1.00
Richest 10% Ave	0.765	0.012	0.006	0.069	0.147		1.00
<b>Southern Lowlands</b>							
Income Group	Employ	Livestock	Crops	Production	Trade	Other	Total
95 Poorest 10%		0.04348	0.1667	0.7899			1.00
95 Adjusted		0.043	0.167	0.790			1.00
93 Poorest 10%		0.4		0.1978	0.1113	0.2909	1.00
93 Adjusted		0.564		0.279	0.157		1.00
Poorest 10% Ave		0.304	0.083	0.534	0.078		1.00
95 Mode	0.7356	0.01611	0.01681	0.08925	0.158	0.1181	1.13
95 Adjusted	0.727	0.016	0.017	0.088	0.156		1.00
93 Mode	0.6666	0.0242	0.0218	0.0708	0.03984	0.1767	1.00
93 Adjusted	0.810	0.029	0.026	0.086	0.048		1.00
Mode Avg	0.768	0.023	0.022	0.087	0.102		1.00
95 Richest 10%	0.9263	0.0008065	0.001397	0.01418	0.0982	0.00595	1.05
95 Adjusted	0.887	0.001	0.001	0.014	0.094		1.00
93 Richest 10%	0.8479	0.0003203	0.0002638	0.04351	0.02448	0.0835	1.00
93 Adjusted	0.925	0.000	0.000	0.047	0.027		1.00
Richest 10% Ave	0.906	0.001	0.001	0.031	0.060		1.00
<b>Foothills</b>							
Income Group	Employ	Livestock	Crops	Production	Trade	Other	Total
95 Poorest 10%	0.1	0.175	0.125	0.2	0.1	0.3	1.00



95 Adjusted	0.143	0.250	0.179	0.286	0.143		1.00
93 Poorest 10%	0.1094			0.3073	0.1729	0.4104	1.00
93 Adjusted	0.186			0.521	0.293		1.00
Poorest 10% Ave	0.164	0.125	0.089	0.403	0.218		1.00
95 Mode	0.5656	0.04181	0.1583	0.07628	0.1466	0.1269	1.12
95 Adjusted	0.570	0.042	0.159	0.077	0.148		1.00
93 Mode	0.5832	0.05282	0.02355	0.08878	0.04994	0.2017	1.00
93 Adjusted	0.731	0.066	0.030	0.111	0.063		1.00
Mode Avg	0.650	0.054	0.094	0.094	0.105		1.00
95 Richest 10%	0.6716		0.2318	0.0232	0.07336	0.01952	1.02
95 Adjusted	0.672		0.232	0.023	0.073		1.00
93 Richest 10%	0.7285	0.06667		0.09515	0.05352	0.05613	1.00
93 Adjusted	0.772	0.071		0.101	0.057		1.00
Richest 10% Ave	0.722	0.035	0.116	0.062	0.065		1.00
<b>Mountain</b>	Employ	Livestock	Crops	Production	Trade	Other	Total
Income Group							
95 Poorest 10%	0.2619	0.006061	0.2287	0.2837	0.01667	0.203	1.00
95 Adjusted	0.329	0.008	0.287	0.356	0.021		1.00
93 Poorest 10%	0.04762	0.1224	0.04762	0.283	0.1592	0.3401	1.00
93 Adjusted	0.072	0.185	0.072	0.429	0.241		1.00
Poorest 10% Ave	0.200	0.097	0.180	0.392	0.131		1.00
95 Mode	0.5896	0.05619	0.09494	0.09066	0.1057	0.1444	1.08
95 Adjusted	0.630	0.060	0.101	0.097	0.113		1.00
93 Mode	0.4784	0.1236	0.03108	0.1226	0.06896	0.1753	1.00
93 Adjusted	0.580	0.150	0.038	0.149	0.084		1.00
Mode Avg	0.605	0.105	0.070	0.123	0.098		1.00
95 Richest 10%	0.8793			0.06897	0.03941	0.01727	1.00
95 Adjusted	0.895			0.070	0.040		1.01
93 Richest 10%	0.8686	0.05884		0.04402	0.02476	0.03789	1.03
93 Adjusted	0.876	0.059		0.044	0.025		1.00
Richest 10% Ave	0.885	0.030		0.057	0.033		1.00
<b>Senqu River Valley</b>							
Income Group	Employ	Livestock	Crops	Production	Trade	Other	Total
95 Poorest 10%							
95 Adjusted							
93 Poorest 10%	0.3636	0.09091		0.1764	0.09924	0.2698	1.00
93 Adjusted	0.498	0.125		0.242	0.136		1.00
Poorest 10% Ave							

95 Mode	0.6745	0.01845	0.006011	0.1484	0.1998	0.1147	1.16
95 Adjusted	0.645	0.018	0.006	0.142	0.191		1.00
93 Mode	0.6814	0.04854	0.007174	0.06924	0.03895	0.1547	1.00
93 Adjusted	0.806	0.057	0.008	0.082	0.046		1.00
Mode Avg	0.726	0.038	0.007	0.112	0.119		1.00
95 Richest 10%	0.83	0.04373	0.00503	0.03455	0.1669	0.0224	1.10
95 Adjusted	0.770	0.041	0.005	0.032	0.155		1.00
93 Richest 10%	1						1.00
93 Adjusted	1.000						1.00

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