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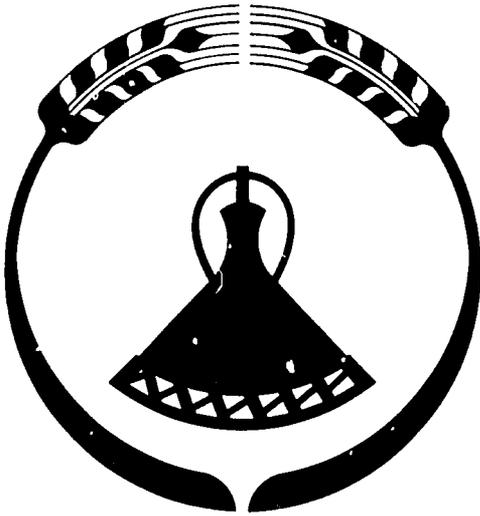
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A CRITICAL ANALYSIS OF MANPOWER
UTILIZATION ISSUES IN LESOTHO

Research Report No. 9
Lesotho Agricultural Sector Analysis Project

by
'M'ampiti Francisca Nchapi

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- No. 2 LASA Team, "Lesotho's Agriculture: A Review of Existing Information," Maseru, Lesotho, October 1978.
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- No. 4 Jerry Eckert and Ron Wykstra, "The Future of Basotho Migration to the Republic of South Africa," Maseru, Lesotho, September 1979.
- No. 5 Gene C. Wilken, 'Matsaba J. Leballo, Betty J. Eckert, Makhothatsa Motteleng and Kay Bolls, "Catalog of Holdings and Other References in the Lesotho MOA/LASA Library," Maseru, Lesotho, February 1980.
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- No. 8 Jerry Eckert, "Quantitative Analyses of Lesotho's Official Yield Data for Maize and Sorghum," Maseru, Lesotho, July 1980.
- No. 9 'M'ampiti Francisca Nchapi, "A Critical Analysis of Manpower Utilization Issues in Lesotho," Maseru, Lesotho, August 1980.

FOREWORD

This study was prepared by Ms. Nchapi as her technical research paper in partial fulfillment of the requirements for an M.Sc. degree in economics. The paper does an excellent job in three dimensions, as follows:

1. Reviewing Mellor's agriculturally based, employment intensive theory of development which she demonstrates to be highly applicable to the Lesotho context.
2. Providing a critical examination of existing data and analyses on the employment situation.
3. Drawing from a solid conceptual and empirical foundation (items 1 and 2) she sketches out program components of an integrated agricultural development strategy.

While much of her data has already appeared in previous LASA reports this is the first major work to combine the data within a theoretical framework to generate the beginnings of an employment oriented development theory. As such it is LASA's pleasure and privilege to include Ms. Nchapi's paper as one of our Research Reports. We are confident that this will ensure the wider distribution and permanent retention that this document deserves.



Jerry Eckert
LASA Team Leader

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CHAPTER I

INTRODUCTION

Since the last century, Lesotho has always depended on South Africa's industry for employment of its able-bodied men who primarily come from low-income households in the rural areas. Low crop yields in the rural sector, inadequate income, economic pressures and social obligations all contribute towards the migration of these men. The remittances of the miners have greatly helped to improve the general standard of living for their families and to reduce income inequalities between the urban and rural population. Also, through deferred payments, a significant portion of Lesotho's domestic savings are generated.

Recent developments in South Africa are such that there is a possibility of South Africa either reducing greatly, or cutting off completely, its foreign workers who work in the mines, and replacing these with its own South Africans from the homelands. Additionally, the alternative of mechanization of the mines, in which most of the Basotho men are employed, continues.

These steps create a situation whereby Basotho increasingly are likely to return home to seek employment, thereby adding to labor force growth. This is where the central manpower dilemma lies. For example, what problems will arise as a result of the miners' return to Lesotho? What policy options do the government have? How can government create employment for these people? The problem of effective manpower utilization is critical in Lesotho.

The main discussion of manpower utilization covered in the studies are as follows:

- a) rural-urban migration in Africa;
- b) magnitude of labor surplus or shortage;
- c) migration and miners' income;
- d) growth of labor supply 1980-2000 A.D.; and
- e) technology and labor absorption.

This paper is basically a critical analysis of select manpower utilization issues in Lesotho; an attempt is made to synthesize the above noted findings for manpower policy implementation. Additionally, other critical manpower factors which may require additional research are discussed herein. This investigation is divided into three sections:

- a) the theory of an employment-oriented strategy as a focal point of strategy for the developing world;
- b) the major dimensions of Lesotho's manpower utilization problem; and
- c) the policy implications and policy recommendations related to Lesotho's situation.

Further discussion here is directed to select areas that may need further research for policy formulation:

- a) land capability inclusive of use of fallow land;
- b) data needs on the approximate number of mandays required by crop per acre on all crop farming operations;
- c) equivalency adjustment factors between age differentiation and male and female farm workers;
- d) the role of women in agriculture and development;

- e) more investigation on non-economic aspects of labor utilization and incorporation thereof into cost-effective analyses; and
- f) data needs on the number of people who, once they migrate to South Africa, stay there permanently, and/or at least until retirement age.

CHAPTER II

AN EMPLOYMENT-ORIENTED STRATEGY

In his book, The New Economics of Growth,¹ Mellor spells out a new strategy of employment for the developing world. This employment-oriented approach, he feels, has potential for generating a faster rate of growth in total income as well as for greater participation of the poor in the benefits of development.

The following elements make up Mellor's strategy:

- a) the strategy must give priority to increasing agricultural production especially in foodgrains, through technological change suitable to LDC conditions,
- b) it must reduce the capital requirements per employee in the industrial sector and tap new sources of capital through decentralization of production,
- c) the growth rate of both exports and imports must increase, and
- d) planning and administrative procedures and institutions must also be decentralized.

Agriculture plays a very important role in this strategy because the bulk of population in LDCs resides in the rural areas. Foodgrains are the main consumption goods of the poor, and agriculture provides the physical goods to support increased employment and higher wage earnings. In other words, the agricultural sector is seen as the principal source of goods purchased with wages. It provides much of the increase in employment--directly through raising agricultural production, indirectly through the stimulus of increased income to the

¹John W. Mellor, The New Economics of Growth (Ithaca, N.Y. and London: Cornell University Press, 1976).

farmers--and the demand effects following from this. Also, increased agricultural production based on cost-decreasing technological change and introduction of intensive agriculture through use of high-yielding seed varieties, irrigation and fertilizer can lead to net additions to national income and employment of the poor.

Mellor points out that in a subsistence agriculture, the consumer goods industries, stimulated by increased rural incomes, are likely to be labor-intensive. Also, the non-foodgrain agricultural sector (milk, meat, dairy cows) is the most important recipient of increased demand resulting from rising incomes, and it is the most attractive for expansion because of its labor intensity and the wide geographic dispersion of its pattern of demand and production. Expanded employment of the lower-income groups, who spend the bulk of their income on food, provides latent demand for additional food production. In the absence of the above, there will be inadequate demand and agricultural stagnation may discourage continued growth in production.

According to Mellor, expansion of foodgrain production may not, however, increase employment enough. As a result, a new strategy for industry must conserve capital and tap new sources of savings. This new approach will increase the relative importance of consumer goods and small-scale, decentralized industries and will require large imports of capital-intensive products and enlarged exports of labor-intensive products.

Rising rural incomes increase demand in rural areas and thereby encourage decentralization of production to those areas. These incomes plus increased production encourage investment in the infrastructure of

**transportation, communication and electrification, all of which are :
important to the development of small-scale industries.**

The growth rate of both exports and imports must increase. Both agricultural and industrial growth require large quantities of intermediate products produced with capital-intensive processes like fertilizer and pesticides for agriculture, or steel and synthetic fibers for industry. A large proportion of such products must be imported. Increased exports are then required to pay for the imports of capital-intensive products. Increased domestic demand from the more prosperous rural areas will further speed the growth of labor-intensive output and prepare more firms for export competition if their supplies of production resources are assured.

In order to be well implemented, the employment-oriented strategy will demand more trained personnel and, most important, the administrative structure must be much more decentralized. Due to the high degree of irregularity in the conditions of production, agricultural development itself must be a decentralized process. In the same way, the development of consumer goods industries and small-scale enterprises is likely to thrive well under decentralized decision-making processes and if a wide range of credit, transport, technical and other facilitative institutions are provided.

On the question of public works programs, Mellor points out that although such programs are of political and economic importance, the rural employment problem is so large that public works can only supplement the underlying strategy. The effectiveness of such programs depends on an agricultural strategy that provides the food supplies to generate increased incomes of the poor. Also, an employment strategy

in both the agricultural and non-agricultural sectors that absorbs the bulk of the surplus labor problem and does not leave an unrealistically large residual to be absorbed by public works programs will be needed.

The above outlined strategy, therefore, places a heavy emphasis on agriculture as playing a leading role in the creation of employment in terms of increased production of food/fiber crops and exports--using labor-intensive technology.

CHAPTER III

MAJOR DIMENSIONS OF MANPOWER UTILIZATION ISSUES IN LESOTHO

The following are the major dimensions of manpower utilization issues in Lesotho:

- a) rural-urban migration in Africa;
- b) magnitude of surplus or shortage;
- c) migration and miners' income;
- d) growth of labor supply 1980-2000 A.D.; and
- e) technology and labor absorption.

A. Rural-Urban Migration in Africa--Some Implications for Lesotho¹

The aim of Byerlee's research was to examine, from a theoretical standpoint, the process of rural-urban migration in Africa and its role in economic development, with a view toward proposing a research agenda to address key policy issues.

Theoretical and empirical evidence has demonstrated a lot of knowledge in the characteristics of migrants and the migration process. For instance, the migration of labor began in colonial times with the imposition of taxes by the colonial governments. Men migrated from their village for a period of two to five years to work in the mines, plantations, factories, sometimes at considerable distances from their area in order to acquire cash income for paying taxes and for some of their household needs.

¹The following discussion draws upon the work of Derek Byerlee in "Rural-Urban Migration in Africa: Theory, Policy and Research Implications," International Migration Review 8 (Winter 1974).

While there has always been a high proportion of men in the migration streams from Lesotho, the proportion of women who migrate for work has also increased recently. Migration starts at the age of 15-19 and after the age of 45 the number of returning migrants exceeds the number of outmigrants from rural areas. There is a positive association between education and the propensity to migrate. One study in Tanzania¹ shows that propensity to migrate has increased over time as secondary school-leavers form a higher proportion of total rural-urban migrants, and this appears to be the case in Lesotho as well. The rate of migration almost always declines with the distance to the urban area from the rural area of origin. And migrants often retain close ties with their families through frequent visits and remittances. Because of the communal land tenure system, a migrant generally has claim to his land, even when residing in the urban area. Movement of these people out of rural areas deprives the rural areas of a valuable human capital and may add to urban unemployment.

Byerlee's theoretical framework for analyzing the individual decision to migrate is shown below. It is based on the premise that because decisions to migrate are made in rural areas, a theory of migration should emphasize conditions in the rural environment in which that decision is made:

¹Ibid., p. 547.

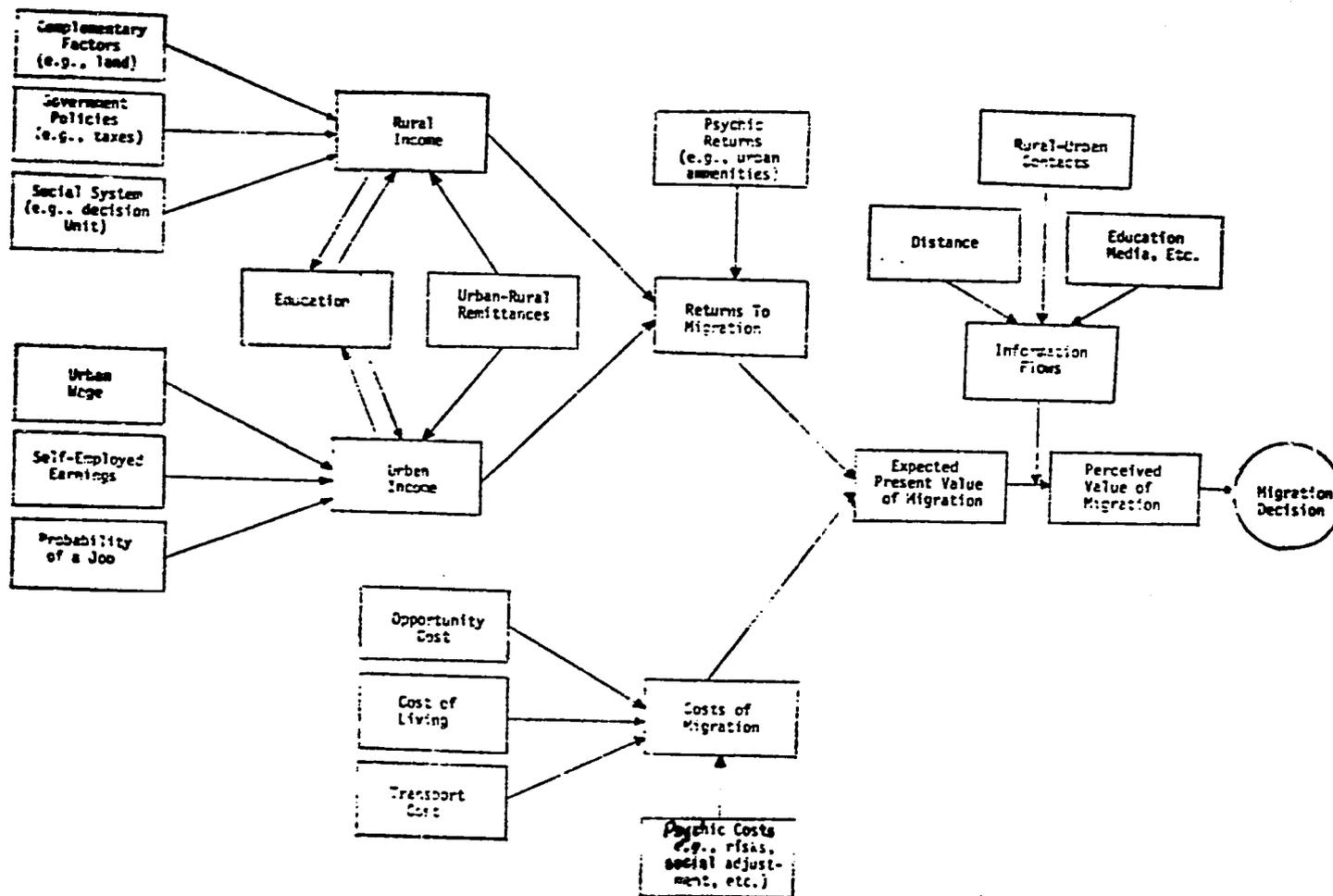


Figure 1. A Framework for the Analysis of the Migration Decision.

Source: Ryerlee, 1974, p. 553.

The decision to migrate and the policy variables affecting this decision can be divided into:

- a) monetary costs and returns relating to rural and urban incomes, education, urban-rural remittances and labor market information, and
- b) psychic or nonmonetary costs and returns relating to risk, urban lifestyles, etc.

Knight¹ shows that the relevant measure of a potential migrant's rural income varies according to the social system, particularly the decision-making unit and the agrarian system. The most relevant situation is likely to be that of the school-leaver who does not yet have access to land and who is strongly influenced in his decision by the total welfare of the household. In this case the household's foregone income is the marginal productivity of the migrant, typically on subsistence farming, which depends in part on the age and sex of the migrant. Following Todaro,² the urban income is the present value of expected earnings computed from the probabilities that a migrant will receive a job in either large- or small-scale industry, or alternatively remain unemployed.

There is a substantial divergence in rural and urban returns to education. Empirical evidence shows that the divergence in Africa may be so large because of the orientation of school curriculums to urban occupations and the undue emphasis on educational qualification for jobs in the modern sector. In Lesotho, this divergence is reinforced

¹Ibid., p. 552.

²Ibid., p. 554.

in the cattle grazing system which utilizes most school-age males as "herd boys."

The remittances of migrant workers may affect the magnitude of both rural and urban incomes depending upon the assumptions regarding the decision-making unit. For example, if the individual is the decision unit with respect to migration, the rural-urban income differential is the difference in income of the individual in rural and urban areas. This then reduces the rural-urban income differential by reducing urban incomes of migrants and increasing incomes of their families in the rural areas. Thus, the remittances of migrant workers lead to a more equitable distribution of income.

Apart from monetary returns, migration incurs some monetary costs such as the opportunity cost of the time spent moving, transport costs, costs of acquiring job information and the generally higher cost of living in urban areas. During the initial period of migration, these costs will be partly offset by the support of families and friends.

Labor market information also plays a role in a decision to migrate. The most important sources of information to the migrant are informal channels such as visits to urban areas, reports of relatives and friends. Also, information depends on distance from the urban area and the education of potential migrants.

In addition, there are likely to be various psychic costs and returns involving other noneconomic factors which cannot be readily converted to monetary equivalents. In rural areas, risk is important, particularly through the impact of weather and export prices on agricultural income. Psychic costs of migration include the costs of breaking old family ties and establishing new social contacts. The

costs of overcrowding and pollution in urban areas are offset in part by presence of social amenities in the urban areas. Thus, psychic costs and benefits may be explanatory variables, particularly in rationalizing the decision of rural people not to migrate. The cost for an established household head is likely to be high because of the need to support a family. The risk of not obtaining a job is often high enough to act as a deterrent. Therefore, economic incentives may be a necessary condition but not a sufficient condition for migration because of the presence of psychic costs and benefits.

It is important to note that there are factors, such as capital transfers in migration and externalities of migration plus income distribution which lead to divergences in the private and social costs. Hence, there is a need for developing policies towards rural-urban migration and urbanization. African rural households invest a lot in education, and the currently high proportion of unemployed school-leavers in urban areas represents a misallocation of valuable resources away from agricultural production. Also, the emphasis on education as a criterion for modern sector jobs, even of low skill requirements, may result in private returns being higher than social returns to education, thereby leading to over-investment in education and further out-migration from agriculture. Thus, rural-urban migration has implications for educational policies, particularly on rural education and the rural-urban orientation of school curricula.

Rural-urban migration can lead to externalities such as increased needs for public services such as roads or sanitation, an addition to increasing tangible costs in urban areas. Intangible costs associated with pollution, crime and general declines in the quality of life are

associated with rapid urbanization. There may also be effective positive externalities associated with increasing returns to scale in provision of public services, however.

Migration can also effect social welfare by changing the pattern of income distribution. It could reduce income disparities within the rural areas if migrants originate in the poorer groups of the rural population. Also, it can reduce the imbalance between rural and urban incomes. But again because the urban wage rate in the modern sector is fixed by institutional factors, migration may have little impact on reducing the income gap between farmers and urban wage earners.

If rural-urban migration and urbanization considerations are to be effectively integrated into national planning, more empirical research needs to be done in many areas including education, factor price distortions and the formulation of expectations and aspirations of rural people. The analysis developed above provides an improved framework for organization and formulation of applied research.

B. Magnitude of Surplus or Shortage

In analyzing labor utilization in traditional agriculture in a less developed country, Myrdal¹ argues that the more realistic approach would be to look at this question from three points of view:

- 1) labor force participation ratios relative to contributions to agricultural output,
- 2) duration of the work year concerning the periods during the day, week, month, and year that people work, and
- 3) with what intensity and effectiveness do they work.

¹Gunnar Myrdal, Asian Drama, Vol. II (New York: Pantheon, A Division of Random House, 1968), pp. 1012-1092.

The following analysis on labor migration issues in Lesotho is based on these three factors.

The distribution of the active labor force in Lesotho is commonly assumed to range from 15-64 years. In regard to employment in the agricultural sector, however, it is important to include the 10-15 age group for boys and girls because they participate in livestock care and crop farming. Lesotho's Second Five-Year Development Plan 1975/76-1979/80¹ estimated the 1975 active labor force at 664,000 persons, or 331,000 males and 333,000 females. The active labor force, however, was estimated at 538,000 persons with 282,000 males and 256,000 females. Migrants as a group were estimated to be at 200,000 (175,000 males and 25,000 females). The following table is a summary of the above figures:

Table 1. Estimates of Population of Prime Working Age and Overall Participation in Employment Activities by Age and Sex, 1975.

	De Jure Population of Prime Working Age (000)	Participation in Employment Activities (000)
Males 15-64	331	282
Females 15-64	333	256
Both Sexes	664	538

Source: Lesotho Second Five-Year Development Plan, p. 266.

If we estimate employment by sector in Lesotho using the figure of 538,000 as the active labor force, there are about 200,000 employed in

¹ Kingdom of Lesotho, Second Five-Year Development Plan 1975/76-1979/80, Vol. 1, p. 266. In the absence of recent data in the Third Five-Year Development Plan, this will be a source of reference in this paper.

In a recent study on "Farm Labor in Lesotho," Wykstra estimates that the male manpower available for farming is 81,000 persons.¹ As will be seen from the summary table below, the estimate for potential male labor force in agriculture is 128,000 persons. This estimate should be expanded by about 11,410 males of age 10-14 engaged primarily in livestock tending, which increases the estimate to about 139,410 males in the agricultural labor force. These young males also participate in crop farming, especially in activities such as ploughing, planting, pest-control, hauling and storage of agricultural products on a seasonal basis. Using the same rationale, there are about 11,160² females of this age cohort which would increase the estimate of 209,000 females to about 220,160 female workers. The aggregate then for both males and females is about 359,570 persons potentially available for the agricultural labor force. But a young male/female between the age of 10-14 is not equivalent to an adult male/female work unit. If we, however, use a factor of only .75 adult labor unit for a male, and only .5 for females for the 10-14 age cohort groups, the total is reduced to 345,433.³ Below is the summary table of work-age labor, by sex, available to agriculture.

¹ Ibid.

² LASA Team, Lesotho's Agriculture, LASA Report No. 2, MOA/LASA, CSU, October 1978, p. 6.

³ Assuming a factor of .75 adult labor unit for a male, then 11,410 (males of age 10-14) x .75 = 8,557 and .5 adult labor unit for a female: 11,160 x .5 = 5,580. Total: 8,557 + 5,580 = 14,137. 359,570 - 14,137 = 345,433.

Table 3. Sector of Employment by Sex, 1975.

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	<u>Male</u>	<u>Female</u>	<u>Total</u>
Total Active Labor Force	282	256	538
Primary employment in RSA	175	25	200
Employment in public and private sectors	28	22	50
Total Off-Farm Employment	203	47	250
Residual Agricultural Labor Force	79	209	288
Plus available males on home leave	49	--	49
Potential Agricultural Labor Force	<u>128</u>	<u>209</u>	<u>337</u>

Source: Computed from both Tables 1 and 2.

The above estimates indicate that an accurate statistical estimation of the size of the potential work force in agriculture is very crucial. When agriculture is practiced on a family basis, the participating group is fluid and difficult to define. Particularly in peak periods of seasonal farm activities, productive tasks may be performed by persons who are not normally engaged actively in farm work, e.g. school children on school vacations. Therefore, in the absence of more systematic and behavioral studies of agricultural work patterns, it is difficult to measure actual participation ratios. This is one area of research to which more attention is needed.

With a bulk of Basotho able-bodied men out of the country at any point in time, those who do return at peak periods of farm activities do provide some labor inputs. Those with livestock either tend them or the work is given to young boys. It is important to remember that both crop farming and animal husbandry are conducted concurrently. Animal

husbandry, however, gets most of the attention, especially during certain phases of the cropping cycle.

While out of the country, men remain heads of their households and therefore make most of the major farm decisions relative to crops, cropping patterns and factor inputs. Women then carry out these decisions and keep track of progress in the fields. Regarding the female labor supply in agriculture, Basotho women are known to engage totally in crop farming as well as performing domestic duties. But, as far as crop farming is concerned, it is important to note that in Lesotho there is a clearcut labor division between the sexes deeply engrained in the culture. Male roles include land preparation, ploughing, planting, cultivation, harrowing, hauling and storage of agricultural products. The roles of women in farm labor include tasks such as weeding, winnowing, sorting/grading and some marketing. Yet, some other jobs such as threshing, harvesting and pest control are usually done by both sexes. This traditional division of labor arrangement has not been significantly altered by the growing number of migrants.

One issue requiring clarification is the extent to which one can correctly presume that female farm workers are the exact equivalent of a male in terms of productivity, particularly since domestic work in the home is largely a female responsibility. Equivalency adjustment factors currently being used may or may not be proper. For example, adjustments may have to be made after comparing workers in non-specific jobs such as harvesting. If the comparison is made on the basis of sex-specific jobs like ploughing, then obviously women may not perform as well as men. The same argument would go for men if they were to do

job which is specifically for women, such as winnowing for instance. Clearly, more research needs to be done on this issue.

In estimating the number of mandays required per acre by crop, it should be noted that crop farming operations are done in stages. For instance, the first ploughing on the fields can be done immediately after harvesting, in order to keep some moisture in the soil. This land preparation is done in July. The second ploughing comes in August/September/October, which is the beginning of the normal ploughing season. Also, another point to bear in mind is that all crops do not necessarily undergo the same operations. For instance, a crop like wheat needs operations such as ploughing/planting and, from there, only harvesting because cultivation, harrowing and weeding are irrelevant as far as this crop is concerned. Considerations such as these must be taken into account in computing actual mandays of labor by crop.

Following are the author's rough estimates of labor requirements for the four main crops in Lesotho on an annual per acre basis. The mandays (assumes 10 hours per day) that are demanded by each of these crops for all operations stand as follows: maize 13, sorghum 19, beans 10 and wheat 14. In the absence of raw data/realities it is hard to come up with more exact manday estimates.¹ It should also be noted that Basotho farmers intercrop such crops as maize and beans and it becomes hard to separate mandays of one crop from another in this case; especially for operations such as ploughing, planting, harrowing, cultivation and weeding. Also, threshing of sorghum and wheat is usually

¹These mandays demanded were computed by the author after talking to some Basotho men who are intimately familiar with crop farming in Lesotho. However, the reader should be aware that final estimates by Wykstra and Tesfa Guma are larger by magnitudes of two to three times.

done cooperatively by all males in the village and winnowing and sorting are left to women. In practice, threshing of maize and beans is often done by neighbors or they may send their children. Their participation in this operation is helpful because it provides them with fuel for cooking fires. As such, work goes much faster because each child wants to accumulate more corncorbs than the others. All these factors need to be taken into consideration and it is important.

Further research is needed on the role of women in agriculture. Also, it is important to remember that some conventional theory, related to unemployment or underemployment, may not be relevant to the conditions of LDCs because they were evolved in a Western context which did not experience the preconditions of LDCs. For example, using terms such as employment, underemployment and unemployment loosely, implies that a fluid market exists for particular occupations with specific working hours. Also, in a highly developed society with a labor market that works reasonably well, the working day and number of working days in a year are usually relatively fixed by tradition, collective agreements, legislation or a combination of these factors. Those who are without work are usually assumed to want a job under these standardized conditions.¹ These conditions, however, are not as applicable to the same degree in developing countries.

Unemployment makes sense in a largely urban society based on strong Western traditions, but even in Western societies these assumptions are not always valid, especially in rural sectors or depressed areas (e.g., the South or the Appalachian regions of the U.S.).

¹Gunnar Myrdal, Challenge of World Poverty (Washington, D.C.: The Hopkins University of Advanced International Studies, 1970), pp. 13-15.

Therefore, it is of critical importance to take these matters into consideration when examining countries which are not only at other stages of development but which also do not yet have many of the preconditions that were present in Western countries at the time of the Industrial Revolution. For example, few Westerners understand sufficiently the tribal systems, role of chiefs, or communal land tenure systems of African nations such as Lesotho within the context of development.

C. Migration and Miners' Income

For decades, many able-bodied Basotho men have depended on South Africa for employment. Low level of agricultural incomes resulting from low agricultural productivity operates as a definite push factor toward seeking employment in South Africa. Once they are employed in South Africa, however, the dependents of these migrants necessarily become dependent on remittances from their migrant work. At any point in time, approximately 50 percent of the adult male labor force is out of the country for work in South Africa.

One recent migration study¹ shows that unemployment developments in South Africa (unemployment is estimated at increasing by 50-60 percent in the next five years) will result in the displacement of a significant portion of the half million foreign workers now holding jobs in the Republic. Several factors are working against continued employment prospects for Basotho. These include:

- a) the prospect of reserve depletion in several gold mines now employing Basotho;

¹Jerry Eckert and Ron Wykstra, The Future of Basotho Migration to the Republic of South Africa, LASA Research Report No. 4, Ministry of Agriculture, Lesotho and Department of Economics, Colorado State University, September 1979, pp. 9-19.

- b) mechanization of underground coal mining;
- c) a geographic shift of the balance of gold output to areas beyond economical reach of Basotho and closer to other labor sources such as Blacks in the homelands; and
- d) an increasing proportion of both gold and coal being derived from surface operations (which use capital-intensive techniques).

The implications of this situation are as follows:¹

- 1) assuming that the migrant work opportunities are halved, approximately 80-90,000 additional men will require employment within Lesotho between now and the year 2000. This increases the domestic employment creation challenge, especially for males;
- 2) migrants' remittances, now the principal contributor to equality in rural incomes in Lesotho, may decline and contribute to serious income inequality; and
- 3) there may be a net decline in imports and a proportional negative trend in Customs Union receipts.

The Government of Lesotho has now become aware and concerned about the precariousness of the long-term employment situation for Basotho in South Africa. As the study suggests, it now seems most probable that South Africa will gradually displace its foreign workers. For example, note was taken of the fact that in the first five months of 1977, the decline in recruitment of Basotho miners totalled about 62,000 and the total of remittances foregone were estimated at about R989,000.²

Lesotho is now faced with the serious problem of creating employment, not only for the new entrants into the labor market, but also for the returning miners. Alternative strategies must be carefully analyzed and a policy implemented that will result in productive employment of the projected labor force, particularly in the rural sector.

¹ Ibid., p. 19.

² Kingdom of Lesotho, Donor Conference Papers, Maseru, Lesotho, September 1977, p. ME-I.

For example, strategies of labor absorption, which emphasize rural reconstruction and structural transformation in the total economy, should be given high priority in policy analysis and planning.

Migrants who traditionally seek work in South Africa are relatively uneducated and without basic skills. Therefore, any strategy to be implemented should place emphasis on training of manpower. Unless education and training are provided within the context of a national manpower development program, it is likely that returning miners will flock to the cities thereby increasing crimes, taxing service facilities and adding to overcrowded and inadequate housing. No city, private or otherwise, can maintain adequate law and order with what Marx called dealing with the "army of the poor."

One approach to the problem is for the government to consider creating jobs in the rural areas with the use of appropriate technology for unskilled people. For example, the Lesotho National Development Corporation (LNDC) and the Basotho Enterprise Development Corporation (BEDCO) are being used as the means of expanding employment opportunities, through establishment of industries. All these industries, however, are presently crowded in the cities like Maseru so some should be located in rural areas where manpower resources and facilities can be made more readily available. Planners in Lesotho need to study various models ranging from Mainland China, Taiwan, and Israel where definite focus has been given to small town industrial and agrobusiness development. Unfortunately, there are few models and adequate information on the economies of rural towns and rural industrial development available in the economic development literature that truly fit the Lesotho case. In the probable absence of an adequate number of jobs for foreigners in

South Africa in the future, Lesotho will be faced with a serious problem of creating employment for the returning miners who will get displaced in South Africa and who will have no alternative but to come home. Decision-makers in Lesotho therefore have to explore viable possibilities for absorbing these people in productive employment in the very short run.

D. Growth of Labor Supply, 1980-2000 A.D.

Manpower studies need to identify key variables which generate changes in both the demand for and supply of different types of manpower. In order to forecast overall demand for labor, manpower requirement projections for each sector in the economy are essential. Also, forecasting changes in the supply of manpower must entail forecast changes in population growth and in the structure of the population. Such a study of the population employed by occupational groups should become the basis for estimating future occupational employment requirements in Lesotho.

Table 4 below is a summary of population and labor force estimates 1976-2000 A.D. (thousands):

Table 4. Population and Labor Force Estimates 1976-2000 A.D.

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<u>Item</u>	<u>1976</u>	<u>1980</u>	<u>2000</u>	<u>Change</u> <u>(2000-1980)</u>
Lesotho's Population	1,217	1,338	2,267	+929
Work-age Population	664	765	1,239	+474
Active Labor Force	538	612	1,005	+393
Migrant Workers	200	188	100	-88
Residual Domestic Labor Supply	368	424	905	+481
-Engaged in modern sector	23	40	106	+66
-Engaged in agriculture	340	384	799	+451

Source: Jerry Eckert and Ron Wykstra, "Lesotho's Employment Challenge: Alternative Scenarios, 1980-2000 A.D.," Discussion Paper No. 7, Ministry of Agriculture, Lesotho and Department of Economics, CSU, September 1979, p. 23.

Given the population and labor force estimates for 1976, a recent study¹ revealed several major dimensions of Lesotho's forthcoming employment crisis during the 1980-2000 A.D. period. First, Lesotho's de jure population was estimated as increasing to more than 2.25 million by 2000. Second, the active labor force would exceed one million persons. Migrant employment in the Republic is likely to decline by 50 percent, leaving only 100,000 such jobs, and the modern sector is likely to only increase total employment to just over 100,000 jobs (about three times the present level). In comparison, the remaining supply of labor requiring employment within Lesotho's economy will increase to a total of some 900,000 persons. As a result of the decline in migrant

¹Eckert and Wykstra, op. cit., pp. 23-24.

employment, there will be a 60 percent increase in the number of households that must rely on agriculture for their livelihood. Therefore, the number of workers that must find employment in agriculture will increase by 208 percent by the year 2000. And, some 93,000 agricultural jobs are needed in the next five years (1980-85), followed by over 100,000 such jobs required in each of the following five-year periods.

As pointed out earlier, detailed manpower projections require forecasts of changes in both the demand and the supply of labor. The question of forecast changes in the supply of labor has been dealt with in the estimates on population changes for the period 1976-2000 A.D. But the demand side of the picture has not been dealt with fully, especially concerning labor absorption. A study of the manpower analyses and projections require more knowledge concerning the future volume of output, its sectoral distribution, sectoral labor/output ratios, and overview of occupational requirements by skill level, sex and education. More research in this critical area is needed before Lesotho planners can develop adequate strategies to deal with a growing problem that simply will not disappear but instead promises to increase severely over time.

Employment studies about the modern sector and labor-intensive public works have suggested the need to absorb a portion of the growing labor force. The most important sector which can easily absorb the labor force, especially in the short term, is agriculture. In future planning, this sector should not be relegated to the status of only being a residual employer. Therefore, two available sector models in which this was the case should not be followed; specifically, the

agricultural sector must not be considered as a poor stepchild in the development process.

Presently, the modern sector primarily employs the more educated people, and to the extent it employs unskilled and poorly educated people, their wages do not compare favorably with the wages received as unskilled workers in South Africa. Apart from this, attempts to create enough jobs in the modern sector alone are a near impossibility and would further aggravate the problem of rural-to-urban migration in Lesotho. This situation does not, however, rule out modern sector development and employment because LDCs, like Lesotho, need to press on as fast as they can with industrialization. This behavior does not imply that Lesotho can afford to reduce efforts to raise productivity of land and labor in agriculture. Therefore, an approach which links the urban and rural sector in complementary and supplemental relationships needs to be pursued. Also, policy should be directed toward import substitution in those products in which Lesotho can compete with South Africa and the rest of the world but their relative comparative advantage has not yet been sufficiently studied.

Development theory demonstrates that as development proceeds, the relative importance of some sectors decreases while that of others increases. In most cases, it is the traditional sector which loses relative importance in providing employment during the early stages of economic development. This situation will work in reverse in the case of Lesotho, however, should the miners return home; this is where Mellor's employment strategy becomes relevant. Assuming that there is full participation of all farmers in agricultural production, this condition may lead to significant increases in foodgrains productivity.

At the moment, however, Lesotho depends on the imports of consumption goods from South Africa and as such the leakage of expenditure outside the country is high.

With increased production of foodgrains on the farms and processing of agri-linked industries, there could be increased incomes of farmers and landless laborers. The multiplier effect from this effect would be as follows: if demand for food increases, an increase in food production will result which in turn would lead to increased incomes and employment. Over time this condition will lead to increases in demand for high quality food products such as fruits, vegetables, livestock, dairy products, which all tend to be labor-intensive, thereby further increasing employment opportunities. Given such a strategy, as incomes rise, the demand for higher quality food products rises and income earned in the rural areas not only helps reduce heavy food imports but also provides for growing markets in the rural areas, which also help to stimulate basic programs for human welfare.

Another scenario to consider is the creation of more labor-intensive public works programs to provide for improved rural infrastructure such as roads, land reclamation, land development, reforestation. In the short run, such programs would be complementary to the nation's employment needs. In this regard, the Government of Lesotho has already established a Labor Construction Unit (LCU) in the Ministry of Works to encourage labor-intensive public works. People can also work in rural public works during slack agricultural seasons and in this way labor utilization is raised.

Rural public works strengthen the rural sector mainly with the help of that single factor of human labor which is available in

abundance. In most cases, lack of involvement and support of the people, meaning farmers, in these efforts result in undesirable practices like continued moving of people, cattle and farm machinery over terrace banks, and uprooting of trees. Many large public works programs in Lesotho, however, have not been completely successful, due to lack of organization, maintenance and adequate management.

Agriculture alone cannot solve the entire employment problem. But if it is complemented by urban and rural industrialization of linked industries consistent with increased food and fiber production, progress will be made toward more rapid employment growth.

E. Technology and Labor Absorption

The existence of a labor surplus, the likely displacement of foreign workers in South Africa, and the projected large growth of the labor force in the period 1976-2000, required that attention be paid to job creation. For example, a recent study¹ shows that the supply of labor requiring employment within Lesotho's economy will increase to a total of 900,000 persons and that some 93,000 agricultural jobs are needed in the next five years. One other recent study on "Manpower versus Machinery,"² describes the possibilities of utilizing Lesotho's growing labor force. Public works using labor-intensive techniques were considered as one area that could provide employment for the returning miners. However, as indicated earlier, public works programs must be carefully planned to fit into an overall development strategy, and must be managed well and maintained.

¹Ibid., pp. 24-25.

²Jerry Eckert and Ron Wykstra, Manpower versus Machinery, LASA Research Report No. 6, Ministry of Agriculture, Lesotho and Department of Economics, CSU, 1980.

In order to be able to compute a cost-benefit analysis for both labor-intensive techniques and capital-intensive methods in construction, Eckert and Wykstra examined the activities of the Labor Construction Unit (LCU). The results show that it is more effective to use some labor-intensive methods than capital-intensive methods because the former employs more people at lower total cost in conservation treatment over a land unit of 1,000 Ha. Using labor-intensive methods required R293,000 and 70,000 mandays of labor as against R359,000 and 10,000 mandays for capital-intensive techniques. The comparison shows that a labor-intensive approach costs some R67,000 less and provides 60,000 additional mandays of employment.

Cost-benefit analysis also shows that labor-using methods generate direct benefits of R1.56 for every R1 in costs, whilst capital-using techniques generate only R1.27. These direct benefits increase further if it is assumed that some 20 percent of income remains internal to the domestic economy and through a multiplier effect, additional employment of 15,000 mandays can be indirectly generated. Computing benefit-cost ratios including this incremental employment gain further favors labor-intensive techniques in Lesotho.

The Eckert/Wykstra study is only a partial analysis which nonetheless shows that labor-saving technique is the best one to use for public works in Lesotho, especially when bearing in mind that the growing labor force has to be absorbed in the labor market in any case. In order to convince decision-makers that labor-intensive techniques are indeed the best approach, it is desirable to include in the analysis factors such as social gains/costs, uncertainties to the use of the technique, and sensitivity analysis which enables the analyst to make

arbitrary assumptions about various estimates of benefit and cost parameters; externality and intangible effects, etc. The analyst should present to the decision-maker as much pertinent information as possible. More investigation is therefore needed in order to incorporate such non-economic aspects into a cost-effectiveness analyses and labor-intensive strategies.

The labor utilization problem in Lesotho promises to be a continuing problem. It is of such significance to the total economy and to the families of Basotho that it requires much more attention. Additionally, policy-oriented research and experimental projects which will help evolve and evaluate different employment strategies are surely needed.

CHAPTER IV

POLICY IMPLICATIONS AND RECOMMENDATIONS

Following from the above discussion, it can clearly be seen that Lesotho is faced with a very serious problem of utilizing its rapidly growing labor force. Every possible strategy that might create production employment needs to be exploited to the limit. Government should lay down a definite policy in this regard and see to it that this policy is carried out. Below are some suggested policy implications and recommendations related to the previous discussion.

Agriculture, the industrial sector and the public works sector must work together to see that the returning migrants, who are to a great extent uneducated, are provided with training and employment opportunities. Due to the requirements of the modern sector of the economy, it seems that a primary absorption responsibility will revert to increasing agricultural output, especially basic food crops. This is a desirable result because an adequate food supply is crucial to any development program or project, otherwise all the developmental efforts get frustrated.

Agricultural output in Lesotho has declined significantly over the period 1950 up to the present, due to several factors.¹ These include climatic hazards, soil erosion, reduced soil productivity, increased fallow land, labor problems, lack of improved farming implements, low motivation in agriculture because of availability of higher paying jobs

¹Lesotho Bureau of Statistics, Lesotho Agricultural Census, 1960, Part IV.

in the Republic, inadequate knowledge and information for farmers, relatively low agricultural prices and low input utilization. A major factor involved is the critical fact that the majority of Basotho able-bodied men are currently employed in South Africa at wages much higher than they could earn in Lesotho's agricultural sector. This situation has removed from the agricultural labor force not only much male labor but, more important, the individuals who are the farm decision-makers.

Due to the continuing decline in agricultural output in Lesotho and the likely problem of displacement of Basotho workers in South Africa, serious thought at government policy levels is now taking place. It is realized, for example, that for agricultural productivity to increase substantially, farmers must be provided improved production possibilities. In any development program or project, farmers are the key people to the whole process. In the past some progressive farmers have assumed limited roles in the planning and implementation of development programs. At this juncture of our development, we must examine carefully, ways and means to involve more people in the development process.

One available report on "Crop Farming in Lesotho"¹ recommends that village cooperatives should be established as a means of increasing subsistence farmers' crop yields. In this regard, several questions arise related to cooperatives: What type and what control by member users for the own benefits is needed, and to what degree can government as against membership control of village cooperatives be made effective under the prevailing land tenure system? How can one ensure that the

¹D. R. Phororo, "Crop Farming in Lesotho," Ministry of Agriculture, Maseru, Lesotho, January 1979.

majority of the workers will participate and have a voice in the operations and management? Participation of all farmers cannot be assured because the record is that elites will dominate. Will each member feel a part of the whole scheme and thus contribute effectively to the realization of national goals, or is it just another unproductive movement? Will this effort impact labor utilization in the rural sector significantly and in what ways?

Some observers suggested that with village cooperatives, land holdings will be consolidated. The selective use of machines is very important in this case to supplement labor-intensive techniques but also is essential for timely operations due to short rainy seasons. Also, during the ploughing season, animals are usually in poor physical condition, due to lack of supplementary feeding. Especially in the case of heavy duplex soils, which require much draft power for tillage, there may be a real need for the selective use of tractors and other machines. Whatever policy or program is developed, there is a need to carefully consider the trade-offs and the complementarity of using both machines and labor-intensive methods to meet the twin objectives of increased production and labor utilization.

It is presently assumed that village cooperatives will both help increase agricultural production and utilize more labor; however, insufficient experience and evidence exists for such a strong assumption. The record of cooperatives in a number of countries like India, Pakistan, Egypt, etc. are not encouraging, where village farming cooperatives have had limited success. They have been developed not as an ideological panacea but as a business organization, owned and operated by members for their own benefits. The cooperative approach is only

one tool among many in economic development and to be successful, it usually requires enlightened members, good management and good returns to members.

In an endeavor to increase agricultural output, it is recommended that the Ministry of Agriculture should ensure effective utilization of manpower in agriculture. More emphasis should be given to self-employment options because not all the people can be engaged in wage employment. As indicated earlier on, one of the factors that has contributed to a decline in agricultural output is inadequate knowledge and information provided to farmers. For example, farmers tend to grow the same crops on the same fields year after year. The agricultural research station should make soil tests and field testing throughout the country in order to find out what soil is suitable for what crop, and under what climatic conditions, what fertilizer to use, etc. Each region has resources in which it is better endowed than other regions and it should specialize in the crops in which it is better suited. The policy should be such that farmers are encouraged to grow only those crops that have been found most suitable in their locality.

The role of the extension workers comes into play at this juncture. They have to consult with the farmers and advise them of the new strategy that is being encouraged and why this is the case. They should show the farmers the labor and food problem that the country is facing and explain to them that whatever strategy is being done is in the best interest of Lesotho's development goals--one being to raise the standard of living of all the people. Education of farmers in order to help change their attitudes is important. For whatever programs that are embarked upon, farmers' full participation is needed

(underlined for emphasis). Therefore, better training and educational programs so that farmers can more readily assimilate the process of change are very crucial.

Assuming that this proposed strategy is effectively carried out, then in short order more farmers will be engaged in production of intensive crops that are most suitable in their localities. For example, one region may be found to be most suitable for maize and sorghum, another for beans, peas, sunflower, etc., yet another for wheat and fodder. Eventually farmers in each region should specialize in those crops best suited to their fields and can sell surplus production to farmers in other areas that do not grow them. For example, those farmers who grow sunflower can sell this to farmers who keep poultry, thereby increasing egg production. The waste from poultry is fed to pigs. Those who grow fodder will sell this to farmers who keep livestock, thereby improving the quality of stock, and the manure from the stock can be used as a natural fertilizer in the fields. This process ends up being a chain of interrelationships that leads to increased farmers' efficiency throughout the country and increase in total productivity of agricultural products.

Most Basotho have gardens where they grow vegetables, potatoes, fruit trees. These crops are grown mainly for consumption but to a small extent for cash. More emphasis should be put on garden crops. They are labor-intensive and can generate large incomes from overall acreage under intensive management. It is important to note, however, that these crops need high cash inputs for good seeds, fertilizers, etc. and are perishable. Therefore, an efficient marketing system will also have to be developed.

Livestock production is one other area that needs attention. With the completion of a new abattoir which will have a capacity of 25,000 cattle and 50,000 sheep and goats per annum,¹ it will now be necessary for farmers to keep stock of good quality to supply this processing plant. Those farmers who keep livestock should be advised, through extension agents, against keeping excessive animals in poor condition. Emphasis should be given to establishing feedlots, as these not only help in fattening the stock, but also enable the animals to produce more dung which is needed in the fields. Feedlots should be located at various points in the country in order to utilize rural labor. The major livestock production areas are situated in the mountain regions. It is important, therefore, to improve the road system to these areas. Farmers who keep pigs should get government encouragement in order to keep these in large numbers for the abattoir. Hides and skins from the slaughtered animals will be sold to the shoe factories in the rural areas. One most important factor in increasing livestock production lies in efficient marketing.

Marketing of all the above-mentioned products is the next crucial development input to put into Lesotho. A viable marketing system is the essential step towards improved agricultural productivity. In other words, an efficient marketing system would promote agricultural production for both crops and livestock products. This means then that both the Produce Marketing Corporation (PMC) and Livestock Marketing Corporation (LMC) should be strengthened in order to generate farmers' interests and efficiency. Beans, peas, wheat, vegetables, potatoes,

¹ Kingdom of Lesotho, "Statement of the Prime Minister in the Interim National Assembly," March 1980, p. 2.

eggs and milk constitute a group of products that most farmers are already acquainted with, both with regard to the husbandry techniques and the nutritional values. These, therefore, need policy support in promoting them as cash crops. Their subsistence cash value can be enhanced by encouraging production and marketing in the green state. Thus, those farmers who will be engaged in these activities will improve their efficiency in order to realize the benefits.

A. Import-Substitution

Lesotho imports, among other things, foodgrains in a processed form from South Africa, and thus makes the country more dependent on its neighbor while losing employment multiplier effects. The value of imports in 1976 has been estimated at R179.9 million.¹ Major import groups included food and live animals which account for 21 percent of total imports. For decades, Lesotho has been exporting maize and wheat to South Africa and importing these products back in a processed form. Policy should now be directed towards import substitution and export promotion in those crop and livestock products in which Lesotho can compete with South Africa and the rest of the world.

It is assumed that with the above proposed strategy of growing crops in suitable regions, there will be an increased supply of foodgrains and some other crops. Government should then set measures to control import of these products into Lesotho. This practice worked well with the importation of eggs because the control measures were effected at all border gates. It did take some time, though, for the people to understand why they were stopped from buying eggs in South

¹Kingdom of Lesotho, Donor Conference Papers, p. OS-3.

Africa. It is very important, therefore, that whenever a strategy is embarked on, it should be made known to all the people. Policy-makers should not assume that people in the villages will understand why such a step is being taken. Therefore, such strategy should be explained to them by means of 'pitsos',* the radio, newspapers, etc.

Over time, with the increase in the supply of corn and wheat, there will arise a need for the installation of more flour mills in the country. This situation in itself implies employment creation for the people and it also entails intensification in the production of these food crops. The Mill/silo Project, which only commenced in 1979, already employs 200 Basotho during peak production periods.¹ This effort is a step forward toward greater labor utilization in Lesotho.

In terms of export promotion, there are exotic crops like asparagus that can be produced in Lesotho but mainly for exports. Asparagus was well received in marketing trials in Europe. This crop was experimented with in the Thaba-Bosiu Rural Development Project. It seemed resistant to damage by hail, drought, and frost, and it also generates a lot of income. Policy efforts should be directed towards expanding production of asparagus, as well as identifying other crops which have similar properties.

B. Decentralization of Industry

Industrial manufacturing must focus on the relationship between industrialization and employment, where appropriate labor-intensive industrialization is related to the employment of unskilled and

*A gathering of all villagers.

¹ Kingdom of Lesotho, "Statement by the Prime Minister in the Intermin National Assembly," p. 2.

semi-skilled labor. The industrialized sector is now centered in the urban area, thereby acting as a pull factor to those people who reside in rural areas. This sector is, at the moment, capital-intensive and is largely dominated by foreign firms. Both the Lesotho National Development Corporation (LNDC) and Basotho Enterprises Development Corporation (BEDCO)--agencies most directly responsible for job creation in the modern sector--should locate their industries in the rural areas. And, the policy-makers must necessarily encourage producer decision as to what has to be produced and with what techniques.

Agriculture should be able to provide more products for processing in the rural areas. This necessitates location of small-scale industries in the rural areas. These industries should produce products that can primarily find a local market and that are deliberately aimed at stimulating local consumption. Special attention should be given to livestock products, particularly mohair and wool. Processing of mohair and wool could generate significant employment. Some Basotho men are quite experienced in shearing of wool and grading it. It is this kind of people who can be utilized effectively in the very primary stages of processing these products instead of exporting these in a raw state to South Africa.

Shoe factories can be opened in the rural areas. There are such factories in the urban area though on a small scale. People that work in these industries are self-employed and they come basically from the rural sector. They move to the city where they expect to have a wider market for their products. If such corporations as BEDCO or LNDC could give all the necessary support to these people in the rural areas, then there would not be a need for them to move to the urban area.

Moreover, they would not have to sell their products at a higher price like they do in the urban area in order to cover all the costs including transportation and costs of living in the city. These kinds of industries are labor-intensive and therefore have a greater labor-absorptive capacity. Locating them in the rural areas helps to curb the problem of out-migration to the city. It also helps to develop the rural areas so that they are not left in stagnation while the urban areas improve. Policy support to rural enterprises, especially commercial ones which could serve as a rural-urban marketing link, is therefore crucial.

C. Distribution of Social Amenities for Village People

Availability of better housing, sanitation, water and community services, roads, improved communications, health services, etc. are significant benefits of living in the urban areas because this is where these facilities are heavily concentrated. Decentralization of social amenities would be important in locating industries in the rural areas, and it is the rural people themselves who must be engaged in the building of these facilities. Policy must be directed towards improvement of infrastructure, especially in the rural areas, using labor-intensive techniques. Constant maintenance of such works is very crucial if their effectiveness is to be fully realized. The public works program, which is being done by the Labor Construction Unit (LCU), is very important in acting as a complement to the whole employment strategy. Also, the Basic Agricultural Services Program (BASP) needs to be strengthened in its endeavor to building access roads throughout the country. However, the crucial point is that in order to achieve both

the efficiency and cost-effectiveness level of the works, maintenance of the works is vital.

D. Human Capital Transfer of Knowledge

Due to lack of trained manpower in Lesotho, the government has to employ the services of technicians to fill the positions of those locals who may be away on training. Whilst in Lesotho, the technicians are assigned local personnel to work with them. It is very important that these technicians work closely and hand in hand with these people in order to impart their knowledge to them. This type of training is more meaningful because it is done on the job and usually people learn better by doing. But in most cases the technicians do not want to work with the local personnel. They tend to isolate themselves. So, even if what they do is important and beneficial, when they leave the country there is nobody who can take over the job, and in that way the problem still remains. It is recommended, therefore, that the heads of departments should encourage the foreign technicians to impart their knowledge to the local personnel while working temporarily in Lesotho.

E. Training

The quality of labor force is an important ingredient in utilization of manpower. Technical colleges in Lesotho should be increased in number and their curriculum geared towards improving the quality of that unskilled and semi-skilled labor force. The returning miners already have qualitative characteristics, for instance, discipline. Moreover, such people can be utilized in rural public works. Also, there should be provision of internship to places like Taiwan where people can study about intensity in agriculture.

F. Establishment of an Employment Impact Agency

Most government projects in Lesotho go on and on without any adequate follow-up, and end up not meeting their objectives. Therefore, in order to make sure that all the development programs and projects incorporate as one of their components, the question of labor utilization, it is recommended that an "Employment Impact Agency" should be established within the National Economic Advisory Council of the Cabinet office. The primary function of this new Agency would be to see to it that no project or program is implemented if it does not establish clearly as to how many people it intends to employ. Constant evaluation of these projects' technology respecting labor vs capital intensity should be done as a follow-up to check on their implementation.

G. Further Research

Before completing the discussion on this paper, it is important to list out some areas in need of further research:

- a) land capability inclusive of use of fallow land;
- b) data needs on the approximate number of mandays required by crop per acre on all crop farming operations;
- c) equivalency adjustment factors between age differentiation and male and female farm workers;
- d) the role of women in agriculture and development;
- e) more investigation on non-economic aspects of labor utilization and incorporation thereof into cost-effective analysis; and

f) data needs on the number of people who, once they migrate to South Africa, stay there permanently, and/or at least until retirement age.

H. Conclusion

Following the above discussion, it is apparent that Lesotho is faced with a very serious problem of utilizing its growing labor force. Strategies must be exploited to the limit, but obviously, there is no simple panacea either in cooperatives, welfare measures, small town industry, roads or other approaches. The policy and program must be such that the essential complementary components are designed as part of an integrated strategy. Not only is a viable strategy needed, but policy commitment and management are needed as well to assure that it will in fact work. Participation of all the people in any development strategy is very crucial.

Since it is clear that manpower utilization in Lesotho lies mainly in agriculture, it is important, therefore, that major efforts should be concentrated in this sector. The first problem to be tackled is the severe soil erosion. In his recent speech to the Interim National Assembly, the Prime Minister said: "this is a problem which we must tackle urgently and efficiently, for without soil, there can be no productive agriculture without which in turn there can be no survival."¹

¹ Ibid.

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