

# Institute of Development Management

(a) INSTITUTE FOR DEVELOPMENT  
MANAGEMENT [BOTSWANA, LESOTHO  
AND SWAZILAND].

(b) Workshop on Manpower Planning,  
Gaborone, 1981.

[Report on manpower planning  
workshop.]

(b) Workshop on  
Manpower Planning, Gaborone,  
1981.

[BOTSWANA, LESOTHO  
AND SWAZILAND]

## REPORT ON MANPOWER PLANNING WORKSHOP

APRIL 13 - 15, 1981

Gaborone

Botswana

**Botswana  
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REPORT ON

MANPOWER PLANNING WORKSHOP

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Botswana

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## INTRODUCTION

A workshop on Manpower Planning was held at the Institute for Development Management, Gaborone, Botswana on the 13 - 15th April, 1981. The workshop, co-sponsored by IDM and the Economic Commission for Africa (ECA), was attended by Senior Government officials from Botswana, Lesotho and Swaziland. The participants included experts on Manpower Planning from ECA and BESO who provided key ideas and expertise during the discussion.

The workshop was designed to provide participants with the opportunity to exchange experiences and to assist BLS countries to develop capabilities for manpower planning and related activities. The workshop therefore covered many issues on manpower planning and related areas including papers presented by Botswana, Lesotho and Swaziland. A key note paper was presented by Mr. S. Jones from ECA headquarters in Addis Ababa.

The main areas covered by the workshop included:

- The need to recognise the difference between skilled and educated manpower and the implications this has for a country's educational system.
- The emphasis that educational systems should be orientated towards occupational skills acquisition even if this meant restricting freedom of choice to careers by school leavers.
- The requirement that, if the situation was going to improve, there be total commitment to manpower planning throughout the economy and that the different sectors must respond to actual training needs.

This report provides a record of discussions of the workshop and the recommendations adopted thereof, the opening address by the Hon. P. Mmusi, Minister of Finance and Development Planning, papers presented by various experts including papers from BLS countries.

## SECTION ONE

### OPENING ADDRESS BY HON. PETER MMUSI MINISTER OF FINANCE AND

#### DEVELOPMENT PLANNING

Ladies and Gentlemen!

I have great pleasure in addressing you in what I believe to be one of the most important workshops ever held by the Institute of Development Management - manpower planning. I am told that participants here include senior officials of the Ministries and Departments of Education, Finance and Development Planning, Labour and Personnel as well as the Employers' Federations in Botswana, Lesotho and Swaziland. I am also informed that this workshop has been organised in co-operation with the Economic Commission for Africa, which is represented here today. To all of you, I extend a warm and hearty welcome to Gaborone.

I say this is a very important workshop because the subject of manpower planning has not been given the attention it truly deserves in the formulation of our economic and social development plans even after many years of independence.

Research on the subject of manpower planning and development in many Third World countries has generally shown naked signs of past colonial neglect. In Africa in the early days of independence, there were typically between one and ten graduates out of 100 000 of the population. In Asia and Latin America the corresponding ratio was between 30 and 150 graduates. This naturally led to a high, and often, questionable dependence on expatriate personnel. In 1968, for example, 84% of all British Teaching Assistant personnel working overseas were in Africa.

On the demand side the developments in education itself absorbed significant numbers of skilled manpower to become students and teachers. Thus, where they existed, the manpower plans of African countries were often conceived in the context of severe and widespread shortages. We must, therefore, see the phenomenal rates of growth of education and training programmes of our countries as a reflection, more than anything else, of the low base upon which we have had to build.

Here in Botswana, the first serious attempt to tackle the problem of manpower planning or rather, lack of it, was made in 1972 when the Government engaged a consultant to carry out a manpower survey. The consultant's work had two main objectives:

Firstly, to provide a statistical reference document on the employment and manpower situation in 1972;

and secondly to provide information which could be a guide for the planning of education and training in Botswana. Unfortunately, as often happens with many data of this kind, some of the forecasts have fallen far out of line with actual developments in this area. Some of the figures have had to be revised as early as 1975 for use in the preparation of our 1976/81 National Development Plan.

Ladies and Gentlemen, manpower planning, and indeed planning in general, has been having somewhat of a bad press recently throughout the world; not only in the Third World. We constantly hear of the results of planning - with the wrong numbers of students being trained for wrong professions or employment. We hear of, and indeed experience ourselves, too few maintenance technicians, or in some countries, too many graduates. In some instances we hear of unbalanced production of goods compared with market demand.

No one today accepts that we should go back to the chaotic practice of "laissez faire" with its accompanying unemployment and lack of prospects

for the employee; brave attempts have been made to plan economies, both in Western and Eastern countries, and today they are all taking a long hard look at the results.

Nowhere more than in countries in Africa, such as ours, have the results of this rethinking begun to have their effect. We now know and accept that we have got to take steps to plan our resources, our human resources in particular, along practical and workable lines.

Manpower planning not only affects employment in every sector - government, parastatals and the private sector - but it has been shown to affect every level of employee, from management down to manual workers. The results of manpower planning, or the lack of it, are either to the benefit or disadvantage of every worker, or prospective employee.

We therefore have a responsibility to see that the systems and procedures that we produce, as active participants in the planning function, succeed in ensuring that the right people are available with the right skills at the right time, and also that this planning is flexible enough to compensate for the vagaries of the economic world we live in today.

No two countries have exactly the same economic conditions, and indeed planning can be carried to extremes, with consequent lack of efficiency and waste of precious resources. In no field of planning is the resource more valuable than in the field of manpower. It therefore behoves us to constantly review our plans and create monitoring and control systems that enable us to change course in the light of changing circumstances. It is being said that the days of ten year forecasts are dead. While that may be so, there still remains the necessity for analysis, both of existing skills and skills needed, against the background of a developing and therefore ever-changing economy.



Here in Botswana, Government has recently decided to resuscitate the tripartite National Employment Manpower and Incomes Council, first established in 1972, with a full-time secretariat within my Ministry. We believe that the Council, as currently constituted by representatives of Government, the Employer's Federation, the Botswana Federation of Trade Unions, the Botswana Civil Service Association and representatives of the rural sector, will fulfill an essential co-ordinating function in this area. Its terms of reference range from reviewing educational and manpower development plans, both within government and in the private sector, to actually advising government on the policy to be adopted in approaching this issue.

This workshop, held in the forum of the Institute of Development Management, should be an excellent opportunity for exchange of views, and hopefully agreement on the course that manpower planning and its equally important twin, manpower development should take in the future.

It is not for the IDM to say how you should each tackle this problem of manpower planning. It is for this workshop to come up with an answer, using the contribution of IDM personnel, who will also themselves benefit from the feedback they will receive from its deliberations over the next three days.

No doubt IDM will, before long, be training your personnel in the various skills that are required for the complex function of manpower planning. I hope that you will all find your attendance at this workshop highly rewarding, and that what you learn will be put to fruitful use in your various tasks.

Ladies and Gentlemen, I now have pleasure in declaring this workshop on manpower planning open.

Thank you!

SECTION TWO

PAPERS AND DISCUSSIONS THEREOF

KEYNOTE: WHAT IS MANPOWER PLANNING: WHY BOTHER?

S. JONES (ECA)

Mr. S. Jones presented his keynote paper on "What is Manpower Planning: Why bother?" (annexed) in which he emphasised the inter-relationship between economic planning and manpower planning.

Discussions focused attention on the wider implications of manpower planning and in particular whether manpower planning should be based on specific manpower needs of a country, thereby restricting individual freedom of choice of career. While it was generally agreed that freedom of choice was an ideal, manpower planning must be related to the actual manpower needs of the country and, to some extent, regulate choice. It may be necessary to take specific action in directing people towards particular areas of training to meet manpower needs.

The question of incentives to encourage persons to enter particular professions was discussed at length, particularly the use of non-financial incentives. It was generally accepted that incentives should and could be used to ensure that supply was in accordance with demand but there was an accompanying danger that this could easily distort, in times of great shortage, wage and income distributions.

It was noted that manpower planning had very wide implications in such areas as housing, family planning, health, nutrition, and, in particular, distribution of services between rural and urban areas.

MANPOWER PLANNING: WHO SHOULD DO IT?

P. OLSEN (TSA BADIRI CONSULTANCY)

Mr. P. Olsen presented a paper on the institutional machinery for manpower planning in which he pointed out the need for the consumer of manpower (employers) to be involved in the planning process. (annexed)

The workshop agreed that the consumers must be involved in planning, but it was pointed out that, at the level of the consumer, particularly in the private sector, there was a lack of expertise to determine manpower needs and that a central planning authority may in the short term have to take on these functions which properly belong at a lower level. The need for the private sector to embark on manpower plans was emphasised, even if this meant the imposition of sanctions through withholding of work permits against companies who did not make an effort to plan for localisation.

The main point of the discussion was upon whether planning should be centralised in a central planning department or ministry, or whether it should be decentralised to line ministries. The general consensus was that, while the decentralisation was an ideal, manpower restraints and the need to integrate manpower planning into economic planning meant that a central planning unit was a necessity. There was, however, disagreement as to whether such a unit should be an integral part of central economic planning or whether centralised manpower planning should constitute a separate unit.

Regardless of the location of such a unit, it was noted and stressed that Departments of Labour, Education, Statistics, Personnel and Economic Planning had vital inputs into the manpower planning process. It was noted that the Directorate of Personnel co-ordinated and identified manpower needs in public service, and it was suggested that an organisation of employers was needed to fulfill the co-ordinating function for the private and perhaps even the parastatal sector. The workshop took note of the

broad range of technical expertise required for manpower planning (as identified in the paper) and the absence of such expertise in general.

#### PROBLEMS IN MANPOWER PLANNING:

Mr. Olsen presented a talk regarding the problem areas in manpower planning data collection, collation and analysis. He outlined individual problems as follows:

- Organisations do not know their needs.
- Organisations have little data on current staff.
- If they exist at all, employment records are vague.
- There are little data on the skill mix of current staff.
- Data on the informal sector is seldom available.
- Statistics tend to be "one off" items.
- Meanings of occupational titles vary between organisations.
- There are discrepancies between the stated qualifications for a position and the actual qualifications of incumbents.
- People in practice do not always act rationally or from economic motivation, thus disrupt the plan.
- There is not always a direct relation between economic growth and manpower growth.
- There are difficulties in measuring economic growth and in determining real growth and actual growth.
- There is often a substantial time lag between projections, training programmes, and competence on the job.
- The assumption of a static technology is not always valid.
- The assumption of constant productivity is not always valid.

While noting the problems outlined in the presentation, participants were generally in agreement that the major problem in manpower planning fell not in the areas of data collection, projection and analysis, but rather in plan

implementation.

The workshop felt that, however inadequate past plans had been from a methodological and statistical standpoint, they had identified major areas of manpower shortages, and, in particular, shortages of technical manpower. Policies had not been derived and carried through to overcome such shortages. Educational systems and institutions continued to be heavily biased towards academic education.

This was seen as an attitudinal problem where young people, with the support of their parents, continued to have negative attitudes towards blue collar jobs. It also represents a failure of the reward system to induce people to take up employment in the technical and vocational fields. As a result of these attitudes, and consequently the political pressure brought to bear on decision-makers towards academic education, there was little commitment, either among politicians or senior government officials, to manpower plans and the need for radical changes in the educational system.

The situation was exacerbated by the fact that many manpower plans had been drawn up by outside consultants, and there was little local participation and hence commitment to seeing that the plans were implemented.

The workshop noted, therefore, that a pre-requisite to successful manpower planning was local involvement and commitment to the plan. The planners themselves must be deeply involved in implementation. It was also noted that despite the diminishing opportunities for employment in white collar jobs, the rewards in this sector were still so attractive as to encourage people to take the risk of long periods of unemployment rather than seek alternative employment in the blue collar sector.

## MANPOWER PLANNING: A CASE STUDY FROM ULGS

DR. L. PICARD

Dr. L. Picard introduced the study he was doing for the Botswana Unified Local Government Service (ULGS) on manpower needs to the end of the decade, and emphasised that, incorporated in this exercise, was a training needs survey so that at the end of the study, not only would ULGS know how many people were required in each cadre, but also their training needs would be known so that a training and development programme could be drawn up.

Certain assumptions on growth must be made, but, if these were based on past experiences and actual planned expansion, then it was more likely that the projections were going to be accurate, although possibly on the conservative side.

The discussion noted that the adequacy of training institutions was inevitably involved in any planning exercise and decisions had to be taken as to whether existing institutions had sufficient capacity, whether they should be expanded, or whether new institutions were required.

It became the general consensus that existing institutions should be used and expanded rather than establishing new ones, though in terms of cost-benefit this option needed to be explored.

## COUNTRY PAPERS: (ANNEXED)

### BOTSWANA

The Botswana paper, presented by Mr. P. Masetse, noted that, while a comprehensive manpower plan had been drawn up in 1972 for Botswana, very

little has been achieved in implementing its conclusions and devising manpower targets. It had been recently decided, therefore, that there was a need for ongoing manpower planning and a number of institutions had been established or revived to give major emphasis on manpower planning.

The discussion that followed noted that the arrangements being made have mainly involved central government with ongoing manpower planning for public service, but very little for the private and parastatal sectors. The question was asked, therefore, as to how the private and parastatal sector manpower needs were going to be assessed in terms of the country's overall manpower needs. It was also noted that the institutions that had been created may not be adequately staffed or given sufficient authority to ensure that plans were implemented.

Some participants felt that there was a need for central government to become deeply involved in manpower planning for the private sector, while others argued that the private sector must take on more of this responsibility for themselves, as well as a greater responsibility for training manpower.

#### SWAZILAND:

Mr. M. Nsibandze presented the Swaziland paper in which he noted that responsibility for manpower planning in his country was not clearly defined, and that only recently were attempts being made to co-ordinate planning activities to come up with integrated, ongoing process.

It was emphasised that there was an urgent need to match education and training with actual manpower needs and develop human resources development programmes for the traditional sector to slow down the flow of manpower from the traditional to modern sectors. Labour market information was noted to be one of the ways in which young people could be directed into occupations and training which were more in line with the country's needs,

so that people are aware of the opportunities. Much more needed to be done to educate people on manpower needs as part of manpower planning.

#### LESOTHO:

The Lesotho paper, presented by Dr. K. Appiah, noted that diverse institutions within Lesotho held partial responsibilities for manpower planning and there was a debate going on as to what were the ideal arrangements. There are problems concerning a lack of trained staff in manpower planning, and the current exercise, in which an attempt is being made to develop a country-wide manpower plan, indicates an apparent lack of commitment, for one reason or another, by the public sector.

In the discussion that followed, it was noted that, while manpower plans did express manpower needs in terms of the formal educational system, the need for technical and vocational training was ignored. It was emphasised that technical and vocational training did need an academic base from which to start and this must be incorporated in the plan.

Participants noted that problem of commitment on the part of government ministries was a common one, as was inter-ministerial discussion on portfolio responsibility for planning. This often hindered progress, as did the lack of staff, in terms of staff and training for manpower planning.



## IMPLEMENTING MANPOWER PLANS

### B. STEDMAN (BESO)

Mr. Stedman presented a paper in which he suggested that the greatest single obstacle to implementing manpower plans is the absence of any related manpower development programme, and that the results of a manpower plan should be an appropriate manpower training exercise.

In addition, the lack of effective job descriptions and skills analyses are contributory factors to unsound manpower plans.

In discussion, the workshop noted that whoever is responsible for manpower plans should be next to the policy makers in order for manpower plans to be implemented. It was emphasised that for training to be effective, it must have a firm base and should be pervasive and continuous.

Counterpart training was discussed and viewed as posing a problem when not fully controlled. Counterparting should be backed by institutionalised appraisals of counterparts and control on the issue and renewal of work permits. It was noted that it is the duty of head of departments to ensure the training and job performance appraisal of counterparts. It was also noted that counterpart training should develop skills to do the job and not merely to replace the man.

The workshop agreed that, if possible, there should be more than one counterpart so as to allow a choice of the best. (This was difficult in BLS countries where labour supply is short.)

The workshop spent some time discussing the question of bonding, and while participants were generally not in favour of bonding as a system of control, it was recognised that, in times of grave shortages of certain kinds of skilled

manpower, bonding was very necessary to control the distribution of scarce manpower. The system has advantages as much as disadvantages.

The question "Does a bonded person work hard if he is not happy with the job and wants to be elsewhere?" was discussed without resolution, as was the question of handling the situation whereby a woman under bond gets married.

Bonding rules in the three countries were outlined:

- Lesotho:-
- Bonding was replaced by a system of loans with graded repayment.
  - The person pays 50% of the loan when he works for government.
  - He pays 65% when he works for a parastatal organisation.
  - He pays 100% when he works for the private sector or outside country or resigns.
  - When course is 12 months duration or less, one is bonded for 3 years.
  - When it is over 12 months, it is as per the loan payment system.
  - When on study leave one gets full salary for six months after which one gets 50% if married or 40% if unmarried.
- Botswana:-
- While some of the above rules apply here as well, the following are differences:
  - If attending in-service training, one receives 100% of salary for the first year and 50% thereafter.
  - When one attends non-approved courses he must take unpaid leave.

- Swaziland:-
- When one goes 12 months or less, he/she gets full salary.
  - Over 12 months, no salary is paid but the family gets allowance.

The workshop questioned the extent of governments' support to private sector training commitment. If the private sector does not train, it was suggested that statutory Apprenticeship legislation be established to promote training through:-

- Training levy
- Control work permits, etc.
- Establishment of national standards.

The legislation will also help getting the right person on the right course.

## ORGANISING A MANPOWER PLANNING UNIT

### B. STEDMAN (BESO)

Mr. Stedman presented a discussion paper entitled "Organising a Manpower Planning Unit" (annexed). In general, Mr. Stedman called for an inter-disciplinary approach to Manpower Planning. There is a need for bringing together managerial, sociological and economic research in developing the manpower plan. Thus, the unit responsible for developing and implementing the plan must have access to these skills.

The role of the planner is to assist the policy maker by providing relevant and timely information. It is the responsibility of the planning unit to develop the machinery for effective planning.

The focus in developing a manpower planning unit should be on obtaining the necessary mix of skilled personnel. These should include statisticians, demographers, sociologists and personnel specialists. There is also a need for people trained in the area of Labour Economics.

Only after determining the required skill mix should one consider the size of the required unit which is simply a function of the extent of the task to be performed.

Considerable discussion ensued concerning the appropriate skill mix in a manpower planning unit as well as the organisational position of such a unit. Some felt that, in the past, there has tended to be an overemphasis on the need for economists and a consequent lack of emphasis on the sociological and personnel management skill areas. Caution was expressed, however, against too wide a swing to the other extreme.

### SECTION THREE

#### CONCLUSIONS AND RECOMMENDATIONS

At the end of the workshop, attendees agreed on the following conclusions and recommendations:

##### 1. RESPONSIBILITY FOR MANPOWER PLANNING

Participants felt that, in the past, manpower plans tended to suffer from a lack of a multi-disciplinary approach. It was agreed that managerial, sociological and economic analysis must be brought to bear on the problem of manpower planning.

It was felt that, although the gathering of data could now be decentralised, a lack of expertise in manpower planning techniques meant that, for the foreseeable future, a centralised planning unit attached to the country's economic planning unit was required. It was stressed that input to the planning process must be obtained from at least the ministries or departments of Education, Labour, Statistics, and Personnel. Caution was expressed against the central planning unit operating in a vacuum and it was noted that great effort must be made to include the users - the employers - in the planning process.

Noted with regret was the fact that representatives of the private sector did not attend the workshop. In their absence, the workshop concluded that the private sector must make a greater effort to inform the central planners of the government of the needs of the private sector for manpower. It was also felt that the private sector must make a much greater effort towards the training of local staff. It was considered that, failing such increased effort, the government should resort to the introduction of sterner legislation to ensure that private sector training and localisation took place.

Overall, the workshop felt that there should be a centralised manpower planning co-ordination unit (probably attached to the Central Planning and Development Ministry) with as many specific functions as possible de-centralised and with input from as wide a group as possible.

## 2. EDUCATION AND TRAINING

The workshop stressed that the need to recognise the difference between skilled and educated manpower and the implications this has for a country's educational system is essential if manpower planning is to succeed.

It was noted, with concern, that, despite a considerable history of manpower planning in Africa, educational systems are still skewed towards academic education. There is a continuing shortage of skilled technical personnel at all levels. Concurrently, there is a growing surplus of highly educated people who lack the occupational skills required by expanding economies.

While workshop participants were not generally in favour of bonding systems - and even less in favour of a disciplined system of channeling students into pre-determined areas of study - it was accepted that, in times of grave shortages of certain kinds of skilled manpower, bonding and an element of disciplined selection is necessary. Ideally, this would be supplemented and eventually replaced by an inducement system which would channel students into viable and needed skill areas.

There is a need to educate the population regarding employment opportunities and to emphasise the importance and contribution to the country of the blue collar workers.

This also means that job descriptions and specifications must emphasise knowledge and skill requirements rather than simply academic educational levels.

### 3. COMMITMENT TO MANPOWER PLANNING

The workshop concluded that, if the situation was going to improve, there must be a total commitment to manpower planning throughout the economy. All sectors must determine and respond to actual training needs.

Determination of training needs must be based on a thorough assessment of the skills required by all sectors of the economy in the light of current and projected activities. It must show itself in the development and support of appropriate training institutions.

Training for the sake of training must be avoided. Training plans for individuals must be based on the requirements for present and potential jobs in the light of the individual's performance appraisal reports.

The private sector must be encouraged - and if necessary forced - to improve their training efforts. At the same time, governments must consider the needs of the private sector for skilled manpower and not - by means of a stringent bonding system - allocate the entire manpower supply to itself.

### 4. MACRO AND MICRO PLANNING

It was noted that, although the workshop concentrated on macro manpower planning at the national level, micro planning by each part of each sector of the economy was equally important. Such micro-level planning is not, in most cases, being done. This results in an inadequate data base for macro planning and causes "crisis management" as well as a failure to localise at the individual organisational level. There must, then, be continual co-ordination and exchange of data between macro and micro-level planners.

### 5. PLAN EVALUATION AND IMPLEMENTATION

The workshop noted a tendency to develop plans and then forget them. Once developed, plans must be constantly monitored and, if necessary, updated

in the light of current information.

The inadequacy of many plans, it was felt, derived partly from poor methodology and inadequate statistical basis but even more from the fact that pertinent policies had not been derived and carried through to overcome identified shortages and imbalances. There seems to be little commitment either among politicians or senior government officials to the implementation of manpower plans which require radical changes in the educational system. This situation is exacerbated by the fact that many manpower plans are drawn up by outside consultants. Since there is little local input to and participation in the planning process, there is little commitment to its implementation.

Local involvement in the planning process and commitment to its implementation is essential. Planners must be deeply involved in implementation.

(Although not discussed at the workshop, the experience of Zimbabwe, which shunned outside consultants and carried out its own training needs survey across all sectors, is indicative of the commitment possible when one is involved in the planning process.)

## 6. STRUCTURE FOR MANPOWER PLANNING

It was felt that the skills required in staffing manpower planning units included Labour Economics, Sociological, Personnel Management, Demographic and Statistical.

Input from various decentralised units throughout all sectors should be coordinated by a central manpower planning unit located in the Central Planning and Development Ministry. This unit would also be responsible for monitoring and updating the plan as required and for ensuring its implementation.



SECTION FOUR

ANNEX 1: AGENDA

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|-----|--|--|
| 1.  | Opening Address:                                       | Hon. Peter Mmusi                         |
| 2.  | Keynote: What is Manpower<br>Planning and Why Bother?  | Sam Jones                                |
| 3.  | Discussion of Keynote                                  |  |
| 4.  | Manpower Planning: Who should do<br>it?                | P. Olsen                                 |
| 5.  | Discussion of Paper                                    |  |
| 6.  | Problems in Manpower Planning:                         | P. Olsen                                 |
| 7.  | BLS Experience:  | Papers: Botswana<br>Lesotho<br>Swaziland |
| 8.  | A Case Study: Manpower Planning in<br>Local Government | Dr. L. Picard                            |
| 9.  | Implementing a Manpower Plan:                          | B. Stedman                               |
| 10. | Discussion of Paper                                    |  |
| 11. | Organising a Manpower Planning<br>Unit:                | B. Stedman                               |
| 12. | Closing Summary:                                       | Dr. F. Schindeler                        |

ANNEX 2: LIST OF PARTICIPANTS

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OBSERVERS

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ANNEX 3: LIST OF RESOURCE PERSONNEL

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Dr. L. Picard	Lecturer/Consultant Personnel Management
Mr. J. Lisindi	Lecturer/Consultant Personnel Management

ANNEX 4: PAPERS

- Paper 1      Keynote: What is Manpower Planning and Why Bother?  
S. Jones
- Paper 2      Manpower Planning: Who should do it?  
P. Olsen
- Paper 3      Implementing a Manpower Plan  
B. Stedman
- Paper 4      Organising the Manpower Planning Unit  
B. Stedman
- BLS Papers:    Botswana  
                  Lesotho  
                  Swaziland
- A Case Study: Manpower Planning in Local Government  
Dr. L. Picard

"WHAT IS MANPOWER PLANNING: WHY BOTHER?" BY S. JONES

Economic development may be defined as a process by which the resources of a country are developed and utilised on a planned or organised basis to bring about a sustained increase in per capita production of goods and services. This is achieved through the following actions:

1. bringing about improvements in existing technology to facilitate the identification and accessibility to natural resources and their extraction and/or development for easy utilisation in the development effort.
2. increasing savings and capital formation.
3. improving the labour force through education and training, better health, housing, good nutrition incentives etc.
4. the creation and maintenance of a climate and institutions - social, cultural, political and legal - which promote the development of a sense of responsibility and patriotism and self reliance necessary for the attainment of the factors and conditions on which the wheels of development turn.

The aim of development is to bring about a better living standard for the population. Development planning has come to be recognised as a necessary activity to be undertaken by governments particularly of the developing countries for the attainment of social and economic development and the well being of their peoples. It is quite logical to expect that countries which embark seriously on careful and rational planning are more likely to achieve their objectives than those who do not plan at all. Experience has shown that a basic condition for effective economic development effort is a well educated, trained labour force which is conditioned by the right motivations to acquiesce

in the objectives of the development effort and which as a result organises itself for the execution of the tasks of development within a social, political, cultural and legal frame that does not inhibit but promotes commitment to the tasks and goals of the development effort.

Though capital can purchase natural and physical resources - equipment and raw material inputs required for the development effort, capital formation, equipment and raw materials are themselves the product of human effort - manpower. Thus to increase capital, physical, and natural resources, the human resources of a nation must first be developed - educated and trained and 'refined' through exposure to work - so that they can bring about the improvements in the factor mix, both quantitatively and qualitatively, upon which development depends. It is thus obvious that only a modernised transformed, educated and trained labour force with the requisite skills in the right numbers can man the industries, modern or improved farming practices, offices, education and training institutions to produce the goods and services that society needs to improve its living standards. There can therefore be no progress towards industrialisation and improved agricultural practices and the attendant development of essential services without the development of the relevant skills in their right numbers and quality and at the right time. Planning for skills must be an integral part of overall economic development. It must be undertaken in advance of the demand for their services.

It is necessary to ensure that sufficient attention is given to the production of high-level manpower. These include scientists, administrators and managers, planners, leading thinkers, innovators and those who adapt and those who adapt and apply modern techniques and technology. The role of these in the socio-economic development process is indispensable. These are the types of manpower who occupy the top segments of the educational and occupational pyramid. They provide the underlying philosophy of development plans, prepare the plans themselves and direct and ensure their successful implementation. The extent of a country's progress in terms of

economic, social and technological advancement depends on the quantity, quality and experience of this type of manpower. No country can develop socially and economically and ensure the rational and effective use of its resources if it cannot develop its high-level manpower since the effective and optimum use of all resources depends on the quality and quantity of the skill mix of a nation's high-level manpower.

Various definitions have been given to the term human resources or manpower. Some have defined the term human resources to refer to man as an agent of production, of manpower, of labour as a factor in production. To others the term human resources means man in his roles as a whole human being. It is man in his role, not only as a productive agent, but as a citizen, a husband, a father, a member of the community, as a thinking, feeling, esthetic human being. According to Professors Harbison and Myers: "Human resource development is the process of increasing the knowledge, skills and capacities of all people in a society". There does not appear to be a single definition of human resources. Sometimes the term has been made synonymous with manpower. For our purpose we can say that human resources and manpower refer to man or the human being. "Manpower planning is concerned with the rational analysis and organisation of all elements having a bearing on the transformation of the present and future pattern of human resources. It sets goals for such transformation and specifies the means to attain these goals." Manpower planning also involves the determination of those policies and programmes that will lead to the optimum utilisation of the total manpower potential. In this connection, it is not concerned only with the problems of developing the industrial sector of the economy but also with the problems of all other sectors including agriculture. It concerns both the urban and rural populations. Manpower planning involves looking into the future and deciding on the basis of information, past trends etc. on actions needed to be taken over a period of time to achieve certain specified goals. Manpower planning also involves influencing the institutions which prepare people and therefore concerns



all aspects of an individual's life which influence his performance as a member of the economically active labour force. There are four major elements in the manpower planning process. These are:

1. Manpower Requirements: Definition or determination of current and future manpower requirements in quantitative and qualitative terms. A projection over a period of time sufficient to permit institutional action on the qualitative and quantitative characteristics of the human resource requirements.
2. Manpower Supply: Assessment of the present supply and capacity of the supply system to meet the current and future requirements. If the system is considered inadequate appropriate changes must be introduced. Improving the supply of manpower will involve a number of measures.
3. Institutional Planning: Planning of the institutions that produce and supply manpower. This should be based on the assessed needs, quantitative and qualitative.
4. Manpower Planning: Formulation of manpower policies. This involves a definition of a whole range of needs and measures for institutional change or modification or improvement and other actions aimed at producing a system of human resource development, allocation and utilisation that meet projected needs and enhance the achievement of development goals.

There are four major areas of concern in manpower planning:

1. Skills for development
2. Population and employment levels
3. Human capital and the effects of education and training

#### 4. Manpower distribution and utilisation.

Much attention in manpower planning is devoted to the development effort. Manpower planners are also concerned about the population growth problem which is an integral aspect of manpower and employment situation. Another important element in manpower planning is human capital and the adequacy and efficiency of the education and training systems. The development - education and training - of human resources is crucial to the overall development effort. The view is strongly held that human resources are more critical than natural resources in the development process. Human resources development includes many factors such as health, nutrition, housing, family planning in addition to formal education. The development of human resources must take into account the total environment and the impact of these factors. For the effective development of manpower, education and training must be a continuous process so as to ensure the advance of technical knowledge. Manpower distribution and utilisation are perhaps the most important areas of manpower planning. This aspect has, however, not received adequate attention in many developing countries. It is essential to plan the distribution and utilisation of a country's manpower within the context of its needs. Manpower distribution and utilisation is an intricate process. It is affected by various factors significant among which are geographic location of employment opportunities, attraction of urban life which often deprives rural areas of their manpower supplies and cultural patterns that accord higher prestige to occupations that do not have much immediate relevance to the development process.

It is obvious that the main objective of manpower planning is to provide adequate employment and economic opportunities to almost all members of the labour force. It is also to ensure that the process of industrialisation and agricultural modernisation - in short, economic development - continues by making available the needed skills, avoiding the wastage of human

resources and thus achieving the full development and utilisation of the total human effort. Manpower planning is the most dynamic aspect of the entire planning process since it affects all planning sectors. It includes among others a policy that develops the right attitudes and motivations that help to promote the development process.

Since economic development is the goal of manpower planning, co-ordination between manpower planning and economic development planning is a necessary condition for a meaningful and successful manpower planning effort. Manpower planning involves looking into the future and deciding on actions that lead to the achievement of specific goals that may be related to or dependent on other actions and goals. Manpower planning thus becomes necessary only in the context of overall planning. Other plans, actions and measures are being made and carried out in relation to the same subject or with the aim of achieving the same objective (viz. social and economic development and the ultimate welfare of the entire society.) Manpower planning cuts across or forms part of all social and economic activities in all sectors. It is thus a multifunctional and multi-institutional activity. Harmony among plans, actions and measures is therefore absolutely necessary in any kind of planning, hence the need to integrate manpower planning and overall economic development planning. The manpower planner must therefore not forget that manpower planning is an integral part of all aspects of the national development planning effort. Macro-economic oriented planners must also know that they cannot ignore manpower criteria and planning in developing the macro-oriented aspects of national plans. The manpower planner must participate in the determination of the objectives and strategies required to fulfill the plan. He should be involved in the determination of the resource stock of the country and the ways and means of modifying the resources to enable the achievement of the goals. The plan itself must be broken down into the various economic sectors so as to facilitate the proper allocation of resources, both human and natural, to achieve the targets of the plan on the basis of the adopted strategy. A manpower planning effort that is not integrated into the overall

decision-making process of the plan, strategy and formulation can hardly be effective or complete.

Since planning is essentially the rationalisation of political priorities and decisions it is necessary for its effectiveness and relevance to ensure that there is a meaningful dialogue between political decision makers and planners on the one hand and between planners and those involved or concerned with the activities, projects or programmes to be carried out during the preparation and implementation of the plan. Manpower planning can be short-term or long-term depending on the type of skill development envisaged: it is short-term if the aim is to improve the level of unskilled labour and long-term if it is for high-level skills.

Invariably manpower plans have been long-term emphasising formal education and occupational details. Manpower planning does not only emphasise formal education systems. It also takes into account all other forms of training in the informal sector. The formal education system is emphasised because of the high-level skill requirements. Manpower planning should consider urbanisation, migration, flexibility of workers, labour mobility, health requirements and the role and development of a whole range of institutions involved in the development and utilisation of human resources. The time required to influence the supply of labour is another important aspect of the scope of manpower planning. The timing factor should be seen as a function of the manpower situation and other circumstances in the country, the quantity of manpower required, the nature and quality of education and training systems and facilities available and required. Short-term planning is only possible where a country has a good educational and training base. The time frame for any plan, therefore, depends on the circumstances prevailing in the country concerned.

Effective and realistic manpower planning is only possible when it is undertaken within a structural framework which links it with or integrates it

into the overall economic development planning framework. For manpower planning to be effective it must be an organised effort. It is, as stated above, a multifunctional and multi-institutional activity. It therefore involves constant dialogue, information-statistics on the issues mentioned above, policy implications and directions, stated goals and targets which must be continuous. It requires an efficient and viable machinery competently manned and directed to undertake manpower planning.

A location which enables effective operation, ensures constant or day-to-day consultation with other sections of the overall planning machinery is required. It must have the necessary authority, legal or administrative, and the right status to co-ordinate, direct and monitor the activities of the various institutions, organs and agencies involved in human resources development. The effectiveness of manpower planning is enhanced within the context of a viable, well structured and manned overall planning machinery with strong governmental commitment and patronage.

On the basis of present knowledge and experience there are a number of locations for the manpower planning effort. Experience shows that this largely depends on the nature of the government concerned. Some have established a whole ministry for manpower planning. Some have located the manpower planning effort in the central machinery for economic planning and integrated it into it. Some have it in the labour ministry, while some have it in the Directorate of Personnel or Establishments. The essential consideration in this connection is that the manpower machinery should be able to operate effectively. It should be able to play a central, co-ordinating and directing role in the human resources planning, development and utilisation effort. It should be able to wield the necessary influence required to undertake these functions successfully. Above all, it should be able to participate in the overall socio-economic development effort as an integral part of the overall machinery for development planning to ensure consistency in the overall national plan, policy formulation and preparation. This harmony in the execution of the activities of the planning effort is a necessary condition

for effective, meaningful and successful planning.

Experience has also shown that the network of agencies involved in manpower planning is so wide that co-ordination becomes a basic and unavoidable instrument for its success. The issues involved affect all segments of the population as well as all key establishments/institutions and interests. For effectiveness, therefore, manpower planning has to benefit from the views/suggestions and concerns of a cross-section of the population and the government machinery itself needs to seek ideas, views and advice from a wide spectrum of interests. To ensure effective manpower co-ordinating effort, it has become necessary in many countries to establish national manpower bodies, committees, councils representing key economic sectors - in both the public and private sectors - ministries of planning and economic affairs, agriculture, industry, education, labour and civil service administration as well as trade unions, employers' federation and others.

These councils are mainly advisory bodies and advise the governments concerned on all aspects of human resources planning, development and utilisation. Because of their representative nature and level of representation such councils wield a lot of influence and are able to tap a lot of vital information and to bring to bear on their deliberations on manpower issues, opinions, experiences and knowledge which can hardly be assembled through the activities of the technical machinery for manpower planning alone.

Dr. Eli Ginzberg had the following to say about manpower and such type of superintending body: "Manpower is, by its very nature, a diffuse resource not subject to entire control through any single arm of agency of governments. Therefore, a clear conception is needed of the totality of the social, institutional, governmental structures that can influence the supply, distribution, and rewards of manpower and bring it in harmony with the economic and social objectives of a country. The only way to do this is to have perception and an overview of what the resource is like, how it developed and how it can be developed".

The manpower planner is concerned about a variety of things or issues: He must be concerned with the need to maximise employment opportunities and with the need to minimise unemployment. He must thus be concerned with the size of the nation's population, its growth rate and its economic implications for the nation. He is also concerned with the need to prepare the human resources of the nation. This involves the planning of education and training on the basis of carefully assessed needs. By making sure that the requisite skill mix, expertise and the right attitudes are developed in the economically active labour force.

He must also ensure that people are motivated to seek the types of education and training that are relevant to the needs of the economy; people must be properly informed about the world of work including the reward system so that they make the right decisions. He must also make sure that educated and trained manpower are effectively deployed; that they are employed in the sectors and in the types of jobs where society's needs are fully met and that they perform effectively in these jobs. The manpower planner must thus be concerned with the formulation of sound personnel policies, good management relations, incentive schemes and other motivation measures conducive to raising morale and productivity. In this connection, his interests should also include better hygiene, safety and protective measures in industry and work-sites, medical attention and nutrition and other programmes that will maintain human resources in the best of form. In his development planning process he needs to use a number of institutions and instruments among which are vocational guidance and counselling which contribute to skill formation, career development, employment creation and reduction of unemployment.

## MANPOWER PLANNING: WHO SHOULD DO IT?

Paper presented to Manpower Planning Workshop at the Institute of Development Management, Gaborone April 13 - 15, 1981.

By P. Olsen, Tsa Badira Consultancy

### INTRODUCTION:

Capital and manpower are the fundamental elements of economic growth, and when a country starts on a programme of rapid development from a resource base completely lacking in both social and physical infrastructure both are needed in large quantities!

However, as the resource base builds up with the development of physical infrastructure and revenue starts to flow from investments in agriculture, mining, commerce and industry, access to Capital begins to ease. Assets and revenue open doors to the international money markets, and successful investment attracts further investment. Given careful management of the economy, hard work, the existence of at least one exploitable resource (agriculture, or minerals, for example), and a modicum of luck! this position can be achieved in a comparatively short time, even with a very limited amount of skilled and high level manpower. In Botswana, for example, G.D.P. rose from a little over P50 million in 1968-69 to an estimated P5000 million in 1978-79, a tenfold increase in as many years. Slower, but nonetheless very significant growth, has also taken place in Lesotho and Swaziland.

Capital, therefore, while still being a fundamental need for further and sustained growth, is increasingly giving way to manpower as the critical factor in development - skilled and high level manpower needed to manage and develop a rapidly growing economy in the face of rising expectations from the people.



In addition, various pressures are building up against the importation of skilled and high level manpower. The option to buy rather than make such manpower is rapidly disappearing.

Firstly, on the world labour markets such manpower, at the prices countries like Botswana, Lesotho and Swaziland can afford, is in scarce supply. Secondly, such manpower, being so expensive, is a very significant drain on locally generated capital which could be more fruitfully invested back into the economy to generate further revenue and create employment opportunities. Thirdly, and probably the most significant, is political and social pressure towards localisation.

The development of local human resources, therefore, becomes a major priority and just as with physical resources, if they are to be exploited as rapidly as efficiently possible, the development of human resources must be carefully planned. Manpower Planning must receive equal attention as economic and physical planning.

The objective of this paper is to raise, in the light of experience in the region, questions concerning structural and institutional arrangements for manpower planning, and in particular ask 'Who should be doing Manpower Planning?'. It will be argued that current practices have in themselves contributed to some extent towards the failure of manpower planning to make a significant impact on what is very rapidly becoming a critical manpower shortage.

In raising these questions, it is useful to examine two basic areas; identification of manpower needs, and the planning process itself.

#### IDENTIFICATION OF MANPOWER NEEDS

The essence of manpower planning is an attempt to project manpower needs on a national scale, and then generate policies and programmes to fulfill those needs. The first step, therefore, must be the identification of areas

of manpower shortages. However, in practice, situations develop very rapidly in spite of manpower planning where there is a growing surplus of one type of manpower alongside acute shortages in other areas.

For example, in West Africa, and increasingly so in East Africa, the educational system has produced a surplus of 'educated' manpower and yet there remains a shortage of 'skilled' manpower. Thousands of young people in West Africa roam the streets with their academic certificates 'O' and 'A' level, and even degrees - desperately looking for work. Yet at the same time, newspapers are full of advertisements for artisans, mechanics, boilermakers, welders, book-keepers, computer operators, technicians, and so on.

This can be illustrated locally. If the employment of expatriates is accepted as a crude measure of shortage of manpower, an analysis of the occupations of such expatriates should identify the area of major need. Out of the 2,375 applications and renewals of work permits in the private sector in Botswana in 1979, 50% were in the category of production and related workers - artisans, tradesmen, etc. A further 15% of applications were for persons with administrative and managerial skills, and of the 27% for professional and technical categories, more than half were for technicians such as draughtsmen, surveyors, telecommunications technicians and so on. Thus, in the private sector, at least 30% of the jobs where expatriates are employed because of the shortage of local manpower, are in occupations where functional/vocational training in addition is required. In the public sector, excluding the employment of expatriate teachers, the ratio of high level expatriate manpower with academic backgrounds to those with functional training is similar.

How has this imbalance in the supply of manpower come about? It derives from a basic flaw in many manpower plans where there has been a failure to identify actual manpower needs and what is actually meant by 'educated'

and 'skilled' manpower. It hardly seems necessary to point out that these are not the same, and that a worker can be 'skilled' without being educated, and 'educated' without being skilled. And yet this is more often than not ignored, and manpower plans have concentrated on education as the solution to manpower shortages. If one examines, for example, tables of manpower needs, and the methods in which they have been derived, they are invariably based upon years of education - primary, secondary, post secondary, and so on. Projections of the supply of manpower are based on the potential products of the formal educational system.

The emphasis on 'education' which can be easily measured in years of schooling has meant that attention has been diverted from the production of 'skilled' manpower, which must be trained, in addition to, or even as an alternative to, being provided with academic education. Institutions for skill and functional training, and systems of on-the-job training such as apprenticeship programmes, have consequently taken second place to the development of the formal academic educational system. The outcome is a continued, and increasingly acute shortage of manpower with productive skills and functional training.

If actual needs had been properly identified, such as imbalance between education and training would not have occurred, and more realistic planning should have identified the very urgent need for a radical shift in educational systems towards functional and vocational training rather than the continued development, and emphasis, on academic education.

Why has this failure occurred? It is suggested here that a major contributing factor is the system of manpower planning itself, whereby the consumers of manpower - the employers - have been left out of the planning process.

A successful manpower plan - success being defined as identifying future manpower needs and establishing ongoing programmes for meeting these needs - must start from such basic investigations as skills and work load

analysis, manning levels, job inter-relationships, training times, and so on. It must investigate the relationships between skilled and unskilled workers, and the implications of alternative methods of production and manpower. These are areas of managerial rather than economic analysis, which must be investigated in depth before any meaningful economic analysis can be carried out. Projections for economic growth become meaningless unless the relationship between growth and manpower can be established.

These are the type of answers which can only be provided by the consumers of manpower - employers, within government itself, and in the private and parastatal sectors.

However, in the past, employers have, by and large, been left out of the planning process and skills from the areas of management, administration, sociology and social psychology have not been brought to bear on manpower planning.

Thus, part of the answer to the question 'Who should do Manpower Planning?' must be to call upon these skills, and, in particular, involve the consumers of manpower in the planning process. It is only in this way that actual manpower needs can be successfully identified.

#### THE PLANNING PROCESS:

The process and machinery for manpower planning varies from country to country. Two common practices, however, can be distinguished. Firstly, manpower plans have been drawn up as distinct, separate exercises from regular economic planning. They have not been treated as an ongoing process, but rather as 'one off' exercises to be repeated at perhaps 10 yearly intervals. In many countries - Lesotho, Tanzania, and more recently Zimbabwe, being notable exceptions - this has meant that no permanent manpower planning machinery has in fact been established, and outside consultants are used. Consequently, there has been a failure to build up local

inter-disciplinary expertise capable of developing ongoing manpower plans and monitoring their implementation.

Invariably, such plans, by consultants, quickly gather dust because there is no local involvement, and hence a lack of local responsibility and accountability; and commitment to implementation is limited.

Often such plans are referred to by the name of the consultant who drew them up, rather than being identified as government plans.

Thus, a major lesson that can be learnt from past practice is that while consultants can be engaged (if absolutely necessary) in advisory or technical capacities, planning must be carried out by local expertise, so that there is local accountability and hence commitment to implementation.

The second trend which is discernable, is that even where local machinery has been established - either as separate units (as in Lesotho) or specialised units within a government ministry, the planning process has not been integrated. In particular, there is an absence of institutional links between planning and implementation.

Manpower Planning has three distinct, but inter-related and inter-dependent stages. These are:

1. data collection
2. data analysis, projections and preparation of the plan, and
3. implementation.

It is not unusual, in fact, for these stages to be carried out by separate institutions. Even where specialised manpower planning units have been established, they usually do not have the capability for data collection, or any responsibility for implementation.

Apart from the administrative, communications and co-ordination problems this separation of functions creates, again it leads to a lack of identifiable responsibility and accountability for plans produced.

The three stages of planning, therefore, must be integrated, but how can this be achieved without the creation of another government department with supra-ministerial powers but no responsibility?

Currently, the manpower planning function is located in a variety of different ministries or departments depending upon ministerial portfolio responsibilities. Usually, these are one of the following ministries or departments: Planning, Education, Labour, Statistics, or Central Personnel. However, the manpower planning function is ancillary to such ministries or departments' prime responsibilities.

Education ministries, for example, are concerned with the provision of academic education, and in particular primary and secondary education, to the nation as a whole. This responsibility, and the policies and programmes which follow, are derived from the political and social belief that basic education is the right of every citizen. Ministries of Education, therefore, must be more concerned with the development and administration of a basic academic education system, rather than towards the training of skilled manpower and manpower planning itself.

Planning ministries are concerned with national economic planning, with physical infrastructure and the exploitation of natural resources such as agriculture and minerals. Manpower planning, although acknowledged as a vital part of the national planning process, takes second place to drawing up economic forecasts, financial planning, and specific project planning.

Central Personnel Departments have a legitimate self-interest in government's manpower needs rather than the nation as a whole. Such departments, are, after all, the direct equivalent of a private sector company's personnel department. Within ministries or departments of labour, the development of harmonious labour relations and the enforcement of minimum labour standards are the major responsibilities. While the monitoring of training within the private sector is within the scope of their responsibility, this

is little more than regulating the issuing of work permits and ministries or departments of labour rarely have the statistical capabilities to take on manpower planning.

Moreover, portfolio responsibility for statistics is usually centralised, and departments of statistics naturally resist the devolution of labour and manpower statistics to other departments.

Current machinery for manpower planning, therefore, is proving to be inadequate, whichever ministry or department it is located in, because, manpower planning is secondary to the main portfolio responsibilities.

The establishment of a separate manpower planning machinery, therefore, seems to be an attractive alternative. A number of countries have moved in this direction. Tanzania, for example, has established such machinery which reports direct to the office of the Prime Minister to lend authority to its activities. While such an arrangement has advantages of ensuring that manpower planning is an ongoing process and local expertise concentrating on manpower planning can be developed, it has major disadvantages. Planning takes place in isolation and line ministries resent supra-ministerial interference, making communications, co-ordination and the determining of priorities problematic. Such an arrangement creates power without responsibility.

Is there another alternative? The process and machinery outlined below is an attempt to minimise the various problems current practices have encountered, and to suggest a way of ensuring that manpower planning is treated as an ongoing process, is integrated, and involves both consumers and producers of educated, skilled and trained manpower.

The first requirement is that much greater attention must be paid to basic manpower planning at the level of the consumer. Government departments, through their training officers and seconded personnel staff,

must develop their own manpower plans and forecasts of manpower needs based on their own needs analysis. Currently, this is hardly being carried out even within government itself, apart from the annual manpower analysis exercises.

These departmental manpower plans would then be analysed, evaluated and co-ordinated by the central personnel department of government, to build up a manpower plan for government as a whole.

A parallel exercise must be simultaneously going on in the private and parastatal sectors. Currently, very few companies, particularly parastatal organisations, have paid much attention to needs analysis and manpower planning. They still hope to buy in the manpower required, as and when they require it, rather than plan to meet their future needs through career development and training programmes.

Such plans would then be co-ordinated, possibly on an industry basis, by an employer's organisation, and fed to government through the department or ministry of labour. The collection of further manpower statistics, including regular manpower surveys, in the private and parastatal sectors, would be the responsibility of this ministry or department. However, rather than develop separate statistical capabilities, this should be done by ministerial or departmental statisticians seconded to, and working with the centralised statistics office. In this way, the collection of statistics would remain centralised, but statisticians would work to particular line ministries.

Financial and economic analysis would remain the function of planning ministries, but planning officers need to be trained in the specialised analysis of development projects for their manpower implications.

On the educational side, ministries of education would provide statistical base data and projections on supply of 'educated' manpower.



With such a system and process of data collection, the need for a top heavy separate manpower planning unit is minimised, and its function is largely co-ordination, and analysis of information fed from line ministries and the private and parastatal sectors.

This small unit could be placed in any of the ministries concerned in some way with manpower, but would probably be best located in the office of the President or Prime Minister, to provide status and authority. The unit would consist of expertise in economic planning, statistics, and management, and would be responsible for the actual preparation of plans. However, to ensure that this is not carried out in isolation and there is continual co-ordination and liaison with line ministries, the unit would work with a technical committee made up of representatives of the ministries concerned, and possibly also a technical representative from the private and parastatal sectors.

Control of the unit would be in the hands of an inter-ministerial policy committee responsible for determining priorities, developing policies, and ensuring that agreed policies are implemented. Implementation, therefore, becomes an identifiable, but shared responsibility.

The structure outlined briefly above has tried to ensure that those responsible for inputs, implementation, and eventual usage of the products of manpower planning, are integrated and involved in the planning process itself.

It is only in this way that manpower planning can successfully identify manpower needs, derive policies and programmes to meet those needs, and ensure commitment to the implementation of such policies and programmes.

## IMPLEMENTING A MANPOWER PLAN

Discussion paper delivered to Manpower Planning Workshop April 13 - 14th, 1981.

By B.J. Stedman, B E S O

### INTRODUCTION:

Gentlemen!

After two days of deliberations we are now coming to the crunch period, when we have to produce some hopefully positive and united recommendations on Manpower Planning to justify the time we have spent here at this Institute, not to mention the expense of people flying several hundred miles in order to participate. It may well seem rather pretentious to think we can produce in such a short time an integrated plan or even agreement on the interpretation of the current situation, but we have to remember that the three countries represented here have given considerable thought and have indeed accepted, the need for Manpower Planning for at least the last decade. In this, Gentlemen, you may take pride that you are in many ways ahead of a number of countries in Africa, and indeed the developing world as a whole.

Here, if I may digress, I will in a spirit of humility mention that I only arrived in Botswana a little over two weeks ago. On the widely held view that a few days in a country qualifies you to write a book, a week qualifies you to produce an article, and a month renders it impossible to write anything, you will forgive me if I stand before you with a document on the subject of implementing a Manpower Plan. You will notice that it is entitled 'a discussion document', thereby relieving me from any responsibility for qualifying any of the statements I make.

Perhaps in justification I should mention that much of what I am going to say is based on experience as a Manpower Planning Advisor in Tanzania up to November last year, and previously in Papua New Guinea and Uganda during the 1970s. I would like if I may to go back to 1971 and quote from the introductory remarks of the late President of Botswana, Sir Seretse Khama, to the Colclough report:

"People must be rewarded for their skills, but they cannot be allowed to hold up the majority to ransom. This is all the more true in Botswana where only a small minority has been fortunate enough to gain the education and training which is the passport to well paid employment."

The process of Manpower Planning and Development of any nation always assumed a close relationship between the level of development, and the amount of supply of skilled and educated persons. Thus as soon as a country gains independence, the whole question of the nation's social and economic development has to centre on the availability of educated and trained manpower. As the Minister said in his opening address, an examination of the position in the period immediately following independence showed a dismal picture in regard to available manpower resources capable of undertaking the tasks of the nation's development programme.

An equally serious situation pertained with regard to skilled manpower required to take over existing top positions in the different sectors of the economy. Dr. Colclough's report forms an excellent foundation for not only the information and data required but also the recommendations for implementing a manpower plan for Botswana. Nevertheless during the decade of 1971 to 1981 a major revolution has taken place in the whole of manpower planning, or as it is termed today, Labour Economics.

It is a logical step for any government to step up its programmes of obtaining more skilled persons at all levels, from the labour market. This inevitably

initially results in a massive increase of expatriates. Initially too, the manpower plan may not necessarily specify figures for localisation, but before long that country must, if only for economic reasons, embark upon a programme of localisation. The implementation of a manpower plan cannot be carried out in isolation. A plan is worthless unless there is a practical programme for achieving its objectives which must involve a parallel system of manpower development.

It is also typical of the initial years of any developing country's independence that manpower programmes tend to be oriented towards the public sector, which in early years normally comprises the civil service and a few quasi-government organisations. Later, as industry and the supporting services of the government expand, systems of apprenticeship are required and it is in this field that difficulties appear due to the absence of effective skills or job descriptions, and the need for accurate quantitative and qualitative forecasts makes itself felt.

#### MANPOWER PLANNING/MANPOWER DEVELOPMENT:

It has been my experience over the past decade that the greatest single obstacle to implementing manpower plans is the absence of any related manpower development programme. It would seem obvious that the results of a manpower plan should be an appropriate manpower training exercise. However manpower development programmes take some time to develop, particularly if they are at the higher level involving development of university and technical college curricula, let alone the training organisations and personnel that go with them.

It has also been shown that the analysis of skill needs, (and by skill I mean anything from the skill required of a Permanent Secretary down to the skill required of a filing clerk) has revealed that by far the greatest

quantitative requirements are at the levels for which formal training is not available. In other words the people originally filling these posts, and this includes expatriates, have grown up to their jobs and their training has for the most part been informal and 'on the job'.

It is for this reason that the ILO-partite Resolution of 1971, to which this country is a signatory, squarely states that it is the responsibility of the employer to provide and finance training, whether it is in the public or private sector, and whether it is a governmental or industrial activity.

So when we talk about implementing a manpower plan, Gentlemen, we cannot escape considering the work environment in which that implementation takes place. Implementing a manpower plan is in no way completed by the production of figures and the mere projection of the number and type of courses of training, academic or technical, which are thought to be required to meet the manpower needs of the nation over any period. Indeed the production of requirements in the form of projections becomes less and less accurate as the period of the projection increases. In other words, the manpower planner finds himself more and more on the shop or office floor.

And since, heaven forbid that we should be plagued by thousands of planners at office or shop floor level, it has become the belated realisation of employers that the ultimate responsibility for manpower planning rests with every employer, and every employee in a management or supervisory position. What then are the techniques required? How do they fit into a sensitive and reacting manpower development programme within the government department, or administrative unit, or industrial organisation?

It follows that an ever-increasing amount of manpower development (or training) must be closely related to the requirements within the work organisation and in many cases carried out within the work unit. This has been emphasised by many African countries by Ministers and Directors of governmental and industrial institutions, in their requests for the establishment of 'training cells', or what in some parts of the world are called 'skill training centres'.

#### THE NEED FOR INDIVIDUAL PROGRAMMES:

In case you may think that I am ignoring the systems aspect of implementing a manpower plan, I would mention that the Organisation of the Manpower Planning Unit is being taken separately after lunch today. The reason for the separation is that your organisation and your systems can only be defined and applied if you have clearly identified the conception of manpower planning and what its objectives are. As I have previously stated a plan is useless in itself. Therefore I have dealt at some length with its objective, which is that of ensuring the setting up of an effective production unit of manpower, i.e. a manpower development programme, or at its simplest, a training programme.

The first syllable of management is 'man' and therefore the manager at whatever level is responsible for his personnel and the development of those personnel. He should have a personal interest in the development of each individual who is responsible to him. This manpower development has been shown by world experience as primarily taking place at the point of work, in other words 'in house training'. However, clearly every individual employer cannot carry out his own training programme; it is necessary for the manpower unit to have a close and continuous contact with the employing unit.

It is not practical for a remote ministerial or departmental administration to draw up training programmes for individuals or groups, since they cannot possibly be in contact with the day to day problems on which a skills training or management development programme should be based.

Similarly a management development unit cannot work independently of the manpower planning unit. We have to have a clear progression from the analysis and study of skills needs and training requirements to feedback to the manpower planning units. Here we may have a possible conflict of interest in that if the manpower planning unit is located together with a manpower development or even a central establishment unit, there is a danger that the allocative and administrative responsibility of a central establishment unit, or whatever its particular name, as the dominant partner as the user, might well stand in the way of the planning unit's attempts to fulfill what appear to be its logical and balanced responsibilities. It is essential therefore that a careful division of labour within the Ministry or department concerned be defined so as to ensure that these very different activities be reconciled. In this context I'm well aware that sometimes there appear to be rivalries of different departments as to their qualifications for carrying out these tasks. All I will say is that during my stay here I have been made aware of a number of possible contenders for this co-ordinating role. In view of the short time which I have been in Botswana I will leave this particularly sensitive subject with your good selves to solve.

If we accept the implementation of a manpower plan as the production of a person capable of carrying out a defined and required task, and that the training may well be requested by an employer through a training organisation, whether it be a technical college, an educational institution, or an 'on-the-job training programme', we immediately come up against the problem of defining the job. Job Description or skills definition is one of the most difficult tasks to carry out in this age of planning technology. A major task therefore of the manpower planning unit is

to ensure that an effective dictionary of occupational skills is produced. This can be based on already established dictionaries, many of them specifically produced for countries at varying stages of development. The Department of Labour in many countries has been a responsible agency for this essential operation, in conjunction with such organisations as the International Labour Office, or national institutions who have made this their specific objective.

In many countries techniques, such as problem-oriented training or project-oriented training, have been introduced and are only a very fine variation of the main principle, that manpower development must be broken down into its constituent and identifiable parts. There may not be an equal demand for individual 'modules', as they are called, but economy of time to ensure effective retention, and an ability to apply what is learnt is a prerequisite for the quick development of skills in an expanding economy such as we have in Botswana, Lesotho and Swaziland. If you are going to break down training into smaller sections, it is obvious that the manpower planning unit must have accurate information as to the job content; and similarly it is obvious that training programmes must be related to the task of the day-to-day operations of any work organisation.

It can be seen therefore that, yet again the projections of five or ten years for the requirements of skilled administrative personnel are likely to be meaningless unless they are continuously updated. Such information cannot be projected in an environment of scarce human resources, particularly within the lower vocational fields. This updating is only possible by direct involvement of the manpower planning personnel concerned. The problems of technology changes, as they develop either in industry or in any governmental control organisation, requires that training must be carried out as close as possible to those problems, and the processes or administrative systems being applied, within the logical constraints which are met in the day-to-day administration of all concerns be they



industrial or governmental.

Therefore in summary it can be said that the implementation of a manpower plan involves:

- the identification of training needs
- the identification and categorisation of training by type of needs
- the selection and application of appropriate training techniques
- the ascertaining that training programmes are being prepared
- the evaluation of the results of training with respect to further manpower development needs
- the ensuring that manpower development information is used as a feedback of data for amending existing manpower plans.

#### STATE OF IMPLEMENTATION OF MANPOWER PLANNING IN BLS COUNTRIES:

I am happy to see that positive steps are being taken to ensure that development of training needs and skill requirements data is being carried out in the Directorate of Personnel and the Employment Policy Unit, and in the other manpower planning units within the three countries represented at this workshop. Unfortunately as far as I have been able to ascertain, and I may say this has been my experience over the last few years in other countries, a comparable exercise is not being carried out in the private sector. Their traditional method of carrying out a manpower plan is to recruit from the labour market, and in many cases this labour market constitutes those who, by being recruited into the private sector, have in fact left employment with the public or governmental sectors. Michael Lipton in his report has strong words to say on this score. It is therefore imperative that the planning and developmental aspects of manpower are co-ordinated on a national basis with the firm and genuine co-operation of all employing organisations that exist within the country. As I mentioned earlier, I will deal with specific organisational details in this afternoon's session.

POINTS FOR DISCUSSION:

Gentlemen, I would like you to ponder on the implications of implementing a manpower plan and to give thought to suggestions in your discussion, as to how best the inevitably high level activities of the manpower planning personnel, can be transferred into practical manpower development programmes by your officers with managerial responsibilities. On the basis that such practical implementation (or training) should be seen as an integral and normal part of the executive officers' or supervisors' every day life, how best can we ensure that they are enabled to carry out the requirements of the manpower plan or whatever section of it applies to that small corner of the total activity, that comprises the effective performance of a nation.

In the course of the discussion I will, if you are interested, outline how this was done in the context of Papua New Guinea, a country with manpower planning and manpower development problems probably as basic as anywhere in the world. But I think I have talked enough. My objective was deliberately to show that implementation of manpower plans is not a mundane process of reports showing quantitative lists of people on training courses, but the integrated action of all levels of management in the development of the human resources which, as in the parable of the five talents: "It was our bounden duty to develop."

Thank you very much!

ORGANISING THE MANPOWER PLANNING UNIT

Discussion paper delivered to Manpower Planning Workshop April 13 - 14th, 1981.

By B.J. Stedman                      B E S O

Gentlemen!

I do not feel it appropriate here to go into the details of organisation, (that is, the organisation charts and manning schedules) since in the first place I do not believe in pre-planned organisation charts, with establishments that are not based on a study involving detailed examination of the role of an administrative department.

Manpower Planning, as I see it, works against the background of the following concepts:

- Planners do not make policy, they help to implement policy.
- Planners assist policy makers by giving them information to aid them in the development of their policies.
- For any plan to be viable it must be implementable, and it is the planner's responsibility, by prior liaison with the potential implementors, to ensure that this is so.
- It is generally held that the best planning is ultimately carried out by those it will most affect - hence the necessity for two-way communication and involvement of implementors in the planning process.

It is the responsibility of members of any planning unit to develop from the very start, the machinery for realistic and effective and continuous planning, with appropriate provisions for change as events develop. Therefore, planners must start from the beginning. A major pitfall for any planning

unit organisation is to start operations, based on plans that have been produced by other people and not directly involving the planners. One must begin at the beginning. One is reminded of the Biblical quotation: "In the beginning was the word...". In the context of a planning unit it is heresy to say : "In the beginning was the plan".

A second essential aspect of planning is that planning should only proceed as slowly as is necessary to guarantee a firm base, and data that can stand the test of implementation and criticism.

It therefore behoves the planning unit to define, in the first place, all relevant work that has been done earlier, and which may have an effect on the decisions or recommendations of the planning unit. I say recommendations advisedly, because a planning unit does not have line authority. It is only as agency for recommending and suggesting to the policy maker or decision maker with the line authority for implementation. Therefore it will be necessary to identify and record sources, location, and extent of all data already collected in various places, and to submit it to tests of reliability as soon as possible. I cannot overemphasise the importance of this work and it sets a definite constraint on the type of personnel recruited into a planning unit.

Following this activity it will be necessary to regularise and expand the data, including making it readily accessible for other users. As an example I believe the Directorate of Personnel in Botswana has already commenced computerising information to keep track of all persons sent through the Directorate on training programmes i.e. personal information, geographical information, technical field, source of funds, overall costs, etc., and that this system is in active operation. On the well known formula for EDP operations, my earlier recommendation to you for accuracy of basic data is essential. I'm sure you are familiar with the famous warning to computer programmes - "Garbage in, Garbage out" !

The next step is to collect data on initial requirements and outputs of local educational institutions. These will inevitably be projected by the institutions themselves, (if not, they should be) and on the numbers of students or trainees that are in the process of being sent abroad or already on Overseas Fellowships. It is never too early to commence an inventory of educational and training resources, both local and external, starting with local institutions and their capacities. It is very important that this information be checked on the spot by examining the institutions, and in addition to ascertain the financial resources that are available, including their source.

It will also be necessary to define the current situation with regard to unfilled vacancies and its relation to the localisation situation both within government and the private sector, and to establish a system of review at regular intervals. It may be necessary to do this every three months but later probably every half-year will be sufficient. Presumably in Botswana the unit will be liaising very closely with the authority that is administering the legislation on employment of non-citizens, and ensuring that data obtained from employer's projections of their localisation programme is followed up so that citizen employees are available to replace expatriates when the planned date for their replacement occurs.

It will be necessary to identify occupations or specific positions within government and the private sector which will require high level technical or science background, as these are the most difficult to fill when local higher educational resources are limited. It is frequently the experience of developing countries that relatively low level positions have to be filled by expatriates, simply because they are in a highly specialised field for which no training facilities are available locally. Such training can generally quite easily be found in one of the technically developed countries, particularly if they are related to one or other of the national development projects.

A further factor frequently overlooked by planners is the effect of any national service obligations which students or trainees may have. This is particularly important when the political situation becomes unstable, or there is an international crisis. This particularly affects senior school (form five) leavers.

I understand that already in Botswana there has been a preliminary matching up of supply/demand at a number of skill/educational levels related to the present plan period.

It is also believed that in Botswana manpower/manpower training plans are being identified and discussed with the originators of these plans (e.g. ULGS, Agriculture, Railways, New Airport project, Botswana Housing Corporation etc.).

#### NEMIC :

It would seem very appropriate that the manpower planning unit should liaise with, indeed make use of the proposed revitalised National Employment Manpower and Incomes Council. In particular with reference to Manpower its terms of reference are, inter alia:

- to review government plans for education and vocational training in the light of present and projected national skilled manpower requirements.
- to advise government on the optimum allocation of available citizen skilled manpower between sectors in the light of national development objectives.
- to review and comment on localisation plans in the government, parastatal and private sectors.
- to assess the level and scope of training in Botswana of citizens, by private and parastatal sectors, and make recommendations to government on policy in this area.

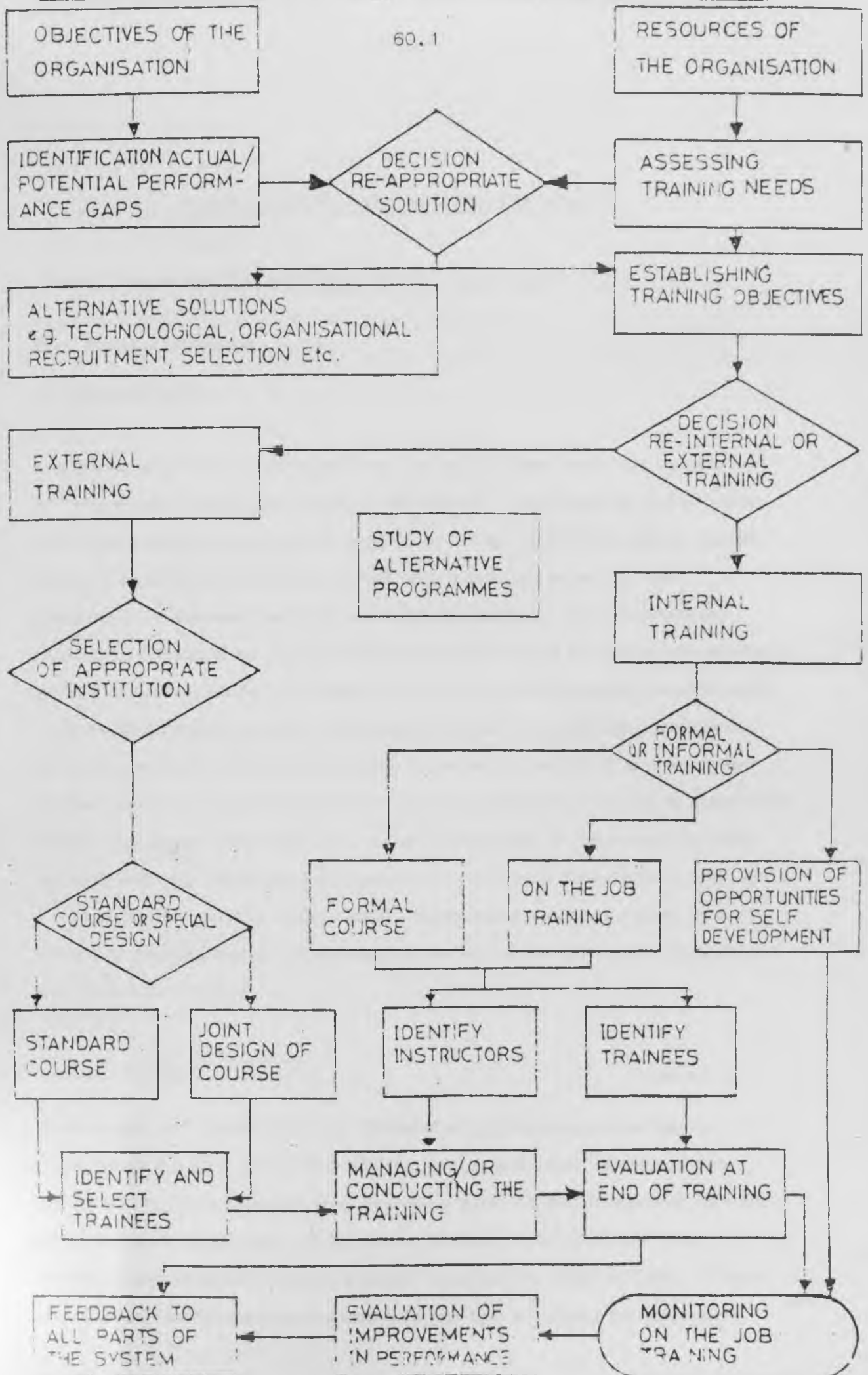
We look forward to the deliberations of this Council; it will be apparent how important the activities of the manpower units are in the context of providing data for consideration of policy matters,

The attached flow diagram of a training and manpower development system may serve to illustrate the various planning/decision-making stages and the interwoven activities required in an integrated manpower planning and development operation.

It would seem appropriate to leave the subject at this stage because agreement on these major items is necessary before a detailed organisational pattern and manning schedules for a manpower unit can be made.

# TRAINING & MANPOWER DEVELOPMENT SYSTEM

60.1





## MANPOWER PLANNING IN BOTSWANA

Country Paper for IDM Seminar, 13-15 April, 1981<sup>2</sup>

By Phillip Matsetse

### INTRODUCTION:

Manpower planning in Botswana can be said to date from the preparation of "Manpower and Employment in Botswana", published by the Ministry of Finance and Development Planning in 1973. While this was a comprehensive statistical document it had only a limited effect on the practice of manpower development and utilisation. The employment statistics produced by the Central Statistical Office have maintained the supply of high-quality information on existing formal sector employment in Botswana, but it is only more recently that the practical important developments in this field have been central government's manpower budget and the more conventional manpower planning now being attempted by the Manpower Planning Unit in the Directorate of Personnel and the current Training Consultant in the Ministry of Local Government and Lands. I intend to look a little more closely at these four areas in turn, and at potential developments following the revival of the National Employment and Incomes Council.

### THE COLCLOUGH REPORT:

"Manpower and Employment in Botswana", popularly known as the "Colclough Report", after the adviser who supervised its production, produced the first detailed employment statistics and manpower demand projections in Botswana. From these it drew conclusions on the educational needs implied by a target localisation date of 1990. These conclusions were used as the basis of the overall plans for education

in our third and fourth National Development Plans, covering the period 1973-1981.

In retrospect, certain weaknesses can be seen in the Colclough plans. They underestimated the growth of the economy, and thus demand for the most highly skilled and highly qualified types of manpower. At the same time, they gave spurious precision in their estimates of the occupational breakdown of these high-level needs, and actual demands bore only a limited resemblance to the predicted demands. This, of course, is more an illustration of the futility of attempting to produce highly detailed national manpower projections than a criticism of Colclough. It has proved impossible everywhere to produce accurate projections at the level of detail attempted by Colclough, essentially because of our inability to forecast economic developments at the micro-economic level and their detailed manpower implications.

Perhaps the greatest weakness of the Colclough plans, however, is that there was no detailed and continuing practical follow-up to them. In practice, the allocation of students to degree courses and the expansion plans of tertiary educational institutions bore little relation to Colclough's projections, though his plans for the primary and secondary levels of academic education were followed reasonably closely. Our experience suggests that effective manpower planning requires a permanent unit which will regularly update its projections and constantly pressurise for their use in decisions which affect manpower supply.

#### EMPLOYMENT STATISTICS:

Since shortly after Colclough's report, the Central Statistics Office in Gaborone has been producing annual statistics on formal sector employment. Initially these were somewhat less detailed than Colclough's work, but they have been built up to produce breakdowns by occupation, citizenship, earnings, industry, and location, which can all be cross-tabulated if necessary. At the same time as developing a useful and wide-ranging

selection of statistics, the CSO has improved the quality of the data on which the statistics are based. Indeed, our employment statistics now compare favourably with those of many developed countries.

While this hardly constitutes manpower planning, I have picked it out for special attention because it is clearly an essential basis for any attempt at national manpower planning.

#### MANPOWER BUDGETING:

Moving closer to the present again, Botswana introduced in 1979 a system of central government manpower budgeting. This is somewhat outside the normal definition of "manpower planning", but again it illustrates one vital input to comprehensive manpower planning, and one which can all too easily be forgotten. This is the need to look at manpower planning in terms of allocating scarce resources to their most important uses.

The manpower budget is closely parallel to the government's recurrent budget, and is worked out simultaneously with it. It aims to keep the growth in the total "A" group establishment (that is, the total number of high-level posts which ministries are authorised to fill) in line with the central government's "fair share" of the estimated growth in skilled manpower available. It also attempts to allocate these new posts between departments in accordance with (a) the priority attached by government to the various departments; and (b) the specialised qualifications of the manpower becoming available.

The system works imperfectly. Perhaps its greatest weakness is that it is not a sufficiently interventionist instrument to ensure that its aims are precisely fulfilled. Thus, for example, a high priority department can be allocated many posts but they may not be filled, for a variety of reasons. More seriously, it tends not to restrict government to its "fair share" of skilled manpower in practice. This arises partly from

the pressures from within government to make the budget allocation high, and partly from the tendency for the allocation of individual skilled and qualified staff to be concentrated within government. This, of course, is partly a consequence of the same sort of pressures.

The advantage of the system is its simplicity, relative to plans for person-by-person allocations, but it needs to overcome its government-centrism, and more co-ordination is required between the budget allocations and the individual allocations. I shall return to the lessons to be learnt from our manpower budget in my conclusions.

#### GOVERNMENT TRAINING PLANS:

More recently still than the introduction of the manpower budget, our government has instituted internal manpower planning as the central input into its own training plans. The Manpower Planning Unit in the Directorate of Personnel is drawing up detailed statistics and relatively short-term projections on the training needs of central government. At the same time, a training consultant in the Ministry of Local Government and Lands is doing the same for local government. Both of these programmes can be expected to be successful since the Manpower Planning Unit is a permanent force in the department which controls government's internal training; and the local government consultant is making an input into a vigorous new programme of manpower development. In other words, these are programmes which will serve as the first point of reference for the policy makers concerned, and at least in the case of the Directorate of Personnel's programme, will receive updating and support from a permanent unit.

The sacrifice which has been made in turning to this form of manpower planning, however, is that of generality. Whereas Colclough attempted to produce a plan for the whole economy, we are now producing two separate plans which between them will cover only the government sector.

This is not only a narrowing down of the objectives of manpower planning, but also it implies weaknesses in the content of manpower planning. It is impossible to predict government's share of new graduates, for example, if one has no idea of how many of them will be going to the private sector - and this problem applies to every category of manpower which is in short supply. It is also impossible to determine the appropriate share for government of any category of manpower when private sector needs are unknown and given little consideration. Thus our loss of generality in manpower planning also implies a reduced ability to make accurate forecasts, and decisions which are rational from the point of view of the economy as a whole.

Here we may benefit from the recent revival of our National Employment, Manpower and Incomes Council, commonly known as NEMIC, in which the private sector will have an opportunity to make an input into manpower planning. This input can be both at the level of influencing manpower planning policy, and at the level of providing information essential to national manpower planning.

The revived NEMIC has a tripartite Manpower Sub-Committee, including representatives of employers' and employees' organisations, as well as the ministries concerned with manpower and training policy. Clearly it will take time for NEMIC to become fully effective and influential, but the opportunity is there. The private sector will have a key role to play in determining priorities for these bodies, but we hope that questions of co-ordinating training policy and allocations of scarce skilled manpower between government and the private sector will be given priority. As there is now an Employment Policy Unit in the Ministry of Finance and Development Planning, which acts as Secretariat to NEMIC, it should be easier than in the past to put manpower and employment policy into practice, and co-ordinate the work of the relevant government departments.

## CONCLUSIONS:

I would like to conclude by drawing together the lessons we have learned from our experiences in this field. From Colclough and our current attempts to produce training plans, we have learned that manpower planning must be intimately connected with the machinery which makes detailed training decisions. We have learned that it must not attempt to be too ambitious in making detailed long-run forecasts and plans, that it must be flexible, and that it can benefit from being national manpower planning rather than sectoral planning, though the task then becomes larger and more complicated. In addition, it is clear that without our detailed employment statistics we would have no basis for national manpower planning.

These, perhaps, are fairly conventional conclusions to draw. A little more interesting is the need for clear priorities in manpower planning. Where there are vast shortages of skilled manpower, we need to decide which needs have to be filled first. This is something we have started to deal with through our manpower budgeting in central government, but this is only a very approximate instrument, and priorities would have a more positive role to play within national manpower planning. Hence the vital potential role of NEMIC and its Manpower Sub-Committee. Looking at government's training plans today, you could be forgiven for concluding that Botswana places higher priority on weather forecasting than on civil engineering. Equally, looking at our manpower allocation policy, you could be forgiven for thinking that we put higher priority on localising every post in government before we localise the director of a single firm. These are the implications of some of the decisions which have been taken in the last few years, and they show clearly the need for a system of national manpower planning which starts from a sense of priorities. I am aware that this is a counsel of perfection, but it is meant to indicate the direction we should be taking rather than to specify our final destination.

## MANPOWER PLANNING IN LESOTHO: A SKETCH

Paper prepared for presentation at the IDM Workshop on Manpower Planning in the BLS region, April 13 - 15, 1981.

### INSTITUTIONS INVOLVED IN MANPOWER PLANNING AND DEVELOPMENT:

The importance of manpower planning and the need for the appropriate machinery for this task has long been recognised by the Government of Lesotho. At the present time, there are five organs of government that have some responsibility for manpower planning activities. These are the Central Planning and Development Office (CPDO); the Department of Labour; Cabinet Personnel Office; the National Manpower Development Secretariat and the Ministry of Education's Educational Planning Unit. This paper shall focus on the functions and activities of NMDS and shall only give very brief mention of the functions of the other departments mentioned.

CPDO, as the government department responsible for overall economic planning, nominally at least, is involved in manpower planning in the sense that it attempts to co-ordinate the manpower implications of sectoral plans in terms of the financing of training and technical assistance required to achieve development targets and objectives.

The Department of Labour's role in manpower planning and development has to do mainly with the monitoring of the private sector's importation of foreign labour and use and development of indigenous human resources in accordance with policy and legislation on the localisation of all posts in the economy. The Department of Labour has also recently established a National Employment Service Unit whose function is to help smoothen the

functioning of the domestic labour market.

The Cabinet (Personnel) office's primary role insofar as manpower planning and development is concerned focuses on the utilisation and development of public servants and the recruitment of expatriate personnel that are needed to occupy posts that cannot be filled immediately from local sources.

The Educational Planning Unit of the Ministry of Education, as its name implies, is concerned with educational planning and the supply of educated manpower.

The department with major responsibility for manpower planning is the National Manpower Development Secretariat (NMDS). NMDS was established in 1976 in an effort to achieve a proper co-ordination of Lesotho's manpower development efforts. The principal responsibilities assigned to the Secretariat are:

1. The identification of national manpower development needs;
2. The development and design of manpower development programmes;
3. The administration of all training and scholarships programmes; and
4. The negotiation of scholarships and aid for training.

Although it was government policy at the time of the establishment of the Secretariat to transfer manpower planning staff and activities from CPDO to NMDS, this transfer did not occur. Thus, NMDS has not been able to adequately fulfill its role as the principal institution responsible for manpower planning in Lesotho due to its lack of personnel trained and experienced in manpower planning activities. Happily, this situation is being corrected, and NMDS is now actively conducting manpower research and beginning to make its presence felt as a manpower planning organisation.



### THE STATE OF MANPOWER PLANNING IN LESOTHO:

The present state of manpower planning in Lesotho is one which exhibits considerable promise for the future. Significant (although relatively small) progress has been made in the last eighteen months in establishing an institutional machinery and capacity for manpower planning. Evidence of this is the recruitment of two recent Basotho graduates in economics and an expatriate manpower planner by NMDS to form the nucleus of a developing apparatus for manpower planning. The Secretariat has plans (which have recently been approved) to expand its manpower research and planning complement so that it may become more efficient and effective in its functionings. Ultimately, it is hoped that the Secretariat will have a fully-fledged manpower research and planning unit which will be able to conduct a wide range of the activities that constitute manpower planning.

The most recently published manpower study in Lesotho was by D.F. Wilson, an ILO manpower adviser to the government of Lesotho. The study is entitled "Employment Projections and Manpower Development in Lesotho, 1975-80" (Central Planning and Development Office, Maseru, 1975). It was published in 1976 and is now out of date.

In June 1980, NMDS embarked upon a national manpower survey in order to update statistics on manpower and employment and also to provide a basis for the preparation of a manpower plan for the period 1980-85. This survey is primarily designed to provide detailed estimates of the current stock of high-level and other skilled manpower in all sectors of Lesotho's modern economy. The results of the survey shall be used to estimate future manpower requirements which shall also be expressed in terms of educational requirements, i.e. the output required from the educational system in terms of minimum levels of education required for entry into various occupations and the broad fields of specialisation within the educational system.

Data collection for the survey was designed to be conducted in two phases: first, coverage of the private and parastatal sectors, and second, coverage of the government sector. Coverage of the private and parastatal sectors and analysis of the data collected has now been completed. The bulk of the data on these sectors was collected between June and mid-August 1980 by students on vacation from the National University of Lesotho who were hired for this purpose. The data collected is of such quality that it has been possible to make reasonably accurate estimates of total employment and occupational distributions of persons employed in all the industrial sectors that constitute the modern sector of Lesotho's economy. However, manpower and financial constraints made it impossible to successfully survey privately-owned health institutions.

The survey of the government sector was begun in December 1980 and is still continuing (unfortunately). The government sector survey is taking an unduly long time - it was scheduled for completion by mid-March 1981 - partly as a consequence of insufficient staff at NMDS to ensure prompt and speedy completion and return of questionnaires but mainly as a consequence of a lack of interest of the various departments in the survey. This particular circumstance is regrettable. It demonstrates a clear lack of understanding of the need for and the importance of long term manpower planning by persons in responsible positions in most of the ministries and government departments.

When completed, the manpower survey will provide benchmark data on the nature of the manpower problem in Lesotho's modern economy, and a base for a manpower development plan. However, until such time as the government sector survey is completed and the data ready for analysis, NMDS will not be in a position to prepare a complete document on formal employment or a comprehensive plan for manpower development. NMDS has enlisted the support and assistance of senior civil servants to ensure that the survey will be taken seriously and is optimistic that the data will all be collected in the very near future.

PROBLEMS IN MANPOWER PLANNING:

The critical problem at NMDS viz-a-viz manpower planning continues to be primarily that of the lack of staff. The present Basotho staff complement is both too small and too inexperienced to permit the efficient and timely conduct of such activities as manpower surveys and the translation of manpower needs into educational requirements, and the monitoring of employment needs and the analysis of the labour market.

In addition to the shortage of staff, manpower planning activities at NMDS are hampered by a shortage of administrative inputs. To illustrate, the research and planning section at NMDS must compete with the rest of the Secretariat (which is involved with the administration of scholarships) for transportation and secretarial services. This state of affairs, despite its negative effects, is perhaps inevitable given the fact that manpower planning is in its infancy stage in Lesotho.

## HUMAN RESOURCE PLANNING IN SWAZILAND

By M. Nsibandze

This paper will review the Swaziland Government's past experience of human resource and manpower planning. It will outline the current approach being adopted by the Department of Economic Planning and Statistics and will examine in some detail the most recent manpower survey undertaken for the Government.

The argument starts by taking a brief look at the concept of "planning" held by the Swaziland Government. We are committed in Swaziland to an overall development strategy in which the private sector plays a leading role. The basic "engine" of economic growth in the Swazi economy is the market, and the mechanism on which we rely for achieving our development objectives is the market mechanism.

If this were the whole story then the proper role of planning would be as an adjunct to the growth of private investment very much the junior partner in the concern. Its role would be the fostering of favourable conditions for the expansion of the private sector, the establishment of appropriate incentives for rapid growth, and direct intervention only in the case of market failure or where clearly undesirable side effects were being produced by some aspect of the market's operation.

The fact that this is not the whole story is because we are working within the constraints of an economy whose major characteristic is dualism, with an expanding modern sector and a largely static traditional sector existing side by side. In one sense all economies can be said to exhibit dualism in that they all, even the most developed, contain sectors that are more advanced than others. The particular feature of dualism in the Swazi economy is that the economic logic of the modern sector is not shared

by the traditional sector. Because of this the impact of market forces on the two sectors may produce divergent and unpredictable results. To take an example from another part of the world: in Malaysia just after the First World War, the high level of demand for rubber induced by wartime conditions raised the output of raw rubber greatly with supplies coming from both a modern plantation sector and from a traditional sector where wild-growing rubber was harvested. When demand resumed its more normal peacetime levels, the international market, faced with a large excess supply of the commodity, reacted in the usual way and prices fell. The impact of the price fall on the modern sector was eventually, as you would predict, a cutback in output. The traditional sector, however, reacted in entirely the opposite manner. Small producers of wild rubber, concerned to maintain their revenue rather than to maximise their profits, responded to the price fall by INCREASING their output to an extent which seriously hampered the achievement of a realistic capacity for the industry in the 1920s.

The details of this illustration are not important. The point to be stressed is that relations between the two sectors in a dual economy are not subject to the normal calculus of business decisions. In consequence the free interplay of market forces cannot be relied upon to maximise the welfare of all social groups. We need additional mechanisms for allocating resources and additional safeguards to prevent an unacceptable degree of inequality arising as a by-product in the normal course of development. This need for additional mechanisms is the essential rationale of the planning process.

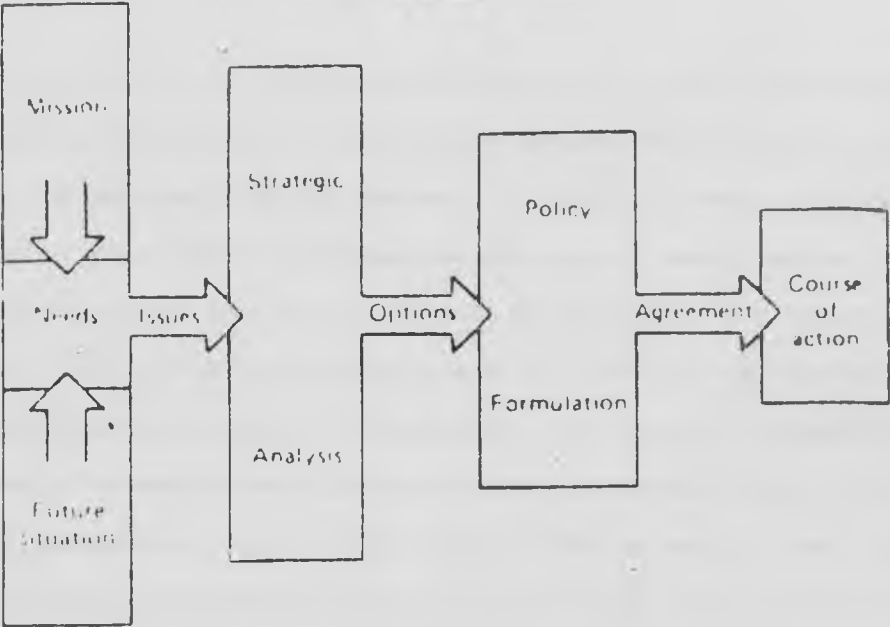
Now before moving on to the specific question of human resources it is important to be clear about the nature of the planning mechanism and on what exactly we can expect such a mechanism to achieve. From the point of view of the overall management of public policy the activity which is concerned with anticipating events, with making diagnoses and shaping appropriate courses of action is strategic planning. The various components

of this activity are summarised in the diagram labelled Figure 1. We start with an overall conceptual framework around which all information gathering and all analysis is organised. We can call this our mission. This mission with our estimates of the future situation of the economy allows us to identify our present needs and to pose these as a series of issues which can then be analysed in order to evaluate alternative ways of reaching our proposed targets given the constraints of the time and resources available to achieve our goals. From this stage of strategic analysis we can derive a number of options each representing an alternative way of achieving a particular target and by the process of policy formulation one of these is selected and appropriate action initiated on this basis.

A couple of points should be born in mind when looking at this planning model. Firstly, planning is not synonymous with action, although for the process to be meaningful the end result must be the initiation of action. Secondly, the whole process is essentially interactive in that we are concerned with constantly revising and up-dating our estimates of the future situation in the light of the impact on the present made by our executed plans. Rather like the budget, planning should be an ongoing cycle.

In the area of human resources the need for this degree of rigour is relatively recent. During the 1960s and the early 70s, Swaziland was in the fortunate position of having a relatively stable labour market with the rate of growth of formal sector employment roughly keeping pace with the annual net addition to the formal sector labour force. This meant that anyone who wanted paid employment would usually find work of some kind and that rates of open unemployment were low and remained approximately constant. This relatively happy state of affairs was possible because the impact of the current very high rates of population growth had yet to be felt and also because the modern sector of the economy was growing extremely rapidly. On this basis the economy's ability to absorb labour into the formal sector more or less kept pace with the available labour supply.

FIGURE 1  
Strategic Planning Concepts



In such a context the tasks of human resource planning, its "mission" in fact, was essentially one of matching jobs with skills and even this was important for only certain specific kinds of skilled training. In most cases the normal functioning of the labour market plus the relative freedom that existed to recruit non-local labour meant that labour shortages would be temporary and that they would be confined to certain quite specific specialisations. Such planning as was done therefore was either confined to educational institutions producing skilled or semi-skilled workers or was undertaken by the large formal sector employers concerned with avoiding bottlenecks in the supply of critical skills.

After about 1972-73 this situation changed. On the one hand the rate of growth of the economy slowed from around 5% per annum in real terms to as low as perhaps 2-3% per annum. On the other hand, population expansion started to show itself in increasing numbers of young people leaving the education system and seeking formal sector jobs. The result was that we moved from a situation of rough stability in the labour market to one of increasing excess supply. In addition, the long-run prospects for lowering the rate of unemployment started to look extremely bleak. With an overall population growth rate of about 3-4% per annum real output in the formal sector would have to grow at something like 19% per annum or more if all the new entrants to the labour force coming from the school system were to be absorbed into formal sector employment. Such a growth rate is of course quite impractical.

The urgent need therefore, for a more comprehensive "mission", indeed for an overall plan for human resource development became clearly apparent. No longer was it sufficient to be concerned merely with matching the outputs of trained manpower from the various vocational and technical education programmes with the skill requirement in the modern sector. Instead the whole focus of attention shifted towards creating suitable employment opportunities for the growing number of visibly unemployed young people and towards the question of the effective



utilisation of the surplus labour which was assumed to exist in a state of underemployment in the traditional sector. In effect this shift of emphasis has amounted to a transformation in the way the traditional sector is viewed. Hitherto, the traditional sector was regarded both as a sponge which could sop up any labour surplus which happened to be around and also as a reservoir of unskilled labour that could be tapped by the modern sector virtually at will. With the development of a broader view of human resource planning the limits to the absorptive capacity of the traditional sector have become much better appreciated and the problems associated with the transfer of labour between sectors have been much more clearly defined.

Our current mission, therefore, is not merely concerned with the process of determining manpower requirements and the means to meeting these requirements but also with the efficiency with which Swaziland's labour resources are being utilised in both the modern and the traditional sectors, with the scope for expanding the employment-generating capacity for all parts of the economy, and especially, with measures to increase employment in the traditional sector and to slow the flow of labour into the modern sector.

To return to the way traditional sectors typically fail to respond to market signals in the conventional manner, I should like to give another example of this phenomenon and to show how our present approach to human resource planning attempts to deal with the difficulty. Our present analysis of Swaziland's growing employment problem places primary importance on the inability of the traditional rural sector to hold its labour force. Current estimates of the annual net increment to the labour force put this at around 7 000 persons each year leaving school, most of whom are potential seekers of formal sector employment of one kind or another.

Against this, under the most favourable conditions, we estimate the growth of formal sector jobs at no more than 2-3000 per annum with the

lower figure probably being the more realistic estimate. We are talking in terms; therefore, of a shortfall in formal sector jobs creation of some 4-5000 jobs each year up to at least 1985. The options open to these "surplus" young people are to remain in the rural sector where they will have to work but where they will be underemployed; to seek formal sector jobs and risk long periods of unemployment; to migrate, although opportunities for this appear to be diminishing sharply, or to enter the urban informal sector where again they are unlikely to become fully employed. What we would expect to happen is that information about the relative scarcity of job opportunities would filter down to the schools, especially to schools in the countryside, and that after some reasonable delay the recognition of this situation would show itself in a decline in the numbers of young people moving to the urban areas to seek work. In practice what is happening is exactly the opposite. As the number of school leavers increase, more and more people are leaving the countryside to take a chance on finding jobs in the formal sector. Instead of opting for the relative security of their homesteads people are willing to risk extended periods of unemployment on the off-chance of finding a wage-paid job.

The reasons for this apparently irrational phenomenon are not difficult to find. Education is traditionally associated with formal sector employment if not with white collar formal sector jobs and people's job aspirations are very slow to be revised downwards. But even more important, the economic signals reaching the traditional sector do not convey a clear message. So while the message of rising unemployment rates is a clear disincentive to move in search of formal sector employment the very large income differentials that exist between the modern and the traditional sectors are a clear incentive to adopt a completely opposite course of action. These income differentials are very large indeed. Data from 1977 indicates that a child from an average rural family who is to go on to university could expect to enter a job on graduation which would give him an annual income of between 40 and 50 times that of his father. Comparative data for Western European countries show that average earnings for people

with the highest educational qualifications were no more than three to four times those of workers with the lowest levels of educational attainment. Now while this is the most extreme case, imbalances in the structure of differentials both within and between sectors frequently serve to exacerbate the misallocation of labour resources and the available evidence indicates little narrowing of these differentials over the last few years.

Turning now to the most recent manpower forecasting exercise which was undertaken by the Department of Economic Planning and Statistics in late 1976 and early 1977. This paper will review the main findings of this study,<sup>+</sup> comment on some of the methodological problems associated with forecasting the demand for skilled manpower in Swaziland and assess the extent to which the results of the study require modification in the light of discrepancies between Swaziland's actual and predicted economic performance.

It is probably fair to say that manpower forecasting has been more subject to the swings of fashion than most currently used planning techniques. The underlying logic of the approach, however, remains consistent and provides a powerful means for exploring the relationship between the education system and the labour market. Thus, on the one hand, by predicting employers' likely future demand for the various categories of skilled and unskilled labour, discontinuities on the supply side of the labour market can be foreseen and appropriate action taken. In this way potential manpower bottlenecks can be overcome which might otherwise starve crucial enterprises of the skills they need or which might cause significant distortions in the structure of wage and salary differentials.

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+ Colclough and Digby: "Skills for the Future: Education and Manpower Perspectives in Swaziland". Ministry of Finance and Economic Planning, Mbabane, 1978.

On the other side of the coin, information on the likely pattern of future job opportunities can be a key input into education sector planning. By matching the qualifications of graduates leaving the formal education system with the qualifications demanded by employers the employment chances of school-leavers can be maximised. The rationale of manpower forecasting approach therefore, lies in the information it generates regarding actual or potential disequilibria in a country's labour market. Its particular value is in situations where this disequilibrium is the result of a mis-match between the pattern of qualifications of new entrants to the labour force and the pattern of skills and qualifications required by employers seeking to hire new-entry workers.

It is important to emphasise that we are concerned with a FORECASTING technique. The skill endowment of new entrants to the labour force is a product of the education and/or training they have received. The decision to change this endowment by anything other than a marginal amount is a planning decision which may have a substantial lead time. A physical facility or a major curriculum innovation may require years before becoming fully operational. Still further time will elapse before students who have been exposed to a new programme complete their studies, graduate and enter the labour market. Clearly, therefore, information on the pattern of current labour market demand is irrelevant when we are planning for a graduate output who will not enter the labour force until some future date. In addition, we are unlikely to be concerned with one single cohort of graduates. Given the substantial development and start-up costs of important educational innovations, if these are to be justified in terms of labour market considerations then educational planners will need to know not only the economy's skill needs at the point where the programme comes on-stream but over a large part of a programme's expected life.

But because we are concerned with future conditions in the labour market the value of manpower forecasting as a planning technique depends on how accurately these conditions can be predicted. Indeed a large part

of the criticism levelled at this approach has been directed at just this question.

In the main the degree of accuracy that can be achieved will depend on two factors:

1. The first is that all forecasts tend to become less accurate the longer the period for which the forecast is being made. The manpower forecaster, therefore, has to strike a balance in his choice of a time frame between the relatively long-run, which is the period most useful for educational planning but over which the probable accuracy of his results is low, and the very short-run, which will allow him to produce much more accurate predictions but makes the results less useful as a basis for other aspects of the planning process.
2. The second point is that a manpower forecast is essentially a **CONDITIONAL** statement. Typically it will take the form: "if between now and the forecast target date the economy behaves according to prediction A, then the demand for some particular kind of manpower will be B". The accuracy of the results therefore, will depend on the prediction of the economy's behaviour on the one hand and on the way in which the relationship between the demand for manpower and other economic variables has been specified on the other.

In practice this second factor tends to be the main source of error in manpower forecasts as while in theory it might be possible to produce a manpower forecast to correspond to each of a whole range of predictions about the future behaviour of the economy, and to each of a whole series of different relationships between the labour market and other economic parameters, the sheer magnitude of the task usually means that forecasts are based on single estimates of the main economic variables or at best on a very small range of alternative assumptions.

Because of this dependence on assumptions about the future behaviour of the economy the first stage in constructing any manpower forecast is to specify a set of parameters for the forecasting model. These parameters will define the way in which the labour market is assumed to interact with the rest of the economy over time and will determine the way in which any employment data which has been collected will be analysed to produce the forecast.

The chain of reasoning underlying this stage of the forecast goes something like this: For any particular sector in the economy the demand for all productive resources, including labour, will depend on three things:

1. the level of activity in that sector i.e. on how much is being produced;
2. the technology being used in that sector i.e. on the proportions with which these factors are combined in the production process;
3. the relative prices of factors i.e. on the extent to which you are prepared to substitute a cheaper kind of labour for a more expensive kind, or to substitute labour and capital as either one or the other becomes more expensive.

If you can assume that over the time period of the manpower forecast there will be no change in the kind of technology being used, and that relative factor prices will remain constant then, for our given sector, changes in its demand for any particular labour input will be directly proportional to the change in the level of sectoral output.

If this is your model then all the information you need to forecast the economy's demand for, say, fitters over a ten year period is the number of fitters currently employed multiplied by the percentage growth in real output over the ten years. Even getting a good estimate of the future growth rate is not too difficult. There is usually a target growth rate published in the National Development Plan and where there isn't, it is

usually possible to look at past growth rates. The real difficulty comes when you use a model which relaxes the assumptions of a constant technology and constant relative prices. The forecaster is then faced with trying to estimate the impact of technical change on the productivity of the particular skills covered by the forecaster. In practice, given the necessary time and resources it should be possible to get at least a rough idea of the extent and direction of technical change provided the investment plans of the relevant sectors are available for the whole of the forecast period. But the problem of estimating changes in factor prices and then assessing the likely response of employers to such changes can only be tackled on a very hit-or-miss basis.

Nonetheless, whether implicitly or explicitly, all manpower forecasts include assumptions that constitute the parameters of the forecasting model and will determine the accuracy and the validity of the forecast results.

Turning to the recent manpower survey undertaken by the Planning Department, the project was designed with three aims in view. These were:

1. to collect data which could provide a comprehensive description and analysis of formal sector employment in the Swazi economy at the survey date with special reference to the skilled labour market.
2. to analyse the way in which the economy's requirement for skilled labour is likely to develop in the future, and
3. using this analysis to draw certain policy conclusions with respect to education, training, incomes and localisation.

The comprehensive picture was obtained from the results of three separate surveys of employing establishments. The first was an interview-administered survey of private and parastatal establishments. The second was a survey of government departments which was self-completed, and

the third was an interview-administered survey of educational establishments. For each survey information was collected using three types of questionnaire. The first type was to be completed by an employer or manager and was concerned with particulars of the establishment as a whole. Information was requested on total employment and the monthly wage bill classified by these and citizenship of the work force. This questionnaire also provided the basis for the classification of the establishment into one of the major economic sectors. A second type of questionnaire was completed by each of the workers in the establishment who were classed as being "skilled" according to the survey definition. Information was sought on the individual's occupation, age, sex, nationality, experience, education and training. Finally a third type of questionnaire was completed by employers/managers in respect of each skilled position in the establishment. This questionnaire was designed to collect details of the earnings associated with each post and on current hiring standards for the post irrespective of the qualifications of the present incumbent.

The survey covered approximately 60 000 workers employed in Swaziland's formal sector. Of these some 30% were defined as "skilled" on the basis of the survey criteria.

The analysis of future skilled labour requirements was based on estimates of future sectoral real growth. Projections were made over two periods, the first, for the five years of the Third National Development Plan, to 1982-83 being based on expected developments in each sector. The second up to 1989-90 was based on past figures of sectoral output suitably deflated.

For the economy as a whole the predicted growth of real output for the period up to 1982-83 worked out at 7% per annum. For the longer period, due to the difficulty of forecasting developments in individual sectors with any degree of accuracy over this length of time, two sets of predictions were calculated. Using a high growth assumption the predicted aggregate growth was 8% per annum. Using a low growth assumption the predicted rate was 4% per annum.



On the basis of these projections of real output levels an expansion factor was calculated for each sector for both periods. The skilled manpower requirements of each sector were then found by applying this expansion factor to the value of the sector's total skilled employment at the survey date. This procedure involved the following assumptions:

1. that the qualifications required by employers in 1977 for entry into skilled occupations will, for each sector, remain unchanged;
2. that the demand for skilled and educated manpower in the Central Government will increase at the same rate as departmental recurrent expenditure in real terms;
3. that the demand for skilled and educated manpower in other sectors will increase at the same rate as net sectoral output in real terms, and
4. that wages, relative to other production costs will remain constant, again in real terms.

In addition to forecasting the demand side of the skilled labour market, the study also estimated the manpower supply situation over the same time periods. The overall labour supply situation was calculated on the basis of the 1960 Population Census projections and the results are shown in Table 1. The figures indicate that for the period up to 1985 we can expect an annual increase in the labour force of about 7 000 persons. Table 2 summarises the overall demand situation in the formal sector. Over the period 1972-76 the average annual increase in formal sector employment has been around 3 000 jobs. This figure can be expected to rise to about 4 000 per annum by the end of the Third Development Plan. We are faced, therefore, with an estimated shortfall in formal sector employment creation of some 3-4 000 jobs each year.

Two conclusions follow from these figures. First, the proportion of Swaziland's

labour force employed in the formal sector will remain roughly constant, at least in the medium term. Second, the employment growth rate needed to absorb all new entrants to the labour force into the formal sector is in excess of 10% per annum. As such an acceleration is not feasible it is inevitable that the traditional rural sector will have to absorb an additional 3-4 000 persons each year as well as retaining its existing labour force.

The distribution of the demand for skilled workers shows wide discrepancies between sectors. In particular, although the education and government sectors provide only one-quarter of all formal sector jobs they employ together more than half the skilled workers in Swaziland. The expansion of these sectors, therefore, is highly skill-intensive, and, if particular skills concerned are in short supply, such expansion will have a substantial opportunity cost in terms of employment creation elsewhere in the economy.

The demand and supply predictions for skilled labour are summarised in Table 3. This table compares the forecast demand for workers with various levels of educational qualifications and the predicted supply of educated manpower for both the forecast periods and for both sets of growth assumptions for the 13 year period. What emerges most clearly is the dramatic increase in surpluses of educated manpower at all levels below that of university graduates for the entire period of the forecast. The likely effect of these surpluses is that many school-leavers will be forced to lower their career aspirations or remain unemployed in the face of escalating minimum entrance qualifications to all kinds of skilled employment. Within this grim picture the demand for certain professional skills and for skilled sub-professional workers, especially in technical and scientific fields, is likely to grow considerably faster than the average increase in employment as a whole. The study estimates the growth in demand for this kind of manpower to be in excess of 9% per annum and suggests that serious shortages of technical skills might well arise during the forecast period.

Earnings data from the survey indicates one very important reason why this projected surplus of educated manpower is unlikely to lead to a fall in the demand for places in post-primary educational institutions. Average earnings of Swazi citizens with a degree are about five times those of skilled workers with only primary education, about eight times the median unskilled industrial wage but between fifteen and twenty times the minimum industrial wage. This means as pointed out above that a child with a background in the traditional rural sector who is lucky enough to go to secondary school and then on to university can expect to earn an income when he starts to work of between thirty and forty times that of his father. This compares with a differential between the incomes of workers in Western Europe having the highest and lowest educational qualifications of no more than three or four. If differentials of this order are maintained the rate of educated unemployment will have to become very high indeed before the pursuit of secondary and post-secondary schooling will be perceived as being economically not worthwhile.

On the quality of the existing labour force and the need for additional education/training the situation is set out in Table 4. This compares the actual educational qualifications of skilled workers with the qualifications stated by employers as being necessary for each skilled job. On this criterion, for the formal sector as a whole, nearly one in three Swazi workers were underqualified for their job.

The study also commented on the notable progress that has been made in localising the public service but indicated that a substantial gap existed in this respect between the public and private sectors.

As mentioned earlier the results of any manpower forecast require interpreting in the light of the assumptions built into the forecasting model. A number of qualifications have to be made concerning the results of this study and three of these stem directly from the way in which the

parameters of the forecast have been specified. The first point is that since 1976-77 the growth of the Swazi economy has slowed. Provisional estimates put the growth of real output at no more than 2-3% per annum for the last couple of years and the final figure may turn out to be even less. This would imply that the study's forecast of the demand for skilled labour and of the formal sector's overall employment creation capacity are over-estimates.

The second point concerns the assumption of constant labour productivity. Given the scope and extent of Swaziland's current investment programme, the notion that the demand for labour will remain proportional to the growth of final output, except in the relatively short run, seems problematic. Forecasts to the demand for skilled manpower tend to be much more sensitive to variations in the assumed level of labour productivity than to variations in the estimated growth rate. Thus a small rise in the productivity of a particular skill could result in a substantial fall in the demand for that kind of labour. In the absence of any systematic analysis of productivity trends in the economy or of the likely impact on each sector of the programmes outlined in the Third Development Plan relaxing the constant productivity assumption may appear to be arbitrary. However, the failure of the study to incorporate a sensitivity analysis to indicate the responsiveness of the results to changes in the model's basic assumptions must be counted a major disadvantage. Again if there is only some positive change in formal sector labour productivity between 1976 and 1989 then the study's forecasts of the demand for skilled labour will be overestimates.

The third point concerns the assumption of constant relative factor prices. It is clear from the data on the future supply of skilled and educated manpower that apart from shortages of certain specific skills and with the possible exception of the very highest levels of qualification the overall situation is one of increasing excess supply. The effect of this in the long run must be

to reduce real wages relative to the price of capital. For if real wages do not fall in absolute terms then their rate of increase will be slowed. Again, while it is certainly not easy to incorporate such an effect into the forecasting model, especially when the magnitudes of the changes are so uncertain, its complete omission prevents the model from being used to analyse what appears as one of the most significant long run trends in the labour market.

As a first approximation, a relative fall in real wages could produce two possible results. Either employers will substitute relatively cheaper labour for relatively expensive capital or, much more likely, they will hire better qualified, more skilled labour as jobs become vacant. The first possibility is equivalent to a fall in labour productivity while the second, on the assumption that better qualified labour is more productive, is equivalent to a rise. Without further analysis, therefore, it is not possible to say whether the omission of prices from the forecasting model has introduced an upward or a downward bias to the forecast results.

A fourth point of difficulty with the present study concerns the way in which the concept of "skilled" labour has been defined. In the public sector "skilled" employment is defined as all persons occupying established posts plus all industrial class workers in the artisan grades. In the private and parastatal sectors all workers were defined as "skilled" who had at least three years post-primary education or training, or, who were performing a job which in their employer's view required at least this amount of post-primary education or training. This approach to the problem of defining "skill" was adopted in preference to an occupational definition because of the wide variations in job titles that exist especially in the private sector. The consequence of defining skills in terms of educational level, however, is not only to blur the distinction between skilled and educated manpower but also to raise a problem of logical consistency. On the one hand a skill is an attribute, a quality, of labour. On the other, educational level reflects a quantity of education. To

define the first in terms of the second is to assume a one-to-one correspondence between formal educational qualifications and job skills which the study report itself points out does not exist. In fact, in the section dealing with the probable future surplus of educated manpower, the report explores in some detail the extent to which this assumed correspondence is likely to change and the mechanisms which will cause it to happen.

Another consequence of this approach has been to prevent the study yielding information on course content and syllabus design i.e. on the quality of educational inputs, which could have been of the utmost value to educational planners. Associated with this is the omission of any real analysis of labour force quality. A comparison of current hiring standards for posts with the actual educational qualifications of workers is likely to reflect employer's perceptions of the current state of the labour market rather than the extent of their satisfaction with the performance of their work force.

All the indications are that the question of human resources will be the most important development issue confronting us during the 1980s. It has been apparent for some time that existing mechanisms will not be capable of dealing adequately with this problem and that restructuring of our whole approach is necessary. The direction in which we are moving is towards a strategic plan for human resources in Swaziland. This will combine the elements of an overall employment strategy as well as the conventional forecasting of manpower requirements. Our concern is no longer just the establishment of appropriate training programmes for skilled labour and the equating of the output of these programmes with the number of skilled vacancies, but rather the development of measures to improve the utilisation of all levels of manpower in all sectors of the economy. It must be recognised that Swaziland's human resources are actually a resource and we are currently working towards a policy for the optimum utilisation of the country's other resources. In terms of the conceptual framework summarised in Figure 1 we have restructured our "mission" to conform

to the new conditions of the 1980s and to some extent also we have revised our estimates of the future situation. But as regards a full assessment of our current needs and the strategic analysis necessary before firm policy guidelines can be established there is still a great deal of work to be done.

Our first priority is to bridge an "information gap" that is wider in this area than in many others. A manpower survey was undertaken by the Department in 1976 and 1977. As an initial step we are currently giving consideration to establishing a Manpower Research Programme which will up-date and extend this survey and conduct detailed sectoral studies of the economy on an ongoing basis.

In the past, information of this kind was collected on a one-off basis, which produced all sorts of problems when we needed to look at the way employment trends were moving over time. The new programme will be designed as a permanent feature of our statistical capability and will aim to provide a continuous flow of manpower data to government. Using this data we will be able not only to monitor existing labour market conditions much more closely but to develop appropriate forecasting methods for the entire range of manpower skills and to make this information available to all other organisations working in this field.

Our second priority is the development of the education sector, firstly, to ensure that targets of the Third Development Plan are met, and secondly, to speed up the introduction of new curricula at both primary and secondary levels which will be more relevant to the likely career needs of the majority of students. To facilitate this task we are in the process of setting up a major sectoral review to be undertaken by a team of several international donors and which will provide the basis for a major capital investment programme in education.

A short-term consultancy was fielded by the EDF to review the terms of reference for the major study and our target date for the work to commence is late January, early February 1981.

Our third priority is employment creation in the rural sector. Here of course the time frame involved is much longer than for the two programmes I have just outlined. The feeling within government is that the most promising approach will centre on the use of Swaziland's water resources both to extend the present cultivated area and to increase yields on existing cultivated land. A very important study by the U.S. Army Corps of Engineers of the potential for irrigation throughout Swaziland has just been completed and is at present under consideration. Preliminary estimates of possible employment creation are very encouraging, with an approximate total of 24 000 farm jobs and 50 000 off-farm jobs being envisaged.



Table 1: Projections of the Active Resident African Labour Force in Swaziland, 1965 to 1990

	1975	1980	1985	1990
Active Labour Force: Males	94 300	116 700	140 000	168 400
Females	66 800	78 900	93 000	110 400
Total	161 100	195 600	233 000	278 800
Increase in Labour Force between each year shown	34 500	37 400	45 800	
Average annual increase	6 900	7 480	9 160	
Average annual rate of growth	4,0%	2,6%	3,6%	

Note: Projections for 1980-1990 assume:

- that the number of temporary absentees observed in the 1976 Census will remain constant throughout the period;
- that their age structure will remain unchanged, i.e. that approximately 17 000 males and 5 000 females over the age of 15 years will be absent throughout the period;
- that the participation of persons aged 15 years or more in the domestic labour force will be the same as observed in 1966, i.e. 83% for males, and 50% for females.

Source: Report on the 1966 Swaziland Population Census, by H.M. Jones, Mbabane, 1968  
Tables 41A and 41B.

Table 2: Formal Employment by Industrial Grouping, 1972 and 1976, and Projections to 1982<sup>a</sup>

	1972	1976	1980
Agriculture and Forestry <sup>b</sup>	24 331	28 520	35 000
Mining and Quarrying	2 950	3 076	3 000
Manufacturing	6 512	8 216	10 600
Electricity and Water	541	799	1 000
Construction	3 629	3 075	5 400
Trade and Hotels	3 842	5 093	6 800
Transport and Communications	2 280	2 566	3 200
Finance and Business Services	580	1 147	1 500
Social and Personal Services	9 190	13 723	18 500
Total	53 856	66 215	85 000

General Note: The data in this table are not comparable with the employment totals given by the manpower survey, shown in subsequent chapters, owing to differences in the sectoral definitions used, and to the exclusion of seasonal employees in agriculture from the manpower survey totals. See Appendix B, Section 9.

Notes: a) The data for 1972 relate to September; those for 1976 relate to June.  
b) Employment in agriculture here includes about 9 000 workers who are employed for only part of the year.  
c) These projections are rough estimates. See text, and Appendix D.

Sources: Employment and Wages 1972 and 1976, Central Statistical Office, Mbabane.  
Manpower Survey 1977

Table 3: Expected Supply and Demand for Skilled Employment in 1982/83 and 1989/90 by Level of Required Education

	Minimum Required Education <sup>a</sup>				
	Standard 5 <sup>t</sup>	Form 1	Form 3	Form 5	Degree
1976/77					
Swazis in Post <sup>c</sup>	3 113	901	6 735	2 826	362
Non-Swazis in Post <sup>c</sup>	239	147	771	1 292	755
1982/83					
Expected Total Demand	5 300	1 600	11 400	6 300	1 700
Swazis remaining from 1976/77 <sup>d</sup>	2 800	800	6 100	2 500	300
Additions from Education/Training, 1977/1982 <sup>e</sup>	15 000	8 000	15 800	4 900	700
Surplus (+)/Shortage (-)	+12 500	+7 200	+10 500	+1 100	- 700
1989/90					
Expected Total Demand: a) High Growth	8 700	2 800	18 100	10 300	2 600
b) Low Growth	7 300	2 200	15 500	8 500	2 200
Swazis remaining from 1976/77 <sup>d</sup>	8 400	700	5 300	2 200	300
Additions from Education/Training, 1978/1989 <sup>e</sup>	3 500	20 200	41 300	12 900	2 100
Surplus (+)/Shortage (-) a) High Growth	+31 300	+18 000	+28 500	+4 800	- 20
b) Low Growth	+32 700		+31 100	+6 600	+200

- Notes:
- a. Each required education event included all levels from that one up to, but not including the next level shown.
  - b. The first column includes only those "skilled" jobs requiring a person with Standard 5 education; most of these were in the Government sector. Semi-skilled jobs requiring a person with Standard 5 were not included in the survey.
  - c. The 1976/77 skilled workers are grouped according to the level of education required for their present job.
  - d. Mortality rates are based upon life tables for the Swazi population, applied separately for each five-year age group. An average retirement age of 60 is assumed (See Appendix D.4).
  - e. Calculated from projected outputs from all types of schools (Table 5.1). Mortality rates, based upon life tables for the Swazi population, have been applied separately to each cohort of leavers for each year of the projection.

period. Assumed participation rates are: Junior Secondary 75%, Senior Secondary 85%, Degree 95%  
(See Appendix D.4)

Source: Manpower Survey 1977, and Supply and Demand Projection for all Type of Educated Manpower.

Table 4: A Comparison of the Actual Qualifications of People Included in the Survey with the Qualifications which are Now Included for Their Jobs, by Sector and Citizenship. January 1977

	<u>Private Sector</u>			<u>Education Sector</u>			<u>Government Sector</u>			<u>All Sectors</u>		
	Swazi	Non-Swazi	All	Swazi	Non-Swazi	All	Swazi	Non-Swazi	All	Swazi	Non-Swazi	All
<u>Person's actual education is:</u>	%	%	%	%	%	%	%	%	%	%	%	%
Lower than required education	32	22	29	38	11	33	28	18	28	32	20	30
Equal to required education	48	42	46	54	41	52	39	37	39	46	41	45
Higher than required education	20	36	25	8	48	15	33	45	33	22	39	25
	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>
Base figures	5529	2222	7751	3513	661	4174	4895	321	5216	13937	3204	17141

Source: Manpower Survey, 1977

A CASE STUDY - MANPOWER PLANNING IN LOCAL GOVERNMENT IN  
BOTSWANA

By Dr. L. A. Picard

The rapid growth of the Unified Local Government Service in Botswana has resulted in the development of a backlog of existing employees at all levels who have not had the requisite training called for in the ULGS schemes of service. There are at present 333 employees in the "A" category (Senior positions at LGA 1-3 and equivalent) who need training. At the "B" level (middle and lower level positions, at LGA 4-6 and equivalent) 1117 existing employees need training. Among senior employees ("A" level) there were, in 1980, 168 vacancies; at the lower and middle level ("B" level), there were 258 vacancies.

A careful analysis of the programmes that local authorities are committed to in NDP V and the remainder of the decade indicates that the continued growth in development activities has serious manpower implications for the Unified Local Government Service. The attached table (Table 1) summarises the position as it will exist in 1990. The total establishment, if carefully controlled, is likely to grow from 2 700 employees in 1981 to 4 932 at an average of 9% a year. It must be stressed that the projections made were based on very conservative growth figures. There are likely to be 2 046 new posts created, 992 resignations and dismissals and 400 retirements. These figures, with the backlog of existing employees to be trained and the 1982 vacancies indicate that Unified Local Government Service will need 1 591 people in senior administrative positions ("A" positions) by the end of the decade and there will be a need for 3 907 trained officers in the "B" category (middle and lower level positions).

Looking at the breakdown of manpower and training needs, cadre by cadre, the total number to be trained for the secretariat is 711. The treasury departments will require 867 trained people. In the technical cadres, ULGS will require 1 270 trained, on the social services side (social and community development, health, etc.,) 2 189 people will have to be trained at the end of the decade. Finally, looking at the other departments (Housing, Education, Land Board), 297 will be needed.

In order to train those in the Unified Local Government Service, it is suggested that the existing schemes of service be followed, with modifications for the senior "A" posts. It is assumed that UGLS will not get significant numbers of graduates in the next decade. The following training schedule is suggested: At the "B" level (LGA 4-6 and the equivalent), each employee who progresses from LGA 6 to LGA 4 should have a total of five months of training in supervision and management and in the skills which directly relate to his job. At the "A" level (the equivalent to LGA 3-1), a twenty month training schedule is suggested. After the five months of "B" level training, each candidate for promotion to the "A" level would enter a fifteen week certificate course in Local Administration, Finance or Personnel Administration. This course would introduce employees to the principles of higher level management and would function as a screen to determine whether or not the candidate has the capacity to proceed to the diploma level. For those who successfully complete the certificate course, a nine to twelve month diploma programme would follow.

Three figures are of significance in trying to determine the cost of training ULGS employees over the course of the next decade. The first cost relates to the backlog of existing employees. Using current 1981 costs and money, it is likely to cost in the neighbourhood of P15 337 000 to train existing employees. Assuming a growth rate of 9% a year over the next decade, the total cost of training between 1982 and 1992 is likely to be in the neighbourhood of P55 000 000 in 1981 prices. This cannot be done without capital investment in existing training institutions. Capital costs

will be approximately P8 000 000 in today's prices.

The Local Government Structure Commission has suggested that Tribal Administration should be included in the Unified Local Government Service. If this is done and if we assume virtually no growth in the establishment of tribal administration over the course of the decade, the total number to be trained will be an additional 1 281 people. The cost involved will be an additional P5 959 683. Capital costs for this additional training are likely to be close to P800 000 for the decade.



Table 2.1 Growth of Unified Local Government Service and Tribal Administration

[illegible]

1978/79

1979/80

		Est.	Vacs	Vacs. %	Est.	% Growth in Est. from 78/79	Vacs.
Health, S. & C. D.							
Other Depts.							
Medical & LGA/T 1-3		57	6	11%	79	39%	12
Medical Development LGA/T 4-6		144	16	11%	181	26%	31
Health							
	LT 1 - 3	19	4	21%	24	26%	8
	LT 4 - 6	20	7	35%	28	40%	5
Living	LGA 1 - 3	9	4	44%	13	44%	1
Living Sisters	LN 2 - 5	127	41	32%	131	3%	39
Deaf Nurses	LN 6 - 7	85	4	5%	129	52%	2
Family Welfare Workers	LGA 4 - 6	375	19	5%	411	10%	21
Education	LGA 1 - 3	21	3	14%	20	- 5%	-
Board	LGA 1 - 3	17	-	0%	20	18%	2
	LGA 4 - 6	62	8	13%	66	6%	9
Board Medical	LT 4 - 6	4	3	75%	3	- 25%	-
Medical	LS 1-4	75	5	7%	92	23%	9
-Total		2041	274	14%	2352	16%	320
Administration							
Chief	TC 1				5	-	-
Chiefs.	TC 2 - 3				43	-	3
	TC 4 - 5				190	-	35

1980/81

1981/82

Vacs. %	Est.	% Growth in Est. from 78/79	Vacs.	Vacs. %	Est	% Grow in Est 80/81
15%	78	-1.3%	20	30%	81	16%
17%	154	- 9%	20	12%	180	17%
26%	24	-22.6%	13	42%	34	10%
18%	40	43%	18	45%	45	13%
8%	29	123%	8	28%	34	17%
30%	179	37%	28	16%	217	21%
2%	159	23%	26	16%	204	28%
5%	469	14%	41	9%	511	9%
0%	27	35%	5	19%	28	4%
10%	21	5%	7	33%	21	0%
14%	76	15%	9	12%	80	5%
0%	16	433%	7	44%	17	6%
10%	97	5%	12	12%	108	11%
14%	2628	12%	425	16%	2971	13%
0%	5	0%	-	0%	5	0%
7%	45	5%	4	9%	45	0%
19%	235	24%	37	16%	228	(- 3%)

[illegible]

Summary of Manpower and Training needs 1982-1992

	Total 1990 Establishment	Average annual % growth	New Posts	Resignations/ Dismissals	Retirements	Existing empl- oyees to be trained	Vacancies to be trained	Total No. to b trained 1992
<u>Administration/ Secretariat</u>								
A	138		43	26	21	69	17	175
B	384		147	181	16	147	45	536
total	502		190	207	37	216	62	711
<u>Survey</u>								
A	164		23	26	34	68	30	187
B	479		68	214	50	270	83	604
total	643		91	240	84	338	113	591
<u>Technical</u>								
A	368		201	53	37	75	65	436
B	759		494	93	53	106	88	837
total	1127		695	146	90	181	153	1279
<u>Social &amp; Community Development/Health</u>								
A	647		305	89	75	73	88	537
B	1545		605	216	81	532	125	1558
total	2192		910	305	156	605	213	2095
<u>Departments Engineering, Education (Board)</u>								
A	126		43	24	20	48	32	171
B	127		30	37	6	36	17	125
total	253		73	61	26	145	49	297
<u>Statistical</u>	195		87	33	7	26	11	164



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