****

**COMPREHENSIVE NATIONAL HUMAN RESOURCE SURVEY**

**REPORT**

**SUBMITTED TO**

**DEPARTMENT OF HUMAN RESOURCE MANAGEMENT AND DEVELOPMENT**

**AUGUST 2014**

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## 

## ACRONYMS

ACCA Association of Chartered Certified Accountants

AIDS Acquired Immune Deficiency Syndrome

'A' Level Advanced Level

CSO Civil Society Organization

DHRMD Department of Human Resource Management and

Development

ECAM Employer Consultative Association of Malawi

ECAMA Economics Association of Malawi

ERP Economic Recovery Plan

FBO Faith Based Organization

GDP Gross Domestic Product

GoM Government of Malawi

HDI Human Development Index

HIV Human Immunodeficiency Virus

HR Human Resource

HRD Human Resource Development

HRM Human Resource Management

HR Human Resource Planning

ICT Information and Communication Technology

ILO International Labour Organization

ISCO International Standard Classification of Occupation

JC Junior Certificate

JCE Junior Certificate Examination

JICA Japan International Cooperation Agency

MCCCI Malawi Confederation of Chambers of Commerce and Industry

MCE Malawi Certificate Examination

MEGS Malawi Economic Growth Strategy

MGCE Malawi General Certificate Examination

MSCE Malawi School Certificate of Education

MGDS Malawi Growth and Development Strategy

NCCI National Construction Industry Council

NESP National Education Sector Plan

NGO Non-Governmental Organization

NORAD Norwegian Agency for Development Cooperation

NSO National Statistical Office

“O” Level Ordinary Level

PSLC Primary School Leaving Certificate

SADC Southern African Development Community

SMEs Medium and Small Enterprises

SOCAM Society of Accountants in Malawi

STI Science, Technology and Innovation

S & T Science and Technology

TEVET Technical, Entrepreneurial and Vocational

Education and Training

TEVETA Technical Entrepreneurial and Vocational

Education and Training Authority

UNDP United Nations Development Programme

UNIMA University of Malawi

US$ United States Dollar

WMS Welfare Monitoring Survey

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## EXECUTIVE SUMMARY

Malawi’s aspirations for long term sustainable growth and welfare improvement are articulated in Vision 2020 and the Malawi Growth and Development Strategy II and the Economic Recovery Plan. The need for adequate numbers and quality of human resources to implement these development aspirations cannot be over-emphasized. This survey was undertaken to assess the demand for and supply of human resource skills in Malawi’s labour market to ensure appropriate and timely Government intervention to facilitate the implementation of the MGDS II, Economic Recovery Plan and future national development endeavours to realize vision 2020 aspirations.

The last Comprehensive National Human Resource Survey was conducted in 1988 when Malawi’s population was almost half the present population of 14 million. It is obvious that the population has doubled, the public service and private sectors have increased in scope and the NGO sector has grown tremendously during this period. These developments have had pressure on the demand for goods and effective service delivery in the areas of education, health, sanitation, electricity, water, transport, food, housing, banking, insurance and other social services.

Using a cross-sectional survey design which employed four sets of questionnaires, in-depth interviews for key policy makers, the survey targeted government ministries and departments, parastatal sector, local government, the private sector and Civil Society Organizations in the three regions of Malawi. The survey findings have analyzed the current skills in the labour market, projected demand for skills in the next 7 years and the supply of human resources from various training institutions in Malawi and outside. It has also analyzed employment and skills gaps in the labour market and made recommendations on strategies to be employed to fill these gaps. It has also presented a human resource model and makes recommendations related to human resource development, human resource management and institutional capacity building for various stakeholders.

Vast amounts of literature and documents reviewed regarding the status of human resources and skills profile for national development in Malawi corroborates with the empirical findings of this survey from the four sets of questionnaires and in-depth interviews regarding a huge mismatch between available human resource skills and those in demand in the public, private and Civil Society/Non-Governmental Organizations. Evidence shows that Malawi lacks technical, vocational, entrepreneurial and “hard” skills that are essential for the production sector of the economy. Numerous vacancies are reported, serious shortages and a big unmet demand for human resource skills exists in industry, public service and the SCO sector.

The survey confirmed that the public sector is the major employer of current skilled, semi-skilled and unskilled personnel compared to private and CSO/ NGO sectors. It also confirmed that the majority of Malawi’s human resource seems to be in the education sector compared to other sectors of the economy. Most of the workforce is in the 30-54 years age group and females are generally under-represented in many sectors. The survey found a lot of employment and skills gaps in both the public and private sector organizations and that if the supply of human resources continues to grow at the current pace, it is projected that the gaps will keep on widening.

Although public training institutions are major suppliers of human skills, the survey observed gaps in supply of skilled personnel from the on-going education and training channels. There is a general consensus that a weak link between training institutions and industry and the public sector exists. This results in the design and implementation of irrelevant curricula, inadequate practical exposure of students to industry experience owing to the absence of institutionalized attachment.

It has also been noted that the absence of a comprehensive data bank and regularized labour market and human resource surveys has been one of the major blows to the effective design and implementation of human resource development initiatives and effective utilization of human resource skills in private and public sector organisations. The survey suggests urgent interventions on both the demand and supply side of the human resource skills- equation in order to address employment gaps and shortage of skilled human resources in priority areas of Malawi’s economic and social development.

#### Recommendations for the Public Sector

1. ***Strengthening of capacity for Human Resource Planning at all levels***

The last Comprehensive survey conducted in 1988 and all recent capacity assessment studies have continued to reveal the existence of a major shortfall in both the Public Service and the Private Sector more specifically the existence of weak or no capacity for human resource planning.

This survey recommends that DHRMD should step up its efforts to improve HRP capacity building, first by strengthening capacity of the department itself, and in all Ministries and Departments. This capacity is in terms of skills and filling the many vacancies that exist. DHRMD, in liaison with the Ministry of Labour, should also work closely with stakeholders in the Private sector, through bodies such as the MCCCI, to improve HRP capacity.

1. ***Institutionalization of scheduled regular labour market surveys***

The survey found that there is no current labour market data to facilitate informed decision making at national level due to absence of the much needed database on the subject. Urgent efforts should be made to strengthen HRP and labour market analysis to improve the quality of data. To ensure that there is a regular and reliable data to facilitate continuous decision-making, it is recommended that DHRMD and the Ministry of Labour should schedule and carry out regular comprehensive human resource surveys and Labour market surveys at more regular intervals than is currently the case. At the organizational level, ministries, departments, parastatals and local authorities should also institutionalize human resource skill audit at that level

1. ***Institutionalization and effective use of volunteer systems in recruitment to meet short-term human resource requirement***

The study has confirmed the presence of glaring employment gaps in the public sector. It is recommended that DHRMD should evolve a clear policy that promotes the increased use of local volunteer and expatriate volunteers.

The introduction of a Local Volunteer Scheme involves employing people with skills for doing certain jobs but who do not like the idea of being in full-time employment in a particular job either because they retired from a similar job or they just do not like working in such an environment. Such people may actually not mind offering their services as and when requested on a volunteer basis; e.g. care-givers.

The expatriate volunteer system has worked in Malawi for many years whereby a proportion of HR requirements in several critical occupational areas are met through the provision of volunteer personnel under Peace Corps from the United States of America, Volunteer Services Overseas (VSO), Japanese Cooperation Volunteers (JOVC), and United Nations Volunteer (UNV) support.

Such experts may make available their expertise to organizations as volunteers thereby filling employment gaps in various Ministries and Government departments to mitigate skill shortage in the short-term

***d). Strengthening of the Human Resource Data Bank in DHRMD and Creation of National Labour market data bank in the Ministry of Labour.***

This study has established that vital data for decision making is critical and that there is paucity of relevant data in ministries and departments relating to human resource skills demand and supply. It is recommended that a Human Resource Data Bank be strengthened in the DHRMD for the public service and a national Labour market Data Bank be created in the Ministry of Labour for the broader national labour market data. These banks would be primarily responsible for refining data for the use of national planners, government ministries and departments as well as the private sector and NGO users. Corresponding to this establishment should be the creation of data banks in key stakeholders in the Public and Private sectors and CSOs/NGOs from which DHRMD and Ministry of Labour would be drawing reliable data. It is important that DHRMD be mandated to champion this initiative

***e). Need for more training in relevant technical and vocational areas***

The survey has highlighted an urgent need for an increase in graduates in relevant vocational and technical areas. It has also shown that there is an insignificant response by training institutions to train more people in these areas. Instead, they prefer to concentrate on the production of management/service sector skills instead of focusing more on “hard”/production sector skills that are in higher demand. It is also recommended that deliberate efforts be made to increase the number of trainees in these institutions. Again, an assessment to determine whether or not Malawi should have additional technical colleges (rural polytechnics, community technical colleges) to cover more technical and vocational areas to meet industry demands should be made by the Ministry of Labour and Vocational Training.

**f). *Harmonization of roles and responsibilities of training providers to focus on national needs and remove duplication of effort***

It was evident that most training institutions overlap in the provision of courses, and is some institutions they are mostly outside their mandates and this leads to a lot of duplication and overlaps of course offering. There is also mention of substandard provision due to lack of expertise and facilities to provide the whole spectrum of programmes. From findings established during the survey, it emerged that this growing practice is mostly heightened by the desire to broaden financial base for the survival of the training institution.

It is recommended that in the medium to long term there be a vigorous harmonization effort to determine what institutions should be encouraged to do, and to encourage training institutions to stick to their mandates and areas in which they are best placed to design and deliver courses. In this way, course/programme provision will reflect the demands stipulated in the national development agenda.

Government should facilitate the development of a comprehensive skills development policy to help clarify roles, improve coordination, strengthen regulation and facilitate monitoring and evaluation of progress in skills development provided by training and education providers in Malawi.

**g). *Enforcement of policies on access of Women, Youths, the Disabled and other vulnerable groups to education and training at all levels.***

The existence of a big gap in skilled and educated women, youths, the disabled, and other vulnerable groups was noted in the survey. This can only be addressed if there is vigorous promotion of their access to education and training at all levels. It is recommended that in the medium to long term measures should be intensified to enforce existing policies relating to access by increasing in-takes of these groups and providing the facilities, equipment and necessary support to enable them complete their education and training. This should also increase access to science and technology programmes. It is also important that Government should enforce safety nets for primary, secondary and university education to facilitate the entry of women, youths and other vulnerable groups into employment in various fields, including science and technology. This would also empower them to be self-employed where desirable.

One of the options to be considered should be the introduction of scholarship schemes that specifically target the needy who would otherwise not afford fees required by the educational and training institutions.

***h). Improving the recruitment process and procedures and enhancing the capacity for recruitment agencies in the public sector (various service commissions)***

With the rate of unemployment generally being high, one would think that it would be easy to hire a new employee considering that there are so many people looking for employment. This is particularly applicable in the public service where the survey has shown that there is generally a high vacancy rate for various cadres in all Ministries, including those that are catalysts for successful implementation of ERP and MGDS programmes. Most people do not understand why vacancies cannot be filled quickly and consistently when there are many eligible candidates within and outside the Public Service and many school leavers that are looking for employment.

One strategy for organizations to address employment gaps is to streamline and speed up recruitment processes and procedures so that they reduce the time it takes to recruit people. It is recommended that the procedures for filling vacancies in the Public Service in general and the efficiency of the Civil Service Commission and the Appointment and Disciplinary Committees should be reviewed to resolve delays in filling of vacancies. Besides, it is recommended that recruitment agencies like the civil service commissions and others be provided with adequate financial, human, and related resources for them to efficient and effective

Urgent review of the recruitment process and capacitating recruitment commissions in the public sector in particular and in all sectors in general, would not only improve service delivery in all sectors, it would also reduce the high level of employment, especially among the youths.

***i). Establishment of a Consolidated Training Fund to be managed by the Ministry of Labour***

The survey has revealed that the burden of training and education in Malawi is mostly left to the Public Sector. If Malawi is to quickly close the knowledge and skill gaps and create capacity to address the national development agenda, it is recommended that all stakeholders (public sector, private sector, and CSO/NGOs) should be involved. It is therefore recommended that a Consolidated Training Fund within the Ministry of Labour and Manpower Development to which all stake-holders and other cooperating partners should be contributing, be created. Modalities on how funds would be deposited and drawn from such a fund have to be discussed by the stakeholders. Such a discussion may examine the TEVETA levy arrangement as a model for a desired design.

***j). Introduction of incentives to increase participation of the private sector***

Apart from financial contributions to the fund, cooperating partners, the Private Sector and CSO/NGO stakeholders could also be contributing through the provision of relevant equipment and facilities to educational and training institutions, and taking up trainees for attachments/apprenticeship in their organizations, and meeting some of the costs for such attachments.

Incentives should be provided to enable such more active participation. For example, consideration could be made for equipment ‘donated’ to training and educational institutions to be procured duty free.

#### Recommendations for Public and Private sector and CSOs/NGOs for filling gaps

The survey revealed that there are vacancies in almost all establishments in varying proportions. It is important to ensure that prevalence of such employment gaps is minimized to ensure that there are employees in right quantities with right qualities to ensure optimal employee utilization, performance and organizational productivity. Effective implementation of MGDS and ERP policies hinges on the availability of capable human resources with the appropriate quality and quantity.

1. ***Providing good conditions of service to strengthen Staff Retention and attract new staff***

Gaps in employment sometimes come about because some employees have left due to a number of reasons, among which may be poor working conditions. It is therefore recommended that in all sectors organizations should deliberately explore how they may establish and sustain good working conditions that improve retention of those already employed by the organization. Considering the high cost of the recruitment process, it may prove worthwhile to put in place favourable conditions of service that promote staff retention and a performance management system that would not only increase staff retention but also enhance worker productivity.

On the other hand, providing good working conditions makes it easier to fill vacant positions as applicants may come forward quickly because the organization is perceived as a good employer. Such a strategy would ensure that established positions in various sectors of the industry including the public service are almost always filled. It is strongly recommended that organizations should improve their HRM sections to enable them implement HRM policies that may improve staff retention, and attract people to join their organizations. Good conditions of service are not only about paying higher salaries, but the other HRM policies that competent HRM officers can help an organization to put in place to provide a conducive environment for people to want to remain or to join the organization.

**b) *Mitigating the effects of HIV and Aids and non-communicable diseases***

It is evident that a contributing factor to poor performance and employment gaps is the HIV and AIDS pandemic. Very knowledgeable and competent employees become less productive when they suffer from HIV and AIDS related opportunistic illnesses. People who get appropriate and timely medical care, nutritional support and moral support are likely going to work without much noticeable hindrance or recover in good time, and thereby deliver what is expected of them. It is evident that although many organizations may have documents that purport to have HIV and AIDS support programmes, in practice, there is very little on the ground and valuable employees are still being lost at a time when the Government is striving hard to provide better medical support to the affected and infected. It is also evident that most organizations do not have any programmes to promote awareness of non-communicable diseases. Deliberate efforts to mitigate the effects of HIV and Aids and non-communicable diseases can help an organization to reduce employment gaps.

It is recommended that organizations in all sectors of the Malawi economy should put in place programmes to implement robust HIV and AIDS Workplace Support programmes and encourage employees to utilize the facilities that are now readily available to identify and address non-communicable diseases in good time.

**c) *Training and Development of Current Employees***

By training and developing current employees an organization will ensure that it has a steady supply of people to fill employment gaps that arise at various points in its operations. This also ensures that employees have the talent to grow within the organization.

Building capacity through training and development takes time. As such, capacity development of employees should be planned in advance. Employers should encourage professional development for every employee. It is recommended that organizations in all sectors train and develop their employees at various levels to ensure that there is a rich pool of competent personnel to fill employment gaps as they arise.

**d) *Implementation of Succession Plans***

Related to the training and development of employees recommended above is the need to prepare and implement succession plans.

It is normal that people who join the organization have to exit at some set time when they reach retirement age or even earlier due to various circumstances. In some cases positions may be held by expatriate persons due to absence of qualified Malawians, and there is need to replace them at the end of the contract. All those who leave an organization generally take with them invaluable quantities of organizational knowledge and expertise accumulated over their work life in their employment.

It is therefore recommended that, as part of good HRM practice, organizations in all sectors should put in place and implement succession plans that will ensure that there is most of the time a pool of employees that are ready to take over when positions fall vacant.

**e) *Paying More for Top Talent***

Another strategy for organizations to fill employment gaps is to pay more for top talent. Through brain drain, Malawi has lost a lot of highly valued skills like those of some professionals who have taken their skills out of the country all together. Individual organizations have lost valued employees to competitors. Such departures result in employment gaps.

It is recommended that organizations should, where appropriate and affordable, be willing to pay more for special skills and top talent so that they are able to address the key employment gaps in their organizations. This will, however, require competent handling from HRM officers to ensure that it does not raise discontent among other employees.

**f) *Conducting Targeted Training***

Another strategy for addressing employment gaps is by conducting targeted training. This would help to ensure that qualified employees are available. The main aim of the strategy is to identify key areas where there are staff shortages and specifically target more training for those areas. An example in the private sector would be in the tobacco handling sector where employers may recruit trainable prospective employees and take them through some targeted training.

It is recommended that there be special effort to conduct special targeted training for the areas that have been identified in this survey as seriously short of staff, including the ERP and MGDS priority areas. Efforts should be made to engage the participation of cooperating partners for supplementary targeted training support in these critical areas.

**g) *Encouraging Young People Early***

As a long-term strategy, it is necessary for the industry to start ‘recruiting’ long before it needs the talent. By showing interest in the collegian’s career early on, it will help students understand what organizations in various industries do and develop trust that such organizations are looking out for the students’ careers.

There should be deliberate effort made by various players of the industry to market what they do and the kind of employees they need. Career talks given to primary, secondary, college or university students, have the potential of helping some would be employees, make up their minds while still in school. Another way is that of running organizational or industry-based programmes through electronic and print media targeting young people. This shall help young people know early that there is more to employment than just the traditional professions. This is a sure way of making certain that talent required to fill employment gaps shall be available as some of the young people get to know and decide early which careers to pursue.

**h) *Short term employment of Temporary or Contract employees***

A short term measure to address some of the employment gaps is through the employment of temporary or short-term contract employees. Organizations in the different sectors, particularly in the mining, construction, and production can use this strategy. The Malawi Public Service has also used this strategy in some areas of its operations so as to provide desired services to the citizenry. These are hired on temporary employment, or contract terms in order to fill employment gaps that exist in the Ministry.

Temporary or contract employees are also a convenient strategy where work is of a seasonal nature. Organizations recruit and utilize the employees only during the period when their services are required. It is recommended that where duties are of a short term nature, or seasonal, or where it may take time to get permanent staff, organizations should utilize the services of temporary or short contract staff.

#### Recommendations for Training Institutions

***a) Strengthening training institutions through enhancing capacity of trainers and investment in equipment and training facilities***

The survey revealed a serious gap in up-to date equipment and facilities as well as the capacity of trainers in training and educational institutions that would enable them to keep pace with the demands and changes in the work-place. There is inadequate or inappropriate infrastructure and lack of learning equipment both in the Universities and TEVET colleges, and other educational and training institutions. This limits enrolment and the quality of training and education.

Efforts should be made to improve existing training institutions with necessary training infrastructure, machinery and equipment, and consider establishment of new specialized institutions where appropriate. Government should encourage establishment of specialized private training institutions that should be effectively regulated.

There is also a great need for constant development of capacity of trainers and educators to enhance their skills to meet skill demands of a rapidly changing environment, including industrial technology and special needs learners. Such efforts should be continuous, in the short, medium and long term.

***b) Need to Conduct Regular Assessment of Skills Gaps and Impact Assessment***

The survey revealed that training provided in training institutions is mostly done without Training Needs and Impact Assessment by both training providers and employers. As a way towards ascertaining availability of desired skills for filling employment gaps, there is need for employers and training institutions to conduct assessment of skills gaps regularly. Reports of such studies provide policy and decision makers with important information that enables them make informed decisions on targeted development of human resources. Areas of need in terms of skills are made known and steps taken to ensure that appropriate skills are made available as and when needed. By conducting skills gaps assessments employers and training institutions become aware of needed skills areas that are in short supply or unavailable that needs beefing up. Regular Training Needs and Impact Assessment would also provide the opportunity for training providers and employers to regularly review the curriculum and design relevant training.

***c) Involvement of professional bodies in design and delivery of training and education***

Findings during the survey indicated that there would be high value-addition to skill development if professional bodies that are active in the various occupational groups like Institute of People Management of Malawi, SOCAM, and Institute of Engineers etc. were involved in the design and delivery of training and education programmes. Such involvement would enhance the capacity of such bodies to contribute to the improvement of curriculum, and, in the long term, quality of service delivery, ethics and discipline

***d) Institutionalizing attachments to improve balance between Theory and Practice***

The survey found a significant mismatch of skills required to sustain economic growth and the type of skills being emphasized in vocational training institutions and universities*.* Thus, there is a wide gap between the balance between practical skills and theoretical knowledge that is required and what training and education providers are offering. The survey highlighted an urgent need in the short term for trainees to be exposed to the practical environment of the work place so that there can be a good balance between theory and practice, and to enable graduates immediately apply their learning in the work place or self-employment.

It is recommended that there should be need for a formal and institutionalized dialogue between industry and education and training providers in order for industry to provide input and feedback on curriculum and skills development. It is further recommended that curriculum should be benchmarked with those of renowned training institutions in the region and globally taking into account local needs.

To consolidate the ideal mix between theory and practice there is need for a training shift to strengthen more of the practical skills- ability to do and not emphasis on knowing. One way of attaining this is that attachment of students to industry be part of the curriculum. Training and education needs to take into account the needs of the workplace/industry to ensure that it is relevant. Undertaking training needs assessment by training institutions and regular dialogue with industry is the surest way of meeting this balance.

There is urgent need for a formal and institutionalized dialogue between employers and training providers in order for employers to provide input and feedback on curriculum and skills development.

***e) Increasing Skills Output from the Supply Side***

Another strategy to address employment gaps is to increase supply of skilled people. One of the possible reasons why employment gaps exist within the national employment labour market is the shortage of needed skilled people in the labour market that employees can recruit. This shortage comes about because the output from the supply side is low and therefore unable to meet the demand. This increase in the output from the supply side can be in a number of ways like doubling intake of student cohorts into existing training institutions, running open distance learning and parallel programmes. Opening more technical, vocational, teacher training and university colleges has the potential of beefing up the supply side as more graduates join the job market.

It is recommended that Government should analyze the areas where employment gaps are very high and explore, in consultation with training providers, how more people can be trained for the labour market. Such training takes time and it is important to start quickly.

***f) Need for training to incorporate inculcation of ethics, code of conduct, professionalism and patriotism***

The survey established that there is a growing challenge where although Malawi has many people that are well trained, they are not performing as expected. Despite having high qualifications many graduates are not committed to work and there is less effort towards perfection and that their negative attitude is not conducive to high productivity. This means that even where Malawi produces well trained and knowledgeable graduates, their contribution to national development will be very limited because of their low productivity, bad attitude, lack of ethical behavior, and poor conduct and professionalism.

### It is therefore recommended that training and educational institutions should, as part of their curriculum, inculcate at all levels, relevant issues regarding appropriate attitude, ethics, code of conduct, professionalism and patriotism. This would ensure that the majority of graduates contribute productively in the work place, or in their self-employment

#### Recommendations for the Private Sector

1. Contribute to the institutionalization of attachments by creating more room and increasing the number of apprentices/ trainees admitted to their organizations. This should include willingness to pay allowances to apprentices/trainees during the attachment.
2. Introduce recruitment policies that facilitate consideration of Women, Youths and the Disabled during recruitment and career development.
3. Take a more active role in establishing accredited and specialized technical and vocational colleges.
4. Contribute to strengthening of training institutions by donating relevant facilities, equipment and infrastructure.
5. Offer prizes and scholarships to needy students in primary, secondary and tertiary education and vocational and technical colleges.

#### Recommendations for Development and Cooperating Partners

1. Funding strategies aimed at strengthening training and education institutions especially in areas of physical infrastructure, teaching equipment and capacity building for trainers and managers of training and education institutions.
2. Funding support for comprehensive human resource surveys and training needs assessment at national or ministerial /organizational levels.
3. Providing financial or material support in acquisition of required equipment and facilities for vocational and technical training colleges, including for learners with special needs.
4. Providing volunteer trainers in specialized areas where there are no Malawians
5. Funding collaboration meetings for stakeholders like employers, training institutions and relevant Government departments to develop policies and strategies for capacity development endeavors at national level.
6. Providing capacity building in skills areas identified as gaps by the survey.
7. Providing scholarships:
8. For ERP and MGDS related priority areas such as mining, tourism, agriculture, engineering among others for training within and outside the country
9. For training and development of Vocational and Technical college trainers locally or abroad
10. For training in Human Resource Planning outside the country or locally with local and external facilitators.
11. For Women, Youths, the Disabled and other vulnerable groups to promote their access and retention in education and training at all levels.
12. *Recommendation for Public sector, Training Institutions and Development and Cooperating Partners to filling Skills Gaps in priority areas across sectors*

The study recommends a concerted effort by Government and training providers, with the help of development and cooperating partners to focus attention on the development of skills in the areas of agriculture, education, health, water development and irrigation, energy, mining, infrastructure development, tourism, ICT, land and housing and other cross cutting skill areas as summarized in the table below:

|  |  |
| --- | --- |
| **Agriculture** | **Education** |
| Animal health  Livestock development  Veterinary Laboratory  Irrigation  Irrigation Engineering  Crop production  Land resources conservation  Agricultural extension  Animal breeding  Pasture agronomy  Farming systems  Biometrician  Instrumentation technician  Corporative farming  Marketing and trade  Information technology  Policy analysis  Human resource planning  HIV and AIDS Workplace programme implementation  National scheme management  Project planning  Strategic planning  Rural development  Veterinary Medicine | Policy analysis  Education planning  Information technology  Financial management  Budgeting for project planning and implementation  Monitoring and evaluation  Teacher development  Education Methods Advisory Services  Secondary education teaching  Primary education teaching  Teacher training/education  Technical college lecturing  University lecturing |
| **Health** | **Water Development and Irrigation** |
| Health Planning  Policy Analysis  Research  Information technology  Human resource planning  Public health management  Doctors (specialists)  Doctors (general practitioners)  Clinical officers  Nursing and midwifery  Environmental health workers  HIV and AIDS coordination  Psychiatry  Pharmacy  Radiography  Laboratory technology  Medical engineering  Medical assistance  Physiology  Dentistry | Water resources analysis and planning  Policy analysis  Civil engineering  Irrigation engineering  Draftsmen  Water engineers  Water quality  Ground water  Information technology  Research  Hydrologists  Hydro geologists  Water chemists  Water resource officers  Water supply officers  Economists  Planning  Communication |
| **Tourism** | **Information Communication Technologies** |
| Entrepreneurial skills  Interpersonal relations  Customer service  Hospitality facility management  Catering  Tourism Marketing  Entrepreneurial skills  Business management  Financial management  Human resource management  International hotels and hospitality standards  Wilderness safari management | Telecom engineering  Communication systems analysis  Communication equipment installation  Computer systems development  Computer systems installation  Communication hardware maintenance  Communication software maintenance  ICT training  Systems administration  Software programmes design  Security systems installation  Security systems maintenance |
| **Infrastructure Development** | **Land and Housing** |
| Policy analysis  Transport planning and evaluation  Works training  Information technology  Traffic management control  Aeronautical information  Air transport engineering  Civil aviation training  Road traffic management  Meteorology  Marine safety  Marine training  Ports operations  Ports maintenance  Road designing  Fire fighting  Heavy equipment operation | Quantity surveying  Structural engineering  Building services engineering  Building supervision  Landscape engineering  Horticulture  Property estate management and valuation  Valuation  Housing Estate management  Electrical engineering  Systems analysis  Housing policy and programme planning  Housing credit management  Information technology  Architecture  Service engineering  Property, mortgage and construction law  Urban development  Rural development |
| **Energy** | **Manufacturing** |
| Electrical engineering  Solar power engineering  Solar power installation  Solar power equipment maintenance  Hydro power generation  Coal power generation  Power distribution management  Renewable energy development  Electrical installation  Electrical installation maintenance | Coffee processing  Tea processing  Wood processing  Value adding  Production technology  Agriculture technology  Packaging  Processing plant maintenance  Wood technology |
| **Mining** | **Mining (continued)** |
| Mine geology  Mining engineering  Petroleum engineering  Chemical engineering  Pit tech sampling  Pit tech data management  Pit tech gamma  Pit tech XRF  Pit techniques  Warehouse management  Planning  Process cleaning  Power plant operation  Process Operation  Rigging  Safety and training coordination  Health and Safety  Scaffolding  Security  Laboratory  Logistics  Lubrication | Machine operation  Metallurgy  Mine surveying  Mining operation  Ore spotter pit  Ore spotter ROM  Reagents coordination  Analytical skills  Labour laws  Conflict resolution  Mining Safety  Instrumentation techniques  Fitting and fabrication  Vector control spraying  Mining superintendence  Environmental management  Artisan (bricklaying, carpentry, plumbing, etc.)  Crane operation  Electrical and instrumentation engineering  Fire officer  Hyab driving (rigging)  IT Systems support  Logistics |
| **Some skills that are cross cutting** |  |
| General management  Administrative skills  Human resource management  Human resource planning  Communication  Financial management  Accounting skills  Auditing skills  ICT  Communication skills  HIV and AIDS coordination  Supervisory skills Leadership and motivation  Planning skills  Research skills |  |

Thus, through a multifaceted approach to institutional capacity strengthening, human resource management and development policies and programmes in which various stakeholders are involved, there is a greater potential that Malawi will close the skills and employment gaps and be able to implement her development priority areas of the MGDS and ERP in the years to come.

## CHAPTER ONE: INTRODUCTION AND BACKGROUND

### Introduction

This report presents results of a Comprehensive National Human Resource Survey which was conducted country-wide from December 2012 to August 2013 across the three regions of Malawi. The last study of a similar nature was done in 1988 when the population of Malawi was 7.5 million people. Since then, many things have occurred in the social, economic, political and demographic spheres of life in Malawi. Malawi’s population has almost doubled, the public service and private sectors have expanded quite dramatically, and the Civil Society/Non-Governmental Organization (CSO/NGO) sector has mushroomed since the advent of multiparty politics in the early 1990s.Similarly, the growing population, nearly 14 million now, has put pressure on the demand for goods and effective service delivery in the areas of education, health, sanitation, electricity, water, transport, food, housing, banking, insurance and other social services. This in turn has necessitated strategic thinking at national, ministerial, departmental and organizational levels to ensure a more focused approach to service delivery and social economic development endeavours.

Malawi’s aspirations for long term sustainable growth and welfare improvement are articulated in Vision 2020 and the Malawi Growth and Development Strategy II (MGDS II) which is an overarching operational medium term strategy designed to reduce poverty through sustainable economic growth and infrastructure development. The overall goal of the MGDS is to transform the country from a predominantly consuming and importing country to a producing and exporting country. The main thrust of the MGDS is to create wealth through sustainable economic growth and infrastructure development as a means of achieving poverty reduction.

The implication of all these developments on the amounts, diversity and quality of skills in the labour market is enormous. Economic growth and development cannot be achieved without substantial investment in human capital in the form of skills development. Skilled human resource is indispensable for any country aspiring to develop its economy and advance aspirations of its people. A country which has a pool of human resource in critical skill areas can produce economic miracles even if it is devastated or less endowed by natural resources. The Asian Tigers which exploited their scientific, technological and innovation capacity to make socio-economic breakthroughs are cases in point.

From a system’s perspective, the activities of learning and training institutions and the programmes that they offer to develop the skill base of the nation is to a larger extent shaped by the prevailing demand for various human resources in the labour market. However, the absence of information on the skills in the labour market creates a double blow. First, training institutions have no basis for their curricular development and programmes on offer. Second, the government machinery which initiates and implements development policies and programmes does so without adequate information on the capacity of various public, private and CSO/NGO organizations that are mandated to carry various roles in the national development agenda. The need for appropriate skills in terms of quantity and quality in order to achieve national development aspirations is as important to day as it was during the last comprehensive human resource survey. This survey report needs to be understood against this background.

### Objectives and Terms of Reference (ToRs) for the Survey

The Comprehensive National Human Resource Survey was undertaken to assess the demand and supply of vital skills and the capacity of local training institutions to provide them to ensure appropriate and timely Government intervention to facilitate the implementation of the MGDS II, Economic Recovery Plan (ERP) and future national development endeavours. Additionally, the survey assessed the capacity of national training institutions in meeting national skills requirements.

The Team worked in close consultation with DHRMD management and a Reference Group to achieve the following TORs which guided the study:

1. Design appropriate methodology and determine the skills required to move the development agenda based on sector strategies;
2. Take stock of the existing quantity (e.g. labour force), composition (e.g., age and gender), education and skills endowments of the country’s human resources; assess the existing skills situation in the country and the extent to which it is responsive to the economic and social needs of the country, and match it with the skills required to move the development agenda;
3. Assess the supply of skilled personnel from the on-going education and training channels, both at home and abroad, during the next 5 to 7 years in line with Vision 2020, based on the likely outcomes of such initiatives as National Education Sector Plan; National Health Sector Plan;
4. Take stock of the current demand for skilled, semi-skilled and unskilled personnel in the private and public sectors, including civic organizations and others;
5. Prepare a human resources model that explains the relationship between and projected human resources supply and demand;
6. Project the demand for skilled, semi-skilled and unskilled personnel in the private and public sectors over the next 7 years, based on the Vision 2020 Implementation Strategy including the targets in MGDS II;
7. Identify the employment and skills gap by year over the next 7 years;
8. Explore possible strategies and options to fill the employment gaps, including through significant public interventions in manufacturing and service sub-sectors;
9. To explore possible strategies and options to meet the skills gaps in the short, medium and long terms through education and training of Malawians in the country (including on-the job and apprentice –type training) and in other countries;
10. Compile a report of the skills audit indicating the required skills to move the development agenda, the existing skills and the gaps identified. This report should be presented to stakeholders to generate ideas and have a consensus on input for validation;
11. To present the strategies and discuss them with all stakeholders and build consensus;
12. Finalize the employment and human resource development strategies for the next 7 years, incorporating the feedback from the stakeholders and making them ready for submission to the DHRMD and the Cabinet.

### Study Approach

The design was a cross-sectional study employing both qualitative and quantitative methodology. Ordinarily it would have been handled through a census survey but as it was not possible, a sample was developed for all the three sectors of the economy- public, private and governmental organizations. The study population was all employees in formal employment estimated at close to one million. While in certain areas mostly in small organizations/enterprises all employees had to be taken, in the majority of cases a sample of at least 30 percent or over was used. Three key data collection methods were employed- documents, questionnaires and in-depth interviews. Data processing involved coding, entry, analysis and interpretation.

Overall, the study involved an elaborate structure of organization and management for the survey, detailed sampling procedures, coordination between consultants, supervisors, and team leader on one hand, and between the team and the client, the DHRMD and the Office of the President and Cabinet (OPC) Public Sector Reform Unit. A comprehensive description of the approach and management of the survey is attached at Appendix 1.

Up to 28,000 questionnaires were administered to employees and close to 400 establishment questionnaires were also filled by employers. Besides, data from the DHRMD provided establishment for the public service numbering slightly over 200,000 employees. This also excludes face to face in-depth interviews that were conducted to policy makers in Government and Chief Executives for umbrella or member organizations in the private and CSO/NGO sector. For training institutions, apart from data collected from managers of various training institutions relating to programmes, staffing and other variables, large amounts of data were collected from the UNIMA Central Office. The data collected was sufficient enough to satisfy and provide plausible answers to the requirements for the study’s ToRs.

### Structure of the Report

The report has ten chapters. The first chapter introduces the background to the survey which includes: the objectives and ToRs of the survey and structure of the report. It also presents country background, national development vision and policies, population data, economic structure, performance, employment and unemployment data. The second chapter reviews available literature on Malawi’s development aspirations and human resource skill challenges in order to provide a comprehensive context within which issues and questions regarding demand and supply of skills can be understood. Chapter three presents current stock of skills while chapter four presents projected human resources demand in the labour market. Supply of skilled human resource is presented in Chapter five. Employment skills gaps are presented in chapter six. Chapter seven presents strategies for filling employment gaps. Chapter eight presents strategies and options for filling skills gaps through training and education. Chapter nine proposes a human resource model that explains the relationship between projected human resources supply and demand. Chapter ten presents a summary, conclusions and recommendations.

### Country background

Malawi, a landlocked country in sub-Saharan Africa, is about 901 kilometres long while its width ranges from 80 to 161 kilometres. The total surface area is about 118,484 square kilometres. It shares borders with Tanzania to the north and north-east; with Mozambique to the east, south and south-west and with Zambia to the west and north-west. It was a British colony from 1891 to July 1964. During the British rule the country was called Nyasaland Protectorate. After 71 years of British colonial rule Malawi attained independence in 1964 and a republican status under the first president Dr. Hastings Kamuzu Banda in 1966. For almost three decades, Dr. Banda ruled through the one-party Malawi Congress Party government until Malawi transformed to a multiparty democracy in May 1994. Since then successive presidents have ruled Malawi- Dr. Bakili Muluzi, Professor Bingu wa Mutharika and Dr. Joyce Banda.

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### Vision 2020, MGDS II and ERP

Malawi’s aspirations for long term sustainable growth and welfare improvements are articulated in the national vision statement: Vision 2020. The Vision aspires that by 2020, Malawi as a God-fearing nation will be secure, democratically mature, environmentally sustainable, self-reliant with equal opportunities for and active participation by all, having social services, vibrant cultural and religious values and being a technologically driven middle-income economy.

The aspirations of Vision 2020 have to be achieved through the implementation of MGDS II which is an overarching strategy for national development. Its key themes include sustainable Economic Growth, Social Development; Social Support and Disaster Risk management; Infrastructure Development; Governance; Gender and Capacity Development. Within these themes are nine priority areas: Agriculture and Food Security; Energy, Industrial Development, Mining and Tourism; Transport Infrastructure and Nsanje World Inland Port; Education Science and Technology; Public Health, Sanitation, Malaria and HIV and AIDS Management; Integrated Rural Development; Green Belt Irrigation and Water Development; Child Development, Youth Development and Empowerment; Climate Change, Natural Resources and Environmental Management.

The implementation of the MGDS involves all stakeholders: the three arms of Government namely the Executive, Legislature and Judiciary; civil society and Faith Based Organizations (FBOs); private sector and the general public.

The ERP focuses on few priorities that are pro-growth, represent quick wins and are highly effective, namely: diversified commercial agriculture, tourism, energy, mining, ICT and infrastructure development. ERP aims at restoring external and economic stability, proposing measures to cushion the vulnerable from the impact of any reforms particularly the exchange rate policy and increasing resource allocation to areas that would address constraints on economic growth such as energy and those aimed at boosting production for the export market.

The Vision 2020, MGDS and ERP, which complement each other as a national development framework, recognize human resource skills development as a key engine for economic growth and sustainable development. This justifies the need to undertake a comprehensive national human resource survey so that the development of a national human resource development strategy shall facilitate the successful implementation of the MGDS II.

### Population

According to the 2008 census, the population of Malawi is estimated at 13,077,160 people with an annual population growth rate of 2.8%. About 45% of the population resides in the south, 42% in the centre and 13% in the north (NSO, 2009). The 2008 population and housing census also revealed that 15.3% of the population resides in urban areas while about 85% resides in the rural areas. For the past twenty years the population density has been increasing from 85 persons per square kilometre in 1987 to 139 persons per square kilometre in 2008. Across the regions, there are more persons per square kilometre in the south (184) than in the centre (155) and the north (63). The 2008 population and housing census shows that 59.6% of the population comprises young people aged less than 22 years. About 59.1% of the female population comprised young people below 22 years of age while 60.0% of the male population was aged 21 years or less. National life expectancy is at 49 years and literacy rate is at 64.1%.

The population of Malawi is mainly rural and subsistence agricultural production dominates. The alarming population growth rate is putting pressure on land in rural areas, where about 85% of the population lives and increasingly has to depend on ever smaller plots of land. Currently, 98% of the population in rural areas depends on wood fuel for its energy supply contributing to extreme pressure on natural resources as well.

The 2011 WMS results show that;

* *Malawi has a young population, with 44 percent aged under 15 years*
* *There are slightly fewer males than females, 99 males per every 100 females*
* *Under 20 orphan population accounts for 13 percent*
* *Female headed households were estimated at 24 percent of all household heads*
* *Among household heads, one percent were children aged below 20 years*
* *Dependency ratio (population aged under 15 added to population aged 65 and over as a*

*proportion of population aged 15 to 64) was estimated at 1.09* (NSO, 2012:16).

### Economic structure and Growth

Malawi is classified as one of the poorest countries in the world. In 2009, it was estimated that 40 per cent of Malawi’s population lived in poverty (NSO, 2010). The economy of Malawi heavily depends on rain-fed agriculture, which is now becoming more and more unpredictable because of the global climate change. In 2001 produce from agriculture accounted for 85% of the exports and the major export commodities were tobacco, tea and sugar (NSO, 2002). Generally the main export crop is tobacco which accounts for about 70% of the export revenues. In 2000, the country was the tenth largest tobacco producer in the world. Agriculture, accounts for 30 percent of the Gross Domestic Product (GDP). The country’s major exports are tobacco, tea, and sugar. Though agriculture’s share in total GDP has declined during the last two decades (accounting for 34 per cent of GDP in 2009, down from 50 per cent in 1988), agriculture still supports around 85 per cent of livelihoods. The contribution of manufacturing to total GDP has declined slightly in the past twenty years.

Manufacturing in Malawi consists largely of agro-processing. The service sector has greatly expanded its share of GDP, from 26 per cent in 1988 to 45 per cent in 2008. Output in this sector is dominated by wholesaling and retailing. Lack of export diversification is a key weakness of the economy thereby putting heavy reliance on the tobacco sector. The majority of Malawi’s tobacco crop is burley which is used mainly as neutral-flavoured filler in the market for high-end cigarettes but there is a ceiling on world demand for such tobacco.

The proportion of people living below the poverty line was 52% in 2004 but that fell to 40% in 2008 (GOM, 2010). Over half the population (51%) lives below the national poverty line and makes less than $130 a year, or 36 cents per day. With GDP per capita at US$761 and estimate for 2009 at constant 2005 prices of MK442, 056 million, Malawi is classified as a low-income and heavily indebted poor country (World Bank, 2006). The annual GDP growth rate is estimated at 7.9% (NSO, 2009). The real GDP grew by 3.6% in 1999 and 2.1% in 2000. Between 2000 and 2001 the average annual inflation was around 30%. Rural poverty is estimated at 60% while urban poverty affects about 65% of the urban population (GoM/UNDP.1993). The Gini coefficient (39) indicates existence of inequalities in access to resources, services and opportunities among Malawians.

The incidence of rural poverty in 2008 was 44 per cent, as compared with a 13 per cent incidence of urban poverty. Multi-dimensional poverty is also widespread and human development levels in Malawi are low. Malawi’s Human Development Index (HDI) value for 2010 is 0.385, which puts it in the low human development category and positions the country at 153 out of 169 countries and areas. Between 1980 and 2010, Malawi’s HDI value increased from 0.258 to 0.385, an increase of 49 per cent or average annual increase of about 1.3 per cent. However, Malawi’s 2010 HDI of 0.385 is below the average of 0.389 for countries in Sub-Saharan Africa. It is also below the average of 0.393 for low human development countries.

Owing to the myriad of economic challenges Malawi was facing at the beginning of 2012, growth in economic activity was subdued. GDP as a measure of economic activity only grew by 1.8percent in 2012, a slowdown from 3.8 percent registered in2011. This was mainly on account of substantial reductions ingrowths of agriculture, manufacturing, wholesale and retail trade.

This dismal performance in GDP growth meant that companies were downsizing or closing, unemployment was rising and income per person was falling. Towards the end of 2012 it was clear that the initial measures undertaken were beginning to bear fruits. Although some challenges still persist, overall performance of companies has improved and confidence in the economy is growing. These developments in the real sector, coupled with improvements in foreign exchange and fuel availability, are expected to anchor growth in economic activity in 2013 and beyond.

### Labour force employment

Employment is the main source of livelihood and self-fulfillment for the majority population all over the world. It constitutes one of the essential means for moving out of poverty. Data on unemployment and employment in Malawi is largely non-existent. Existing employment data is based on small household surveys that aim to capture welfare and therefore give little indication of the true incidence of underemployment. However, high levels of absolute poverty indicate that large segments of the population lack regular, paid work.

Malawi’s workforce is mainly engaged in informal work, again reflecting the prevalence of small holder agriculture. It is estimated that around 90 per cent total working population is engaged in the informal sector. The formal labour market manages to absorb only a few, leaving out the majority of the population which has no alternative other than joining the informal labour market. Most of those left out of the formal sector, a lot of whom are the youth, are not trained in technical, vocational and entrepreneurial skills for them to get gainful self-employment in the informal sector. As a result they do not get adequate income to propel them out of poverty. Furthermore, the very few with such skills fail to succeed due to lack of adequate and innovative financial markets from which they could access soft business loans. They also lack other supportive interventions such as access to market information and markets**.** Women are less likely to be engaged in formal sector work than men. Women’s share of wage employment is only 20 per cent (ILO 2010). The vast majority (90 per cent) of women work in the ‘agriculture, forestry and fisheries’ sector.

Medium and small enterprises (SMEs) employed over 1.7 million people in 2000, which was 38 per cent of the total labour force. Many of these were of course smallholder farmers, but the off-farm enterprises employed as many as 22 per cent of the labour force. Women made up over 40 per cent of the employees, and 80 per cent of the MSEs were located in the rural areas (NSO 2001). Micro and small enterprises (MSEs) employed around 38 per cent of the labour force in 2008 (ILO 2009). Nearly 80 per cent of micro and small enterprises are in rural areas, many of them farms. However, off-farm MSEs accounted for around 22 per cent of rural employment.

Wages in Malawi are low. For instance, the monthly wage of a farm worker in Malawi is half that of a farm worker in Mozambique (ILO 2009). In addition, wage differentials across economic sectors are very high. An agricultural worker earns only about 4 per cent of the monthly average wage in the banking sector. The productivity of Malawi’s workforce is low. Labour productivity growth was negative between the years 2000 and 2004 and showed a positive increase of 4.6 per cent during 2005-2008.

As can be noted from Table 1, agriculture is the major employer for both males and females over the past years. This is followed by wholesale, retail, hotel and social and community services, respectively.

Table 1: Estimated percentage employment distribution by industry

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Industry** | **Year** | | | | | | | | |
| 2005 | | | 2007 | | | 2008 | | |
| Total | M | F | Total | M | F | Total | M | F |
| Agriculture, forestry and fishing | 80 | 73 | 87 | 77 | 71 | 84 | 84 | 77 | 90 |
| Manufacturing | 3 | 4 | 1 | 2 | 2 | 1 | 1 | 2 | 0 |
| Construction | 3 | 5 | 1 | 3 | 4 | 1 | 1 | 2 | 0 |
| Wholesale, retail, marketing/hotel | 8 | 9 | 6 | 6 | 7 | 6 | 7 | 8 | 6 |
| Social and community services | 6 | 8 | 3 | 6 | 9 | 4 | 2 | 5 | 1 |
| Other | 1 | 2 | 0 | 6 | 9 | 4 | 2 | 5 | 1 |

Source: NSO, 2008; 2009

It is evident from the above Table that females have dominated the agriculture sector over the past years compared to their participation in other sectors like manufacturing, construction and services. Labour force participation during 2006-2007 shows that on the whole the participation of both male and females among the age ranges between 25 and 65 years is much higher than the 15-24 years olds most of whom should ideally be in full time education. See Table 2.

Table 2: Labour force Participation Rate 2006 and 2007 by Age Range and Gender

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Total 2006 | Total 2007 | Male 2006 | Male 2007 | Female 2006 | Female 2007 |
| Malawi | 81 | 82.4 | 84 | 81.7 | 78 | 83 |
| 15-24 | 66 | 61.5 | 65 | 57.7 | 67 | 65.1 |
| 25-34 | 91 | 94.2 | 95 | 94.3 | 87 | 94.0 |
| 35-49 | 94 | 96.7 | 98 | 97.5 | 90 | 95.9 |
| 50-64 | 89 | 96.0 | 94 | 97.3 | 85 | 94.8 |
| 65+ | 69 | 88.8 | 79 | 93.9 | 61 | 84.5 |

*Source*: NSO 2007; 2008

The above Table shows that while more male participated in the labour force in 2006 than females, the trend reversed in 2007- where more female than male participated in the labour market. From the Table below, it is evident that the employment rates for 2007 were higher at all age levels compared to 2006. Again, there were more men and women employed in 2007 than 2006.

Table 3: Employment Rates for 2006 and 2007 by Age Range and Gender

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Total 2006 | Total 2007 | Male 2006 | Male 2007 | Female 2006 | Female 2007 |
| Malawi | 76 | 96.9 | 80 | 96.1 | 73 | 97.5 |
| 15-24 | 60 | 92.8 | 59 | 90.6 | 61 | 94.7 |
| 25-34 | 85 | 97.1 | 91 | 96.4 | 68 | 97.7 |
| 35-49 | 90 | 99.3 | 95 | 99.1 | 86 | 99.5 |
| 50-64 | 87 | 99.3 | 91 | 99.5 | 82 | 99.5 |
| 65+ | 67 | 99.3 | 76 | 99.3 | 59 | 99.3 |

*Source*: NSO, 2006; 2007; 2008

It is also evident from the above Table that while both male and female figures were lower in 2006 than in the year 2007, females outnumbered their male counterparts in 2007, showing a far higher employment rate for females in 2007.There is no data that measures unemployment and decent work deficit. However, looking at the unemployment rates for the two years, there is corroboration between Table 3 and Table 4 in that the unemployment rate in 2007 was lower than the 2006 rates across all ages and gender divide. What is also more evident is the rural-urban divide. There was high unemployment in the urban areas than rural signifying the importance of agriculture as the major employer in the rural areas.

Table 4: Unemployment rates 2006 and 2007 by Age Range, Gender and Location

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Total 2006 | Total 2007 | Male 2006 | Male 2007 | Female 2006 | Female 2007 |
| Malawi | 6 | 3.1 | 5 | 3.9 | 7 | 2.4 |
| 15-24 | 9 | 7.2 | 8 | 9.4 | 10 | 5.3 |
| 25-34 | 6 | 2.9 | 5 | 3.6 | 8 | 2.3 |
| 35-49 | 4 | 0.7 | 3 | 0.9 | 5 | 0.5 |
| 50-64 | 3 | 0.5 | 2 | 0.5 | 3 | 0.5 |
| 65+ | 4 | 0.7 | 4 | 0.7 | 3 | 0.7 |
| Urban | 17 | 11.2 | 11 | 13.2 | 25 | 8.9 |
| Rural | 5 | 2.1 | 4 | 2.5 | 5 | 1.6 |

*Source*: NSO, 2006; 2008

The above Table reveals that while more unemployment was experienced in 2006 by both male and females, the trend shifted positively in 2007 when fewer of both were unemployed

Results of the 2011 Welfare Monitoring Survey show that:

1. *The labour participation rate in Malawi in 2011 was 88 percent.*
2. *There were more males participating in the labour force than females, 90 and 87 percent respectively.*
3. *The labour force participation rate was high between age group 35 and 64 for both males and females.*
4. *The national employment rate was estimated at 99, with the majority of the population employed being self-employed farmers (mlimi).*
5. *There were more female self-employed as mlimi than males, and more in the rural than urban areas.*
6. *The majority of the population, 86 percent were in the Agriculture forestry fisheries sector.*

Table 5: Employment 2008-2011

|  |  |  |  |
| --- | --- | --- | --- |
| **Indicator** | **2008** | **2009** | **2011** |
| Labour force participation rate |  |  |  |
| **Malawi** | **86** | **85** | **88.4** |
| Male | 84 | 83 | 90.0 |
| Female | 87 | 86 | 87.0 |
| Employment rate |  |  |  |
| **Malawi** | **99** | **99** | **99.3** |
| Rural | 99 | 99 | 98.7 |
| Urban | 96 | 96 | 93.7 |
| **Population in agriculture** | **76** | **78** | **78.6** |

*Source*: NSO, 2012

It is evident that female participation is high and that the employment rate is slightly higher in the urban than rural areas. Agriculture dominates.

### Summary and Conclusions

This chapter has presented the background to the Comprehensive National Human Resource Survey that was conducted across the three major sectors of Malawi between December 2012 and August 2013. The need to transform Malawi from a predominantly importing to an exporting country as espoused in various development policies and programmes in the midst of uncertain demand and supply of critical skills and employment gaps has necessitated this study. The MGDS and ERP as well as the national Vision 2020 acknowledge the importance of human resources in national development. The objectives and terms of reference of the study have been presented and the methodology and background information on key economic and labour market variables have been presented. The next chapter presents a literature review to provide the context within which human resource skills are analyzed.

## CHAPTER TWO: NATIONAL DEVELOPMENT ASPIRATIONS AND HUMAN RESOURCE SKILLS CHALLENGE IN MALAWI: A REVIEW OF THE LITERATURE

### Introduction

Human resource development economists like Harbison (1973) have argued that all the other resources (capital, machinery, raw materials, land) are latent. It is the human resource that plans and coordinates the effective utilization of these resources in the process of production and service delivery. The link between national development aspirations and human resources has been discussed in various studies within Malawi. This chapter reviews some of the pertinent studies that have analyzed issues and questions of skill gaps in industry and public service organizations. The aim is to bring together various isolated findings together so as to provide a comprehensive platform for presenting the findings of a much broader survey than has hitherto been undertaken since 1988.

Key issues that have emerged in the review of the literature are numerous. Key among them are the issue of skills shortage, demand for more skills, lack of dialogue between training providers and training consumers, inadequate inculcation of practical skills in training, weak integration within the human resource function at organizational level and other specific challenges related to sectoral ministries and the private sector.

### Skills shortages

The effective implementation of the MGDS requires a highly motivated, results-oriented and productive Public Service to achieve improved performance and service delivery. The MGDS acknowledges the significant shortage of skilled workers necessary for a productive workforce and competitive private sector in Malawi. It is felt that the education system is not producing enough graduates to meet current and future economic trends and that available training is inappropriate for business needs. Skills shortages are also associated with insufficient facilities for vocational training opportunities including science and technology. Several studies as well as formal discussions among stakeholders have been instrumental in exposing the state of skill and knowledge development and gaps in Malawi.

A study commissioned by the African Development Bank Group (ADB, 2009) aimed at identifying factors affecting the availability of skilled labour in Malawi’s private sector highlighted shortage of skilled labour and widespread vacancies in Malawi, resulting in an increasing tendency for industry to recruit expatriates in some sectors. The study also noted that training institutions were not producing enough graduates to match the current and future needs for skilled labour.

TEVET artisans were said to be poorly prepared for the world of work because of the outdated training technology and curricula used and lack of facilities for vocational training. The study found shortage of graduates, technicians and artisans in chemical, mining and civil engineering.

Female employment in industry was found to be 15% of the total workforce and concentrated mostly in the soft skills. It was also noted that there was little collaboration between industry and training institutions.

Another study (TEVETA, 2009) confirmed a big and unmet demand in areas like advanced mechanics, welding and fabrication, general fitting, electronics, administration, construction, calibration of equipment, computer knowledge, machine maintenance, plant operators, steel fixing, advanced moulding and fire drill evacuation. It also noted that industry’s reluctance to host students for attachment was a factor contributing to skills shortage because some students fail to meet their competency requirements. Lack of competency among instructors to deliver certain areas of competency - based training and critical resource shortage in the technical colleges contributed to skills shortage as well (TEVETA, 2009).

This is also confirmed by Afro-Management Consultants (2009) who focused on training needs assessment for science, technology and innovation (STI) staff in industry and the capacity of training institutions to meet this demand. The study found that there was a huge unmet demand for STI staff in industry in areas such as ICT, various areas of engineering, geology, biotechnology, processing technologies, innovation, energy, laboratory technology and chemistry, plant and equipment maintenance and training in research. Some of the reasons advanced for this unmet demand include lack of effective links with training institutions, under-investment in science and technology, absence of cutting edge STI training institutions, ineffective industrial attachment and irrelevant curricula in training institutions.

It was clear from the analysis that most STI training institutions suffer from common problems: inadequate staffing and funding, inadequate teaching and learning materials, out-dated equipment, shortage of classroom and students’ accommodation and weak links with industry.

### Need for more staff

The Malawi Economic Growth Strategy (MEGS) (2004) identifies weaknesses in the country’s human resource base as one of the factors that constrain private sector growth and therefore the economic growth of the country as a whole. Specifically it notes that the human resource base is “characterized by low skill, limited vocational and technical skills, and low productivity”(MEGS: 2004,11). The situation is largely blamed on the country’s capacity building approach which emphasizes the production of “soft” skills such as accounting, management, and economics which are relevant for the service sector, at the expense of “hard” and entrepreneurial skills which are critical for the production sector of the economy. It was also noted that the University’s curriculum is not responding to the current demands in the local and global market; it does not put globalization into context and that as skills requirements are changing universities are slow to adapt.

The Ministry of Economic Planning and Development’s needs assessment to determine infrastructure and human resource requirements for implementing the MGDS I, recommended the recruitment of between 235,851 and 949,676 skilled personnel between 2009 and 2011 in order to implement the MGDS I (GoM, 2008). Yet, beyond those required by the MGDS II, various industries and firms required additional skills. This calls for tremendous increase in skills production to meet current and future skill needs.

According to ERP (2012) Malawi continues to face a number of challenges in the energy sector. These include inadequate capacity to generate electricity and intermittent supply. Consequently, economic activity in areas such as mining and manufacturing are affected. She also faces challenges in Tourism which include poor supporting infrastructure, poor service delivery, uncoordinated and insufficient marketing of tourism products and inadequate purpose-built infrastructure.

The Department of Mining Report (2013) explains that the Mineral sector continued to experience significant growth in the year 2013 compared to the previous two years. Mineral exploration also increased as a result of continued demand by the consuming industries, and the export market. However, while Malawi has abundant mineral resources such as bauxite, heavy mineral sands, monazite, coal, uranium, precious and semi-precious stones, limestone, niobium, dimension stones and rock aggregates, and that improvements have been registered lately, there are a number challenges in the mining sector. The major constraints facing the Ministry of Mines include financial, equipment, transport and more importantly, staffing. In terms of finance, the budget ceiling for the Ministry is not in line with the current developments in the sector. The booming mining industry requires adequate resources to enforce the laws and ensure high standards of occupational health and safety in mining operations. Besides, there are inadequate computers and laboratory equipment to ensure quality and timely delivery of services to their clients. In terms of transport there are inadequate motor vehicles, particularly for field operations to service the whole country.

Staffing is probably the most pressing challenge of all as the Ministry has about 50% of its established posts unfilled. There is an acute shortage of energy and mining engineers, legal experts in mining and other related fields. The need for adequate human resources to implement ERP cannot be overemphasized**.**This is denying the Ministry the needed capacity to enforce various mining legislations and to carry out adequate extension services to artisanal small-scale miners and statistical surveys, to name a few of the many activities the Ministry is expected to perform. Apart from the acute shortage of staff, those available do not have appropriate training and skills required to carry out their duties effectively. Mining Engineering and other important courses are not offered locally. Lack of training is impacting negatively on the Ministry. With the coming of more mining companies, there is a growing fear that even the few qualified staff in the Ministry may well be lost to the private sector, thereby worsening the staffing situation. The implication of this state of affairs in Human resource is that if nothing is done quickly, the implementation of the ERP and MGDS will be affected negatively.

### Lack of dialogue between training institutions and industry

Absence of an effective dialogue between industry and training institutions has been mentioned in a number of studies including those noted above. A meeting organized by the Ministry of Education involving the private sector, government and tertiary institutions at Mount Soche Hotel in Blantyre on 5 June 2008, discussed how tertiary institutions could collaborate with industry, private sector and government to effectively contribute to Malawi’s socio-economic development.

It was noted that universities and technical colleges were not shaping graduates according to the needs of industry and society at large because there was no dialogue between universities and private or public sector. While universities were viewed as strong in intellectual content, academic achievement and quality of teaching student, they are weak in employable skills, transparency, relevance, technology, knowledge transfer and public awareness.

It was suggested that these education institutions should play their role by proactively consulting relevant stakeholders and listening to the voices of graduates, the public and government. It was further suggested that government, civil society and private sector should also engage the universities in order that human resource needs are met and their contribution to socio-economic development of the country is meaningful.

The meeting suggested the formation of faculty advisory boards composed of key stakeholders in a particular field to advise on the curriculum in higher education institutions.

### Inadequate practical skills in training

Inadequate skills’ training was reported by Rucki (2008) on industry perspective on Malawian engineering training. The first is that training lacked sufficient critical practical skills needed in industry. Graduates lacked experience with basic machinery, sector-relevant machinery and processes, computer and software usage and basic electronics and circuitry. This forces employers to upgrade technicians to engineering positions or hire expatriates. It also noted that the Malawi Polytechnic, for example, lacked up-to-date equipment and that training was not linked to Malawian examples or problems like rural energy, water resources and basic irrigation. It was also noted that industrial attachment was unprofessional and discouraging for industry to participate since the approach relied on generic letters given to students to look for industrial attachment.

Finally, the study observed that graduates lacked proper work ethic and enthusiasm due to their unrealistic expectation of engineering jobs. They expect to work in design and not maintenance and servicing of machines.

### Weak integration within the human resource function at organizational level

A workshop organized by the DHRMD (2009) in collaboration with the Governance and Institutional Development Division of the Commonwealth Secretariat for Principal Secretaries (PSs) to discuss the status of human resource management in the Malawi Public service made a number of observations with regard to the human resource function within organizations: firstly the human resource function in the Public Service was weak because there is more focus on personnel administration and that there is inadequate integration between human resource development, human resource planning and human resource management. Secondly, although the human resource function has been decentralized to ministries, not all Human Resource (HR) officers in ministries possess the requisite qualifications, experience, skills and competencies required for effective performance. Thirdly, the PSs noted also that Malawi did not have a National Human Resource Development Policy Framework to guide the HR function.

### Additional Challenges from other Sectoral Ministries

Below are summaries of findings from micro-studies of a few sectors like irrigation and water development, economic planning and cooperation, education, health, agriculture, women and gender, DHRMD, academia and MCCCI.

A number of challenges identified in the Irrigation and Water Development sector, include inadequate institutional capacity especially at regional and district level in terms of number of personnel and lack of skills (*Annual Economic Report 2011).* In tourism, it is reported that although Malawi possesses unique attributes that can make it one of the leading destinations in the region there are constraints that limit the full realization of this potential like inadequate financial resources, inadequate personnel, lack of appropriate infrastructure; lack of training opportunities, and outdated legal framework (Ibid*).*

According to the Ministry of Development Planning and Cooperation (2009) Malawi continued to experience inflow of human resources from other countries due to the growing demand for skilled human resources amid its shortage locally. The recorded number of expatriates that were issued with employment permits in 2010, 2009 was 652, and 467 respectively with most of them in administrative and managerial, professional, technical and related fields.

While the strong growth of the Malawi economy by 7.6 percent in 2009 was due to the strategic sectors of mining and quarrying, construction, information and technology, financial and insurance services, and agriculture these sectors face challenges in much needed skills (Ibid).The National Education Sector Plan (NESP) (2008 – 2017) recognizes education as a catalyst for socio-economic development, industrial growth, and an instrument for empowering the poor, the weak and the voiceless. The rapid expansion of primary and secondary education has increased drastically the demand for trained primary and secondary teachers. A significant number of secondary school teachers are under-qualified. The situation is compounded by limited teacher development programmes. On the other hand, the supply of trained primary and secondary teachers from the primary Teacher Training Colleges, Domasi Teacher Training College, and the universities of Malawi and Mzuzu, has not been able to respond to their demand (NESP (2008 – 2017), 2008).

The primary school pupil teacher ratio (PTR) in 2005, 2009 and 2010 was 71:1, 81:1 and 91:1 respectively instead of the desired 40:1. At the same time the pupil qualified teacher ratio (PQTR) was 81:1, 92:1, and 91:1 respectively, as well. On the other hand, the secondary school student teacher ratio (STR) in 2005, 2009, and 2010 was 74:1, 56:1 and 51:1 respectively-an indication that the need for more teachers in schools is still great.

The Malawi Health system has been under severe pressure principally resulting from poor macroeconomic environment, high levels of poverty, and the devastating impact of HIV/AIDS pandemic and critical shortage of human resources to deliver health care (EHRP Evaluation Report: 2010). The availability of health workers in sufficient numbers, with adequate skills, and with the motivation needed in order to provide high quality services is a crucial factor for the functioning of any health system. The following observations pose a major threat to effective health service delivery in Malawi.

* *The number of skilled health workers per capita is low*
* *The number of skilled health workers in rural areas is disproportionally low leading to inequitable access to health services*
* *There is high share of unskilled or very low skilled health workers*
* *The productivity and performance of health workers is inadequate*
* *Weak management systems of Human Resource for Health at all levels*
* *Demotivated health workers mainly in public sector*
* *Poor attitude of the health professionals* (Ministry of Health,2011)

The Ministry of Women and Gender also faces human resource-related challenges including inadequate number of professionally trained social workers (less than 100), inadequate professional social work training due to limited training facilities, lack of a professional body to regulate training and provision of Social Welfare services, lack of appropriate Social Legislation to guide the provision of social welfare services and enforce professional standards of social work practice (Ministry of Gender, Child and Community Development, 2011).

There are also challenges of many unfilled vacancies in the social welfare department due to migration of officers to greener pastures or illness and temporarily vacancies as officers undergo further studies within the country and abroad.

Among other challenges like poor infrastructure (housing, offices, and equipment) at all levels in the Agriculture sector, challenges include a high vacancy rate at all levels with huge gaps at the extension level, lack of motivation especially for workers in rural areas, lack of coordination skills for the sector, lack of skills in production and market research, inadequate production and nutritional diversification and poor vocational training (Ministry of Agriculture and Food Security, 2011).

In addition to these challenges, many young people are perceived to dislike any desire to specialize in agriculture. It is also observed that the agriculture curriculum is different from the needs of the industry. Lack of technical skills that are tailored to enhancing agricultural productivity, management skill shortages and lack of strategic planning and the impact of HIV/AIDS leading to loss of workforce, productivity, and coping mechanisms are other challenges.

A survey aimed at examining issues and challenges of science, technology and innovation in Malawi revealed the following: research and development, innovation, resource mobilization and funding for science and technology, STI information, technology transfer and commercialization, networking, partnerships, collaboration and cooperation, HIV/AIDS, STI policy and regulatory framework , human resource development and retention of scientific expertise, governance, planning, monitoring and evaluation in science, STI, intellectual property, very few S & T courses, poor quality of S &T education, poor quality of S &T infrastructure, extension, diffusion and commercialization of technologies (National Commission for Science and Technology, 2011).

The MCCCI (2011) analysis on the human resource key issues, challenges and responses for the industry sector noted that the problem of shortage of skilled labour in the country has become a deep- rooted one. The immediate causes are the lack of a comprehensive policy for education and training, inadequate and outdated learning equipment and infrastructure and the lack of formal coordination between industry and education and training institutions. By posing major challenges for the industry sector, the problem has become a growth constraint for the economy.

DHRMD (2011) has pointed out that the implementation of Public Service Management programmes in the government is hampered by inadequate human capacity at all levels both qualitatively and quantitatively. One of the challenges confronting the Malawi economy over the past years is the existence of a huge mismatch in the labour market, where paucity of skilled labour hinders project and programme implementation. These include inadequate capacity to carry out human resource management services, inadequate capacity for local institutions to run human resource management training programmes and weak institutional capacities and the existence of outdated policies, regulations, practices and procedures. The fact that local training institutions do not provide human resource planning and human resource development at postgraduate level does not help matters. Consequently, the Malawi Public Service and the private sector do not benefit from highly trained HRD and HRP professionals and a well-informed Human Resource Planning and Development framework.

A study by Munthali (2010) notes that Malawi does not only concentrate on building skills that are irrelevant to its economic growth, mismatching skills building with its development priorities but also sidelines key populations, namely the youths and women, that could otherwise contribute greatly to growth. Malawi’s population is youthful with about fifty-two percent aged eighteen years and below. However, the youth rarely make it into the formal let alone the informal labour markets as they have neither the skills nor capital to achieve this. Unlike the Asian Tigers which harnessed this human capital and saw huge economic growth in return, Malawi has left this huge potential in youths to waste. The result of leaving idle these youths on the social, political and economic status of the country is grim as they are the potential source of rising unemployment levels, political violence, crime and prostitution.

A study conducted to analyze key issues and challenges that are experienced in higher education (the academic) and training sectors in undertaking human resource development function unearthed several challenges that are not far away from the above findings. These include inadequate funding which leads to donor dependency; donor priorities are different; inadequate capacity of trainers in terms of numbers as well as quality; inadequate infrastructure and inadequate training equipment/facilities; training is done without training needs assessment; training is never evaluated most of the time; there is no match between the vacancies in government vis-a-vis the wider world of work and the number of programmes and courses in the university. The University of Malawi and other private universities have poor and inadequate infrastructure and due to weak financial base, academic institutions fail to attract highly qualified trainers and lecturers.

### Summary and Conclusion

This chapter has reviewed the literature linking national development and human resource skills in Malawi based on previous studies. Almost every sector of the economy faces similar challenges regarding a huge mismatch between available skills and those in demand by industry and public sector. The country generally lacks technical, vocational, entrepreneurial and “hard” skills that are essential for the production sector of the economy, which ought to be the base of economic growth. The mismatch in the labour market between skills needed and those available is a major concern in economic development discourse. A number of factors in human resource skills areas have been identified as militating against national development endeavors. Training institutions have been criticized for unsystematic design and implementation of industry-focused training programmes for different reasons.

Since the last survey of this nature over two decades ago, there hasn’t been any comprehensively documented information of the extent and nature of the mismatch in the labour market thereby negatively affecting the role and effective functioning of policy makers and training institutions in human resource issues. Against this background, the Malawi Government, sought to undertake a comprehensive national human resource survey in order to catalogue available skills as well as provide a clear barometer of future human resource skills needs.

## CHAPTER THREE: CURRENT HUMAN RESOURCES IN MALAWI: RESULTS OF THE SURVEY

**Introduction**

This chapter summarizes the existing current human resources in Malawi from the samples of surveyed employees and establishments as well as using some data obtained from the DHRMD. First, the chapter presents the distribution of the Malawi labour force according to the nine broader International Standard Classification of Occupation (ISCO), namely the *armed forces occupations*, *managers*; *professional occupations*; *technicians and associate professionals*; *clerical support workers*; *service and sales workers*; *skilled agricultural, forestry and fishery workers*; *plant and machine operators, and assemblers*; *craft and related trades workers*; and *elementary* (*labourers*) *occupations*. Appendix 2 provides a more detailed elaboration of the ISCO - 88that was used in the survey.

Secondly, the presentation is taken further to a second level to forty-three finer ISCO occupational skills. Thirdly, other parameters are taken into consideration while presenting the summaries such as *qualifications of employees*, *their ages and gender* as well as the *type of institution one is working*, i.e. public, private or owned by CSOs/NGOs.

### Distribution of academic qualifications

Table 6 summarizes the existing qualifications of the 26,879 employees whose qualifications were captured during the survey.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | None | PSLCE | | JCE/  MGCE | | MCE/  MSCE  (‘O’ Level) | | 'A'  Level | | Undergraduate Diploma/  Certificate | Undergraduate Degree | | Post- Graduate | | **Total** | % |
| Elementary (labourers) occupations | | | | 1,704 | 2,085 | | 2,482 | | 1,364 | | 19 | | - | - | | - | | **7,654** | 28.7 |
| Professional occupation | | | | 90 | 31 | | 395 | | 1,794 | | 56 | | 1,274 | 979 | | 342 | | **4,961** | 18.5 |
| Technicians and associate professionals | | | | 26 | 41 | | 409 | | 1,607 | | 52 | | 1,691 | 465 | | 114 | | **4,405** | 16.4 |
| Clerical support workers | | | | 52 | 159 | | 794 | | 1,565 | | 40 | | 909 | 25 | | 24 | | **3,568** | 13.3 |
| Craft and related trades workers | | | | 220 | 414 | | 542 | | 553 | | 16 | | 162 | 7 | | 2 | | **1,916** | 7.1 |
| Plant and machine operators, and assemblers | | | | 149 | 328 | | 554 | | 381 | | 6 | | 68 | 1 | | 1 | | **1,488** | 5.5 |
| Armed forces occupation | | | | 6 | 45 | | 252 | | 665 | | 1 | | 73 | 8 | | 3 | | **1,053** | 3.9 |
| Service and sales workers | | | | 44 | 88 | | 198 | | 434 | | 26 | | 212 | 16 | | 4 | | **1,022** | 3.8 |
| Managers | | | | 1 | 7 | | 22 | | 99 | | 4 | | 147 | 140 | | 118 | | **538** | 2.0 |
| Skilled agricultural, forestry and fishery workers | | | | 4 | 10 | | 8 | | 14 | | 0 | | 22 | 5 | | 3 | | **66** | 0.2 |
| **Total** | | | | **2,296** | **3,208** | | **5,656** | | **8,476** | | **220** | | **4,558** | **1,646** | | **611** | | **26,671** | 100% |
| **Per cent** | | | | 8.5 | 11.9 | | 21.0 | | 31.5 | | 0.8 | | 17.1 | 6.2 | | 2.3 | | 100.0% |  |
|  |  |  | | |  | |  | |  | |  | | |  | |  | |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |

From the table, the majority of the workforce in Malawi (76.9%) consist of *elementary* (*labourers*) *occupations* (28.7%), *professional occupations* (18.5%), *technicians and associate professionals* (16.4%) and *clerical support workers* (13.3%). Around 90.8% of the total workforce has qualifications ranging from PSLC to undergraduate diploma with 31.5% having MSCE or O-level, 21.0% JCE, 17.1% undergraduate diploma and 11.9% with the PSLC qualification. Only 8.5% of the workforce has at least an undergraduate degree qualification.

A finer categorization of the occupations, gives a more detailed picture of the distribution of the qualification across the occupational skills as depicted in Table 7.

Table 7: Percentage distribution of qualifications across occupational skills

|  | None | PSLC | JC/  MGCE | MCE/  MSCE  (‘O’ Level) | 'A' Level/  Higher School Certificate | Undergraduate  Diploma/  Certificate | Undergraduate  Degree | Post- Graduate Diploma/Degree | **Total** | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Teaching professionals | 1.7 | 0.4 | 11.6 | 51.8 | 1.3 | 19.5 | 12.2 | 1.5 | 100.0% | **4,589** |
| Cleaners and helpers | 18.0 | 25.1 | 34.1 | 19.2 | 0.3 | 3.3 | - | - | 100.0% | **4,094** |
| Business and administration associate professionals | 0.8 | 1.4 | 8.2 | 30.3 | 1.0 | 45.7 | 8.4 | 4.2 | 100.0% | **1,533** |
| Other clerical support workers | 2.1 | 4.8 | 24.6 | 48.0 | 0.9 | 18.7 | 0.4 | 0.5 | 100.0% | **1,477** |
| Protective services workers | 20.3 | 27.3 | 33.3 | 17.3 | 0.0 | 1.7 | 0.1 | - | 100.0% | **1,367** |
| Numerical and material recording clerks | 0.6 | 2.8 | 18.0 | 39.4 | 1.3 | 35.6 | 1.0 | 1.3 | 100.0% | **1,189** |
| Agricultural, forestry and fishery labourers | 38.9 | 27.1 | 21.0 | 11.0 | 0.5 | 0.9 | - | - | 100.0% | **1,079** |
| Drivers and mobile plant operators | 9.2 | 24.7 | 39.5 | 22.6 | 0.3 | 3.6 | 0.0 | 0.0 | 100.0% | **967** |
| Non-commissioned armed forces officers | 0.6 | 3.7 | 23.8 | 64.0 | 0.2 | 7.0 | 0.6 | 0.1 | 100.0% | **949** |
| Building and related trades workers, excluding electricians | 16.9 | 26.7 | 27.4 | 22.2 | 0.7 | 6.1 | 0.1 | - | 100.0% | **892** |
| Business and administration professionals | 0.5 | 0.6 | 2.9 | 15.3 | 0.8 | 34.3 | 30.1 | 15.6 | 100.0% | **864** |
| Food preparation assistants | 9.5 | 17.3 | 24.3 | 33.5 | 2.1 | 13.2 | 0.0 | 0.1 | 100.0% | **849** |
| Metal, machinery and related trades workers | 8.2 | 15.7 | 29.6 | 36.7 | 1.1 | 8.7 | 0.1 | - | 100.0% | **760** |
| Labourers in mining, construction, manufacturing and transport | 21.8 | 26.9 | 27.8 | 21.9 | 0.0 | 1.7 | 0.0 | 0.0 | 100.0% | **648** |
| Stationary plant and machine operators | 14.1 | 18.6 | 34.6 | 25.4 | 0.6 | 6.0 | 0.2 | - | 100.0% | **511** |
| Health professionals | 1.5 | 2.1 | 3.5 | 13.2 | 0.6 | 52.4 | 20.3 | 6.5 | 100.0% | **479** |
| Customer services clerks | 2.0 | 5.9 | 16.1 | 43.4 | 2.0 | 26.9 | 2.5 | 1.1 | 100.0% | **442** |
| General and keyboard clerks | 1.8 | 5.5 | 21.9 | 37.9 | 0.8 | 31.2 | 0.3 | - | 100.0% | **398** |
| Science and engineering associate professionals | 0.3 | 2.1 | 8.4 | 22.0 | 1.6 | 49.0 | 11.0 | 5.8 | 100.0% | **382** |
| Health associate professionals | 0.8 | 1.4 | 9.0 | 14.8 | 1.1 | 60.9 | 9.6 | 2.5 | 100.0% | **366** |
| Administrative and commercial managers | 0.6 | 0.8 | 2.3 | 14.9 | 0.6 | 30.4 | 26.5 | 23.9 | 100.0% | **355** |
| Science and engineering professionals | 0.6 | 1.2 | 2.7 | 9.8 | 0.9 | 24.0 | 47.3 | 13.6 | 100.0% | **338** |
| Sales workers | 2.4 | 5.4 | 15.5 | 48.5 | 2.7 | 23.5 | 1.8 | 0.3 | 100.0% | **336** |
| Electrical and electronics trades workers | 1.4 | 6.9 | 20.8 | 42.7 | 1.0 | 26.0 | 0.7 | 0.3 | 100.0% | **288** |
| Food processing, wood working, garment and other craft and related trades workers | 9.2 | 34.5 | 26.2 | 22.3 | 0.0 | 6.8 | 1.0 | 0.0 | 100.0% | **206** |
| Refuse workers and other elementary workers | 15.1 | 32.7 | 38.5 | 12.7 | 0.0 | 1.0 | 0.0 | 0.0 | 100.0% | **205** |
| ICT professionals | 0.0 | 0.5 | 2.7 | 15.8 | 0.5 | 41.5 | 28.4 | 10.4 | 100.0% | **183** |
| Production and specialized services managers | 1.7 | 2.2 | 3.9 | 18.4 | 0.6 | 19.6 | 32.4 | 21.2 | 100.0% | **179** |
| Chief executives, senior officials and legislators | 0.0 | 0.0 | 2.8 | 18.1 | 0.7 | 19.4 | 29.9 | 29.2 | 100.0% | **144** |
| Legal, social, cultural and related associate professionals | 0.7 | 0.7 | 17.8 | 31.9 | 0.7 | 37.8 | 8.1 | 2.2 | 100.0% | **135** |
| Personal care workers | 9.5 | 2.9 | 21.9 | 30.5 | 2.9 | 30.5 | 1.9 | 0.0 | 100.0% | **105** |
| Personal service workers | 1.0 | 1.0 | 30.4 | 38.2 | 0.0 | 28.4 | 0.0 | 1.0 | 100.0% | **102** |
| Assemblers | 6.7 | 30.3 | 27.0 | 29.2 | 1.1 | 5.6 | 0.0 | 0.0 | 100.0% | **89** |
| Handicraft and printing workers | 4.8 | 22.9 | 33.7 | 25.3 | 0.0 | 12.0 | 0.0 | 1.2 | 100.0% | **83** |
| Information and communications technicians | 0.0 | 0.0 | 3.9 | 38.2 | 0.0 | 50.0 | 6.6 | 1.3 | 100.0% | **76** |
| Commissioned armed forces officers | 1.5 | 12.3 | 23.1 | 41.5 | 1.5 | 7.7 | 9.2 | 3.1 | 100.0% | **65** |
| Legal, social and cultural professionals | 0.0 | 3.1 | 0.0 | 12.3 | 1.5 | 24.6 | 41.5 | 16.9 | 100.0% | **65** |
| Market-oriented skilled agricultural workers | 0.0 | 0.0 | 0.0 | 18.9 | 0.0 | 59.5 | 13.5 | 8.1 | 100.0% | **37** |
| Street and related sales and service workers | 10.0 | 10.0 | 53.3 | 16.7 | 0.0 | 10.0 | 0.0 | - | 100.0% | **30** |
| Other ranks of the armed forces occupation | 0.0 | 0.0 | 16.0 | 64.0 | 4.0 | 8.0 | 8.0 | 0.0 | 100.0% | **25** |
| Hospitality, retail and other services managers | 0.0 | 4.2 | 4.2 | 25.0 | 0.0 | 50.0 | 12.5 | 4.2 | 100.0% | **24** |
| Market-oriented skilled forestry, fishery and hunting workers | 8.3 | 4.2 | 20.8 | 12.5 | 0.0 | 41.7 | 12.5 | 0.0 | 100.0% | **24** |
| Subsistence farmers, fishers, hunters and gatherers | 26.7 | 20.0 | 26.7 | 26.7 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0% | **15** |
| **Total** | **8.5** | **11.9** | **21.1** | **31.5** | **0.8** | **17.7** | **6.1** | **2.3** | **100.0%** | **26,944** |

The majority of the workers in the following occupational skills have qualification of MSCE (O-level) or below: cleaners and helpers, protective services workers; agricultural, forestry and fishery labourers; building and related trades workers, excluding electricians; metal, machinery and related trades workers; labourers in mining, construction, manufacturing and transport; stationary plant and machine operators; food processing, wood working, garment and other craft and related trades workers; refuse workers and other elementary workers; assemblers; commissioned armed forces officers; street and related sales and service workers; other ranks of the armed forces occupation and subsistence farmers, fishers, hunters and gatherers.

However, the following occupational skills have the majority of human resources with at least an undergraduate diploma: business and administration professionals; health professionals; health associate professionals; administrative and commercial managers; science and engineering professionals; ICT professionals; and legal, social and cultural professionals.

### Distribution of technical/vocational qualifications

The other qualification worth summarizing is that of artisan or technician skills. The next table gives the summary of the workforce that has undergone such training at some point.

Table 8: Distribution of skills across vocational qualifications

|  | No technical/  vocational  education | Uncompleted technical/  vocational school | Completed technical/  vocational school | Uncompleted Polytechnic (dip. cert. Courses only) | Completed Polytechnic  (dip. cert. Courses only) | Total | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Teaching professionals | 89.7 | 2.0 | 5.7 | 1.0 | 1.6 | 100.0% | 4,160 |
| Cleaners and helpers | 89.9 | 4.4 | 3.8 | 0.7 | 1.2 | 100.0% | 3,625 |
| Other clerical support workers | 78.8 | 6.8 | 8.5 | 2.2 | 3.8 | 100.0% | 1,266 |
| Business and administration associate professionals | 62.4 | 4.4 | 15.8 | 4.8 | 12.5 | 100.0% | 1,222 |
| Protective services workers | 90.7 | 4.3 | 3.5 | 0.7 | 0.7 | 100.0% | 1,217 |
| Agricultural, forestry and fishery labourers | 97.0 | 1.6 | 1.1 | 0.2 | 0.2 | 100.0% | 1031 |
| Numerical and material recording clerks | 72.7 | 6.7 | 7.8 | 5.5 | 7.2 | 100.0% | 983 |
| Non-commissioned armed forces officers | 82.5 | 7.0 | 6.3 | 2.2 | 2.1 | 100.0% | 874 |
| Drivers and mobile plant operators | 77.5 | 6.5 | 12.8 | 0.6 | 2.6 | 100.0% | 846 |
| Building and related trades workers, excluding electricians | 50.3 | 14.2 | 33.3 | 0.1 | 2.1 | 100.0% | 811 |
| Food preparation assistants | 82.3 | 5.0 | 8.2 | 1.2 | 3.3 | 100.0% | 747 |
| Metal, machinery and related trades workers | 41.5 | 11.4 | 41.8 | 1.1 | 4.1 | 100.0% | 710 |
| Business and administration professionals | 66.8 | 2.6 | 10.8 | 4.1 | 15.8 | 100.0% | 659 |
| Labourers in mining, construction, manufacturing and transport | 89.3 | 4.5 | 5.7 | 0.2 | 0.4 | 100.0% | 561 |
| Stationary plant and machine operators | 79.8 | 10.8 | 7.4 | 0.6 | 1.4 | 100.0% | 489 |
| Customer services clerks | 71.6 | 5.5 | 10.9 | 3.5 | 8.5 | 100.0% | 402 |
| Health professionals | 76.5 | 0.5 | 13.5 | 0.8 | 8.6 | 100.0% | 371 |
| Science and engineering associate professionals | 54.0 | 2.1 | 21.2 | 4.5 | 18.2 | 100.0% | 335 |
| General and keyboard clerks | 48.0 | 9.8 | 25.7 | 6.4 | 10.1 | 100.0% | 327 |
| Health associate professionals | 74.7 | 1.9 | 13.6 | 1.9 | 7.8 | 100.0% | 308 |
| Sales workers | 73.1 | 5.9 | 6.9 | 3.1 | 11.0 | 100.0% | 290 |
| Electrical and electronics trades workers | 24.0 | 20.5 | 42.0 | 2.5 | 11.0 | 100.0% | 283 |
| Science and engineering professionals | 60.5 | 1.5 | 16.6 | 0.7 | 20.7 | 100.0% | 271 |
| Administrative and commercial managers | 66.3 | 3.7 | 10.7 | 3.0 | 16.3 | 100.0% | 270 |
| Food processing, wood working, garment and other craft and related trades workers | 64.3 | 5.9 | 28.1 | - | 1.6 | 100.0% | 185 |
| Refuse workers and other elementary workers | 84.5 | 6.8 | 7.5 | - | 1.2 | 100.0% | 161 |
| Information and communications technology professionals | 51.0 | 2.7 | 18.8 | 2.7 | 24.8 | 100.0% | 149 |
| Production and specialized services managers | 61.4 | 2.3 | 12.9 | 3.8 | 19.7 | 100.0% | 132 |
| Legal, social, cultural and related associate professionals | 83.2 | 0.9 | 10.6 | 1.8 | 3.5 | 100.0% | 113 |
| Chief executives, senior officials and legislators | 69.2 | 2.8 | 11.2 | 1.9 | 15.0 | 100.0% | 107 |
| Personal care workers | 83.3 | 1.0 | 14.7 | - | 1.0 | 100.0% | 102 |
| Personal service workers | 68.7 | 9.6 | 12.0 | 4.8 | 4.8 | 100.0% | 83 |
| Assemblers | 57.7 | 12.8 | 21.8 | 1.3 | 6.4 | 100.0% | 78 |
| Handicraft and printing workers | 64.0 | 6.7 | 14.7 | 2.7 | 12.0 | 100.0% | 75 |
| Information and communications technicians | 54.5 | 4.5 | 24.2 | 3.0 | 13.6 | 100.0% | 66 |
| Commissioned armed forces officers | 78.2 | 5.5 | 12.7 | 1.8 | 1.8 | 100.0% | 55 |
| Legal, social and cultural professionals | 90.5 | 2.4 | 4.8 | - | 2.4 | 100.0% | 42 |
| Market-oriented skilled agricultural workers | 73.5 | 2.9 | 8.8 | - | 14.7 | 100.0% | 34 |
| Street and related sales and service workers | 92.9 | 3.6 | 3.6 | - |  | 100.0% | 28 |
| Other ranks of the armed forces occupation | 84.0 | - | 8.0 | 4.0 | 4.0 | 100.0% | 25 |
| Hospitality, retail and other services managers | 66.7 | - | 23.8 | - | 9.5 | 100.0% | 21 |
| Market-oriented skilled forestry, fishery and hunting workers | 66.7 | - | 23.8 | - | 9.5 | 100.0% | 21 |
| Subsistence farmers, fishers, hunters and gatherers | 100.0 | - | - | - | - | 100.0% | 15 |
| Total | 18,408 | 1,187 | 2,467 | 399 | 1,089 |  | 23,550 |
| Per cent | 78.2% | 5.0% | 10.5% | 1.7% | 4.6% |  | 100.0% |

Only about 21.8% of the Malawi’s workforce seems to have gone through some technical/vocational training. Except for Building and related trades workers, excluding electricians (33.3%), Metal, machinery and related trades workers (41.8%), Science and engineering associate professionals (21.2%), General and keyboard clerks (25.7%), Electrical and electronics trades workers (42.5%), Science and engineering professionals (20.7%), Food processing, wood working, garment and other craft and related trades workers (28.1%), ICT professionals (24.8%), Assemblers (24.2%), Hospitality, retail and other services managers (23.8%) and Market-oriented skilled forestry, fishery and hunting workers (23.8%) all other skills do not seem to be acquired from technical/vocational institutions.

Table 9: Skills needed across various occupations

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Current Occupation | | | | | | | | | |  | |
| Skills currently needed | Armed  Forces  occupation | Managers | Professional occupations | Technicians  And  associate professionals | Clerical support workers | Service  and sales workers | Skilled agricultural, forestry and fishery workers | Craft and related trades workers | Plant and machine operators, and assemblers | Elementary (labourers) occupations | Total | % |
| Teacher Training | 1.3 | 0.2 | 35.0 | 28.5 | 0.5 | 0.4 | - | 0.1 | 0.1 | 0.3 | 3,029 | 11.4% |
| Administrative/managerial | 12.6 | 43.8 | 19.7 | 17.0 | 12.6 | 5.7 | 6.2 | 0.9 | 1.3 | 2.0 | 2,777 | 10.5% |
| Crafts training | 2.2 | 1.3 | 0.9 | 1.3 | 1.6 | 2.0 | 1.5 | 59.4 | 29.3 | 8.9 | 2455 | 9.3% |
| No training | 0.2 | 1.5 | 0.8 | 0.9 | 2.7 | 4.3 | 3.1 | 3.8 | 9.7 | 22.9 | 2,204 | 8.3% |
| Professional training | 8.8 | 11.2 | 13.2 | 11.7 | 11.7 | 3.4 | 1.5 | 1.8 | 1.9 | 0.8 | 1,878 | 7.1% |
| Technician training | 2.2 | 2.6 | 1.5 | 5.2 | 3.1 | 1.4 | 3.1 | 21.2 | 25.1 | 5.5 | 1,659 | 6.3% |
| Hotel/Catering | 0.7 | 9.0 | 0.9 | 1.2 | 6.3 | 56.7 | - | 0.1 | 0.4 | 9.0 | 1,649 | 6.2% |
| Computer Training | 7.4 | 3.4 | 7.3 | 7.8 | 10.7 | 2.1 | - | 0.6 | 1.5 | 1.7 | 1,358 | 5.1% |
| Police/Army training | 50.8 | 0.6 | 0.6 | 0.7 | 1.2 | 0.9 | - | 0.3 | 0.8 | 7.8 | 1,252 | 4.7% |
| Agriculture/Forestry | 1.6 | 10.5 | 2.8 | 4.4 | 2.0 | 1.7 | 60.0 | 0.7 | 0.8 | 8.8 | 1,236 | 4.7% |
| General Clerical | 1.0 | 0.9 | 0.5 | 0.9 | 16.1 | 1.7 | 3.1 | 0.8 | 1.0 | 6.7 | 1,219 | 4.6% |
| General Nursing | 0.6 | 0.2 | 2.3 | 2.9 | 1.9 | 1.0 | 1.5 | 0.2 | 0.3 | 3.4 | 595 | 2.2% |
| Typing/Secretarial | 1.6 | 0.4 | 1.5 | 2.1 | 7.4 | 0.8 | 1.5 | 0.1 | 0.4 | 1.2 | 555 | 2.1% |
| Bookkeeping | 0.7 | 0.6 | 1.4 | 1.1 | 5.4 | 1.6 | - | 0.2 | 0.2 | 0.9 | 410 | 1.5% |
| Home Economics | 0.3 | 0.4 | 1.4 | 0.8 | 0.3 | 1.0 | - | 0.2 | 0.1 | 1.7 | 265 | 1.0% |
| Midwifery | 1.1 | - | 1.1 | 1.5 | 0.6 | 0.8 | - | 0.1 | - | 0.8 | 218 | 0.8% |
| Banking | 0.7 | 0.9 | 0.8 | 0.5 | 0.7 | 1.1 | - | 0.2 | 0.3 | 0.1 | 123 | 0.5% |
| Other | 6.4 | 12.5 | 8.5 | 11.4 | 15.0 | 13.6 | 18.5 | 9.4 | 27.0 | 17.5 | 3,645 | 13.7% |
| Total | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |  |  |
| 1,032 | 534 | 4,935 | 4,361 | 3,531 | 1,010 | 65 | 1,912 | 1,449 | 7,700 | 26,529 |  |

The above table shows that, irrespective of their current occupations, various categories would like to acquire certain skills. Evidently, as most of the Malawi’s workforce is in teaching profession, *teacher training* is the top of the list of skills needed by 11.4% of the workforce. The other top preferred skills are in *Administrative/managerial* (10.5%), *Crafts training* (9.3%), *Professional training* (7.1%), *Technician training* (6.3%), *Hotel/Catering* (6.2%), *Computer Training* (5.1%), *Police/Army training* (4.7%) and *General Clerical* (4.6%).

Teacher training is needed mostly by those in *professional occupations* (35.0%) and Technicians and associate professionals (28.5%). The *administrative/managerial* skills are needed by 12.6% of the a*rmed forces occupations*, 43.8% of the *managers*, and 19.7% of those in *professional occupations*, 17.0% in the *technicians and associate professionals* and 12.6% in the *clerical support workers* occupations. The *crafts training* skills are sought by 59.4% of those in craft and related trades workers occupations and 29.3% of *the plant and machine operators*, *and assemblers* occupations. *Professional training skills* are sought by 11.2% in the managerial occupations, 13.2% in professional occupations, 11.7% in the technicians and associate professional occupations and 11.7% in the clerical support workers occupations. The technician training skills are needed by 21.2% of craft and related trades workers occupations and 25.1% of the plant and machine operators, and assemblers occupations. The hotel/catering skills are largely sought by the service and sales workers (56.7%). The *computer training* skills are needed by 10.7% of the clerical support workers occupations. The police/army training skills are only mainly sought by those in the armed forces occupations (50.8%). The *agriculture/forestry* skills are needed by 60.0% of the skilled agricultural, forestry and fishery workers and 10.5% of the *managers*occupations. The general clerical skills are needed by 16.1% of the Clerical support workers occupations. A good proportion of elementary (labourers) occupations (29.3%) do not need any training skills.

As a sum, the armed forces occupations mainly seek *police/army* training skills and *administrative/managerial* skills. The managerial occupations are looking for *administrative/managerial* skills, *professional training* or *agriculture/forestry* skills. Those in professional occupations are seeking *teacher training skills*, *administrative/managerial* skills or some relevant *professional training* skills. The technicians and associate professional occupations require *similar* skills as those in their professional occupations. The clerical support workers occupations look for *administrative/managerial* skills, *professional training* skills, *computer training* skills or *general clerical* skills. Those in service and sales workers occupations and in skilled agricultural, forestry and fishery workers occupations require *hotel/catering* skills and *agriculture/forestry* skills respectively. The ones in craft and related trades workers seek *craft training* skills or *technician training* skills just like those in plant and machine operators, and assemblers’ occupations.

### Human resource in public and non-public institutions

Focus shall now be placed on comparing the human resources in public and non-public institutions.

Table 10: Distribution of human resource across public and non-public institutions

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Occupation category** | **Public institutions** | **Private institutions** | **CSOs/NGOs** | **Total** | |
| Elementary (labourers) occupations | 38.2 | 58.0 | 3.8 | **100.0%** | **7,914** |
| Professional occupations | 75.4 | 19.4 | 5.2 | **100.0%** | **5,000** |
| Technicians and associate professionals | 66.1 | 26.8 | 7.1 | **100.0%** | **4,436** |
| Clerical support workers | 52.4 | 44.5 | 3.1 | **100.0%** | **3,592** |
| Craft and related trades workers | 20.2 | 78.5 | 1.3 | **100.0%** | **1,934** |
| Plant and machine operators, and assemblers | 28.8 | 69.1 | 2.1 | **100.0%** | **1,501** |
| Armed forces occupation | 99.2 | 0.8 | 0.0 | **100.0%** | **1,061** |
| Service and sales workers | 8.1 | 91.0 | 0.9 | **100.0%** | **1,024** |
| Managers | 25.6 | 69.1 | 5.3 | **100.0%** | **547** |
| Skilled agricultural, forestry and fishery workers | 65.2 | 33.3 | 1.5 | **100.0%** | **66** |
| **Total** | **13,755** | **12,240** | **1,080** |  | **27,075** |
| **Per cent** | **50.8%** | **45.2%** | **4.0%** | **100.0%** |  |

The majority of the human resource (50.8%) in Malawi is in the public service, even though, the non-public and public services both seem to carry almost equal workforce. However, the following differences are noticed. The CSOs/NGOs offer the least job market in general. Further, though the public service is dominant in Professional occupations (75.4%); Technicians and associate professionals (66.1%); Clerical support workers (52.4%); Armed forces occupations (99.2%); the private sector seem to dominate in Elementary (labourers) occupations (58.0%); Craft and related trades workers (78.5%); Plant and machine operators, and assemblers (69.1%); Service and sales workers (91.0%) and Managers occupations (69.1%). A detailed skill-focus presentation is shown in Table 11.

Table 11: Distribution of occupational skills across public and non-public institutions

| Occupational skills | Public institutions | Private institutions | CSOs/NGOs | Total | |
| --- | --- | --- | --- | --- | --- |
| Commissioned armed forces officers | 81.8 | 15.2 | 3.0 | 100% | 66 |
| Non-commissioned armed forces officers | 99.3 | 0.7 | - | 100% | 956 |
| Other ranks of the armed forces occupation | 80.0 | 20.0 | - | 100% | 25 |
| Chief executives, senior officials and legislators | 43.6 | 45.6 | 10.7 | 100% | 149 |
| Administrative and commercial managers | 38.9 | 51.5 | 9.5 | 100% | 357 |
| Production and specialized services managers | 41.5 | 55.7 | 2.7 | 100% | 183 |
| Hospitality, retail and other services managers | 29.2 | 70.8 | - | 100% | 24 |
| Science and engineering professionals | 60.1 | 32.0 | 8.0 | 100% | 338 |
| Health professionals | 72.0 | 15.4 | 12.6 | 100% | 486 |
| Teaching professionals | 86.5 | 9.4 | 4.1 | 100% | 4,620 |
| Business and administration professionals | 50.9 | 44.1 | 5.1 | 100% | 869 |
| Information and communications technology professionals | 47.6 | 43.2 | 9.2 | 100% | 185 |
| Legal, social and cultural professionals | 86.2 | 6.2 | 7.7 | 100% | 65 |
| Science and engineering associate professionals | 59.7 | 36.1 | 4.2 | 100% | 382 |
| Health associate professionals | 69.4 | 19.1 | 11.5 | 100% | 366 |
| Business and administration associate professionals | 50.6 | 41.9 | 7.4 | 100% | 1,550 |
| Legal, social, cultural and related associate professionals | 72.1 | 14.0 | 14.0 | 100% | 136 |
| Information and communications technicians | 36.4 | 59.7 | 3.9 | 100% | 77 |
| General and keyboard clerks | 79.9 | 16.7 | 3.5 | 100% | 402 |
| Customer services clerks | 14.9 | 82.7 | 2.5 | 100% | 444 |
| Numerical and material recording clerks | 45.9 | 50.0 | 4.2 | 100% | 1,195 |
| Other clerical support workers | 58.8 | 39.9 | 1.3 | 100% | 1,488 |
| Personal service workers | 35.9 | 62.1 | 1.9 | 100% | 103 |
| Sales workers | 4.5 | 95.3 | 0.3 | 100% | 337 |
| Personal care workers | 49.1 | 26.4 | 24.5 | 100% | 106 |
| Protective services workers | 47.8 | 49.9 | 2.3 | 100% | 1,377 |
| Market-oriented skilled agricultural workers | 75.7 | 21.6 | 2.7 | 100% | 37 |
| Market-oriented skilled forestry, fishery and hunting workers | 66.7 | 29.2 | 4.2 | 100% | 24 |
| Subsistence farmers, fishers, hunters and gatherers | 60.0 | 0.0 | 40.0 | 100% | 15 |
| Building and related trades workers, excluding electricians | 23.9 | 74.7 | 1.4 | 100% | 900 |
| Metal, machinery and related trades workers | 10.1 | 89.8 | 0.1 | 100% | 763 |
| Handicraft and printing workers | 17.9 | 69.0 | 13.1 | 100% | 84 |
| Electrical and electronics trades workers | 29.6 | 70.0 | 0.3 | 100% | 297 |
| Food processing, wood working, garment and other craft and related trades workers | 39.8 | 55.3 | 4.9 | 100% | 206 |
| Stationary plant and machine operators | 8.1 | 91.5 | 0.4 | 100% | 517 |
| Assemblers | 9.8 | 71.7 | 18.5 | 100% | 92 |
| Drivers and mobile plant operators | 38.2 | 58.6 | 3.3 | 100% | 975 |
| Cleaners and helpers | 45.9 | 49.2 | 4.9 | 100% | 4,109 |
| Agricultural, forestry and fishery labourers | 19.9 | 79.4 | 0.6 | 100% | 1,083 |
| Labourers in mining, construction, manufacturing and transport | 0.9 | 99.1 | 0.0 | 100% | 649 |
| Food preparation assistants | 14.4 | 83.2 | 2.3 | 100% | 853 |
| Street and related sales and service workers | 90.3 | 9.7 | 0.0 | 100% | 31 |
| Refuse workers and other elementary workers | 73.7 | 23.0 | 3.2 | 100% | 217 |
| Total | 13,783 | 12,271 | 1,084 |  | 27,138 |
| Per cent | 50.8% | 45.2% | 4.0% |  | 100.0% |

Apart from armed forces occupations mostly being found in public institutions,the public institutions (compared to non-public) have most of the expertise in the following skill areas: Science and engineering professionals (60.1%), Health professionals (72.0%), Teaching professionals (86.5%), Business and administration professionals (50.9%), ICT professionals (47.6%), Legal, social and cultural professionals (86.2%), Legal, social, cultural and related associate professionals (72.1), Science and engineering associate professionals (69.4%), Business and administration associate professionals (50.6%), General and keyboard clerks (79.9%), Other clerical support workers (58.8%), Personal care workers (49.1%), Market-oriented skilled agricultural workers (75.7%), Market-oriented skilled forestry, fishery and hunting workers (66.7%), Subsistence farmers, fishers, hunters and gatherers (60.0%), Street and related sales and service workers (90.3%) and Refuse workers and other elementary workers (73.7%). Though the CSOs /NGOs do not have dominant workforce in any of the skills, the private sector, on the other hand, is dominant in the following skills: Chief executives, senior officials and legislators (45.6%), Administrative and commercial managers (51.5%), Production and specialized services managers (55.7%), Hospitality, retail and other services managers (70.8%), ICT technicians (59.7%), Customer services clerks (82.7%), Numerical and material recording clerks (50.0%), Personal service workers (62.1%), Sales workers (95.3%), Protective services workers (49.9%), Building and related trades workers, excluding electricians (74.7%), Metal, machinery and related trades workers (89.9%), Handicraft and printing workers (69.0%), Electrical and electronics trades workers (70.0%), Food processing, wood working, garment and other craft and related trades workers (55.3%), Stationary plant and machine operators (91.5%), Assemblers (71.7%), Drivers and mobile plant operators (58.6%), Cleaners and helpers (49.2%), Agricultural, forestry and fishery labourers (79.4%), Labourers in mining, construction, manufacturing and transport (99.1%) and Food preparation assistants (83.2%).

### Gender distribution across occupations

The following part gives a comparative picture of the distribution of males and females across the occupations. Table 12 gives the picture at the broader occupational classification first.

Table 12: Distribution of gender across occupations

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | Male | Female | Total | % of females |
| Elementary (labourers) occupations | | | | | 6,024 | 1,872 | 7,896 | 24% |
| Professional occupation | | | | | 2,573 | 2,411 | 4,984 | 48% |
| Technicians and associate professionals | | | | | 2,488 | 1,938 | 4,426 | 44% |
| Clerical support workers | | | | | 2,116 | 1,465 | 3,581 | 41% |
| Craft and related trades workers | | | | | 1,818 | 111 | 1,929 | 6% |
| Plant and machine operators, and assemblers | | | | | 1,436 | 62 | 1,498 | 4% |
| Armed forces occupation | | | | | 746 | 309 | 1,055 | 29% |
| Service and sales workers | | | | | 668 | 354 | 1,022 | 35% |
| Managers | | | | | 462 | 84 | 546 | 15% |
| Skilled agricultural, forestry and fishery workers | | | | | 50 | 16 | 66 | 24% |
| **Total** | | | | | **18,381** | **8,622** | **27,003** | 32% |
| **Per cent** | | | | | **68%** | **32%** | **100%** |  |
|  | |  |  |  |

Overall, about 32% of the workforce is females and they are generally under-represented in all the general occupations. Slightly better female representations appear to be in *professional occupations* (48%), *technicians and associate professionals* (44%) and *clerical support workers* occupations (41%). The worst representations are in *plant and machine operators and assemblers* (4%), *craft and related trades workers* (6%) and *managerial occupations* (15%). A comparison on the occupational skills is made in Table 13.

Table 13: Comparison of gender across occupational skills

| **Occupational skill** | **Male** | **Female** | **Total** | **% of Female** |
| --- | --- | --- | --- | --- |
| Teaching professionals | 1,849 | 2,756 | **4605** | 59.8% |
| Cleaners and helpers | 2,844 | 1,259 | **4103** | 30.7% |
| Business and administration associate professionals | 981 | 564 | **1545** | 36.5% |
| Other clerical support workers | 958 | 527 | **1485** | 35.5% |
| Protective services workers | 1,210 | 162 | **1372** | 11.8% |
| Numerical and material recording clerks | 785 | 406 | **1191** | 34.1% |
| Agricultural, forestry and fishery labourers | 856 | 222 | **1078** | 20.6% |
| Drivers and mobile plant operators | 948 | 25 | **973** | 2.6% |
| Non-commissioned armed forces officers | 671 | 279 | **950** | 29.4% |
| Building and related trades workers, excluding electricians | 858 | 38 | **896** | 4.2% |
| Business and administration professionals | 606 | 262 | **868** | 30.2% |
| Food preparation assistants | 586 | 265 | **851** | 31.1% |
| Metal, machinery and related trades workers | 741 | 21 | **762** | 2.8% |
| Labourers in mining, construction, manufacturing and transport | 584 | 65 | **649** | 10.0% |
| Stationary plant and machine operators | 478 | 39 | **517** | 7.5% |
| Health professionals | 238 | 246 | **484** | 50.8% |
| Customer services clerks | 211 | 232 | **443** | 52.4% |
| General and keyboard clerks | 83 | 317 | **400** | 79.3% |
| Science and engineering associate professionals | 323 | 58 | **381** | 15.2% |
| Health associate professionals | 184 | 180 | **364** | 49.5% |
| Administrative and commercial managers | 278 | 78 | **356** | 21.9% |
| Science and engineering professionals | 292 | 46 | **338** | 13.6% |
| Sales workers | 231 | 106 | **337** | 31.5% |
| Electrical and electronics trades workers | 279 | 17 | **296** | 5.7% |
| Refuse workers and other elementary workers | 156 | 60 | **216** | 27.8% |
| Food processing, wood working, garment and other craft and related trades workers | 136 | 70 | **206** | 34.0% |
| Information and communications technology professionals | 138 | 47 | **185** | 25.4% |
| Production and specialized services managers | 158 | 24 | **182** | 13.2% |
| Chief executives, senior officials and legislators | 131 | 18 | **149** | 12.1% |
| Legal, social, cultural and related associate professionals | 92 | 44 | **136** | 32.4% |
| Personal care workers | 41 | 65 | **106** | 61.3% |
| Personal service workers | 56 | 47 | **103** | 45.6% |
| Assemblers | 92 | 0 | **92** | 0.0% |
| Handicraft and printing workers | 67 | 17 | **84** | 20.2% |
| Information and communications technicians | 58 | 19 | **77** | 24.7% |
| Commissioned armed forces officers | 51 | 15 | **66** | 22.7% |
| Legal, social and cultural professionals | 52 | 13 | **65** | 20.0% |
| Market-oriented skilled agricultural workers | 27 | 10 | **37** | 27.0% |
| Street and related sales and service workers | 24 | 7 | **31** | 22.6% |
| Other ranks of the armed forces occupation | 17 | 8 | **25** | 32.0% |
| Hospitality, retail and other services managers | 19 | 5 | **24** | 20.8% |
| Market-oriented skilled forestry, fishery and hunting workers | 20 | 4 | **24** | 16.7% |
| Subsistence farmers, fishers, hunters and gatherers | 12 | 3 | **15** | 20.0% |
| **Total** | **18,421** | **8,646** | **27,067** | **31.9%** |

In the following occupational skills, females have a better representation: Teaching professionals (59.8%); Health professionals (50.8%); customer service clerks (52.4%); general keyboard clerks (79.3%) and personal care workers (61.3%). The females also seem to be fairly, though not equally represented in: Health associate professionals (49.5%) and personal service workers (45.6%). Though they are not well represented in the rest of occupational skills, the worst representations are in the following skills: assemblers (0.0%); Drivers and mobile plant operators (2.6%); Metal, machinery and related trades workers (2.8%); Building and related trades workers, excluding electricians (4.2%); Electrical and electronics trades workers (5.7%); Stationary plant and machine operators (7.5%); Labourers in mining, construction, manufacturing and transport (10.0%); Protective services workers (11.8%); Chief executives, senior officials and legislators (12.1%); Production and specialized services managers (13.2%); Science and engineering associate professionals (15.2%) and Market-oriented skilled forestry, fishery and hunting workers (16.7%).

### Gender representation in public and non-public institutions

A graphical comparison of the two genders in the public, private and CSOs/NGOs is presented next.

Figure 1: Comparison of gender distribution within public sector

From the Figure 1 above, female representation in the public sector is better in *professional occupations* (53.8%), *technicians and associate professionals* (51.0%) and *service and sales workers* (50.0%). However, the representation is relatively lower in the other occupation categories in the public sector. Overall, 41.2% of the workforce (5656 out of 8056) in the public sector is female.

Distribution in the Non-public sector

Figure 2: Comparison of gender distribution in private sector, CSOs/NGOs

From Figure 2, the situation in the non-public institutions is different from that in the public sector. In the non-public sector, all occupations have females under-represented all through. Where both the public and non-public institutions have under-representation of females, the magnitude are somehow similar. However, overall, only 22.3% of the workforce (2,965 out of 13,290) in the non-public institutions is female.

Table 14: Distribution of skills across gender in public sector

| **Occupational skills** | **Male** | **Female** | **Total** | |
| --- | --- | --- | --- | --- |
| Teaching professionals | 35.3 | 64.7 | 100.0% | 3,983 |
| Cleaners and helpers | 66.6 | 33.4 | 100.0% | 1,879 |
| Non-commissioned armed forces officers | 70.5 | 29.5 | 100.0% | 943 |
| Other clerical support workers | 58.4 | 41.6 | 100.0% | 874 |
| Business and administration associate professionals | 59.2 | 40.8 | 100.0% | 784 |
| Protective services workers | 85.9 | 14.1 | 100.0% | 654 |
| Numerical and material recording clerks | 61.5 | 38.5 | 100.0% | 546 |
| Business and administration professionals | 70.1 | 29.9 | 100.0% | 441 |
| Drivers and mobile plant operators | 95.7 | 4.3 | 100.0% | 372 |
| Health professionals | 48.3 | 51.7 | 100% | 348 |
| General and keyboard clerks | 19.4 | 80.6 | 100% | 319 |
| Health associate professionals | 55.9 | 44.1 | 100% | 254 |
| Science and engineering associate professionals | 80.7 | 19.3 | 100% | 228 |
| Agricultural, forestry and fishery labourers | 84.7 | 15.3 | 100% | 216 |
| Building and related trades workers, excluding electricians | 95.3 | 4.7 | 100% | 213 |
| Science and engineering professionals | 86.2 | 13.8 | 100% | 203 |
| Refuse workers and other elementary workers | 71.9 | 28.1 | 100% | 160 |
| Administrative and commercial managers | 77.7 | 22.3 | 100% | 139 |
| Food preparation assistants | 82.0 | 18.0 | 100% | 122 |
| Legal, social, cultural and related associate professionals | 72.4 | 27.6 | 100% | 98 |
| Information and communications technology professionals | 67.0 | 33.0 | 100% | 88 |
| Electrical and electronics trades workers | 88.6 | 11.4 | 100% | 88 |
| Food processing, wood working, garment and other craft and related trades workers | 58.5 | 41.5 | 100% | 82 |
| Metal, machinery and related trades workers | 96.1 | 3.9 | 100% | 77 |
| Production and specialized services managers | 84.2 | 15.8 | 100% | 76 |
| Customer services clerks | 48.5 | 51.5 | 100% | 66 |
| Chief executives, senior officials and legislators | 81.5 | 18.5 | 100% | 65 |
| Legal, social and cultural professionals | 82.1 | 17.9 | 100% | 56 |
| Commissioned armed forces officers | 77.8 | 22.2 | 100% | 54 |
| Personal care workers | 50.0 | 50.0 | 100% | 52 |
| Stationary plant and machine operators | 78.6 | 21.4 | 100% | 42 |
| Personal service workers | 45.9 | 54.1 | 100% | 37 |
| Information and communications technicians | 64.3 | 35.7 | 100% | 28 |
| Market-oriented skilled agricultural workers | 71.4 | 28.6 | 100% | 28 |
| Street and related sales and service workers | 78.6 | 21.4 | 100% | 28 |
| Other ranks of the armed forces occupation | 60.0 | 40.0 | 100% | 20 |
| Market-oriented skilled forestry, fishery and hunting workers | 75.0 | 25.0 | 100% | 16 |
| Sales workers | 46.7 | 53.3 | 100% | 15 |
| Handicraft and printing workers | 73.3 | 26.7 | 100% | 15 |
| Subsistence farmers, fishers, hunters and gatherers | 88.9 | 11.1 | 100% | 9 |
| Assemblers | 100.0 | - | 100% | 9 |
| Hospitality, retail and other services managers | 71.4 | 28.6 | 100% | 7 |
| Labourers in mining, construction, manufacturing and transport | 100.0 | - | 100% | 6 |
|  | 8,072 | 5,668 |  | 13,740 |
|  | 58.7% | 41.3% |  | 100.0% |

Within the public sectors, females are better represented in the following occupational skills: teaching professionals (64.7%), health professionals (51.7%), general and keyboard clerks (80.6%), personal care workers (50.0%), personal service workers (54.1%) and sales workers (53.3%). Otherwise, the females in the public sector are under-represented in all the other skills.

Table 15: Distribution of skills across gender in private sector, CSOs /NGOs

| **Occupational skills** | **Male** | **Female** | **Total** | |
| --- | --- | --- | --- | --- |
| Cleaners and helpers | 71.6 | 28.4 | 100% | 2,223 |
| Agricultural, forestry and fishery labourers | 78.1 | 21.9 | 100% | 862 |
| Business and administration associate professionals | 67.9 | 32.1 | 100% | 761 |
| Food preparation assistants | 66.7 | 33.3 | 100% | 729 |
| Protective services workers | 90.3 | 9.7 | 100% | 718 |
| Metal, machinery and related trades workers | 97.4 | 2.6 | 100% | 685 |
| Building and related trades workers, excluding electricians | 95.9 | 4.1 | 100% | 683 |
| Numerical and material recording clerks | 69.6 | 30.4 | 100% | 645 |
| Labourers in mining, construction, manufacturing and transport | 89.9 | 10.1 | 100% | 643 |
| Teaching professionals | 71.4 | 28.6 | 100% | 622 |
| Other clerical support workers | 73.3 | 26.7 | 100% | 611 |
| Drivers and mobile plant operators | 98.5 | 1.5 | 100% | 601 |
| Stationary plant and machine operators | 93.7 | 6.3 | 100% | 475 |
| Business and administration professionals | 69.6 | 30.4 | 100% | 427 |
| Customer services clerks | 47.5 | 52.5 | 100% | 377 |
| Sales workers | 69.6 | 30.4 | 100% | 322 |
| Administrative and commercial managers | 78.3 | 21.7 | 100% | 217 |
| Electrical and electronics trades workers | 96.6 | 3.4 | 100% | 208 |
| Science and engineering associate professionals | 90.8 | 9.2 | 100% | 153 |
| Health professionals | 51.5 | 48.5 | 100% | 136 |
| Science and engineering professionals | 86.7 | 13.3 | 100% | 135 |
| Food processing, wood working, garment and other craft and related trades workers | 71.0 | 29.0 | 100% | 124 |
| Health associate professionals | 38.2 | 61.8 | 100% | 110 |
| Production and specialized services managers | 88.7 | 11.3 | 100% | 106 |
| Information and communications technology professionals | 81.4 | 18.6 | 100% | 97 |
| Chief executives, senior officials and legislators | 92.9 | 7.1 | 100% | 84 |
| Assemblers | 100.0 | - | 100% | 83 |
| General and keyboard clerks | 25.9 | 74.1 | 100% | 81 |
| Handicraft and printing workers | 81.2 | 18.8 | 100% | 69 |
| Personal service workers | 59.1 | 40.9 | 100% | 66 |
| Refuse workers and other elementary workers | 73.2 | 26.8 | 100% | 56 |
| Personal care workers | 27.8 | 72.2 | 100% | 54 |
| Information and communications technicians | 81.6 | 18.4 | 100% | 49 |
| Legal, social, cultural and related associate professionals | 55.3 | 44.7 | 100% | 38 |
| Hospitality, retail and other services managers | 82.4 | 17.6 | 100% | 17 |
| Commissioned armed forces officers | 75.0 | 25.0 | 100% | 12 |
| Legal, social and cultural professionals | 66.7 | 33.3 | 100% | 9 |
| Market-oriented skilled agricultural workers | 77.8 | 22.2 | 100% | 9 |
| Market-oriented skilled forestry, fishery and hunting workers | 100.0 | - | 100% | 8 |
| Non-commissioned armed forces officers | 85.7 | 14.3 | 100% | 7 |
| Subsistence farmers, fishers, hunters and gatherers | 66.7 | 33.3 | 100% | 6 |
| Other ranks of the armed forces occupation | 100.0 | - | 100% | 5 |
| Street and related sales and service workers | 66.7 | 33.3 | 100% | 3 |
| **Total** | 10,349 | 2,977 | - | 13,326 |
| **Per cent** | 77.7% | 22.3% |  | 100.0% |

Within the private sector, CSOs / NGOs, females have a good representation in customer services clerks (52.5%), health associate professionals (61.8%), general and keyboard clerks (74.1%) and personal care workers (72.2%).

The contrast between the previous table is that the public sector does better in *teaching*, *health professionals* and *sales workers* while non-public does well in *associate* health professionals as well as being similar to the public sector in areas of *general and keyboard clerks* and *personal care workers*.

### Age distribution of the human resource

Knowing the distribution of ages across various occupations might assist in planning on retirement and recruitment policies. The report shall present the age distribution across occupations and occupational skills. Table 16 summarizes age distribution across the first occupational categorization.

Table 16: Distribution of occupational skills across the age groups

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Age groups | | | | | | Total |
|  | 16 - 30 years | 31 - 45 years | 46 - 54 years | 55 - 65 years | 66 years or over |  |
| Teaching professionals | 248 | 2,450 | 1573 | 259 | 22 | 4,552 |
| Cleaners and helpers | 423 | 1,893 | 1359 | 249 | 27 | 3,951 |
| Business and administration associate professionals | 129 | 773 | 468 | 131 | 12 | 1,513 |
| Other clerical support workers | 156 | 811 | 409 | 86 | 6 | 1,468 |
| Protective services workers | 102 | 670 | 371 | 133 | 19 | 1,295 |
| Numerical and material recording clerks | 147 | 575 | 380 | 61 | 4 | 1,167 |
| Agricultural, forestry and fishery labourers | 91 | 517 | 348 | 95 | 10 | 1,061 |
| Drivers and mobile plant operators | 74 | 542 | 243 | 78 | 9 | 946 |
| Non-commissioned armed forces officers | 151 | 551 | 211 | 26 | 3 | 942 |
| Building and related trades workers, excluding electricians | 70 | 367 | 301 | 102 | 19 | 859 |
| Business and administration professionals | 84 | 445 | 230 | 89 | 6 | 854 |
| Food preparation assistants | 104 | 380 | 280 | 29 | 3 | 796 |
| Metal, machinery and related trades workers | 77 | 334 | 231 | 78 | 8 | 728 |
| Labourers in mining, construction, manufacturing and transport | 74 | 294 | 248 | 11 | 4 | 631 |
| Stationary plant and machine operators | 62 | 246 | 171 | 25 | 3 | 507 |
| Health professionals | 70 | 191 | 152 | 37 | 12 | 462 |
| Customer services clerks | 73 | 163 | 188 | 7 | 0 | 431 |
| General and keyboard clerks | 34 | 193 | 128 | 38 | 1 | 394 |
| Science and engineering associate professionals | 40 | 172 | 108 | 41 | 2 | 363 |
| Health associate professionals | 43 | 146 | 131 | 35 | 3 | 358 |
| Administrative and commercial managers | 19 | 178 | 108 | 38 | 4 | 347 |
| Science and engineering professionals | 33 | 143 | 117 | 34 | 2 | 329 |
| Sales workers | 51 | 126 | 140 | 6 | 3 | 326 |
| Electrical and electronics trades workers | 28 | 166 | 81 | 9 | 3 | 287 |
| Refuse workers and other elementary workers | 21 | 100 | 73 | 13 | 1 | 208 |
| Food processing, wood working, garment and other craft and related trades workers | 15 | 92 | 76 | 14 | 0 | 197 |
| Information and communications technology professionals | 22 | 86 | 68 | 5 | 0 | 181 |
| Production and specialized lkoi98services managers | 6 | 83 | 67 | 22 | 0 | 178 |
| Chief executives, senior officials and legislators | 6 | 79 | 39 | 19 | 1 | 144 |
| Legal, social, cultural and related associate professionals | 15 | 76 | 38 | 7 | 0 | 136 |
| Personal care workers | 7 | 55 | 31 | 10 | 2 | 105 |
| Personal service workers | 11 | 54 | 36 | 1 | 1 | 103 |
| Assemblers | 10 | 39 | 39 | 2 | 0 | 90 |
| Handicraft and printing workers | 9 | 47 | 24 | 4 | 0 | 84 |
| Information and communications technicians | 12 | 40 | 21 | 1 | 0 | 74 |
| Commissioned armed forces officers | 2 | 24 | 25 | 14 | 0 | 65 |
| Legal, social and cultural professionals | 6 | 32 | 17 | 6 | 2 | 63 |
| Market-oriented skilled agricultural workers | 2 | 13 | 18 | 3 | 0 | 36 |
| Street and related sales and service workers | 3 | 21 | 5 | 2 | 0 | 31 |
| Other ranks of the armed forces occupation | 4 | 13 | 6 | 2 | 0 | 25 |
| Hospitality, retail and other services managers | 3 | 16 | 3 | 0 | 0 | 22 |
| Market-oriented skilled forestry, fishery and hunting workers | 3 | 12 | 5 | 1 | 1 | 22 |
| Subsistence farmers, fishers, hunters and gatherers | 2 | 6 | 6 | 0 | 0 | 14 |
| **Total** | **2,542** | **13,214** | **8,573** | **1,823** | **193** | **26,345** |

The table reveals that most of the workforce in Malawi is between 31 and 45 years followed by the age group 46 – 54 years. The next table gives detailed proportions of employees in the corresponding age groups.

Table 17: Percentages of age distribution across occupational skills

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Age groups | | | | | |  |
|  | 16 - 30 years | 31 - 45 years | 46 - 54 years | 55 - 65 years | 66 years  or over | Total |
| Commissioned armed forces officers | 3.05% | 36.95% | 38.48% | 21.52% | 0.00% | 100.00% |
| Non-commissioned armed forces officers | 16.04% | 58.48% | 22.44% | 2.74% | 0.30% | 100.00% |
| Other ranks of the armed forces occupation | 16.00% | 52.00% | 24.00% | 8.00% | 0.00% | 100.00% |
| Chief executives, senior officials and legislators | 4.14% | 54.81% | 27.09% | 13.24% | 0.72% | 100.00% |
| Administrative and commercial managers | 5.45% | 51.34% | 31.17% | 10.91% | 1.13% | 100.00% |
| Production and specialized services managers | 3.39% | 46.66% | 37.62% | 12.33% | 0.00% | 100.00% |
| Hospitality, retail and other services managers | 13.63% | 72.74% | 13.63% | 0.00% | 0.00% | 100.00% |
| Science and engineering professionals | 10.06% | 43.43% | 35.52% | 10.37% | 0.62% | 100.00% |
| Health professionals | 15.14% | 41.32% | 32.91% | 7.99% | 2.63% | 100.00% |
| Teaching professionals | 5.48% | 53.81% | 34.52% | 5.69% | 0.51% | 100.00% |
| Business and administration professionals | 9.89% | 52.09% | 26.91% | 10.40% | 0.71% | 100.00% |
| Information and communications technology professionals | 12.16% | 47.50% | 37.59% | 2.76% | 0.00% | 100.00% |
| Legal, social and cultural professionals | 9.49% | 50.77% | 27.04% | 9.49% | 3.20% | 100.00% |
| Science and engineering associate professionals | 11.05% | 47.37% | 29.79% | 11.26% | 0.53% | 100.00% |
| Health associate professionals | 11.96% | 40.80% | 36.61% | 9.82% | 0.82% | 100.00% |
| Business and administration associate professionals | 8.50% | 51.07% | 30.91% | 8.70% | 0.82% | 100.00% |
| Legal, social, cultural and related associate professionals | 11.01% | 55.96% | 27.93% | 5.11% | 0.00% | 100.00% |
| Information and communications technicians | 16.23% | 54.01% | 28.41% | 1.35% | 0.00% | 100.00% |
| General and keyboard clerks | 8.67% | 48.98% | 32.45% | 9.69% | 0.20% | 100.00% |
| Customer services clerks | 16.91% | 37.84% | 43.61% | 1.65% | 0.00% | 100.00% |
| Numerical and material recording clerks | 12.60% | 49.28% | 32.58% | 5.23% | 0.31% | 100.00% |
| Other clerical support workers | 10.64% | 55.22% | 27.86% | 5.88% | 0.41% | 100.00% |
| Personal service workers | 10.69% | 52.35% | 34.97% | 1.00% | 1.00% | 100.00% |
| Sales workers | 15.62% | 38.68% | 42.92% | 1.86% | 0.93% | 100.00% |
| Personal care workers | 6.67% | 52.42% | 29.49% | 9.49% | 1.92% | 100.00% |
| Protective services workers | 7.86% | 51.75% | 28.59% | 10.31% | 1.49% | 100.00% |
| Market-oriented skilled agricultural workers | 5.56% | 36.11% | 50.00% | 8.33% | 0.00% | 100.00% |
| Market-oriented skilled forestry, fishery and hunting workers | 13.63% | 54.53% | 22.68% | 4.58% | 4.58% | 100.00% |
| Subsistence farmers, fishers, hunters and gatherers | 14.26% | 42.87% | 42.87% | 0.00% | 0.00% | 100.00% |
| Building and related trades workers, excluding electricians | 8.18% | 42.77% | 35.01% | 11.84% | 2.20% | 100.00% |
| Metal, machinery and related trades workers | 10.59% | 45.91% | 31.76% | 10.69% | 1.05% | 100.00% |
| Handicraft and printing workers | 10.69% | 55.94% | 28.57% | 4.80% | 0.00% | 100.00% |
| Electrical and electronics trades workers | 9.73% | 57.87% | 28.26% | 3.11% | 1.04% | 100.00% |
| Food processing, wood working, garment and other craft and related trades workers | 7.63% | 46.71% | 38.56% | 7.11% | 0.00% | 100.00% |
| Stationary plant and machine operators | 12.23% | 48.52% | 33.74% | 4.89% | 0.61% | 100.00% |
| Assemblers | 11.13% | 43.31% | 43.31% | 2.25% | 0.00% | 100.00% |
| Drivers and mobile plant operators | 7.84% | 57.32% | 25.67% | 8.25% | 0.93% | 100.00% |
| Cleaners and helpers | 10.70% | 47.87% | 34.37% | 6.33% | 0.73% | 100.00% |
| Agricultural, forestry and fishery labourers | 8.58% | 48.72% | 32.79% | 8.99% | 0.92% | 100.00% |
| Labourers in mining, construction, manufacturing and transport | 11.73% | 46.60% | 39.30% | 1.75% | 0.62% | 100.00% |
| Food preparation assistants | 13.08% | 47.70% | 35.16% | 3.64% | 0.43% | 100.00% |
| Street and related sales and service workers | 9.70% | 67.70% | 16.10% | 6.50% | 0.00% | 100.00% |
| Refuse workers and other elementary workers | 10.11% | 48.07% | 35.04% | 6.26% | 0.52% | 100.00% |
| Total | 9.68% | 50.15% | 32.54% | 6.90% | 0.72% | 100.00% |

Generally, most of the workforce is between 31 years and 54 years (82.7%) with the majority of the human resource (50.2%) being between 31and 45 years. As there seems to be 6.9% in the age group 55 to 65 years old, the value is an obvious strategic target for transition into retirement in the next 10 years.

Table 18: Age distribution of human resource in public sector

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Occupational skills** | 16 - 30 years | 31 - 45 years | 46 - 54 years | 55 - 65 years | 66 years or over |  |
| Total |
| Teaching professionals | 212 | 2,176 | 1,363 | 189 | 6 | **3,946** |
| Cleaners and helpers | 146 | 949 | 583 | 161 | 3 | **1,842** |
| Non-commissioned armed forces officers | 151 | 546 | 210 | 25 | 3 | **935** |
| Other clerical support workers | 88 | 513 | 201 | 56 | 2 | **860** |
| Business and administration associate professionals | 50 | 375 | 263 | 81 | 0 | **769** |
| Protective services workers | 53 | 317 | 171 | 89 | 1 | **631** |
| Numerical and material recording clerks | 59 | 300 | 151 | 29 | 0 | **539** |
| Business and administration professionals | 27 | 222 | 114 | 69 | 2 | **434** |
| Drivers and mobile plant operators | 10 | 226 | 94 | 36 | 0 | **366** |
| Health professionals | 57 | 127 | 112 | 29 | 10 | **335** |
| General and keyboard clerks | 19 | 160 | 99 | 37 | 0 | **315** |
| Health associate professionals | 31 | 100 | 95 | 24 | 1 | **251** |
| Science and engineering associate professionals | 18 | 105 | 67 | 26 | 2 | **218** |
| Agricultural, forestry and fishery labourers | 14 | 105 | 75 | 15 | 0 | **209** |
| Building and related trades workers, excluding electricians | 15 | 69 | 85 | 36 | 2 | **207** |
| Science and engineering professionals | 23 | 91 | 60 | 22 | 0 | **196** |
| Refuse workers and other elementary workers | 14 | 81 | 50 | 9 | 0 | **154** |
| Administrative and commercial managers | 5 | 68 | 41 | 22 | 0 | **136** |
| Food preparation assistants | 6 | 70 | 34 | 7 | 1 | **118** |
| Legal, social, cultural and related associate professionals | 9 | 57 | 30 | 2 | 0 | **98** |
| Information and communications technology professionals | 7 | 46 | 30 | 4 | 0 | **87** |
| Electrical and electronics trades workers | 9 | 42 | 29 | 7 | 0 | **87** |
| Food processing, wood working, garment and other craft and related trades workers | 4 | 44 | 24 | 9 | 0 | **81** |
| Metal, machinery and related trades workers | 4 | 23 | 34 | 14 | 0 | **75** |
| Production and specialized services managers | 1 | 32 | 29 | 14 | 0 | **76** |
| Customer services clerks | 11 | 30 | 20 | 3 | 0 | **64** |
| Chief executives, senior officials and legislators | 3 | 31 | 19 | 11 | 0 | **64** |
| Legal, social and cultural professionals | 3 | 29 | 15 | 6 | 1 | **54** |
| Commissioned armed forces officers | 1 | 19 | 20 | 13 | 0 | **53** |
| Personal care workers | 4 | 37 | 5 | 4 | 1 | **51** |
| Stationary plant and machine operators | 2 | 23 | 12 | 4 | 0 | **41** |
| Personal service workers | 3 | 27 | 5 | 1 | 1 | **37** |
| Information and communications technicians | 2 | 15 | 9 | 1 | 0 | **27** |
| Market-oriented skilled agricultural workers | 2 | 12 | 12 | 2 | 0 | **28** |
| Street and related sales and service workers | 2 | 19 | 5 | 2 | 0 | **28** |
| Other ranks of the armed forces occupation | 4 | 11 | 3 | 2 | 0 | **20** |
| Market-oriented skilled forestry, fishery and hunting workers | 2 | 8 | 3 | 1 | 0 | **14** |
| Sales workers | 2 | 8 | 5 | 0 | 0 | **15** |
| Handicraft and printing workers | 1 | 10 | 3 | 1 | 0 | **15** |
| Subsistence farmers, fishers, hunters and gatherers | 2 | 6 | 1 | 0 | 0 | **9** |
| Assemblers | 0 | 4 | 5 | 0 | 0 | **9** |
| Hospitality, retail and other services managers | 0 | 4 | 3 | 0 | 0 | **7** |
| Labourers in mining, construction, manufacturing and transport | 0 | 3 | 2 | 1 | 0 | **6** |
| **Total** | **1,076** | **7,140** | **4,191** | **1,064** | **36** | **13,507** |
| **Per cent** | **7.97%** | **52.86%** | **31.03%** | **7.88%** | **0.27%** | **100.00%** |

This table indicates that in the next 10 years, the public sector is expected to have at least 8% of the workforce reaching retirement age. It is necessary to see whether this is the same between the two genders. The next table provides the comparison.

Table 19: Comparison of age distribution of human resource across gender

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **16 - 30 years** | **31 - 45 years** | **46 - 54 years** | **55 - 65 years** | **66 years or over** |  | |
| **Total** | |
| **Male** | 9.4% | 49.4% | 32.3% | 7.9% | 0.9% | **100%** | **17,896** |
| **Female** | 10.4% | 51.7% | 33.1% | 4.5% | 0.3% | **100%** | **8,469** |
| **Total** | **2,552** | **13,227** | **8,580** | **1,813** | **193** |  | **26,365** |
| **Per cent** | 9.7% | 50.2% | 32.5% | 6.9% | 0.7% |  | **100.00%** |

Around 80% of the female and male workforce lies in the age range of 31 years to 54 years with about 50% of the both workforces being between 31 and 45 years.

Figure 3: Comparison of gender distribution across the age groups.

In every age-group, there are about twice as many males as the number of the females. The results are evident that females are generally not well-represented in many aspects.

### Summary and Conclusion

After summarizing the existing human resource skills distribution by qualification, by vocational qualifications, skills needed by employees across occupations, age, gender, skill composition, public and private CSO/NGO divide, it is vital that we identify the gaps in the human resources and project the future human resource requirements.

## CHAPTER FOUR: PROJECTIONS OF HUMAN RESOURCES DEMAND IN MALAWI

This chapter presents projected estimates of the human resource demand in Malawi by using the information from the data and other statistics present in the Malawi’s statistical system.

The period 2011-2012 was an economic challenge. The table below depicts the picture from the survey.

Table 20: Changes in number of employees between 2011 and 2012

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
|  | **Employees 2011** | **Employees 2012** | Increase |
|  |  |  |  |
| Accommodation | 1589 | 1106 | -483 |
| Agriculture | 22109 | 20028 | -2081 |
| Construction | 323 | 232 | -91 |
| Electricity | 355 | 282 | -73 |
| Financial Services | 469 | 757 | +288 |
| Governance | 16806 | 14264 | -2542 |
| ICT services | 613 | 423 | -190 |
| Manufacturing | 2571 | 3157 | +586 |
| Mining | 1124 | 969 | -155 |
| Real estate | 120 | 92 | -28 |
| Social welfare services | 11954 | 6543 | -5411 |
| Training/education | 65224 | - | - |
| Transport | 2199 | 1728 | -471 |
| Wholesale/retail | 3713 | 3603 | -110 |
|  |  |  |  |
| Grand Total | 129191 | 57377 |  |
| Missing | 22 | 29 |  |

The negative values in the last column suggest that most organizations reported higher number of employees at their establishments in 2011 compared to 2012. This could be attributed to the worst economic challenges such as foreign exchange and fuel shortages Malawi was facing during the time. This may have led to massive retrenchments and reluctance to recruit new staff.

As the period 2011-2012 was unusual, a conventional formula for projecting the future using the negative values in the above table would be unrealistic. The only available realistic and reliable statistics that could be used for such projection was the Malawi’s education statistics.

The Malawi education statistics of 2011 reveals that there were 53,031 teachers in primary schools, 11,300 in secondary schools, 214 in vocational training institutions, 302 in teacher training colleges and 694 in higher education training institutions resulting into a total workforce of 65,541 as *teaching professionals*. Using the official number of 65,541in relation to the proportion of teachers in the survey (4589 out of 27000), it was possible to project the total work force in various occupations for 2011. Using the 2011 as the base, the projections for the total work force up to 2020 are done using Malawi’s annual population growth of 2.4% as shown in the Table below.

Table 21: Projections of total work force

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Base 2011 | Year 2013 | Year 2014 | Year 2015 | Year 2016 | Year 2017 | Year 2018 | Year 2019 | Year 2020 |
| Teaching professionals | 65,541 | 68,725 | 70,374 | 72,063 | 73,793 | 75,564 | 77,377 | 79,234 | 81,136 |
| Cleaners and helpers | 58,471 | 61,312 | 62,783 | 64,290 | 65,833 | 67,413 | 69,031 | 70,687 | 72,384 |
| Business and administration associate professionals | 21,895 | 22,958 | 23,509 | 24,073 | 24,651 | 25,243 | 25,849 | 26,469 | 27,104 |
| Other clerical support workers | 21,095 | 22,120 | 22,650 | 23,194 | 23,751 | 24,321 | 24,904 | 25,502 | 26,114 |
| Protective services workers | 19,524 | 20,472 | 20,963 | 21,467 | 21,982 | 22,509 | 23,050 | 23,603 | 24,169 |
| Numerical and material recording clerks | 16,982 | 17,806 | 18,234 | 18,671 | 19,120 | 19,578 | 20,048 | 20,529 | 21,022 |
| Agricultural, forestry and fishery labourers | 15,410 | 16,159 | 16,547 | 16,944 | 17,351 | 17,767 | 18,193 | 18,630 | 19,077 |
| Drivers and mobile plant operators | 13,811 | 14,482 | 14,829 | 15,185 | 15,550 | 15,923 | 16,305 | 16,696 | 17,097 |
| Non-commissioned armed forces officers | 13,554 | 14,212 | 14,553 | 14,903 | 15,260 | 15,626 | 16,002 | 16,386 | 16,779 |
| Building and related trades workers, excluding electricians | 12,740 | 13,359 | 13,679 | 14,007 | 14,344 | 14,688 | 15,040 | 15,401 | 15,771 |
| Business and administration professionals | 12,340 | 12,939 | 13,250 | 13,568 | 13,893 | 14,227 | 14,568 | 14,918 | 15,276 |
| Food preparation assistants | 12,126 | 12,715 | 13,020 | 13,332 | 13,652 | 13,980 | 14,315 | 14,659 | 15,011 |
| Metal, machinery and related trades workers | 10,854 | 11,382 | 11,655 | 11,935 | 12,221 | 12,514 | 12,815 | 13,122 | 13,437 |
| Labourers in mining, construction, manufacturing and transport | 9,255 | 9,704 | 9,937 | 10,176 | 10,420 | 10,670 | 10,926 | 11,188 | 11,457 |
| Stationary plant and machine operators | 7,298 | 7,653 | 7,836 | 8,024 | 8,217 | 8,414 | 8,616 | 8,823 | 9,035 |
| Health professionals | 6,841 | 7,173 | 7,346 | 7,522 | 7,702 | 7,887 | 8,077 | 8,270 | 8,469 |
| Customer services clerks | 6,313 | 6,619 | 6,778 | 6,941 | 7,108 | 7,278 | 7,453 | 7,632 | 7,815 |
| General and keyboard clerks | 5,684 | 5,960 | 6,103 | 6,250 | 6,400 | 6,554 | 6,711 | 6,872 | 7,037 |
| Science and engineering associate professionals | 5,456 | 5,721 | 5,858 | 5,999 | 6,143 | 6,290 | 6,441 | 6,596 | 6,754 |
| Health associate professionals | 5,227 | 5,481 | 5,613 | 5,747 | 5,885 | 6,027 | 6,171 | 6,319 | 6,471 |
| Administrative and commercial managers | 5,070 | 5,316 | 5,444 | 5,575 | 5,709 | 5,846 | 5,986 | 6,129 | 6,277 |
| Science and engineering professionals | 4,827 | 5,062 | 5,183 | 5,308 | 5,435 | 5,566 | 5,699 | 5,836 | 5,976 |
| Sales workers | 4,799 | 5,032 | 5,153 | 5,276 | 5,403 | 5,533 | 5,665 | 5,801 | 5,941 |
| Electrical and electronics trades workers | 4,113 | 4,313 | 4,417 | 4,523 | 4,631 | 4,742 | 4,856 | 4,973 | 5,092 |
| Food processing, wood working, garment and other craft and related trades workers | 2,942 | 3,085 | 3,159 | 3,235 | 3,313 | 3,392 | 3,473 | 3,557 | 3,642 |
| Refuse workers and other elementary workers | 2,928 | 3,070 | 3,144 | 3,219 | 3,296 | 3,376 | 3,457 | 3,540 | 3,625 |
| ICT professionals | 2,614 | 2,741 | 2,806 | 2,874 | 2,943 | 3,013 | 3,086 | 3,160 | 3,236 |
| Production and specialized services managers | 2,557 | 2,681 | 2,745 | 2,811 | 2,878 | 2,947 | 3,018 | 3,091 | 3,165 |
| Chief executives, senior officials and legislators | 2,057 | 2,157 | 2,208 | 2,261 | 2,316 | 2,371 | 2,428 | 2,486 | 2,546 |
| Legal, social, cultural and related associate professionals | 1,928 | 2,022 | 2,070 | 2,120 | 2,171 | 2,223 | 2,276 | 2,331 | 2,387 |
| Personal care workers | 1,500 | 1,572 | 1,610 | 1,649 | 1,688 | 1,729 | 1,770 | 1,813 | 1,856 |
| Personal service workers | 1,457 | 1,528 | 1,564 | 1,602 | 1,640 | 1,680 | 1,720 | 1,761 | 1,803 |
| Assemblers | 1,271 | 1,333 | 1,365 | 1,398 | 1,431 | 1,465 | 1,501 | 1,537 | 1,574 |
| Handicraft and printing workers | 1,185 | 1,243 | 1,273 | 1,303 | 1,335 | 1,367 | 1,399 | 1,433 | 1,467 |
| Information and communications technicians | 1,085 | 1,138 | 1,165 | 1,193 | 1,222 | 1,251 | 1,281 | 1,312 | 1,344 |
| Commissioned armed forces officers | 928 | 973 | 997 | 1,021 | 1,045 | 1,070 | 1,096 | 1,122 | 1,149 |
| Legal, social and cultural professionals | 928 | 973 | 997 | 1,021 | 1,045 | 1,070 | 1,096 | 1,122 | 1,149 |
| Market-oriented skilled agricultural workers | 528 | 554 | 567 | 581 | 595 | 609 | 624 | 639 | 654 |
| Street and related sales and service workers | 428 | 449 | 460 | 471 | 482 | 494 | 506 | 518 | 530 |
| Other ranks of the armed forces occupation | 357 | 374 | 383 | 393 | 402 | 412 | 422 | 432 | 442 |
| Hospitality, retail and other services managers | 343 | 359 | 368 | 377 | 386 | 395 | 405 | 414 | 424 |
| Market-oriented skilled forestry, fishery and hunting workers | 343 | 359 | 368 | 377 | 386 | 395 | 405 | 414 | 424 |
| Subsistence farmers, fishers, hunters and gatherers | 214 | 225 | 230 | 236 | 241 | 247 | 253 | 259 | 265 |
| Total | 384,820 | 403,512 | 413,197 | 423,114 | 433,268 | 443,667 | 454,315 | 465,218 | 476,383 |

From the projections, it is clear that *teaching professionals* and *cleaners and helpers* shall continue to be the dominant work force while occupations required to support ERP like *science and technology* and *ICT* do not seem to be featuring highly.

Summary and Conclusion

The above projections suggest that the work force demand will increase from 403,000 in 2013 to 476,000 in 2020, representing an increase of 18%.

## CHAPTER FIVE: SUPPLY OF SKILLED HUMAN RESOURCES IN MALAWI

### Introduction

This chapter presents the supply human resources in Malawi by analyzing the various training institutions in Malawi. An overview of training channels and institutions in Malawi is presented. The chapter further presents demographic characteristics such as staffing, enrolment, minimum qualifications, outputs of graduates, projected supply of graduates in various training institutions as well as aspects of overseas training.

**Channels Skills Supply in Malawi**

There are basically two channels through which skills are supplied in Malawi. The first is on the job training whereby employees’ skills and knowledge base are strengthened through coaching, reading manuals or terms and conditions of service, hands-on-experiences, orientation programmes, and acting appointments at the workplace. The second approach is off-the-job training whereby individuals learn skills and knowledge away from the job. This can be course-based training or study tours and attachment. Course-based training can be short-term and long-term. Short term can be through short courses lasting a day, week or even a month in management training institutes such as the Malawi Institute of Management (MIM) or Staff Development Institute (SDI). Long term training can be in departmental or technical training institutions such as Soche Technical College or at the university. Training can also be done outside Malawi i.e. in Africa or outside Africa. Training can be simply attendance or aimed at obtaining a certificate, diploma, degree, or postgraduate degree.

### An overview of Training institutions in Malawi

Higher education may be in the form of academy, polytechnic, schools, and institutes of higher learning or universities with the mission to prepare individuals by instilling competences in them so that they may become reliable tools for achievements of national goals. They update knowledge, skills and abilities of already employed workforce to address the current and future needs of the nation. These institutions also promote advances in science and technology; develop researchers and scientists capable of accumulating, transforming, and distributing available technologies for the welfare of society. They also play the role of disseminating applied research products, action programmes and applied technology packages for use in productive process and innovations to improve production processes to enhance society’s quality of life.

In Malawi, training institutions range from departmental or ministerial training institutions and private company-based awarding certificates or diplomas to national training institutions for graduate training offering degree programmes or executive training programmes for top management officials of public and private sector organizations. Training institutions can also be classified in terms of ownership and source of funding.

Below is the typology of training institutions in Malawi by the level of training provided.

### Top level cadre training

Top level administrators, professionals, scientist, technologists, agriculturalists, engineers, computer scientists, geologists, educationalists, economists, physicists, lawyers, environmental scientists, computer engineers and innovation staff are trained at public universities such as the University of Malawi colleges, the Lilongwe University of Agriculture and Natural Resources (LUANAR), Mzuzu University and the soon-to-be opened Malawi University of Science and Technology.

There are also faith-based universities like the University of Livingstonia, Malawi Adventist University and Catholic University. Private universities include Shareworld, Blantyre International, Exploit and Baptist University among other private tertiary education institutions. University degrees last for a minimum of four years.

The University of Malawi is a federal structure composed of 4 constituent colleges- Chancellor College, Polytechnic, College of Medicine and Kamuzu College of Nursing. The University of Mzuzu is the second state university which offers courses in basic sciences, education, environmental sciences, health sciences and ICT. The overall annual intake of the University of Malawi is around 1,000 students and the annual output is less than 2000. Some of these institutions also offer same programmes on a non-residential basis. Students who qualify for entry into the non-residential programmes pay higher fees compared to government- sponsored students who contribute about 4% of the economic fee.

### Programmes offered by Various Training Institutions

The range of training programmes offered by various institutions in Malawi vary quite considerably from certificate through to diploma, degree, postgraduate diplomas, Masters and PhD degrees.

### Public University programmes

Mzuzu University offers Bachelor degrees in education, forestry, renewable technologies, information and communication Technology, Tourism and Hospitality Management and diploma in library and information Science.

The Lilongwe University of Agriculture and Natural Resources offers university certificates in agriculture technology and agriculture. It also offers bachelor of science in various areas of agriculture, such as agriculture, environmental science, forestry, aquaculture, aquaculture and fish science, engineering, animal science, nutrition and food science, crop science, human nutrition, food science and management, agriculture management, irrigation engineering, agribusiness management, agriculture economics, agriculture extension, agriculture education, animal health and production and horticulture. It also offers master degrees in Aquaculture and fisheries Science, plant protection, rural development extension, and doctoral degrees.

The University of Malawi offers certificates, diplomas, bachelor’s degree, masters and PhDs in its various campuses. For example, the College of Medicine offers bachelor of medicine and bachelor of surgery, Bachelor of Science in medical laboratory, bachelor of pharmacy and pre-medical sciences. It also offers degrees of master of medicine- internal medicine and master of medicine (pediatrics and child health) and master of medicine (surgery). Chancellor College offers university certificate in education, bachelors of education, and bachelor’s degrees in arts, humanities, philosophy, theology, media, law, social science, public administration, human resource management and political science. It also offers masters in law, applied linguistics and African social history. It also offers masters and doctoral programmes in Economics, human resource management and industrial relations, Law, Education, philosophy, biology, development studies, theology and religious studies.

The Polytechnic offers diplomas in architectural technology, management studies and bachelor’s degrees in mathematical science education, architectural studies, business administration, accountancy, journalism, technical education, engineering, built environment, procurement and a Master of Business Administration.

Kamuzu College of Nursing offers bachelors and master’s degrees in nursing in areas like nursing, community health and midwifery.

Other universities such as, the Livingstonia and Catholic offer degrees in education apart from offering social science degrees and bridging courses. The Malawi Adventist University offers degrees in education, social science, humanities and business studies. Similarly, Private universities such as Blantyre International University, Skyways, and Exploits offer similar programmes with some smaller differences like banking, insurance, tourism, community development, etc. Private companies and parastatal or statutory corporations have their own training centres where they train their staff.

### Middle-level cadre training

Apart from Universities and other institutes for training top level managerial cadre in both the public and private sector, there are two key management training institutions in Malawi. These are, MIM and SDI. The two institutions conduct training to enhance the knowledge and skill base of practicing managers and professionals at attendance, certificate and diploma or higher qualifications.

On the other hand, middle level executive, administrative and technical staff is produced by the same university colleges by offering diplomas in similar areas. The Malawi College of Accountancy, the Malawi Polytechnic Centre for Continuing Education, Blantyre Business College, Skyway Business College, Natural Resources College, Malawi College of Heath Sciences, SDI and various private institutions offer diploma level certificates.

### Lower level cadre training

The lower level cadres called technicians, operatives, artisans, clerical, accounting and lower technical level staff are a very important group in the production process. In the technical areas, they are either in factories or work outside it. These include motor vehicle mechanics; general fitters; electricians; plumbers; painters and decorators; carpenters; bricklayers; welders and fabricators; machine operators, process minders etc. In the public service, we are talking of veterinary assistants, health and medical assistants, primary school teachers, community development assistants, forestry assistants, extension staff trained by ministerial training institutions. Examples include, teacher training colleges such as Blantyre, Machinga, Lilongwe and Karonga; Malawi College of Health Sciences –Zomba, Blantyre and Lilongwe campuses, and Chongoni College of Forestry, Mpwepwe Fisheries College, etc.

Apart from private vocational training colleges such as Phwezi Rural Polytechnic, Development Aid from People to People (DAPP) vocational training colleges (Mikolongwe) and Thondwe Village Polytechnic in Zomba, the training of artisans is also done in government- owned colleges like Soche Technical College, Nasawa Technical College, Lilongwe Technical College and Salima Technical College. They are also trained in grant-aided technical training colleges like Mzuzu, Namitete and Livingstonia.

Apart from formal training institutions, there are others who learn the trade through hands-on- experience in private-owned motor vehicle garages, carpentry shops, welding workshops etc. Entry qualifications into the formal training institutions have been changing over the years.

### Entry level qualifications for training

For entry into the university, a good pass at the MSCE is a must. Other universities administer entrance examination. There are yet others who offer bridging courses for those who do not have strong school certificate passes before they enroll into degree programmes.

While a JC or PSLC was a prerequisite for entry into various trades, fewer JC holders are recruited for same trade these days. The MSCE is the required entry qualification for various trades although some private institutions do admit JC holders.

Other initiatives have gone towards a more informal approach to training in various trades. Primary school leavers are being trained and offered a starter pack where they are given tools to start their own businesses.

There is another group that does not require any formal training after the junior or school certificate. It enters the public or private sector straight from secondary schools. Clerical staff is a case in point.

Besides Government institutions for training staff, others are mission institutions which train nurses, medical assistants and clinical officers. These include for example Phalombe Holy Family, St Luke Hospital in Zomba, Muona in Nsanje and St Joseph in Chiradzulu,

### Demographic features of training institutions surveyed.

Various training institutions were visited during the survey. They ranged from the artesian training institutions through departmental or ministerial training institutions to degree offering public and private sector universities.

Table 22 shows the capacity of publicly owned training institutions by their training orientation- educational, technical/vocational and professional.

Table 22: Academic positions in public training institutions

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Publicly owned | **Training orientation** | Established positions | Filled positions | Extra needed positions | **Total needed** | **% needed** |
| Educational orientation | 665 | 667 | 111 | **111** | 17% |
| Technical/Vocational | 112 | 58 | 64 | **118** | 105% |
| Professional orientation | 30 | 12 | 7 | **25** | 83% |
| **Total** | **807** | **737** | **182** | **252** |  |
| **% of established positions** | **100%** | **91%** | **23%** | **31%** |  |

In publicly owned training institutions, 91% of the established positions are filled and an extra 23% of positions are needed on top of the existing vacant positions. About 31% of the established positions are needed to be added on in general. The biggest proportions of shortages are in technical/vocational institutions (105%) and professional oriented institutions (83%). The implication of this is that any attempt to expand training is hampered by staff shortages as indicated in chapter 2.

Table 23shows the capacity of privately owned training institutions by training orientation

Table 23: Academic positions in privately-owned training institutions

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Privately owned | **Training orientation** | Established positions | Filled positions | Extra needed positions | **Total needed** | **% needed** |
| Professional orientation | 173 | 171 | 17 | **19** | **11%** |
| Educational orientation | 126 | 86 | 12 | **52** | **41%** |
| Technical/Vocational | 33 | 39 | 6 | **6** | **18%** |
| **Total** | **332** | **296** | **35** | **71** |  |
| **% of established positions** | **100%** | **89%** | **11%** | **21%** |  |

In the privately-owned training institutions, 89% of the established positions are occupied and overall, 21% more are needed to satisfy the academic staffing needs of the institutions. The highest shortage is in educational oriented institutions (41%).

Table 24 shows the capacity of CSO/NGO owned training institutions by training orientation.

Table 24: Academic positions in CSO/NGO training institutions

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| CSO/NGO |  | Established positions | Filled positions | Extra needed positions | **Total needed** | **% needed** |
| Professional orientation | 19 | 15 | 5 | **9** | **47%** |
| Educational orientation | 7 | 6 | - | **1** | **14%** |
| Technical/Vocational | 6 | 4 | - | **2** | **33%** |
| **Total** | **32** | **25** | **5** | **12** |  |
| **% of established positions** | **100%** | **78%** | **16%** | **38%** |  |

Though the CSOs/NGOs data is scanty, it shows about 78% of the established positions being filled and 38% being positions required. Further, 47% of the established positions being needed in institutions with professional orientation and 33% in those that focuses on technical/vocational training.

Table 25 shows the capacity of branch of international training institutions by training orientation

Table 25: Academic positions in branch of international training institutions

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Branch of international organization | **Training orientation** | Established positions | Filled positions | Extra needed positions | **Total needed** | **% needed** |
| Professional orientation | 52 | 32 | 20 | **40** | 77% |
| Educational orientation | 10 | 10 | - | **0** | 0% |
| Technical/Vocational | 5 | - | - | **5** | 100% |
| **Total** | **67** | **42** | **20** | **45** |  |
| **% of established positions** | **100%** | **63%** | **30%** | **67%** |  |

In institutions that are branches of international training organizations, very high percentages of shortage of staff are observed (67%). The problem seems to be severe for training institutions with professional orientation as well as those with technical/vocational orientation.

Table 26 shows the distribution of trainers in training institutions by gender

Table 26: Distribution of trainers by gender

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Publicly owned** | | **Privately owned** | | **CSO/NGO owned** | | **International organization** | | **Total** | |
| *Male* | *Female* | *Male* | *Female* | *Male* | *Female* | *Male* | *Female* | *Male* | *Female* |
| Professional orientation | 1 | 4 | 104 | 67 | 15 | 0 | 16 | 16 | 136 | 87 |
| Educational orientation | 433 | 161 | 97 | 15 | 6 | 1 | 8 | 2 | 544 | 179 |
| Technical/  Vocational | 36 | 9 | 16 | 22 | 4 | 0 | 5 | - | 61 | 31 |
| **Total** | **470** | **174** | **217** | **104** | **25** | **1** | **29** | **18** | **741** | **297** |
| **Per cent** | 73% | 27% | 68% | 32% | 96% | 4% | 62% | 38% | **71%** | **29%** |

The results show that among instructors in training institutions surveyed, only 29% of the training workforce is female. This imbalance is the same regardless of where the support for the training institutions is coming from or the orientation of the training as categorized.

Table 27 shows the administrative positions in public training institutions by training orientation

Table 27: Administrative positions in public training institutions

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Publicly owned | **Training orientation** | Established positions | Filled positions | Extra needed position | **Total needed** | **% needed** |
| Educational orientation | 356 | 367 | 30 | **30** | **8%** |
| Technical/Vocational | 89 | 48 | 26 | **67** | **75%** |
| Professional orientation | 30 | 30 |  | **0** | **0%** |
| **Total** | **475** | **445** | **56** | **86** |  |
| **% of established positions** | **100%** | **94%** | **12%** | **18%** |  |

Ninety-four per cent of the established positions for administrative staff in training institutions are filled. However, 18% of the established positions are needed to cater for the demand. The public technical/vocational institutions are the ones that experience serious shortage of administrative staff.

Table 28 shows the administrative positions in privately-owned training institutions by training orientation

Table 28: Administrative positions in privately-owned training institutions

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Privately owned | **Training orientation** | Established positions | Filled positions | Extra needed positions | **Total needed** | **% needed** |
| Professional orientation | 368 | 271 | 147 | **244** | **66%** |
| Educational orientation | 60 | 48 | 3 | **15** | **25%** |
| Technical/Vocational | 21 | 16 | 2 | **7** | **33%** |
| **Total** | **449** | **335** | **152** | **266** |  |
| **% of established positions** | **100%** | **75%** | **34%** | **59%** |  |

In privately-owned training institutions, around 75% of the established positions for administrative staff are occupied. However, 59% of the established positions are needed to be filled up. Most of this need is in professional orientation (66%).

Table 29 shows the administrative positions in branch of CSO/NGO training institutions by training orientation

Table 29: Administrative positions in branch of CSO/NGO institutions

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| CSO/NGO |  | Established positions | Filled positions | Extra needed position | **Total needed** | **% needed** |
| Professional orientation | 12 | 9 | 0 | **3** | 25% |
| Educational orientation | 5 | 4 | - | **1** | 20% |
| Technical/Vocational | 4 | 1 | - | **3** | 75% |
| **Total** | **21** | **14** | **0** | **7** |  |
| **% of established positions** | 100% | 67% | 0% | 33% |  |

In CSOs/ NGO supported training institutions, around 67% of the positions for administrative staff are filled. About a third (33%) of the existing positions are needed in these institutions.

Table 30 shows the administrative positions in branch of international institutions by training orientation

Table 30: Administrative positions in branch of international training institutions

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Branch of international organization | **Training orientation** | Established positions | Filled positions | Extra needed positions | **Total needed** | **% needed** |
| Professional orientation | 83 | 43 | 40 | **80** | 96% |
| Educational orientation | - | - | - | - | **-** |
| Technical/Vocational | 4 | 4 | 0 | **0** | 0% |
| **Total** | **87** | **47** | **40** | **80** |  |
| **% of established positions** | 100% | 54% | 46% | 92% |  |

Institutions working as branches for international training organizations seem to be in dire need of administrative staff (92%). Around half (54%) of the established positions are filled. Most of this need is in professional orientation (96%).

Table 31shows distribution of administrative staff by gender in all training institutions

Table 31: Distribution of administrative staff by gender

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Publicly owned** | | **Privately owned** | | **CSO/NGO owned** | | **International organization** | | **Total** | |
| *Male* | *Female* | *Male* | *Female* | *Male* | *Female* | *Male* | *Female* | *Male* | *Female* |
| Professional orientation | 190 | 71 | 13 | 3 | 68 | 43 | - | - | **271** | **117** |
| Educational orientation | 251 | 110 | 50 | 6 | 4 | 1 | - | - | **305** | **117** |
| Technical/  Vocational | 42 | 11 | 18 | 10 | 2 | 0 | 3 | 1 | **65** | **22** |
| **Total** | **483** | **192** | **81** | **19** | **74** | **44** | **3** | **1** | **641** | **256** |
| **Percent** | **72%** | **28%** | **81%** | **19%** | **63%** | **37%** | **75%** | **25%** | **71%** | **29%** |

Just like the situation of the trainers, female administrative staff at training institutions is an under-represented at 29% of the established posts across various categorizations and is worse in privately-owned training institutions at 19%.

**Qualifications of Trainers in Training Institutions**

Table 32 and Figure 4show the desirable minimum qualifications for trainers within the range of diploma through undergraduate to doctorate degree and professional qualification in surveyed institutions**.**

Table 32: Desirable qualification for trainers in training institutions

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | | **Minimum desirable qualification for staff working as trainers at the institution** | | | | | **Total** |
| Undergraduate Diploma/  Certificate | Undergraduate  Degree | Master’s Degree/  Postgraduate  Diploma | Doctorate Degree | Professional qualification |  |
| **Training institution principal focus** | Educational orientation | 1 | 8 | 5 | 3 | 1 | **18** |
| Technical/  Vocational | 7 | 7 | 1 | 0 | 2 | **17** |
| Professional orientation | 1 | 10 | 3 | 0 | 0 | **14** |
| **Total** | | **9** | **25** | **9** | **3** | **3** | **49** |

Figure 4: Desirable qualification for trainers by institutional orientation

From the table and the figure, training institutions with *educational* (academic) orientation desire the minimum qualifications of their trainers to be mostly undergraduate degrees, followed by those that possess postgraduate training up to doctorate level. On the other hand, institutions with *professional orientation* prefer mostly an undergraduate degree or a master’s degree level. Finally, those institutions with *technical*/*vocational* orientation desire mainly the undergraduate qualified trainers or those with undergraduate diplomas or certificates.

### Institutional Support or sponsorship

Training institutions can either be government or publicly owned, private, CSO/NGO, branch of international establishment or other as Table 33 shows.

Table 33: Support for training institutions

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | | **Institutional support/sponsorship** | | | | | **Total** |
| Government/  Publicly owned | Privately owned | CSO/NGO | Branch of international establishment | Other |
| **Training institutional focus** | Educational orientation | 12 | 4 | 2 | 0 | 0 | **18** |
| Technical/Vocational | 10 | 3 | 1 | 1 | 2 | **17** |
| Professional orientation | 8 | 3 | 2 | 0 | 0 | **13** |
| **Total** | | **30** | **10** | **5** | **1** | **2** | **48** |

From the table, regardless of focus of the training institution, the government of Malawi is the major entity that provides support to most training institutions, followed by the private sector and CSOs/NGOs respectively.

### Highest Qualification Attained by candidates

An analysis of highest qualification attained by candidates at various training institutions is illustrated in Table 34.

Table 34: Highest qualification attained by candidates

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | | **Highest qualification offered to successful candidates at the training institution** | | | | | **Total** |
| Attendance Certificate/  No formal recognition | Diploma/  Certificate | Undergraduate Degree | Postgraduate Degree/  Diploma | Professional certificate (ACCA, etc.) |
| **Support for the institution** | Government/Publicly owned | 2 | 15 | 7 | 4 | 2 | **30** |
| Privately owned | 0 | 6 | 1 | 2 | 1 | **10** |
| CSO/NGO | 0 | 3 | 1 | 1 | 0 | **5** |
| Branch of international establishment | 0 | 1 | 0 | 0 | 0 | **1** |
| Other | 0 | 1 | 0 | 0 | 1 | **2** |
| **Total** | | **2** | **26** | **9** | **7** | **4** | **48** |

The majority of training institution (26 out of 48) focuses on producing undergraduate diplomas and certificates. As in the previous results, government is the main producer of trainees with diplomas and certificates as well as attempting to produce candidates with undergraduate degrees as well as postgraduate degree.

### Candidates Minimum Qualification

All training institutions have a minimum required qualification for entry depending on focus of the institution. Table 35summarizes the current situation.

Table 35: Candidates minimum qualifications

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | **Desirable minimum qualification for candidates enrolling at training institutions** | | | | | | **Total** |
| Professional experience | Primary School Leaving Certificate | Junior Certificate/  MGCE | MCE/  MSCE  (‘O’ Level) | Bachelor's Degree | Post- Graduate Degree/  Diploma |
| **Focus of the institution** | Educational orientation | 2 | 0 | 0 | 15 | 0 | 1 | **18** |
| Technical/Vocational | 0 | 1 | 3 | 13 | 0 | 0 | **17** |
| Professional orientation | 0 | 0 | 0 | 13 | 1 | 0 | **14** |
| **Total** | | **2** | **1** | **3** | **41** | **1** | **1** | **49** |

Most of the training institutions in Malawi perceive MSCE or ordinary level as the most desirable minimum qualification for the entry into *academic*, *technical*/*vocational* and *professional* training programmes.

### Enrolment across Training Institutions in Malawi

Table 36 and Figure 5present the enrolment of candidates across institutional ownership during the period 2009-2012.

Table 36: Enrolment across institutional ownership

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Year 2009** | **Year 2010** | **Year 2011** | **Year 2012** |
| Government/Publicly owned | 9,766 | 13,249 | 12,623 | 18,014 |
| Privately owned | 1,689 | 2,249 | 2,285 | 2,285 |
| CSO/NGO | 165 | 338 | 360 | 295 |
| Branch of international establishment | 169 | 180 | 186 | 189 |
| Other | 34 | 30 | 48 | 45 |
| **Grand Total** | 11,823 | 16,046 | 15,502 | 20,853 |

Figure 5: Enrolment trend by institutional ownerships

From the table above, it is evident that over the past three years, the dominant training institutions have been those supported by the Malawi government. In general, the total number of candidates in training institutions have been depicting increasing trend. However, relative to public institutions, the civil society organizations and other organizations do not seem to have noticeable increasing trend.

### Enrolment across training institutions by orientation

A further analysis of Enrolment across training institutions by orientation is summarized in Table 37 and Figure 6

Table 37: Enrolment across training orientations

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Year 2009** | **Year 2010** | **Year 2011** | **Year 2012** |
| Educational orientation | 6,984 | 8,675 | 1,0260 | 13,504 |
| Technical/Vocational | 2,079 | 2,334 | 2,575 | 2,583 |
| Professional orientation | 2,760 | 5,037 | 2,667 | 4,766 |
| **Grand Total** | 11,823 | 16,046 | 15,502 | 20,853 |

Figure 6: Enrolment trends by institutional orientations

Although the trend of enrolment in institutions focusing on *technical/vocational* and *professional* training do not seem to show any trend, the enrolment in *academic* institutions shows a clear increasing trend.

From the previous discussion, it is evident that the increasing trend in enrolment is in *educational oriented* institutions that are *public* in nature.

### Enrolment into various skills by institutional support

Table 38summarizes enrolment into various skills across institutional support.

Table 38: Enrolment into various skills across institutional support

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Occupational skills** | **Institutional support/sponsorship** | | | | | Unclassified support | **Total** | |
| Government/  Publicly owned | Privately owned | CSO/  NGO | Branch of international establishment | Other |
| Teacher Training | 4,128 | 455 | 158 | - | - | - | **4,741** | **32.8%** |
| Professional training | 1,395 | 347 | 24 | - | - | - | **1,766** | **12.2%** |
| Administrative/Managerial | 761 | 427 | - | - | - | - | **1,188** | **8.2%** |
| Crafts training | 613 | 265 | - | 60 | 68 | - | **1,006** | **7.0%** |
| General Nursing | 310 | 0 | 277 | - | 10 | 270 | **867** | **6.0%** |
| Computer Training | 798 | 0 | - | - | - | - | **808** | **5.6%** |
| Hotel/Catering | 556 | 205 | - | 40 | - | - | **801** | **5.5%** |
| Agriculture/Forestry | 537 | 0 | - | 40 | - | - | **577** | **4.0%** |
| Midwifery | 245 | 0 | 23 | - | 6 | 25 | **299** | **2.1%** |
| Technicians | 85 | 107 | - | 20 | - | - | **212** | **1.5%** |
| Bookkeeping | 191 | 14 | - | - | - | - | **205** | **1.4%** |
| Typing/Secretarial | 143 | 35 | - | - | - | - | **178** | **1.2%** |
| Banking | 126 | 34 | - | - | - | - | **160** | **1.1%** |
| General Clerical | 58 | 0 | - | - | - | - | **58** | **0.4%** |
| Police/Army training | 42 | 0 | - | - | 6 | - | **48** | **0.3%** |
| Home Economics | - | 0 | 0 | - | 7 | - | **7** | **0.05%** |
| Other | 1,423 | 95 | - | - | 11 | - | **1,529** | **10.6%** |
| **Total** | **11,411** | **1,984** | **482** | **160** | **108** | **295** | **14,450** | **100.0%** |

The government is generally the major institution involved in enrolling candidates to almost all occupational skills, followed by institutions that are privately owned. However, in *technicians* training, the private sector leads in enrolment. Further, though the CSOs/NGOs are not involved in much enrolment in *general nursing* skills, the CSOs/NGOs contribute a lot to the nursing training.

Whatever the case, over 81% of enrolment in the training institutions focuses on training in the following occupational skills: *Teacher Training* (32.8%), *Professional trainings* (12.2%), *Administrative/Managerial* (8.2%), *Crafts training* (7.0%), *General Nursing* (6.0%), *Computer Training* (5.6%), *Hotel/Catering* (5.5%), and *Agriculture/Forestry* training (4.0%).

### Enrolment to various skills by occupational skills and type of training

Table 39: Enrolment into various skills by training orientation

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Occupational skills** | **Type of training** | | | | |  | **Total** |
| Educational training |  | Technical/  Vocational |  | Professional training |
| Teacher Training | 1,390 |  | - |  | 3,351 |  | 4,741 |
| Professional training | 1,248 |  | 137 |  | 381 |  | 1,766 |
| Administrative/Managerial | 342 |  | - |  | 846 |  | 1,188 |
| Crafts training | 0 |  | 1,006 |  | - |  | 1,006 |
| General Nursing | 213 |  | 10 |  | 644 |  | 867 |
| Computer Training | 624 |  | 154 |  | 30 |  | 808 |
| Hotel/Catering | 506 |  | 279 |  | 16 |  | 801 |
| Agriculture/Forestry | 494 |  | 83 |  | - |  | 577 |
| Midwifery | 162 |  | 6 |  | 131 |  | 299 |
| Technicians | 0 |  | 212 |  | - |  | 212 |
| Bookkeeping | 0 |  | 165 |  | 40 |  | 205 |
| Typing/Secretarial | 5 |  | 151 |  | 22 |  | 178 |
| Banking | 122 |  | 24 |  | 14 |  | 160 |
| General Clerical | 0 |  | 50 |  | 8 |  | 58 |
| Police/Army training | 42 |  | 6 |  | - |  | 48 |
| Home Economics | 0 |  | 7 |  | - |  | 7 |
| Other | 1,359 |  | 138 |  | 32 |  | 1,529 |
| **Total** | 6,507 |  | 2,428 |  | 5,515 |  | 14,450 |

The majority of enrolment in *Teacher training*, *Administrative*/*Managerial*, *and General nursing* are in professional training institutions. On the other hand, the enrolment in technical/vocational institutions is dominant in *Crafts training*, *Technicians training*, *Bookkeeping*, *Typing*/*Secretarial* skills and in *General clerical* programmes. The rest of the skills have their highest enrolments in academic/educational institutions.

### Supply of human resources by institutional nature of support

Table 40below shows the supply of human resources by institutional nature of support.

Table 40: Supply of human resources by institutional nature of support

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Occupational skills** | **Institutional support/sponsorship** | | | | | **Unclassified support** | **Total** |
| Government/  Publicly  owned | Privately owned | CSO/  NGO | Branch of international establishment | Other |
| Teacher Training | 2986 | - | - | - | - | - | 2986 |
| Administrative/  Managerial | 761 | 305 | - | - | - | - | 1066 |
| Professional training | 808 | 121 | 24 | - | - | - | 953 |
| General Nursing | 764 | 16 | - | - | - | 19 | 799 |
| Computer Training | 447 | 6 | - | - | - | - | 453 |
| Crafts training | 278 | 31 | - | 40 | 48 | - | 397 |
| Hotel/Catering | 284 | 73 | - | 40 | - | - | 397 |
| Agriculture/Forestry | 139 | - | - | 40 | - | - | 179 |
| Bookkeeping | 130 | 17 | - | - | - | - | 147 |
| Technicians | 51 | 23 | - | 20 | - | - | 94 |
| Typing/Secretarial | 69 | 18 | - | - | - | - | 87 |
| Midwifery | 59 | - | - | - | - | - | 59 |
| Police/Army training | 45 | - | - | - | - | - | 45 |
| Banking | 24 | 8 | - | - | - | - | 32 |
| General Clerical | 23 | - | - | - | - | - | 23 |
| Home Economics | - | - | - | - | - | - | - |
| Other | 628 | 43 | - | - | - | - | 671 |
| **Total** | **7,496** | **661** | **24** | **140** | **48** | **19** | **8,388** |

The table reveals that public training institutions are the chief suppliers of skilled and semi-skilled personnel in each and every occupational skill. It is also apparent that the CSOs/ NGOs are almost non-existent when it comes to the production of human resources.

### Supply of human resources by institutional training orientation

Table 41shows the supply of skills by the orientation of training institutions.

Table 41: Supply of human resources by institutional training orientation

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Occupational skills** | **Type of training** | | | | |  | **Total** |
| Educational training |  | Technical/  Vocational |  | Professional training |
| Teacher Training | 1,371 |  | 603 |  | 1,012 |  | 2,986 |
| Administrative/Managerial | 281 |  | - |  | 785 |  | 1,066 |
| Professional training | 146 |  | 18 |  | 789 |  | 953 |
| General Nursing | 774 |  | - |  | 25 |  | 799 |
| Computer Training | 336 |  | 91 |  | 26 |  | 453 |
| Crafts training | - |  | 397 |  | - |  | 397 |
| Hotel/Catering | 234 |  | 148 |  | 15 |  | 397 |
| Agriculture/Forestry | 114 |  | 65 |  | . |  | 179 |
| Bookkeeping | - |  | 104 |  | 43 |  | 147 |
| Technicians | - |  | 94 |  | - |  | 94 |
| Typing/Secretarial | - |  | 65 |  | 22 |  | 87 |
| Midwifery | 53 |  | - |  | 6 |  | 59 |
| Police/Army training | 45 |  | - |  | - |  | 45 |
| Banking | - |  | 24 |  | 8 |  | 32 |
| General Clerical | - |  | 15 |  | 8 |  | 23 |
| Home Economics | - |  | - |  | - |  | - |
| Other | 509 |  | 143 |  | 19 |  | 671 |
| **Total** | **3,863** |  | **1,767** |  | **2,758** |  | **8,388** |

From the above Table one notices that, just like the case of enrolment, most administrative/managerial, professional training, and qualified personnel is produced in the *professional training* institutions, while most bookkeeping, technicians and typing/secretary skills are supplied by the technical/vocational institutions. The rest of the skills are mostly supplied by public institutions.

### Output/graduating trainees by institutional ownership

Table 42andFigure 7: Graduating trend by institutional ownership show trends of graduates of various institutions by institutional ownership.

Table 42: Graduating trainees by institutional ownership

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Year 2009** | **Year 2010** | **Year 2011** | **Year 2012** |
| Government/Publicly owned | 3,541 | 4,615 | 4,021 | 5,478 |
| Privately owned | 833 | 954 | 1,084 | 971 |
| CSO/NGO | 112 | 179 | 164 | 0 |
| Branch of international establishment | 80 | 96 | 112 | 109 |
| **Grand Total** | 4,566 | 5,844 | 5,381 | 6,558 |

Figure 7: Graduating trend by institutional ownership

The increasing trend in graduating trainees is observed among institutions that are publicly-owned. Just like the enrolments, the institutions that are not public do not seem to show any noticeable trend on the number of graduating trainees.

### Output/graduates by institutional orientation 2009-2012

Table 43and Figure 8show trends of graduates from training institutions by their training orientation during 2009-2012.

Table 43: Graduating students by institutional orientation

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Year 2009** | **Year 2010** | **Year 2011** | **Year 2012** |
| Educational orientation | 1,511 | 2,634 | 3,014 | 3,586 |
| Technical/Vocational | 686 | 858 | 935 | 1,332 |
| Professional orientation | 2,369 | 2,352 | 1,432 | 1,640 |
| **Grand Total** | 4,566 | 5,844 | 5,381 | 6,558 |

Figure 8: Graduating trend by institutional orientation

From the above table and figure, it is clear that by comparison there are some increasing trends in *academic* and *technical*/*vocational* oriented institutions.

It is worth noting that though some increasing trends have been observed from various dimensions, there was stagnation or drop in enrolment and graduating between the 2010 – 2011 period for *professional oriented* institutions.

UNIMA Graduates 2000-2010

Table 44 below summarizes the number of graduates coming out from the University of Malawi colleges during 2000-2010 period.

Table 44: Total number of graduates in UNIMA 2000 - 2010

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Year | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
| Number  of graduates | 909 | 858 | 1,000 | 772 | 991 | 1,062 | 1,163 | 1,322 | 1,552 | 1,628 | 1,598 |

*Data Source*: University Office, University of Malawi

A detailed breakdown of the graduates from UNIMA is provided at **Appendix 3**.

Below is a graph of the same data.

Figure 9: Trend of total supply of graduates by UNIMA

The figure displays an increasing trend of supply of graduates from University of Malawi in the 11-year period. The trend significantly fits the regression model

*NT* = 85.936× *T* – 171133.773

Where*T* is the year and *NT* is the total number of graduates in year *T*. This entails a rate of increase of around 86 students per year. That translates into 86 per 1,598 (i.e. 5.4% in year 2010). Hence, using this estimated rate, and the recursive model

*NT* = *N*0× (1+ *r*)*T*

Where is the increase rate in year *T* = time in years after 2010 and *N*0 is the total number of graduates in year 2010; the following are the projections in the next 7 years till 2020.

Table 45 : Projected graduate supplies

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** |
| **Bunda undergraduates** | | | | | | | | | | | |
| Faculty of Agriculture | 59 | 62 | 66 | 69 | 73 | 77 | 81 | 85 | 90 | 95 | 100 |
| Faculty of Development Studies | 78 | 82 | 87 | 91 | 96 | 101 | 107 | 113 | 119 | 125 | 132 |
| Faculty of Environmental Science | 41 | 43 | 46 | 48 | 51 | 53 | 56 | 59 | 62 | 66 | 69 |
| **Chancellor College undergraduates** | | | | | | | | | | | |
| Faculty of Education | 199 | 210 | 221 | 233 | 245 | 259 | 273 | 287 | 303 | 319 | 336 |
| Faculty of Humanities | 146 | 154 | 162 | 171 | 180 | 190 | 200 | 211 | 222 | 234 | 247 |
| Faculty of Law | 38 | 40 | 42 | 44 | 47 | 49 | 52 | 55 | 58 | 61 | 64 |
| Faculty of Science | 90 | 95 | 100 | 105 | 111 | 117 | 123 | 130 | 137 | 144 | 152 |
| Faculty of Social Science | 128 | 135 | 142 | 150 | 158 | 166 | 175 | 185 | 195 | 205 | 216 |
| **College of Medicine** | | | | | | | | | | | |
| Faculty of Medicine | 60 | 63 | 67 | 70 | 74 | 78 | 82 | 87 | 91 | 96 | 101 |
| **Kamuzu College of Nursing** | | | | | | | | | | | |
| Faculty of Nursing | 140 | 148 | 155 | 164 | 173 | 182 | 192 | 202 | 213 | 224 | 236 |
| **The Polytechnic** | | | | | | | | | | | |
| Faculty of Applied Sciences | 147 | 155 | 163 | 172 | 181 | 191 | 201 | 212 | 224 | 236 | 248 |
| Faculty of Built Environment | 31 | 33 | 34 | 36 | 38 | 40 | 42 | 45 | 47 | 50 | 52 |
| Faculty of Commerce | 195 | 205 | 217 | 228 | 240 | 253 | 267 | 281 | 297 | 313 | 329 |
| Faculty of Education and Media Studies | 103 | 109 | 114 | 121 | 127 | 134 | 141 | 149 | 157 | 165 | 174 |
| Faculty of Engineering | 76 | 80 | 84 | 89 | 94 | 99 | 104 | 110 | 116 | 122 | 128 |
| **Postgraduate graduates** | | | | | | | | | | | |
| Bunda College | 15 | 16 | 17 | 18 | 18 | 19 | 21 | 22 | 23 | 24 | 25 |
| Chancellor College | 62 | 65 | 69 | 73 | 76 | 81 | 85 | 89 | 94 | 99 | 105 |
| College of Medicine | 22 | 23 | 24 | 26 | 27 | 29 | 30 | 32 | 33 | 35 | 37 |
| Kamuzu College of Nursing postgraduate | 10 | 11 | 11 | 12 | 12 | 13 | 14 | 14 | 15 | 16 | 17 |
| The Polytechnic | 13 | 14 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |

What is evident in the above projections is that there is an increasing trend of supply of graduates in each college and in each programme over the next seven years to the year 2020. This also means that class space and bed space/accommodation is increasing.

Based on the current trend, if this does not change, the projections of supply of human resources from UNIMA shall keep concentrating on the occupation skills listed in the next table.

Table 46: Projection of supply by UNIMA according to occupational skills

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **University of Malawi graduates** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** | **%** |
| Science and engineering professionals | 484 | 510 | 538 | 566 | 597 | 629 | 663 | 699 | 736 | 776 | 818 | **29%** |
| Legal, social and cultural professionals | 396 | 416 | 438 | 461 | 485 | 511 | 538 | 567 | 597 | 629 | 662 | **24%** |
| Teaching professionals | 272 | 287 | 303 | 319 | 336 | 354 | 373 | 393 | 414 | 437 | 460 | **16%** |
| Health professionals | 232 | 244 | 258 | 272 | 286 | 302 | 318 | 335 | 353 | 372 | 392 | **14%** |
| Business and administration professionals | 125 | 131 | 138 | 146 | 154 | 162 | 171 | 180 | 189 | 200 | 210 | **8%** |
| Administrative and commercial managers | 83 | 88 | 93 | 98 | 103 | 108 | 114 | 120 | 127 | 134 | 141 | **5%** |
| ICT professionals | 55 | 58 | 61 | 64 | 68 | 71 | 75 | 79 | 84 | 88 | 93 | **3%** |
| Legal, social and cultural associate professionals | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | **0.6%** |

From the current focus of UNIMA, it is observed that though teaching professionals were in highest need, overall the concentration is not mainly in education training, as it is third on the table.

The other occupational skills that are not part of the core focus of UNIMA programmes are listed in the next table.

Table 47: Occupational skills not addressed by UNIMA

|  |  |
| --- | --- |
| Agricultural, forestry and fishery labourers | Market-oriented skilled agricultural workers |
| Assemblers | Market-oriented skilled forestry, fishery and hunting workers |
| Building and related trades workers, excluding electricians | Metal, machinery and related trades workers |
| Business and administration associate professionals | Non-commissioned armed forces officers |
| Chief executives, senior officials and legislators | Numerical and material recording clerks |
| Cleaners and helpers | Other clerical support workers |
| Commissioned armed forces officers | Other ranks of the armed forces occupation |
| Customer services clerks | Personal care workers |
| Drivers and mobile plant operators | Personal service workers |
| Electrical and electronics trades workers | Production and specialized services managers |
| Food preparation assistants | Protective services workers |
| Food processing, wood working, garment and other craft and related trades workers | Refuse workers and other elementary workers |
| General and keyboard clerks | Sales workers |
| Handicraft and printing workers | Science and engineering associate professionals |
| Health associate professionals | Stationary plant and machine operators |
| Hospitality, retail and other services managers | Street and related sales and service workers |
| ICT technicians | Subsistence farmers, fishers, hunters and gatherers |
| Labourers in mining, construction, manufacturing and transport |  |

From most of the training skill gaps in UNIMA, which could be representative of the other institutions of higher learning, it is apparent that almost all listed skills that are not of focus deal more on artisan, technician, manual and service facilitation skills. This perhaps highlights the need for technical/vocational training institutions or professional training institutions to put much emphasis on these in years to come.

Table 48: Graduating trainees and institutional projections 2009-2013 for other institutions

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Training institution characteristic | Number graduated  2009 | Number  graduated  2010 | Number  graduated  2011 | Number graduated  2012 | Institutional projections  2017 | Institutional projections 2022 |
| Educational/Academic orientation | 1,134 | 1,682 | 1,334 | 1,542 | 6,611 | 50,670 |
| Professional orientation | 2,468 | 3,062 | 3,383 | 3,991 | 43,908 | 47,387 |
| Technical/Vocation | 1,104 | 1,240 | 1,424 | 1,916 | 10,702 | 30,292 |
| Grand Total | 4,706 | 5,984 | 6,141 | 7,449 | 61,221 | 128,349 |
| **% increase** |  | 27% | 3% | 21% | 722% | 110% |

From the table, most of the training institutions (excluding UNIMA) have plans to raise their total output on the number of graduating trainees to at least 7 times on average in the next five years and increase it again to at least two-fold in the following 5 years after 2017. These envisioned total numbers of graduates in 2017 and 2022 have led to the 2013-2020 annual projections depicted in the next table.

Table 49: Projections of graduating trainees other than UNIMA

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Year** | | | | | | | | | | | |
| **Training institution characteristic** | **2009** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** |
| Educational/  Academic orientation | 1,134 | 1,682 | 1,334 | 1,542 | 2,063 | 2,760 | 3,693 | 4,941 | 6,611 | 9,935 | 14,930 | 22,437 |
| Professional orientation | 2,468 | 3,062 | 3,383 | 3,991 | 6,447 | 10,415 | 16,825 | 27,180 | 43,908 | 44,583 | 45,268 | 45,963 |
| Technical/Vocational | 1,104 | 1,240 | 1,424 | 1,916 | 2,703 | 3,813 | 5,378 | 7,587 | 10,702 | 13,178 | 16,226 | 19,979 |
| Grand Total | 4,706 | 5,984 | 6,141 | 7,449 | 11,213 | 16,988 | 25,896 | 39,708 | 61,221 | 67,695 | 76,424 | 88,380 |
| **% increase** |  | 27% | 3% | 21% | 51% | 52% | 52% | 53% | 54% | 11% | 13% | 16% |

The above table gives the annual projections of the supply of other training institutions as suggested by the institutions.

### Training outside Malawi

Apart from national and ministerial as well as mission or private institutions for training people at various levels, some training takes place outside the country through the Malawi Government scholarship programme or scholarships offered by bilateral and multi-lateral institutions. Furthermore, industry has its own training centres for the upgrading of skills for its staff.

|  |
| --- |
|  |

DHRMD coordinates both the Malawi Government Scholarship programme and scholarships offered by development partners. The table below shows the number of scholarships offered through the Malawi Government Scholarship programme.

Table 50: Number of students under the Malawi Government Scholarship Fund 2007- 2013

|  |  |  |  |
| --- | --- | --- | --- |
| **Financial year** | **No. of students continuing** | **New intake** | **Total No. students** |
| 2007/08 | 24 | 25 | 49 |
| 2008/09 | 42 | 20 | 62 |
| 2009/10 | 57 | 45 | 76 |
| 2010/11 | 105 | 19 | 124 |
| 2011/12 | 107 | 68 | 175 |
| 2012/13 | 119 | 45 | 164 |
| 2013/14 |  | 46\* |  |
| 2014/15 |  | 60\* |  |

*Source:* ***GoM/DHRMD (2012)***

*\**anticipated to include training within Malawi and outside

As can be noted from the above table, there is an increasing trend for training outside Malawi. The table below shows areas of study sponsored under the Malawi Government Scholarship during 2010/11-2012/13

Table 51: Areas of study sponsored under the Malawi Government Scholarship during 2010/11-2012/13

|  |  |
| --- | --- |
| *Water resource management*  *Mining engineering*  *Renewable energy*  *Architecture/construction engineering*  *Tourism*  *Special needs education*  *Nursing including Psychiatric Nursing*  *Law*  *Radiography, Cardiology and surgery*  *Rural development*  *Veterinary medicine/animal science*  *Forestry and Agricultural extension*  *International relations*  *Oil and gas management*  *Pharmaceutical analysis*  *Mineral economics and processing*  *Aviation management* | *Public health*  *Project planning and management*  *Civil and electrical engineering*  *Science and technology*  *Public administration/public policy*  *Urban management and development*  *Human resource management*  *Telecommunications management*  *Environmental studies*  *Valuation & property management*  *Agro- meteorology*  *Economics/finance*  *Leadership and change management*  *Chain supply management*  *Transport & logistics*  *Medical bioscience*  *Education management &leadership* |

*Source:* GoM/DHRMD (2012)

As can be deduced from the above table, most of the areas are part of priority areas under the MGDS and ERP- agriculture, health, tourism, mining transport etc.

Training support from development partners continues to play a critical role in addressing human resource capacity gaps. The following is a list of development partners and scholarship offered during 2010-2012 period.

Table 52: Development partners and scholarship offered during 2010-2012 period.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Scholarship programme/Development Partner** | **2010** | **2011** | **2012** | **Total No. of Scholarships** |
| Australian Development Scholarships | 12 | 32 | 37 | 83 |
| Indonesian Government Scholarships | 3 |  |  | 3 |
| Cuban Government Scholarship |  | 2 | 2 | 4 |
| African Capacity Building Foundation | 3 | 4 | 5 | 12 |
| Slovak Republic | 2 |  |  | 2 |
| NORAD Fellowship (tenable in Egypt) | 4 | 3 |  | 7 |
| Indian Government Scholarship  (long course award) | 4 | 3 | 1 | 8 |
| JICA (Master of Arts degree) | 2 | 2 | 2 | 6 |
| Commonwealth Scholarship and Fellowship Plan –United Kingdom | 7 | 7 | 7 | 21 |
| Commonwealth Scholarship and Fellowship Plan-Malaysia | 1 |  |  | 1 |
| Thailand Government scholarship | 1 |  | 3 | 4 |
| Chinese Government scholarships- Master of Arts Public Administration. | 5 |  | 5 | 10 |
| Korean Government Scholarship | 1 | 1 | 2 | 4 |
|  |  |  |  |  |
| **TOTAL** | **45** | **59** | **59** | **164** |

From the above table, it is evident that the number of scholarships offered by development partners has been increasing over the years.

Projected Enrolment in various Training Institutions

Table 53: Higher education enrolment projections

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** |
| Bunda | 184 | 197 | 210 | 224 | 239 | 255 | 272 | 290 |
| Chancellor College | 768 | 819 | 874 | 933 | 995 | 1061 | 1132 | 1208 |
| College of Medicine | 227 | 242 | 259 | 276 | 294 | 314 | 335 | 357 |
| Kamuzu College of Nursing | 177 | 189 | 202 | 215 | 229 | 245 | 261 | 278 |
| Polytechnic | 563 | 601 | 641 | 684 | 730 | 778 | 830 | 886 |
| Domasi College of Education | 206 | 220 | 235 | 250 | 267 | 285 | 304 | 324 |
| Mzuzu University | 357 | 381 | 406 | 434 | 463 | 493 | 526 | 562 |
| Livingstonia University | 36 | 38 | 40 | 43 | 46 | 49 | 52 | 56 |
| Catholic University | 143 | 152 | 163 | 173 | 185 | 197 | 211 | 225 |
| African Bible College | 56 | 59 | 63 | 67 | 72 | 77 | 82 | 87 |
| DMI-St. John the Baptist | 64 | 68 | 72 | 77 | 83 | 88 | 94 | 100 |

Table 54: Projections of enrolment in Teacher Training Colleges

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2011** | **2012** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** |
| Machinga | 576 | 601 | 627 | 653 | 681 | 711 | 741 | 773 | 806 | 841 |
| Lilongwe | 825 | 860 | 897 | 936 | 976 | 1018 | 1062 | 1107 | 1155 | 1204 |
| St Joseph | 549 | 573 | 597 | 623 | 650 | 677 | 706 | 737 | 768 | 801 |
| Karonga | 594 | 619 | 646 | 674 | 703 | 733 | 764 | 797 | 831 | 867 |
| Kasungu | 856 | 893 | 931 | 971 | 1013 | 1056 | 1102 | 1149 | 1198 | 1250 |
| Blantyre | 841 | 877 | 915 | 954 | 995 | 1038 | 1082 | 1129 | 1177 | 1228 |
| Amalika | 70 | 73 | 76 | 79 | 83 | 86 | 90 | 94 | 98 | 102 |
| DAPP Dowa | 120 | 125 | 131 | 136 | 142 | 148 | 154 | 161 | 168 | 175 |
| Chilangoma | 117 | 122 | 127 | 133 | 138 | 144 | 151 | 157 | 164 | 171 |
| Emmanuel | 70 | 73 | 76 | 79 | 83 | 86 | 90 | 94 | 98 | 102 |
| Maryam Girls' | 164 | 171 | 178 | 186 | 194 | 202 | 211 | 220 | 230 | 239 |

Table 55: Projections of enrolment in technical/vocational colleges

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2011** | **2012** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** |
| Kamuzu Vocational | 84 | 88 | 91 | 95 | 99 | 104 | 108 | 113 | 118 | 123 |
| Mzuzu | 663 | 691 | 721 | 752 | 784 | 818 | 853 | 890 | 928 | 968 |
| Namitete | 147 | 153 | 160 | 167 | 174 | 181 | 189 | 197 | 206 | 215 |
| Nasawa | 259 | 270 | 282 | 294 | 306 | 320 | 333 | 348 | 363 | 378 |
| Salima | 204 | 213 | 222 | 231 | 241 | 252 | 263 | 274 | 286 | 298 |
| Soche | 1133 | 1182 | 1232 | 1285 | 1340 | 1398 | 1458 | 1521 | 1586 | 1654 |
| Livingstonia | 94 | 98 | 102 | 107 | 111 | 116 | 121 | 126 | 132 | 137 |
| Lilongwe | 2430 | 2534 | 2643 | 2757 | 2875 | 2998 | 3127 | 3261 | 3401 | 3547 |
| Tujimuche | 75 | 78 | 82 | 85 | 89 | 93 | 97 | 101 | 105 | 109 |
| Miracle | 333 | 347 | 362 | 378 | 394 | 411 | 429 | 447 | 466 | 486 |
| MACOHA Lilongwe | 137 | 143 | 149 | 155 | 162 | 169 | 176 | 184 | 192 | 200 |
| SOS Vocational | 319 | 333 | 347 | 362 | 377 | 394 | 410 | 428 | 446 | 466 |
| ECOM Vocational | 107 | 112 | 116 | 121 | 127 | 132 | 138 | 144 | 150 | 156 |
| Malawi Children's | 52 | 54 | 57 | 59 | 62 | 64 | 67 | 70 | 73 | 76 |
| St John of God | 68 | 71 | 74 | 77 | 80 | 84 | 88 | 91 | 95 | 99 |

Table 56: Projected supply in higher education institutions

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** |
| Bunda | 184 | 197 | 210 | 224 | 239 | 255 | 272 | 290 |
| Chancellor College | 768 | 819 | 874 | 933 | 995 | 1061 | 1132 | 1208 |
| College of Medicine | 227 | 242 | 259 | 276 | 294 | 314 | 335 | 357 |
| Kamuzu College of Nursing | 177 | 189 | 202 | 215 | 229 | 245 | 261 | 278 |
| Polytechnic | 563 | 601 | 641 | 684 | 730 | 778 | 830 | 886 |
| Domasi College of Education | 206 | 220 | 235 | 250 | 267 | 285 | 304 | 324 |
| Mzuzu University | 357 | 381 | 406 | 434 | 463 | 493 | 526 | 562 |
| Livingstonia University | 36 | 38 | 40 | 43 | 46 | 49 | 52 | 56 |
| Catholic University | 143 | 152 | 163 | 173 | 185 | 197 | 211 | 225 |
| African Bible College | 56 | 59 | 63 | 67 | 72 | 77 | 82 | 87 |
| DMI-St. John the Baptist | 64 | 68 | 72 | 77 | 83 | 88 | 94 | 100 |
|  |  |  |  |  |  |  |  |  |

Table 57: Projection supply from technical/vocational institutions

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** |
| Kamuzu Vocational | 44 | 46 | 48 | 50 | 52 | 54 | 57 | 59 |
| Mzuzu | 347 | 362 | 377 | 394 | 411 | 428 | 447 | 466 |
| Namitete | 77 | 80 | 84 | 87 | 91 | 95 | 99 | 103 |
| Nasawa | 136 | 141 | 147 | 154 | 160 | 167 | 174 | 182 |
| Salima | 107 | 111 | 116 | 121 | 126 | 132 | 137 | 143 |
| Soche | 593 | 618 | 645 | 673 | 702 | 732 | 763 | 796 |
| Livingstonia | 49 | 51 | 54 | 56 | 58 | 61 | 63 | 66 |
| Lilongwe | 1272 | 1326 | 1383 | 1443 | 1505 | 1569 | 1637 | 1707 |
| Tujimuche | 39 | 41 | 43 | 45 | 46 | 48 | 51 | 53 |
| Miracle | 174 | 182 | 190 | 198 | 206 | 215 | 224 | 234 |
| MACOHA Lilongwe | 72 | 75 | 78 | 81 | 85 | 88 | 92 | 96 |
| SOS Vocational | 167 | 174 | 182 | 189 | 198 | 206 | 215 | 224 |
| ECOM Vocational | 56 | 58 | 61 | 64 | 66 | 69 | 72 | 75 |
| Malawi Children's | 27 | 28 | 30 | 31 | 32 | 34 | 35 | 37 |
| St John of God | 36 | 37 | 39 | 40 | 42 | 44 | 46 | 48 |

Table 58: Projection of supply from Teacher Training Colleges

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** |
| Machinga | 301 | 314 | 328 | 342 | 357 | 372 | 388 | 405 |
| Lilongwe | 432 | 450 | 470 | 490 | 511 | 533 | 556 | 580 |
| St Joseph | 287 | 300 | 313 | 326 | 340 | 355 | 370 | 386 |
| Karonga | 311 | 324 | 338 | 353 | 368 | 384 | 400 | 417 |
| Kasungu | 448 | 467 | 487 | 508 | 530 | 553 | 577 | 601 |
| Blantyre | 440 | 459 | 479 | 499 | 521 | 543 | 566 | 591 |
| Amalika | 37 | 38 | 40 | 42 | 43 | 45 | 47 | 49 |
| DAPP Dowa | 63 | 66 | 68 | 71 | 74 | 77 | 81 | 84 |
| Chilangoma | 61 | 64 | 67 | 69 | 72 | 76 | 79 | 82 |
| Emmanuel | 37 | 38 | 40 | 42 | 43 | 45 | 47 | 49 |
| Maryam Girls' | 86 | 90 | 93 | 97 | 102 | 106 | 110 | 115 |

Table 59: Projected supply of skills

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2011** | **2012** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** |
| Teaching professionals | 5078 | 5295 | 5523 | 5802 | 6098 | 6412 | 6744 | 7097 | 7472 | 7838 |
| Electrical and electronics trades workers | 1618 | 1687 | 1759 | 1835 | 1914 | 1996 | 2082 | 2171 | 2264 | 2361 |
| Metal, machinery and related trades workers | 1084 | 1131 | 1179 | 1230 | 1283 | 1338 | 1395 | 1455 | 1518 | 1583 |
| Building and related trades workers, excluding electricians | 969 | 1010 | 1054 | 1099 | 1146 | 1195 | 1247 | 1300 | 1356 | 1414 |
| Business and administration associate professionals | 633 | 660 | 688 | 718 | 749 | 781 | 814 | 849 | 886 | 924 |
| Science and engineering professionals | 505 | 526 | 549 | 573 | 597 | 623 | 650 | 677 | 707 | 737 |
| Legal, social and cultural professionals | 413 | 430 | 449 | 468 | 488 | 509 | 531 | 554 | 577 | 602 |
| General and keyboard clerks | 395 | 412 | 430 | 448 | 467 | 487 | 508 | 530 | 553 | 577 |
| Legal, social, cultural and related associate professionals | 277 | 289 | 301 | 314 | 327 | 341 | 356 | 371 | 387 | 404 |
| Information and communications technicians | 270 | 282 | 294 | 306 | 319 | 333 | 348 | 362 | 378 | 394 |
| Personal service workers | 255 | 266 | 278 | 290 | 302 | 315 | 328 | 343 | 357 | 373 |
| Health professionals | 242 | 252 | 263 | 274 | 286 | 299 | 311 | 325 | 339 | 353 |
| Handicraft and printing workers | 226 | 235 | 246 | 256 | 267 | 278 | 290 | 303 | 316 | 329 |
| Customer services clerks | 220 | 229 | 239 | 250 | 260 | 271 | 283 | 295 | 308 | 321 |
| Labourers in mining, construction, manufacturing and transport | 176 | 184 | 191 | 200 | 208 | 217 | 226 | 236 | 246 | 257 |
| Business and administration professionals | 130 | 135 | 141 | 147 | 154 | 160 | 167 | 174 | 182 | 190 |
| Market-oriented skilled agricultural workers | 122 | 128 | 133 | 139 | 145 | 151 | 157 | 164 | 171 | 178 |
| Administrative and commercial managers | 87 | 91 | 95 | 99 | 103 | 107 | 112 | 117 | 122 | 127 |
| Health associate professionals | 81 | 84 | 88 | 91 | 95 | 99 | 104 | 108 | 113 | 118 |
| ICT professionals | 57 | 60 | 62 | 65 | 68 | 71 | 74 | 77 | 80 | 84 |
| Agricultural, forestry and fishery labourers | 6 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 9 | 9 |

### Summary and Conclusion

The results of the survey show that there is an increasing number of candidates who enter training institutions irrespective of ownership of training institutions. All institutions face challenges of staff shortages in the academic and administrative areas and challenges in class room and bed/accommodation space. The outputs from these training institutions have also been increasing over the years. What is clear though is that public institutions take more trainees than private and CSO/NGO training institutions.

Apart from training within Malawi, the Malawi Government offers a scholarship programme for training outside Malawi. This is coordinated by DHRMD. Over the years, there has been an increase in the number of scholarships provided and most of them are linked to Government priority areas like agriculture, health, education, tourism, transport and infrastructure, mining, etc. Similar trends are also noticeable in scholarship schemes provided by development partners.

The chapter has also presented projected enrolment for various training institutions in the next few years to 2020.

## CHAPTER SIX: EMPLOYMENT AND SKILLS GAPS IN MALAWI

### Introduction

This survey attempted to find out employment and skills gaps that exist in the country. In order to achieve this, the data collected was analyzed to come up with jobs that were available in establishments but were unfilled and also the kind of skills that employees needed but did not have in the same establishment.

This chapter starts by presenting employment gaps that exist in Malawi by uncovering vacancies that were present in organizations across the various sectors of the economy. Thereafter, the chapter highlights the skills that are missing in organizations as noted by both individual employees and employers.

### Employment gaps

Positions are created in organization as a basis for employing labour that has to perform duties with accompanying responsibilities and thereby contribute to the realization of corporate goals. Employment is offered to suitable human resource in appropriate numbers. Employment gaps are created when vacancies are not filled by the particular organization.

The prevalence of vacancies in organizations should mostly be seen as an indication of an inadequate supply of appropriately qualified human resource to hold these positions on the labour market. On the other hand, vacancies should also be viewed as gaps that exist in the world of employment and an indicator of jobs that are available but not being performed because there are no job holders to perform the jobs.

### Vacancies existing in the Civil Service

There are numerous vacancies in almost all mainstream ministries and departments. Table 60below gives a picture of established, filled and vacant positions across the Civil Service.

Table 60: Established, filled and vacant positions across the Civil Service

| **Ministry, department or section** | **Established positions** | **Filled positions** | **Vacancies** | **% vacancies** |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| Ministry of Education, Science and Technology | 158,304 | 100,117 | 58,187 | 37% |
| Ministry of Local Government and Rural Development | 40,431 | 21,091 | 19,337 | 48% |
| Malawi Police Service | 19,813 | 11,447 | 8,366 | 42% |
| Ministry of Natural Resources, Energy and Environment | 6,554 | 3,051 | 3,503 | 53% |
| Malawi Defence Force | 5,770 | 5,760 | 10 | 0.2% |
| Ministry of Water Development and Irrigation | 4302 | 1,372 | 2,930 | 68% |
| Ministry of Agriculture | 15,695 | 7,847 | 8,248 | 50% |
| Ministry of Lands and Housing | 3485 | 996 | 2,488 | 71% |
| Ministry of Transport and Public Works | 2,713 | 1,377 | 1,336 | 49% |
| Judiciary | 2,587 | 1,859 | 728 | 28% |
| Ministry of Gender, Children and Social Welfare | 2,207 | 1,078 | 1,129 | 51% |
| Ministry of Health | 49,839 | 28,354 | 21,485 | 43% |
| Department of Malawi Prisons | 2,148 | 1,614 | 534 | 25% |
| Office of President and Cabinet | 1,994 | 883 | 1,111 | 56% |
| Ministry of Tourism and Culture | 1,694 | 870 | 824 | 49% |
| Local Authorities | 1,082 | 606 | 471 | 44% |
| Ministry of Disabilities and Elderly Affairs | 976 | 118 | 858 | 88% |
| Ministry of Labour | 710 | 333 | 377 | 53% |
| Ministry of Information and Civic Educ. | 654 | 366 | 288 | 44% |
| Ministry of Foreign Affairs and International Cooperation | 648 | 222 | 426 | 66% |
| Department of Accountant General | 625 | 425 | 200 | 32% |
| Immigration Department | 512 | 356 | 156 | 30% |
| National Assembly | 465 | 294 | 171 | 37% |
| National Statistical Office | 427 | 223 | 204 | 48% |
| National Audit Office | 396 | 210 | 182 | 46% |
| Department of Human Resource Management and Development | 375 | 246 | 129 | 34% |
| Ministry of Finance | 316 | 187 | 129 | 41% |
| State Residences | 304 | 153 | 151 | 50% |
| Department of Geological Surveys | 285 | 116 | 169 | 59% |
| Ministry of Industry and Trade | 223 | 132 | 91 | 41% |
| Ministry of Economic Planning and Development | 182 | 99 | 83 | 46% |
| Department of Mines | 168 | 78 | 90 | 54% |
| Local Aid Department | 165 | 85 | 80 | 48% |
| Ministry of Justice and Attorney General | 151 | 94 | 57 | 38% |
| Director of Public Prosecution | 140 | 73 | 67 | 48% |
| Office of Ombudsman | 119 | 73 | 46 | 39% |
| Malawi Human Rights Commission | 118 | 69 | 49 | 42% |
| Office of the 1st Vice President | 109 | 53 | 56 | 51% |
| Law Commission | 109 | 46 | 63 | 58% |
| Administrator General's Department | 103 | 71 | 32 | 31% |
| Ministry of Defense | 96 | 47 | 49 | 51% |
| Department of National Relief and Disaster Management | 95 | 73 | 22 | 23% |
| Public Service Commission | 79 | 43 | 36 | 46% |
| Department of Nutrition and HIV/AIDS Management | 79 | 50 | 29 | 37% |
| Registrar General | 74 | 52 | 22 | 30% |
| Office of the Director of Public Procurement | 73 | 45 | 28 | 38% |
| Ministry of Home Affairs | 67 | 40 | 27 | 40% |
| Office of the 2nd Vice President | 46 | 0 | 46 | 100% |
| Electoral Commission | 18 | 0 | 18 | 100% |
| Grand Total | 327,525 | 192,794 | 135,118 | 41% |
|  | 100% | 60% | 40% |  |

Table 60 above shows that, of the 327,525 established positions, only 192,794 positions are filled, thereby leaving an employment gap of 135,118 positions, which is 41% of established positions. The study shows that some ministries have over 50% employment gaps. For example, ministries of Disabilities and Elderly Affairs, Labour, and Foreign Affairs and International Cooperation have 88%, 53% and 66% employment gaps respectively. The implications of this are that a lot of services are not delivered effectively.

**Staffing situation in ERP/MGDS priority areas**

Table 61below shows established, filled, and vacant positions in ERP/MGDS priority areas for leading ministries/departments.

Table 61: Staffing situation in ERP/MGDS priority areas

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Ministry, Department, Section** | **Established Positions** | **Filled Positions** | **Vacancies** | **%**  **Vacancies** |
| Ministry of Agriculture | 15,695 | 7,847 | 8,248 | 50% |
| Ministry of Education, Science and Technology | 158,303 | 100,117 | 58,187 | 37% |
| Ministry of Health | 49,839 | 28,354 | 21,485 | 43% |
| Ministry of Natural Resources and Energy | 6,554 | 3,051 | 3,503 | 53% |
| Ministry of Tourism and Culture | 1,694 | 870 | 824 | 49% |
| Ministry of Mines | 168 | 78 | 90 | 54% |
| Department of Geological Surveys | 285 | 116 | 169 | 59% |
| Ministry of Lands and Housing | 3,485 | 996 | 2,488 | 71% |
| Ministry of Transport and Public Works | 2,713 | 1,377 | 1,336 | 49% |
| Ministry of Water Development and Irrigation | 4,302 | 1,372 | 2,930 | 68% |
| Ministry of Information and Civic Education | 654 | 366 | 288 | 44% |
| **Total** | **243,692** | **144,544** | **99,548** | **41%** |

Table 61above, reveals that Government Ministries and Departments that are expected to be in the forefront in implementing ERP/MGDS II priority areas, have a combined total of 243,692 established positions, 144, 544 filled positions, and 99, 548 vacant positions representing 41% of employment gaps in the civil service. Some ministries and departments like Natural Resources and Energy, Mines, Lands and Housing, and Water Development and Irrigation have vacancy rates are as high as 53%, 54%, 71%, and 68%, respectively.

The presence of such huge employment gaps negatively impacts the performance of these ministries and department. For instance, since Mining has taken centre stage as one of the strong contributors to Malawi’s economic development, the prevalence of 59% vacant positions in the Department of Geological Surveys may compromise efficiency of the department as it is operating with only slightly above a third of established positions filled. Likewise, the Ministry of Lands and Housing has less than a third of established positions filled, yet it must perform highly in its contribution to national infrastructure development.

**Employment gaps comparison across the public, private, CSO/NGO sectors**

Table 62: Comparison of existing positions (filled and vacant) across occupational skills

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Occupational skills** | **Established** | **Filled** | **Vacant** | **% vacant** |
| Teaching professionals | 143664 | 94905 | 48759 | 46.2% |
| Chief executives, senior officials and legislators | 41069 | 21414 | 19650 | 18.6% |
| Non-commissioned armed forces officer | 21952 | 14699 | 7,253 | 6.9% |
| Protective services workers | 9148 | 4939 | 4209 | 4.0% |
| Business and administration professionals | 5175 | 1724 | 3445 | 3.3% |
| Business and administration associate professionals | 5051 | 1,676 | 3373 | 3.2% |
| Other clerical support workers | 6,665 | 3,369 | 3,296 | 3.1% |
| Science and engineering associate professionals | 3785 | 979 | 2806 | 2.7% |
| Numerical and material recording clerks | 3889 | 1559 | 2330 | 2.2% |
| Cleaners and helpers | 5768 | 3894 | 1874 | 1.8% |
| Commissioned armed forces officers | 4112 | 3268 | 1742 | 1.6% |
| Science and engineering professionals | 2146 | 747 | 1399 | 1.3% |
| General and keyboard clerks | 2493 | 751 | 1,036 | 1.0% |
| Legal, social and cultural professionals | 1,356 | 670 | 704 | 0.7% |
| Information and communications technology professionals | 838 | 322 | 516 | 0.5% |
| Legal, social, cultural and related associate professional | 581 | 84 | 497 | 0.5% |
| Health associate professionals | 586 | 122 | 464 | 0.4% |
| Customer services clerks | 468 | 92 | 366 | 0.3% |
| Refuse workers and other elementary workers | 460 | 194 | 266 | 0.3% |
| Health professionals | 302 | 46 | 256 | 0.2% |
| Building and related trades workers, excluding electricians | 337 | 116 | 221 | 0.2% |
| Administrative and commercial managers | 401 | 183 | 218 | 0.2% |
| Personal service workers | 265 | 64 | 201 | 0.2% |
| Information and communications technicians | 211 | 68 | 143 | 0.1% |
| Food preparation assistants | 222 | 102 | 120 | 0.1% |
| Electrical and electronics trades workers | 196 | 85 | 108 | 0.1% |
| Drivers and mobile plant operators | 404 | 303 | 100 | 0.1% |
| Metal, machinery and related trades workers | 101 | 41 | 58 | 0.1% |
| Sales workers | 37 | 2 | 35 | 0.0% |
| Stationary plant and machine operators | 89 | 62 | 27 | 0.0% |
| Food processing, wood working, garment and other craft and related trades workers | 51 | 26 | 25 | 0.0% |
| Other ranks of the armed forces occupation | 25 | 5 | 20 | 0.0% |
| Labourers in mining, construction, manufacturing and transport | 32 | 17 | 15 | 0.0% |
| Hospitality, retail and other services managers | 29 | 15 | 14 | 0.0% |
| Production and specialized services managers | 36 | 26 | 10 | 0.0% |
| Market-oriented skilled agricultural workers | 14 | 4 | 10 | 0.0% |
| Handicraft and printing workers | 13 | 7 | 6 | 0.0% |
| Market-oriented skilled forestry, fishery and hunting workers | 4 | 0 | 4 | 0.0% |
| Assemblers | 1 | 0 | 1 | 0.0% |
| **Grand Total** | **261,976** | **156,580** | **105,577** |  |

The table shows that the majority of the unfilled vacant positions in the civil service are for the *teaching professionals* (46.2%%), *chief executives, senior officials and legislators* (18.6%), *non-commissioned armed forces officer* (6.9%), *protective services workers* (4.0%), *business and administration professionals* (3.3%), *business and administration associate professionals* (3.1%), *other clerical support workers* (3.1%), *science and engineering associate professionals* (2.7%), *numerical and material recording clerks* (2.2%), *cleaners and helpers* (1.8%), *commissioned armed forces officers* (1.6%), *science and engineering professionals* (1.3%) and *general and keyboard clerks* (1.0%).

**Employment gaps based on employee status comparison across establishments**

Table 63: Employee status across establishment focus in all sectors

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Activity done by establishment** | **Employee status** | | | **Total** | **Vacancies** |
| Temporary  workers | Proprietors | Workers |
| Agriculture and forestry | 8,299 | 6 | 13,044 | 21,349 | - |
| Governance and regulatory services | 472 | 7 | 17,454 | 17,933 | 2,574  - |
| Training/education services | 888 | 12 | 11,221 | 12,121 | 19,762 |
| Social welfare services | 1,006 | 40 | 10,087 | 11,133 | 1,181 |
| Manufacturing | 801 | 12 | 3,178 | 3,991 | - |
| Wholesale/retail | 964 | 21 | 2,104 | 3,089 | - |
| Transport | 435 | 9 | 1,478 | 1,922 | - |
| Accommodation, food and tourism | 134 | 34 | 1,459 | 1,627 | - |
| Mining | 61 | 2 | 1145 | 1,208 | - |
| Financial services | 12 | 6 | 601 | 619 | - |
| ICT services | 1 | 25 | 502 | 528 | 122 |
| Construction | 124 | 2 | 247 | 373 | - |
| Real estate | 3 | - | 128 | 131 | 13 |
| Electricity, energy & water | 14 | - | 21 | 35 | - |
| Missing | - | - | 33 | 33 | - |
| **Grand Total** | **13,211** | **176** | **62,574** | **75,961** | 25,557 |
| **Per cent** | **17.4%** | **0.2%** | **82.4%** | **100%** | **33.6%** |

About 82% of the total human resources in establishments work as permanent employees and nearly all the rest on temporary basis. However, it is apparent that highest proportions of temporary workers are in *agricultural and forestry*, *manufacturing*, *wholesale/retail* and *construction*.

Many establishments did not provide number of vacancies they have. For those that gave, it is evident that the vacancies constitute above 33.6%. Notably, the education/training services providers record the highest number of vacancies at 19,762 vacant positions.

### 

### Academic and Administrative Employment Gaps in training institutions across sectors

Table 64: Academic positions status in training institutions

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Publicly owned | **Training orientation** | Established positions | Filled position | Extra needed positions | **Total needed** | **% needed** |
| Educational orientation | 665 | 667 | 111 | **111** | **17%** |
| Technical/Vocational | 112 | 58 | 64 | **118** | **105%** |
| Professional orientation | 30 | 12 | 7 | **25** | **83%** |
| **Total** | **807** | **737** | **182** | **252** |  |
| **% of established positions** | **100%** | **91%** | **23%** | **31%** |  |
| Privately owned | Professional orientation | 173 | 171 | 17 | **19** | **11%** |
| Educational orientation | 126 | 86 | 12 | **52** | **41%** |
| Technical/Vocational | 33 | 39 | 6 | **6** | **18%** |
| **Total** | **332** | **296** | **35** | **71** |  |
| **% of established positions** | **100%** | **89%** | **11%** | **21%** |  |
| CSO/NGO | Professional orientation | 19 | 15 | 5 | **9** | **47%** |
| Educational orientation | 7 | 6 | - | **1** | **14%** |
| Technical/Vocational | 6 | 4 | - | **2** | **33%** |
| **Total** | **32** | **25** | **5** | **12** |  |
| **% of established positions** | **100%** | **78%** | **16%** | **38%** |  |
| Branch of international organization | Professional orientation | 52 | 32 | 20 | **40** | 77% |
| Educational orientation | 10 | 10 | - | **0** | 0% |
| Technical/Vocational | 5 | - | - | **5** | 100% |
| **Total** | **67** | **42** | **20** | **45** |  |
| **% of established positions** | **100%** | **63%** | **30%** | **67%** |  |

The study shows that public training institutions have 807 established academic positions but need extra 252 academic positions (23%) to be created. However, of the total 807 established positions, 70 positions (9%) are currently vacant. About 31% of the established positions are needed to be added on in general. The biggest proportions of shortages are in technical/vocational institutions which have a total 112 established positions but also need 64 extra positions. However, only 58 established positions are filled thereby having a 118 positions (105%) needed. Furthermore, professional oriented positions stand at 30 established positions, only 12 filled, needing an extra 7 positions which makes up a shortfall of 25 needed positions which is an 83% shortfall.

Furthermore, in the privately-owned training institutions, there are 173 established, 171 filled and 17 extra needed professional orientation positions indicating 19 positions (11%) that are vacant. As such 89% of established positions are occupied and, overall, 21% more positions are needed to satisfy the academic staffing needs of these institutions. The highest shortage is in educational orientation with a 41% shortfall. In the Technical/Vocational area, all the 33 established positions are filled plus an extra 6 positions that are also filled. However, 6 more positions are needed in this area creating an 18% shortfall need.

In addition, though the CSOs/NGOs data is scanty, it shows about 78% of the established positions being filled and 38% being positions required. Further, 47% of the established positions being needed in institutions with professional orientation and 33% in those that focuses on technical/vocational training.

In institutions that are branches of international training organizations, very high percentages of shortage of staff are observed (67%). The problem seems to be severe for training institutions with professional orientation as well as those with technical/vocational orientation.

### Administrative Positions Vacancies in training institutions

Table 65: Administrative positions across training institutions

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Publicly owned | **Training orientation** | Established positions | Filled positions | Extra needed positions | **Total needed** | **% needed** |
| Educational orientation | 356 | 367 | 30 | **30** | **8%** |
| Technical/Vocational | 89 | 48 | 26 | **67** | **75%** |
| Professional orientation | 30 | 30 |  | **0** | **0%** |
| **Total** | **475** | **445** | **56** | **86** |  |
| **% of established positions** | **100%** | **94%** | **12%** | **18%** |  |
| Privately owned | Professional orientation | 368 | 271 | 147 | **244** | **66%** |
| Educational orientation | 60 | 48 | 3 | **15** | **25%** |
| Technical/Vocational | 21 | 16 | 2 | **7** | **33%** |
| **Total** | **449** | **335** | **152** | **266** |  |
| **% of established positions** | **100%** | **75%** | **34%** | **59%** |  |
| CSO/NGO | Professional orientation | 12 | 9 | 0 | **3** | **25%** |
| Educational orientation | 5 | 4 | - | **1** | **20%** |
| Technical/Vocational | 4 | 1 | - | **3** | **75%** |
| **Total** | **21** | **14** | **0** | **7** |  |
| **% of established positions** | 100% | 67% | 0% | **33%** |  |
| Branch of international organization | Professional orientation | 83 | 43 | 40 | **80** | **96%** |
| Educational orientation | - | - | - | **-** | **-** |
| Technical/Vocational | 4 | 4 | 0 | **0** | **0%** |
| **Total** | **87** | **47** | **40** | **80** |  |
| **% of established positions** | 100% | 54% | 46% | **92%** |  |
| Publicly owned | **Training orientation** | Established positions | Filled positions | Extra needed positions | **Total needed** | **% needed** |
| Educational orientation | 356 | 367 | 30 | **30** | **8%** |
| Technical/Vocational | 89 | 48 | 26 | **67** | **75%** |
| Professional orientation | 30 | 30 |  | **0** | **0%** |
| **Total** | **475** | **445** | **56** | **86** |  |
| **% of established positions** | **100%** | **94%** | **12%** | **18%** |  |

Ninety-four per cent of the established positions for administrative staff in training institutions are filled. However, 18% of the established positions are needed to cater for the demand. The public technical/vocational institutions are the ones that experience serious shortage of administrative staff.

In addition, in privately-owned training institutions, around 75% of the established positions for administrative staff are occupied. However, 59% of the established positions are needed to be filled up. Most of this need is in professional orientation (66%). Furthermore, in CSOs/NGO supported training institutions, around 67% of the positions for administrative staff are filled. About a third (33%) of the existing positions is needed in these institutions.

Finally, institutions working as branches for international training organizations seem to be in dire need of administrative staff (92%). Around half (54%) of the established positions are filled. Most of this need is in professional orientation (96%).

**Summary of academic and administrative employment gaps across sectors**

Table 66: Academic and Administrative employment gaps in training institutions across sectors

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Academic Vacancies | Established  positions | Filled positions | Vacant Positions | Extra needed  positions | Total needed positions |
| Publicly owned | 807 | 737 | 70 | 182 | 252 |
| Privately owned | 332 | 296 | 36 | 35 | 71 |
| CSO/NGO owned | 32 | 25 | 7 | 5 | 12 |
| Branch of International organization | 67 | 42 | 25 | 20 | 45 |
| Total | 1238 | 1100 | 138 | 242 | 380 |
|  |  |  |  |  |  |
| Administrative Vacancies | Established  positions | Filled positions | Vacant Positions | Extra needed  positions | Total needed positions |
| Publicly owned | 475 | 445 | 30 | 56 | 86 |
| Privately owned | 449 | 335 | 114 | 152 | 266 |
| CSO/NGO owned | 21 | 14 | 7 |  | 7 |
| Branch of international organization | 87 | 47 | 40 | 40 | 80 |
| Total | 1032 | 841 | 191 | 248 | 439 |

Table 66 shows that training institutions across sectors have 1238 established academic positions of which 1100 are filled and 138 (11%) are vacant. These same institutions have a combined expressed need of 242 (20%) extra positions which, together with the vacancies, show an employment gap of 380 positions. Table 66 also shows that training institutions across sectors have 1032 established administrative positions of which 841 are filled and 191 (19%) are vacant. These institutions have also a combined expressed need of 248 (24%) extra positions which, when combined with existing vacancies show an employment gap of 439 positions. The availability of noticeable employment gaps negatively impacts on the performance of the training institutions in providing their services and, consequently, on their supply of required qualified human resource to the industry which is a vital component to national socio-economic development.

### Skills gaps

The skill gap is the difference between the available skills and the requirement in the sector or occupation. When expressed as a percentage of the requirement, it provides a measure of severity, that is, how acute the shortage of the particular skill is in the sector or occupation. When expressed as a percentage of the total gap, it provides a measure of its significance relative to other skill gaps.

The survey identified various skill gaps in all sectors of the economy. For CSOs/NGOs, for example, it was observed in the 2011 CSO Sustainability Index for Sub-Saharan Africa published by the United States Agency for International Development that the public has a positive perception of them though there have been questions about CSOs/NGOs’ financial management practices, lack of transparency and inappropriate use of funds. The survey also requested respondents across sectors to indicate what they felt were their own skill shortfalls. The analysis of the data indicates the type of skills needed across occupations as indicated by Table 67 below.

Table 67: Skills needed across various occupations across the public sector

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Current Occupation** | | | | | | | | | |  | |
| **Skills currently needed** | Armed forces occupation | Managers | Professional occupations | Technicians and associate professionals | Clerical support workers | Service  and  sales workers | Skilled agricultural, forestry  and  fishery workers | Craft  and  related  trades workers | Plant and machine operators,  and  assemblers | Elementary (labourers) occupations | **Total** | **%** |
| Teacher Training | 1.3 | 0.2 | 35.0 | 28.5 | 0.5 | 0.4 | - | 0.1 | 0.1 | 0.3 | **3,029** | **11.4%** |
| Administrative/managerial | 12.6 | 43.8 | 19.7 | 17.0 | 12.6 | 5.7 | 6.2 | 0.9 | 1.3 | 2.0 | **2,777** | **10.5%** |
| Crafts training | 2.2 | 1.3 | 0.9 | 1.3 | 1.6 | 2.0 | 1.5 | 59.4 | 29.3 | 8.9 | **2455** | **9.3%** |
| No training | 0.2 | 1.5 | 0.8 | 0.9 | 2.7 | 4.3 | 3.1 | 3.8 | 9.7 | 22.9 | **2,204** | **8.3%** |
| Professional training | 8.8 | 11.2 | 13.2 | 11.7 | 11.7 | 3.4 | 1.5 | 1.8 | 1.9 | 0.8 | **1,878** | **7.1%** |
| Technician training | 2.2 | 2.6 | 1.5 | 5.2 | 3.1 | 1.4 | 3.1 | 21.2 | 25.1 | 5.5 | **1,659** | **6.3%** |
| Hotel/Catering | 0.7 | 9.0 | 0.9 | 1.2 | 6.3 | 56.7 | - | 0.1 | 0.4 | 9.0 | **1,649** | **6.2%** |
| Computer Training | 7.4 | 3.4 | 7.3 | 7.8 | 10.7 | 2.1 | - | 0.6 | 1.5 | 1.7 | **1,358** | **5.1%** |
| Police/Army training | 50.8 | 0.6 | 0.6 | 0.7 | 1.2 | 0.9 | - | 0.3 | 0.8 | 7.8 | **1,252** | **4.7%** |
| Agriculture/Forestry | 1.6 | 10.5 | 2.8 | 4.4 | 2.0 | 1.7 | 60.0 | 0.7 | 0.8 | 8.8 | **1,236** | **4.7%** |
| General Clerical | 1.0 | 0.9 | 0.5 | 0.9 | 16.1 | 1.7 | 3.1 | 0.8 | 1.0 | 6.7 | **1,219** | **4.6%** |
| General Nursing | 0.6 | 0.2 | 2.3 | 2.9 | 1.9 | 1.0 | 1.5 | 0.2 | 0.3 | 3.4 | **595** | **2.2%** |
| Typing/Secretarial | 1.6 | 0.4 | 1.5 | 2.1 | 7.4 | 0.8 | 1.5 | 0.1 | 0.4 | 1.2 | **555** | **2.1%** |
| Bookkeeping | 0.7 | 0.6 | 1.4 | 1.1 | 5.4 | 1.6 | - | 0.2 | 0.2 | 0.9 | **410** | **1.5%** |
| Home Economics | 0.3 | 0.4 | 1.4 | 0.8 | 0.3 | 1.0 | - | 0.2 | 0.1 | 1.7 | **265** | **1.0%** |
| Midwifery | 1.1 | - | 1.1 | 1.5 | 0.6 | 0.8 | - | 0.1 | - | 0.8 | **218** | **0.8%** |
| Banking | 0.7 | 0.9 | 0.8 | 0.5 | 0.7 | 1.1 | - | 0.2 | 0.3 | 0.1 | **123** | **0.5%** |
| Other | 6.4 | 12.5 | 8.5 | 11.4 | 15.0 | 13.6 | 18.5 | 9.4 | 27.0 | 17.5 | **3,645** | **13.7%** |
| **Total** | **100%** | **100%** | **100%** | **100%** | **100%** | **100%** | **100%** | **100%** | **100%** | **100%** |  |  |
| **1,032** | **534** | **4,935** | **4,361** | **3,531** | **1,010** | **65** | **1,912** | **1,449** | **7,700** | **26,529** |  |

Evidently, as most of the Malawi’s workforce is in teaching profession, *teacher training* is the top of the list of skills needed by 11.4% of the workforce. The other top preferred skills are in *Administrative/managerial* (10.5%), *Crafts training* (9.3%), *Professional training* (7.1%), *Technician training* (6.3%), *Hotel/Catering* (6.2%), *Computer Training* (5.1%), *Police/Army training* (4.7%) and *General Clerical* (4.6%).

Teacher training is needed mostly by those in *professional occupations* (35.0%) and Technicians and associate professionals (28.5%). The *administrative/managerial* skills are needed by 12.6% of the a*rmed forces occupations*, 43.8% of the *managers*, 19.7% of those in *professional occupations*, 17.0% in the *technicians and associate professionals* and 12.6% in the *clerical support workers* occupations. The *crafts training* skills are sought of by 59.4% of those in craft and related trades workers occupations and 29.3% of *the plant and machine operators*, *and assemblers* occupations. *Professional training skills* are sought of by 11.2% in the managerial occupations, 13.2% in professional occupations, 11.7% in the technicians and associate professional occupations and 11.7% in the clerical support workers occupations. The technician training skills are needed by 21.2% of craft and related trades workers occupations and 25.1% of the plant and machine operators, and assemblers occupations. The hotel/catering skills are largely sought by the service and sales workers (56.7%). The *computer training* skills are needed by 10.7% of the clerical support workers occupations. The police/army training skills are only mainly sought by those in the armed forces occupations (50.8%). The *agriculture/forestry* skills are needed by 60.0% of the skilled agricultural, forestry and fishery workers and 10.5% of the *managers*occupations. The general clerical skills are needed by 16.1% of the Clerical support workers occupations. A good proportion of elementary (labourers) occupations (29.3%) do not need any training skills.

As a sum, the armed forces occupations mainly seek *police/army* training skills and *administrative/managerial* skills. The managerial occupations are looking for *administrative/managerial* skills, *professional training* or *agriculture/forestry* skills. Those in professional occupations are seeking *teacher training skills*, *administrative/managerial* skills or some relevant *professional training* skills. The technicians and associate professional occupations require *similar* skills as those in their professional occupations. The clerical support workers occupations look for *administrative/managerial* skills, *professional training* skills, *computer training* skills or *general clerical* skills. Those in service and sales workers occupations and in skilled agricultural, forestry and fishery workers occupations require *hotel/catering* skills and *agriculture/forestry* skills respectively. The ones in craft and related trades workers seek craft *training* skills or *technician training* skills just like those in plant and machine operators, and assemblers’ occupations.

Table 68: Assessment of possession of needed skills

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | | **Possesses skill** | | **Total** | |
| **Yes** | **No** |
| **Skills/training most required** | Teacher Training | 96.0 | 4.0 | **100.0%** | **2,946** |
| Administrative/managerial | 67.4 | 32.6 | **100.0%** | **2,691** |
| Crafts training (bricklaying, welding, mechanic, etc.) | 78.6 | 21.4 | **100.0%** | **2,407** |
| Professional training (e.g. Medicine, Law etc.) | 77.6 | 22.4 | **100.0%** | **1,820** |
| Hotel/Catering | 75.6 | 24.4 | **100.0%** | **1,634** |
| Technician training | 76.9 | 23.1 | **100.0%** | **1,626** |
| Computer Training | 55.6 | 44.4 | **100.0%** | **1,329** |
| Agriculture/Forestry | 70.7 | 29.3 | **100.0%** | **1,208** |
| General Clerical | 60.0 | 40.0 | **100.0%** | **1,197** |
| Police/Army training | 75.4 | 24.6 | **100.0%** | **1,195** |
| General Nursing | 57.2 | 42.8 | **100.0%** | **579** |
| Typing/Secretarial | 81.3 | 18.7 | **100.0%** | **541** |
| Bookkeeping | 71.4 | 28.6 | **100.0%** | **395** |
| Home Economics | 57.9 | 42.1 | **100.0%** | **266** |
| Midwifery | 55.2 | 44.8 | **100.0%** | **210** |
| Banking | 58.5 | 41.5 | **100.0%** | **118** |
| Other | 73.4 | 26.6 | **100.0%** | **3,532** |
| No training | 43.7 | 56.3 | **100.0%** | **1,248** |
| **Total** | | **18,179** | **6,765** |  | **24,944** |
| **Per cent** | | **72.9%** | **27.1** |  | **100.0%** |

From the above table, of the 2,946 employees that are of the opinion that they need teacher training skills, only 4.0% felt they do not possess this skill. Perhaps most would like to upgrade themselves to higher teacher training skills. Apart from the teacher training skill, majority of the needed skills are not possessed by at least 20% of those that need the specific skill most. Perhaps, worth noting are the *administrative/managerial* skills that are absent in 32.6% of those that need it most *computer training* that is not possessed by 44.4% of those that seek it, *general clerical* skills not present in 40.0%, the *general nursing* skills not found in 42.8% of those who need it; home economics skills not in 42.1%; *midwifery* skills absent in 44.8% and *banking skills* not present in 41.5% of those who require these. The bottom two items (other and no training) indicate that though some do not feel that they need special skills for their current position, there is a good proportion that needs some form of training.

**Skills needed in priority sectors**

Table 69: Skills gaps in selected priority areas across sectors

|  |  |
| --- | --- |
| **Agriculture** | **Education** |
| Animal health  Livestock development  Veterinary Laboratory  Irrigation  Irrigation Engineering  Crop production  Land resources conservation  Agricultural extension  Animal breeding  Pasture agronomy  Farming systems  Biometrician  Instrumentation technician  Corporative farming  Marketing and trade  Information technology  Policy analysis  Human resource planning  HIV and AIDS Workplace programme implementation  National scheme management  Project planning  Strategic planning  Rural development  Veterinary Medicine | Policy analysis  Education planning  Information technology  Financial management  Budgeting for project planning and implementation  Monitoring and evaluation  Teacher development  Education Methods Advisory Services  Secondary education teaching  Primary education teaching  Teacher training/education  Technical college lecturing  University lecturing |
| **Health** | **Water Development and Irrigation** |
| Health Planning  Policy Analysis  Research  Information technology  Human resource planning  Public health management  Doctors (specialists)  Doctors (general practitioners)  Clinical officers  Nursing and midwifery  Environmental health workers  HIV and AIDS coordination  Psychiatry  Pharmacy  Radiography  Laboratory technology  Medical engineering  Medical assistance  Physiology  Dentistry | Water resources analysis and planning  Policy analysis  Civil engineering  Irrigation engineering  Draftsmen  Water engineers  Water quality  Ground water  Information technology  Research  Hydrologists  Hydro geologists  Water chemists  Water resource officers  Water supply officers  Economists  Planning  Communication |
| **Tourism** | **ICT** |
| Entrepreneurial skills  Interpersonal relations  Customer service  Hospitality facility management  Catering  Tourism Marketing  Entrepreneurial skills  Business management  Financial management  Human resource management  International hotels and hospitality standards  Wilderness safari management | Telecom engineering  Communication systems analysis  Communication equipment installation  Computer systems development  Computer systems installation  Communication hardware maintenance  Communication software maintenance  ICT training  Systems administration  Software programmes design  Security systems installation  Security systems maintenance |
| **Infrastructure Development** | **Land and Housing** |
| Policy analysis  Transport planning and evaluation  Works training  Information technology  Traffic management control  Aeronautical information  Air transport engineering  Civil aviation training  Road traffic management  Meteorology  Marine safety  Marine training  Ports operations  Ports maintenance  Road designing  Fire fighting  Heavy equipment operation | Quantity surveying  Structural engineering  Building services engineering  Building supervision  Landscape engineering  Horticulture  Property estate management and valuation  Valuation  Housing Estate management  Electrical engineering  Systems analysis  Housing policy and programme planning  Housing credit management  Information technology  Architecture  Service engineering  Property, mortgage and construction law  Urban development  Rural development |
| **Energy** | **Manufacturing** |
| Electrical engineering  Solar power engineering  Solar power installation  Solar power equipment maintenance  Hydro power generation  Coal power generation  Power distribution management  Renewable energy development  Electrical installation  Electrical installation maintenance | Coffee processing  Tea processing  Wood processing  Value adding  Production technology  Agriculture technology  Packaging  Processing plant maintenance  Wood technology |
| **Mining** | **Mining (continued)** |
| Mine geology  Mining engineering  Petroleum engineering  Chemical engineering  Pit tech sampling  Pit tech data management  Pit tech gamma  Pit tech XRF  Pit techniques  Warehouse management  Sewage operation  Planning  Process cleaning  Power plant operation  Process Operation  Rigging  Safety and training coordination  Health and Safety  Scaffolding  Security  Laboratory  Logistics  Lubrication | Machine operation  Metallurgy  Mine surveying  Mining operation  Ore spotter pit  Ore spotter ROM  Packaging  Reagents coordination  Analytical skills  Labour laws  Conflict resolution  Mining Safety  Instrumentation techniques  Fitting and fabrication  Vector control spraying  Mining superintendence  Environmental management  Electricians  Artisan (bricklaying, carpentry, plumbing, etc.)  Crane operation  Electrical and instrumentation engineering  Fire officer  Hyab driving (rigging)  IT Systems support  Logistics |
| **Some skills that are cross cutting** |  |
| General management  Administrative skills  Human resource management  Human resource planning  Communication  Financial management  Accounting skills  Auditing skills  ICT  Communication skills  HIV and AIDS coordination  Supervisory skills Leadership and motivation  Planning skills  Research skills |  |

Summary and Conclusion

This chapter has attempted to uncover vacancies that exist in all sectors. In addition, the chapter has also discussed required skills needed across priority areas for Malawi’s economic growth and development. All organizations across sectors have positions that are not filled. The failure to fill available positions may be due to a number of factors. The availability of vacancies in organizations indicates availability of employment gaps across the sectors. In addition, the availability in organizations of non-Malawian employees may also be an indication that whereas employment is available, qualified labour is not available. That is why labour is, in some instances, imported into the country.

It is accepted by Government, its development partners, and the private sector that the effective implementation of MGDS and ERP policies hinges on the availability of capable human resources in qualitative and quantitative terms. It is therefore important that Malawi implements strategies to address such employment and skill gaps.

## CHAPTER SEVEN: STRATEGIES FOR FILLING EMPLOYMENT GAPS

### Introduction

Chapter 6 above catalogued employment gaps that exist in all sectors in Malawi. The aim of this chapter is to propose possible strategies to address the employment gaps in the short, medium and long terms. The proposals are based on both the questionnaires administrated during the survey, in-depth interviews conducted with top level managers and policy makers in Government and private sector and review of relevant literature collected during the survey.

As noted above vacancies appear in organizations of all types and sizes whether private, public or non-governmental. The survey reveals that almost all establishments indicated availability of vacancies. Some organizations having shortages of employees with certain skills as demanded by the particular organizations include geologists in the mining sector and engineers in the construction and service industries like the energy generation sector. It is important to ensure that prevalence of such employment gaps is minimized. This is so because having employees in right quantities with right qualities is a prerequisite for optimal employee utilization, performance and organizational productivity.

The strategies proposed below are aimed at addressing the identified employment gaps. It should however be emphasized that the proposed strategies are not stand-alone but should be seen as working collectively to address the various gaps.

### Strategies for filling employment gaps

Below are strategies that can be used in filling employment gaps identified in the preceding chapter:

#### Providing good conditions of service to strengthening Staff Retention and attract new staff

One of the strategies for filling employment gaps is to establish and sustain good working conditions that improve staff retention and attract people to join the organization.

Gaps in employment sometimes come about because some employees have left due to a number of reasons, among which may be poor working conditions. The survey shows that in the energy sector, for instance, long serving established professional engineers have left employment to join new private organizations in the telecommunication sector following enticing working conditions. In the training and education sector, many technical college training professionals, graduate secondary school teachers, and qualified primary school teachers leave their employment and find new jobs in other sectors or change careers altogether. In the health sector, medical doctors as well as nurses leave the public sector or the country altogether to seek opportunities elsewhere citing poor working conditions as a reason for leaving employment. In all sectors, therefore, key personnel leave for what they consider to be ‘greener pastures’.

It is therefore recommended that in all sectors organizations should deliberately explore how they may establish and sustain good working conditions that improve retention of those already in employment by the organization. Considering the high cost of a recruitment process it may prove worthwhile to put in place favourable conditions of service that promote the retention of staff.

On the other hand, it will be easier to fill vacant positions as applicants may come forward quickly because the organization is perceived as providing good working conditions. Such a strategy would enable various sectors of the industry including the public service to have established positions almost always filled. It is strongly recommended that organizations should improve their HRM sections to enable them implement HRM policies that may improve staff retention, and attract people to join their organizations. Good conditions of service are not only about paying higher salaries, but other HRM policies that competent HRM officers can help an organization to put in place to provide a conducive environment for people to want to remain or to join the organization.

### *Mitigating the effects of HIV and Aids and non-communicable diseases*

Deliberate efforts to mitigate the effects of HIV and Aids and non-communicable diseases can help an organization to reduce employment gaps.

It is evident that a contributing factor to poor performance and employment gaps is the HIV and AIDS pandemic. Very knowledgeable and competent employees become less productive when they suffer from HIV and AIDS related opportunistic illnesses. In some cases, those who are not infected become affected and therefore become absent from work when they have a close relative or family member who is ill and must be attended to continually. Providing HIV and AIDS workplace support in organizations goes a long way in mitigating against the impact of the pandemic.

There is also a growing prevalence of non-communicable diseases such as Diabetes and Hypertension that are silently taking the lives of employees.

People who get appropriate and timely medical care, nutritional support and moral support are likely going to work without much noticeable hindrance or recover in good time, and thereby deliver what is expected of them. Besides, the provision of this support reduces the number of posts that may fall vacant due to avoidable deaths of employees.

It is evident that although many organizations may have documents that purport to have HIV and AIDS support programmes, in real fact there is very little on the ground and valuable employees are still being lost at a time when the Government is striving hard to provide better medical support to the affected and infected. It is also evident that most organizations do not have any programmes to promote awareness of non-communicable diseases.

It is recommended that organizations in all sectors of the Malawi economy should put in place programmes to implement robust HIV and AIDS Workplace Support programmes and encourage employees to utilize the facilities that are now readily available to identify and address non-communicable diseases in good time.

#### Training and Development of Current Employees

By training and developing current employees an organization will ensure that it has a steady supply of people to fill employment gaps that arise at various points in its operations. This also ensures that employees have the talent to grow within the organization.

Employees are trained and developed to become more competent so that they end up filling an organization’s employment gaps. There are health service providers who with specialized training move up from simply being general medical practitioners to specialists. In the private sector, in coffee processing, for example, some employees have been given specialized training to develop their competence so that they competently manage various stages of the processing of the product. Training of this nature helps the organization have readily available trained employees to fill gaps.

Building capacity through training and development takes time. As such, capacity development of employees should be planned in advance. Employers should encourage professional development for every employee. Employees, who access professional development initiatives, be it at a local college or at an industry conference, learn new relevant skills that come in handy in new job situation sooner or later.

It is recommended that organizations in all sectors train and develop their employees at various levels to ensure that there is a rich pool of competent personnel to fill employment gaps as they arise.

#### Implementation of Succession Plans

Related to the training and development of employees recommended above is the need to prepare and implement succession plans.

It is normal that people who join the organization have to exit at some set time when they reach retirement age or even earlier due to various circumstances. In some cases positions may be held by expatriate persons due to absence of qualified Malawians, and there is need to replace them at the end of the contract. This is important because it ensures that Malawi is not perpetually dependent on imported labour in the particular areas. All those who leave an organization generally take with them invaluable quantities of organizational knowledge and expertise accumulated over their work life in their employment.

One strategy to deal with such employment gaps, particularly in middle and senior management positions, is the establishment and use of succession planning practices. A succession plan ascertains the availability of knowledgeable and skilled employees at the time a position falls vacant.

It is therefore recommended that, as part of good HRM practice, organizations in all sectors should put in place and implement succession plans that will ensure that there is most of the time a pool of employees that are ready to take over when positions fall vacant.

#### Paying More for Top Talent

Another strategy for organizations to fill employment gaps is to pay more for top talent.

One reason why organizations struggle to hire top talent is that they cannot afford them. Therefore, to fill existing employment gaps, the employer must be willing to pay a little more for the right candidates for certain jobs. There are generally two reasons: First, if the prospective employee is a quality candidate, then they can probably find market value for their talents elsewhere. Second, if they do not find market value for their talents right away, they still could a few months or a year after starting with the organization.

Through brain drain, Malawi has lost a lot of highly valued skills like those of some professionals who have taken their skills out of the country all together. Individually even organizations have lost valued employees to competitors. Such departures result in employment gaps.

It is recommended that organizations should, where appropriate and affordable, be willing to pay more for special skills and top talent so that they are able to address the key employment gaps in their organizations. This will, however, require competent handling from HRM officers to ensure that it does not raise discontent among other employees.

#### Improving the recruitment process and procedures and enhancing the capacity of recruitment commissions

Another strategy for organizations to address employment gaps is to streamline and speed up recruitment processes and procedures so that they reduce the time it takes to recruit people.

With the rate of unemployment generally being high, one would think that it would be easy to hire a new employee considering that there are so many people looking for employment. This is particularly applicable in the public service where the survey has shown that there is generally a high vacancy rate for various cadres in all Ministries, including those that are catalysts for successful implementation of ERP and MGDS programmes. The high vacancy rate in the public service has a negative effect even on the private sector because the employment gaps result in failure of some services to be provided on time, or at all. It is also significant that a high number of these vacancies are in cadres where apart from the minimum required school or college qualification, no prior training is required for one to be recruited.

It is recommended that the processes and procedures for filling vacancies in the Public Service in general and the efficiency of the Civil Service Commission (CSC) and the Appointment and Disciplinary Committees (ADC) should be reviewed in order to resolve the delays in filling of vacancies. The process should be streamlined and that the commissions need to be resourced with adequate human, financial and material resources enable them function effectively and efficiently. There is generally a strong view that the current high vacancy rate can be attributed to ‘prohibitive’ or ‘restrictive’ recruitment processes and procedures. Most people do not understand why vacancies cannot be filled quickly and consistently when there are many eligible candidates within and outside the Public Service and many school leavers that are looking for employment.

It is also recommended that organizations in the public and private sectors should review their recruitment processes to ensure that they can fill vacancies quicker than they do currently. This should include exploration of the possibility of introducing on-line recruitment processes.

Urgent review of the recruitment process, in the public sector in particular and in all sectors in general, would not only improve service delivery in all sectors, it would also reduce the high level of employment, especially among the youths.

### *Conducting Targeted Training*

Another strategy for addressing employment gaps is by conducting targeted training. This would help to ensure that qualified employees are available.

The main aim of the strategy is to identify key areas where there are staff shortages and specifically target more training for those areas. An example in the private sector would be in the tobacco handling sector where employers may recruit trainable prospective employees and take them through some targeted training. Such employees acquire specific competences required of them to perform in the job they are to be hired for. A similar approach could be applied in the ERP sectors where there are clear shortages of staff. After undergoing the targeted training, the employees become adept at performing well in their employment since the training given prepares them in specific areas that are demanded by their jobs.

It is recommended that there be special effort to conduct special targeted training for the areas that have been identified in this survey as seriously short of staff, including the ERP and MGDS priority areas. Efforts should be made to engage the participation of cooperating partners for supplementary targeted training support in these critical areas.

#### Increasing Skills Output from the Supply Side

Another strategy to address employment gaps is to increase supply of skilled people. One of the possible reasons why employment gaps exist within the national employment labour market is the shortage of needed skilled people in the labour market that employees can recruit. This shortage comes about because the output from the supply side is low and therefore unable to meet the demand. As noted in chapter 2, for instance, student-teacher ratio in education remains quite high at both primary and secondary school levels because the number of new teachers graduating from teacher training institutions is low. Furthermore, the number of graduates from training institutions going into the construction industry is quite low resulting in there being more civil engineers against a very small number of bricklayers, plumbers and electrical technicians who should be in the majority.

This increase in the output from the supply side can be in a number of ways. First, output can be increased by doubling in-take of student cohorts into existing training institutions. This strategy can guarantee that more qualified graduates are supplied to the market. The Government of Malawi is currently implementing this strategy in the education sector where teacher training colleges are running open distance learning programmes in addition to the normal two year primary school teacher training programmes. Likewise, some public universities in Malawi are implementing parallel programmes that are contributing an increase of qualified human resources joining the job market than would have been the case without the parallel programmes.

Second, opening more training institutions also contributes to the increase in output coming from the supply side. The coming onto the training scene of new technical, vocational, teacher training, and new university colleges has the potential of beefing up the supply side as more graduates join the job market.

It is recommended that Government should analyze the areas where employment gaps are very high and explore, in consultation with training providers, how more people can be trained for the labour market. Such training takes time and it is important to start quickly.

#### Encouraging Young People Early

As a long-term strategy, it is necessary for the industry to start ‘recruiting’ long before it needs the talent. By showing interest in the collegian’s career early on, it will help students understand what organizations in various industries do and develop trust that such organizations are looking out for the students’ careers. While organizations might not get the experience they need this way, organizations can still hire great minds that make up their minds at an early age regarding which career they are to pursue and realize this dream when they pursue appropriate areas of study.

There should be deliberate effort made by various players of the industry to market what they do and the kind of employees they need. One way is through career talks given to primary, secondary, college or university students, have the potential of helping some would be employees, make up their minds while still in school. Another way is that of running organizational or industry based programmes through electronic and print media targeting young people. This shall help young people know early that there is more to employment than just the traditional professions. This is a sure way of making certain that talent required to fill employment gaps shall be available as some of the young people get to know and decide early which careers to pursue.

#### Short term employment of Temporary or Contract employees

A short term measure to address some of the employment gaps is through the employment of temporary or short-term contract employees.

Organizations in the different sectors, particularly in the mining, construction, and production sectors can use this strategy. For example, organizations in the construction and mining industries have engaged the services of temporary or contract employees like railways construction and mining engineers. Such is the case because the Malawian labour market does not have qualified personnel in their areas of operation or production. Temporary or contract employees can therefore enable an organization to implement a project in a situation where this would not have been possible if they were to solely rely on or wait for permanent employees.

The Malawi Public Service has also used this strategy in some areas of its operations so as to provide desired services to the citizenry. For instance, the Ministry of Health has, after experiencing shortage of health facilities administrators, rehired some retired administrators. These are hired on temporary employment, or contract terms in order to fill employment gaps that exist in the Ministry. This is one of the ways for filling employment gaps while waiting to find permanent employees.

Temporary or contract employees are also a convenient strategy where work is of a seasonal nature. Organizations recruit and utilize the employees only during the period when their services are required.

Considering the skill and knowledge shortages that are prevalent in the economy it is evident that the elderly constitute an invaluable constituent that could be fully exploited to address such short term needs. However there does not seem to be an institutionalized and systematic channel to tap the knowledge and skills gained by older persons. Initiatives in some organizations such people seem to be ad-hoc although this should clearly have pointed the way to one of the strategies to addressing short term gaps in the work force. HRM strategies should be put to ensure that the elderly remain an important supply for addressing skill and knowledge gaps in all areas of need by maintaining registers of such people.

It is recommended that where duties are of a short term nature, or seasonal, or where it may take time to get permanent staff, organizations should utilize the services of temporary or short contract staff.

#### Use of Volunteers

Another short-term strategy to address employment gaps is through the use of volunteers. This can be done in two ways:

1. *Introduction of a Local Volunteer Scheme*

There are times when some people have skills for doing certain jobs but do not like the idea of being in full-time employment in a particular job either because they retired from a similar job or they just do not like the thought of working in such an environment. Nevertheless, such people may actually not mind offering their services as and when requested to do so on a volunteer basis. Such experts may make available their expertise to organizations as volunteers thereby filling an employment gap that may be available in the organization. A case in point is the use of volunteers as care givers in the health sector or in the provision of services to the elderly in areas where full time employment workers may not be available.

In some instances, retired professionals may provide their services to some organizations. An example would be a retired administrative manager offering their services to a civil society organization like a local National Initiative for Civic Education (NICE) office on effective planning and management of information dissemination campaigns. Organizations with a youth development drive or a reduction, say, in gender based violence, would benefit immensely from services provided by volunteers with relevant expertise. Such volunteers perform roles that the organizations may not have the financial resources to fill with a full time salaried employee. At the same time, performing the roles accords the volunteers the satisfaction that comes with knowing they are valued by the organization or society and that they are doing something worthwhile with their experiences and notable skills.

1. *Use of Expatriate Volunteers*

For many years a proportion of HR requirements in several critical occupational areas are met through the provision of volunteer personnel under Peace Corps from the United States of America, Volunteer Services Overseas (VSO), Japanese Cooperation Volunteers (JOVC), and United Nations Volunteer (UNV) support.

Apart from assisting to meet short term employment gaps such volunteers could be used to provide mentorship to new recruits or inexperienced full-time employees to enable the latter gain necessary professional development. In this way, retired professionals can work with incumbents on certain assignments related to capacity building of the incumbents.

It is recommended that more effort be made to establish a scheme for local volunteers in Malawi. It is also recommended that the current employment gaps prevalent in all sectors be analyzed to explore the possibility of utilizing local or expatriate volunteers as a short term measure to address gaps, where appropriate.

#### Summary and Conclusion

The availability of employment gaps in organizations negatively impacts on organizational and national performance in delivering the national development agenda. In order for the MGDS and ERP priority areas to fully contribute to the realization of national growth and development, there is need for position holders to perform to the optimum. However, the availability of unfilled positions in organizations puts a strain on the ability of organizations and government to ably deliver.

This chapter has proposed several strategies that may be used in order to fill employment gaps in the public, private and CSO/NGO sectors.

## CHAPTER EIGHT: STRATEGIES AND OPTIONS: TRAINING AND EDUCATION

### Introduction

Chapter 6 above has highlighted various Skills gaps that are prevalent in the various sectors. The aim of this chapter is to propose possible strategies and options to meet the skills gaps in the short, medium and long terms through education and training of Malawians in the country (including on-the job and apprentice-type training) and in other countries. The proposals are based on both the questionnaires administrated to employers and employees and in-depth interviews conducted with top level managers and policy makers in Government and private sector. Documents and other relevant literature also collected and read during the survey formed the major sources for inferring strategies and options for intervention.

### Strategies for filling skill gaps

Below is a list of strategies recommended to address the skill gaps that are prevalent in Malawi. It should be noted that some gaps may requires the combined application of more than one strategy, as no single strategy may be exclusive of the others, depending on the relevant issues to be addressed.

### *Balancing Work needs and Training and Education provided*

The survey highlights an urgent need in the short term to address an existing gap between what knowledge and skills are required in the workplace and the training that is being provided in the training institutions.

Feedback collected from various interviews conducted during this survey and a review of various documents confirmed that one of the most urgent actions to be taken by training and educational institutions is to urgently relate their programmes to the knowledge and skills required by the labour market. There are strong appeals from a wide range of stakeholders of the need to improve on the design and delivery of training programmes. The issues raised by stakeholders include:

* *There be linkage between national direction (strategies, goals, vision) and the training of people;*
* *Emphasis on industry-led training-what is required in industry is what training institutions should be focusing on.*
* *Need for provision of agro-processing skills to specific groups involved in production, people in rice, cassava, potato, fruit, coffee etc. growing;*
* *Training institutions to interact with industry so that they implement curricula that enable them produce skills needed by the industry;*
* *The curricula for primary and secondary school education levels do not include vocational, entrepreneurial and business management skills or address other needs of business community and the economy as a whole;*
* *There is a significant mismatch of skills required to sustain economic growth in such countries and the type of skills being emphasized in vocational training institutions and universities;*
* *The industry bemoaned the limited consultation between industry and learning institutions especially when it comes to development and review of curriculum.*
* *Labour from the technical colleges as well as the universities is not up to standard and not ready to work in factories under minimum supervision. The quality of labour from TEVET institutions is of very poor quality, while that from Universities is of good quality but the problem is the limited areas of specialization compared to the large number of specialized industries that exist in the economy;*
* *Currently, training is more geared towards high level skills, and middle and senior professional officers - abandoning technicians. There is need to invest in the development of officers in technical areas e.g. extension services since no professional officer can allow to take up challenges in this area. Otherwise one day the country will work up one morning without effective and efficient carpenters or extension officers;*
* *Education and training channels are not as good as they are expected. Crops/graduates from these channels are half baked. There is need to strengthen these channels. The channels should be guided by the needs of the employer;*

The above sample of feedback from various employers clearly reflects perception of a wide gap between what is required and what training providers are offering. There seems to be an urgent need to co-ordinate training programmes with the country’s needs, and guide investment in training facilities.

As a strategy to address this gap, there is urgent need for a formal and institutionalized dialogue between employers and training providers in order for employers to provide input and feedback on curriculum and skills development. Training institutions should be interacting with employers so that they implement curricula that enable them produce skills needed by the industry. It is envisaged that through such interactions the desired skills in appropriate areas like Mining, Energy, Infrastructure Development, Engineering, Agriculture diversification, Irrigation, Manufacturing, ICT, Tourism, Research and other areas deemed critical for support of the national agenda would be improved greatly.

To support this strategy there is need for an arrangement that institutionalizes and ensures the creation of a platform for symbiotic collaboration between employers and training providers. It is therefore proposed that there be a scheduled annual gathering where representatives of employers and training providers would gather at an appropriate time of the year to agree on training requirements for the following year (or coming few years, subject to review each year). Training providers would then have a guide on what training should be provided in the following year (s). Apart from the public service training coordinators such as DHRMD, other key players that could participate would be representative bodies such as MCCCI, ECAM, NCCI, ECAMA and other major associations. Such meetings would help to ensure that there is a linkage between national direction (strategies, goals, and vision), the needs of individual employers and the training of people.

As part of the continuous consultation proposed above Government should create think tanks on various areas which bring together experts who then provide well thought out direction to Government on linkage of curriculum to requirements in the work place and other areas related to the improvement of the labour force for employment and self-employment. For the long term it is recommended that representatives of education providers also be involved in such discussions so that they may assess what input they may include in the education sector to address such gaps. One of the ultimate objectives would be to strengthen the promotion, adoption, transfer and utilization of appropriate technologies in educational and training institutions, and the preparation of a labour force that meets national needs.

### *Institutionalizing attachments to improve balance between Theory and Practice*

The survey highlighted an urgent need in the short term for trainees to be exposed to the practical environment of the work place so that there can be a good balance between theory and practice, and to enable graduates immediately apply their learning in the work place or self-employment.

Feedback collected from various interviews conducted during this study and various literatures demonstrated that one of the most urgent actions to be taken by training and educational institutions is to relate their programmes to the knowledge and skills required by the labour market. There is a significant mismatch of skills required to sustain economic growth in such countries and the type of skills being emphasized in vocational training institutions and universities*.* It is argued that Labour from the technical colleges as well as the universities is not up to standard and not ready to work in factories under minimum supervision. The quality of labour from TEVET institutions is of very poor quality, while that from Universities is of good quality but the problem is the limited areas of specialization compared to the large number of specialized industries that exist in the economy. Furthermore, it is evident that at present, training is more geared towards high level skills, and middle and senior professional officers - abandoning technicians.

Some of the strong appeals on this issue from a wide range of stakeholders include the list of sentiments below:

* *Change model of skills development- balance theory and practice*
* *Training need to shift to strengthen more of the practical skills- ability to do and not emphasis on knowing;*
* *When people graduate they should be able to make things happen- fridges, cars, cups, toothpick, etc.;*
* *Protracted attachment of students to industry be a must;*
* *Need to strengthening the attachment of accountancy students to audit firms;*
* *The curricula for primary and secondary school education levels do not include vocational, entrepreneurial and business management skills or address other needs of business community and the economy as a whole;*
* *There is lack of skills specialization on a large scale and as a result, specialized industries like pharmaceuticals, wood processing, ceramic manufacturing, agro-processors, textile and garments and seed producers find it very hard to get the labour they require to operate their industries;*

The above sample of feedback from employers reflects perception of a wide gap between the balance between practical skills and theoretical knowledge that is required and what training and education providers are offering.

Apart from the annual forum to share required areas of need recommended in the above strategy, there is need for a formal and institutionalized dialogue between industry and education and training providers in order for industry to provide input and feedback on curriculum and skills development. It is further recommended that curriculum should be benchmarked with those of renowned training institutions in the region and globally.

Findings from the survey also demonstrate that to consolidate the ideal mix between theory and practice there is need for a training shift to strengthen more of the practical skills- ability to do and not emphasis on knowing. One way of attaining this is that attachment of students to industry be part of the curriculum.

Industry attachments should be compulsory for successful completion of all technical programmes at college and university level to ensure that all graduates will have had adequate exposure to the practical demands of the work place.

It was noted that there may be a challenge because some employers are not very receptive to industry attachments for students on technical programmes. For this to be possible the industries should be encouraged to be more receptive to industry attachments for trainees and students programmes as apprentices. It was observed that if the design already provided for sufficient practical content in the curricula of technical and professional training and employers see value in taking on apprentices rather than seeing it as a burden where they may spend more of their production time training the apprentices even in basic areas, employers would be keener on attachments. There is a clear need to put in place relevant well-crafted policies, operational guidelines, and legal frameworks for attachments. This should include a clear determination of responsibility for up-keep of the students during attachment. It may therefore also be necessary to explore what incentives, if any, may be necessary to encourage the private sector and employers in general to take more trainees on attachment/apprenticeship.

An added advantage of training that is well balanced between theory and practice would be that even where graduates do not go into paid employment they would be sufficiently skilled to be self-employed and provide a ready source for labour when organizations need more employees.

For the long term preparation of a future labour force it is recommended that basic education should be strengthened by introducing practically oriented curriculum. For example, there is need to strengthen primary and secondary education in science and technology to ensure that it is practically oriented. There is also need to strengthen university education in science and technology and increase and diversify post-graduate training programmes that forma foundation for innovation skills.

### *Need for training to incorporate inculcation of ethics, code of conduct, professionalism and patriotism*

The survey established that there is a growing challenge where although Malawi has many people that are well trained, they are not performing as expected. It was indicated that that despite having high qualifications many graduates are not committed to work and there is less effort towards perfection. It was observed that in many cases although people may have knowledge and skills about the job their negative attitude is not conducive to high productivity. It was felt that there is a growing deterioration in the behavior of graduates from schools and colleges. This means that even where Malawi produces well trained and knowledgeable graduates, their contribution to national development will be very limited because of their low productivity, bad attitude, lack of ethical behavior, and poor conduct and professionalism. Some observers emphasized the need for training and educational institutions to go beyond simply emphasizing skills and knowledge transfer.

It is therefore recommended that training and educational institutions should, as part of their curriculum, inculcate at all levels, relevant issues regarding appropriate attitude, ethics, code of conduct, professionalism and patriotism. This would ensure that the majority of graduates contribute productively in the work place, or in their self-employment.

### *Need for more training in relevant technical and vocational areas*

The survey has highlighted an urgent need in the short term for an increase in people graduating in relevant vocational and technical areas. As shown in Table: Graduating students by institutional orientation above shows, there are insufficient graduates in this category. The survey has also shown that there is an insignificant response by training institutions to train more people in these areas. Instead the more common growing trend has been to concentrate on the production of management/service sector skills instead of focusing more on “hard”/production sector skills that are in higher demand. An example is the abolition of diploma programmes for technical education that has created a shortage of artisanal and technical skills.

Findings have shown that there is need to invest in the development of officers in technical and vocational areas. As has been observed the larger number of professional officers may not be willing to perform the duties at the technical and vocational level.

Considering the period that it takes for such personnel to be trained it is important that there be an immediate re-alignment in training in-takes, based on reasonable consultation with industry needs, as suggested above.

Correspondingly, initiatives like Career talks and programmes should be introduced in primary and secondary schools to orient pupils and students towards the careers that are on demand by industry in the country, especially because of the perceived preference for educational qualifications over vocational and technical qualifications.

It is also recommended that, as part of the harmonization of training institutions recommended below, assessment should also be made if Malawi should have additional technical colleges (rural polytechnics, community technical colleges) to cover more technical and vocational areas to meet industry demands.

### *Involvement of professional bodies in design and delivery of training and education*

Findings during the survey indicated that there would be high value-addition to skill development if professional bodies that are active in the various occupational groups were involved in the design and delivery of training and education.

Such involvement would enhance the capacity of such bodies to contribute to the improvement of curriculum, and, in the long term, quality of service delivery, ethics and discipline.

### *Enforcement of policies to enhance access of Women, Youths, the Disabled and other vulnerable groups to education and training at all levels.*

The survey revealed the existence of a big gap in skilled and educated women, youths, the disabled, and other vulnerable groups. This can only be addressed if there is vigorous enforcement of policies that promote their access to education and training at all levels. It is recommended that in the medium to long term measures should be intensified to promote access by increasing in-takes of these groups and providing the facilities, equipment and necessary support to enable them complete their education and training. This should also increase access to science and technology programmes. It is also important that Government should put in place safety nets for primary, secondary and university education to facilitate the entry of women, youths and other vulnerable groups into employment in various fields, including science and technology and their progress within such fields. This would also empower them to be self-employed where desirable.

One of the limiting factors to access for women, youths, the disabled, and other vulnerable groups may be the generally high tuition and other fees that are required for admission into training and educational institutions. It is necessary that efforts be made to provide scholarship schemes that would target this category of the population to open up opportunities for them to get access to the various vocational and technical institutions. It is also important that strategies should be put in place to implement existing affirmative action policies to increase output of women, the disabled, and other vulnerable groups at various levels and different fields of training and educational institutions, and their progression in society.

### *Intensification of Orientation, Induction and Continuous Development programmes*

The survey revealed the existence of a big gap in induction, orientation and continuous development programmes in all sectors.

It is recommended that deliberate policies be put in place to provide short-term, medium term and long term training to members of staff according to training needs assessment and succession planning. The private sector should put more resources into the training and development of their staff instead of mostly relying on the labour market.

It is also recommended that in order to make such programmes more meaningful and mandatory, education, training and skills development should be incorporated in Performance Management Systems in the various organizations. A policy framework should be put in place to provide an environment in which employees are encouraged to learn and develop.

### *Need to Conduct Regular Assessment of Skills Gaps and Impact Assessment*

The survey revealed that training provided in training institutions is mostly done without Training Needs Assessment and Impact Assessment by both training providers and employers. There is generally no effort to base training on needs, and to assess what impact training has made on the training beneficiaries and the service consumers.

Therefore, as a way towards ascertaining availability of desired skills for filling employment gaps, there is need for employers and training institutions to conduct assessment of skills gaps regularly. Reports of such studies provide policy and decision makers with important information that enables them make informed decisions on targeted development of human resources. Areas of need in terms of skills are made known and steps taken to ensure that appropriate skills are made available as and when needed. By conducting skills gaps assessments employers and training institutions become aware of needed skills areas that are in short supply or unavailable that needs beefing up. Regular Training Needs Assessment would provide opportunity for training providers and employers to regularly design relevant training.

It is also necessary that there be, as a matter of normal practice, regular impact assessment which would provide feedback on how the trainee has been able to apply in the work place the skills and knowledge acquired during training, and how consumers of the service have benefited from the training.

### *Harmonization of roles and responsibilities of training providers to focus on national needs and remove duplication of effort*

The survey showed that the training institutions surveyed have potential to offer a wide range of courses relevant to the skill and knowledge gaps identified in this survey. Most of the areas identified as gaps can be addressed in these institutions with close collaboration between employers and training and education institutions.

However, one area of concern that may reduce the capacity of training institutions to offer acceptable quality training is the growing tendency to be ‘jack of all trades’. By looking at the institutional names and mandates, one may deduce a clear division of labour in terms of what each institution can offer. However, it is very clear that most training institutions overlap in the provision of similar courses as each one does what it desires, mostly outside its mandate, without a common national objective on education and training. This leads to a lot of duplication in the same areas while other areas that are in great need are overlooked. It also leads to substandard provision of services because it is unlikely that any single institution may have adequate expertise and facilities to provide the whole spectrum of programmes.

From findings established during the survey, it emerged that this growing practice is mostly heightened by the desire to broaden financial base for the survival of the training institution. The tendency therefore is to provide programmes that are perceived to attract more people even when they are not in areas demanded by employers, or even the mandates of the institutions themselves. Examples that were observed are programmes that are examined by the Association of Business Executives and Association of Business Managers and Administrators and various diploma and degree programmes that are very popular in most public and private institutions including technical colleges that should ordinarily be concentrating on the “hard” skills in high demand.

It is recommended that in the medium to long term there be a vigorous harmonization effort to determine what institutions should be encouraged to do, and to encourage training institutions to stick to their mandates and areas in which they are best placed to design and deliver courses, in order to reflect the demands in the national development agenda.

It is also recommended that as part of such harmonization, training providers should be required to specialize in areas based on their capacities and national needs. Such an approach would ease pressure on investment needs by guiding institutions to dedicate resources only on the equipment and resources relevant to their areas of specialization. As part of the process it is also recommended to harmonize different syllabi used in technical education so that students are examined by a specific body.

Government should facilitate the development of a Comprehensive Skills Development Policy to help clarify roles, improve coordination, strengthen regulation and facilitate monitoring and evaluation of progress in skills development provided by training and education providers in Malawi. Clear roles of Education, Universities and Training institutions should be spelt out in the policy to avoid duplication of efforts and ensure that all the knowledge and skills that the labour market requires are being addressed in the relevant institutions best able to provide them.

In addition to the Comprehensive Skills Development Policy, it is recommended that the Malawi Government should develop the National Qualifications Framework that would harmonise and recognize levels of learning and skills. There is also need to fast track the establishment of the Malawi Qualifications Authority to regulate all Quality Assurance bodies (Training and Professional bodies) so that Malawi may deal away with sub-standard training institutions that exist without the necessary Curricula, physical infrastructure, qualified personnel, laboratories, and libraries etc. This is even more important because Malawi is a signatory to the SADC Protocol on Education and Training which was assented on 8th September, 1997, in which member states agreed to develop Regional Qualification Framework (RFQ) whose objective is to harmonize and regulate qualifications in the region so that there is ability to access and transfer skills across the region. The same Protocol requires member states to develop National Qualifications Frameworks and institutionalize them into National Qualifications Authorities.

The survey has revealed that most of the training in Malawi is sponsored by Government. It should therefore be easier for Government to take a lead in ensuring that such harmonization and specialisation takes effect as it owns most of the institutions or has a significant financial influence. At the same time Government should encourage establishment of specialized private training institutions that should be effectively regulated within the same policy framework recommended above.

### *Need to strengthen training institutions*

The survey findings also revealed weak capacities of technical and professional training institutions.

There is urgent need to strengthen training institutions through:

***Constantly developing capacity of trainers and educators***

The survey revealed the need for constant development of capacity of trainers and educators to enhance their skills to meet skill demands of a rapidly changing environment, including industrial technology and special needs learners. Such efforts should be continuous, in the short, medium and long term, with particular emphasis on vocational and technical trainers where the demand is higher. For the short to medium term special scholarships should be provided to improve the capacity of trainers in vocational and technical training institutions.

***Heavy Investment in equipment and facilities for training and education to keep pace with change***

The survey revealed a serious gap in up-to date equipment and facilities in training and educational institutions that would enable them to keep pace with the demands and changes in the work-place. There is inadequate or inappropriate infrastructure and lack of learning equipment both in the Universities and TEVET colleges, and other educational and training institutions. Most of the equipment in training institutions and technical colleges was procured when they were being established and no significant new investment in training and learning equipment has been made since. This limits enrolment and the quality of training and education.

There is need for heavy investment in the medium to long term to ensure that training and educational institutions have relevant equipment and facilities. Programmes should be prepared and supported to bring in interventions aimed at increasing access and quality of learning through expansion of the learning space and supply of relevant equipment and facilities. Efforts should be made to improve existing training institutions with necessary training infrastructure, machinery and equipment, and consider establishment of additional and/or specialized public institutions where appropriate. Government should also encourage establishment of specialized private training institutions that should be effectively regulated.

### *Need for establishment of a Consolidated Training Fund in the Ministry of Labour*

As indicated above, the study revealed that the burden of training and education in Malawi is mostly left to the Public Sector. Clearly, such a heavy burden cannot be left on the public sector alone if Malawi is to quickly close the knowledge and skill gaps and create capacity to address the national development agenda.

There is need, in the medium to long term, for intensive collaborative efforts from the various stakeholders. As also observed by other previous studies, the issues of capacity development are not only restricted to the Public Sector but also affect the private sector and CSO/NGOs. This makes it imperative to review the institutional arrangements and modalities with a view to ensuring that capacity development issues cover the whole economy and their financing and support becomes a shared responsibility.

It is recommended that such consultations among all stakeholders (public sector, private sector, and CSO/NGOs) should lead to the establishment of a Consolidated Training Fund in the Ministry of Labour to which all stake-holders and other cooperating partners should be contributing. Modalities on how funds would be deposited and drawn from such a fund have to be discussed by the stakeholders. Such a discussion may examine the TEVETA levy arrangement as a model for a desired design.

### *Introduction of incentives to increase participation of the private sector*

Apart from financial contributions to the fund, cooperating partners, the Private Sector and CSO/NGO stakeholders could also be contributing through the provision of relevant equipment and facilities to educational and training institutions, and taking up trainees for attachments/apprenticeship in their organizations, and meeting some of the costs for such attachments.

Incentives should be provided to enable such more active participation. For example, consideration could be made for equipment ‘donated’ to training and educational institutions to be procured duty free.

### *Training in-country and outside Malawi*

As stated above, the study reveals that most of Malawi’s training needs can be met locally. The institutions surveyed have the capacity to offer a wide range of courses relevant to the skill and knowledge gaps identified in this survey. With more collaboration between employers and the training and education institutions, most of the skill and knowledge gaps can be addressed locally.

It can be concluded that a National Training Plan that adequately addresses these gaps and is shared with training and education providers would go a long way towards improving capacity to provide most of the training within Malawi. Such a national training plan would also guide private sector and other cooperating partners on what priority areas that may need investment.

With the introduction of more courses in local institutions and the localization of Professional Examining bodies the need to obtain qualifications from foreign institutions will continue to diminish. There is evidence of this trend with the growing use of local institutions for training and education in areas such as Public Health, Human Resource Management, Theology, Education Curriculum Studies and Development, Agricultural Economics and Strategic Human Resource Management.

From the assessments and Government plans it is evident that in the short, medium to long term Malawi will to continue to rely on training outside Malawi, in countries such as Botswana, Kenya, Tanzania, South Africa, Zambia, Ghana, Uganda, Australia, China, India, the United Kingdom and others, in the following areas:

|  |  |
| --- | --- |
| **Training areas** | **Training areas** |
| Renewable Energy  Energy Economics  Electrical Power Systems  Geothermal Exploration  Geochemistry  Tourism and Hospitality  Water Resources Management  Ultrasonography  Food Science and Nutrition  Classics | Pediatric and Child Health  Bioethics  Health Service Management  Public Policy and Management  Finance and Accounting  Labour Relations  Environment Science  Education Planning and Finance  Information Security  Programme Evaluation  Public Health |

However such training may become more limited to specialized areas as local institutions continue to introduce new programmes in response to national needs.

### Summary and Conclusion

The chapter has outlined some of the strategies that should be implemented to address the skill gaps that are prevalent in Malawi. The strategies cover review and re-design of training and the strengthening of capacity through development of staff, infrastructure and equipment. A need to review the funding of training, with greater involvement of the private sector and CSO/NGOs has also been recommended. It has also been noted that with harmonization of training providers and their mandates most of the training needs can be accommodated within Malawi. However, although most of the skill gaps can be addressed by local institutions the country will continue to rely on institutions outside Malawi to address some of the skill gaps.

However, it should also be acknowledged that some of the performance challenges cannot be addressed by education and training alone but other interventions as well. However, education and training is an important catalyst in addressing many of the performance challenges.

## CHAPTER NINE: HUMAN RESOURCE MODEL

### Introduction

It is clear from the above chapters that the country needs a wide availability of skilled human resources with knowledge and skills in the wide areas that have been highlighted in the survey. For this to be achieved there is need to match human resource supply and human resource demand by considering empirical data on demand and supply variables using an appropriate Human Resource Model based on sufficient Human Resource Planning knowledge and skills.

The purpose of this chapter therefore is to present a human resources model that explains the relationship between projected human resources supply and demand, based on empirical data on demand and supply variables gathered from the survey, and suggest possible action to address any emerging employment and skill gaps.

### The Process of Human Resource Planning

For one to understand the process of Human Resource Modeling it is necessary to understand the context of Human Resource Planning (HRP) within which it is founded. The process of HRP is undertaken at the national, sectoral and organizational levels because plans are required to ensure the efficient acquisition, development and utilization of human resources to achieve corporate goals and objectives more efficiently and effectively. Thus, to foster economic growth, as well as organizational success, (and to avoid critical shortages and surpluses of human resources) planners have to seek to identify or forecast the future requirements for skilled human resources and to devise staffing strategies and design the educational and training systems so as to produce a labour force with the necessary skills and knowledge for the efficient and effective achievement of both national and organizational goals and objectives.

Literature on HRP clearly shows that methods vary from the most sophisticated statistical analyses to organizational diagnostic tools. The methods used depend on issues and needs, and, even more importantly, the skills of the HRP practitioners. In Malawi’s case where skills have been assessed as inadequate it would be better to start off with simple methods and develop the levels of complexity as the capacity of HRP practitioners grows with training and experience.

Is has been observed that for HR systems involving several categories of HR linked together in career structures, the manual resolution of flows and stock levels become difficult. Various literature on HRP acknowledge that mathematical modeling techniques aided by computers can help in the preparation of supply forecasts in situations where comprehensive and reliable data on stocks and flows can be provided. However it is also noted that as this is rarely the case, they are seldom used.

Figure 10below illustrates the broad framework constituting Human Resource Planning within which HR Forecasting is processed.

**A FRAME WORK FOR HUMAN RESOURCE FORECASTING IN AN ORGANISATION**

**STAGE OF HUMAN RESOURCE**

**PLANNING**

LABOUR MARKET DATA

ORGANIZATION GOALS AND OBJECTIVES

BASIC UTILIZATION QUESTIONS

HR

POLICIES

HR INVENTORY

SUPPLY FORECAST

DEMAND FORECAST

RECONCILIATION

HUMAN RESOURCE PLAN

THE MANAGEMENT OF PRODUCTIVITY

ACCOMMODATION AND EQUIPMENT

ORGANISATION DEVELOPMENT

THE MANAGEMENT OF ENVIRONMENTAL FACTORS

MANAGEMENT OF TRAINING AND DEVELOPMENT

MANAGEMENT OF HR FLOWS

Data Collection and Analysis

REMUNERATIONAL AND BENEFITS, CONDITIONS OF SERVICE, MANAGEMENT OF STAFF RELATIONS

INITIAL TRAINING, CONTINUATION TRAINING, RETRAINING, MANAGEMENT DEVELOPMENT

RECRUITMENT PROMOTION TRANSFER RETIREMENT REDUNDANCY

SYSTEMS

PROCEDURES

JOB DESIGN

MOTIVATIONAL FACTORS NEW TECHNOLOGY

**PROCESS**

**INVESTIGATIONS**

**FORECASTING**

**PLANNING**

BUDGET

**IMPLEMENTATION**

**MONITORING AND DATA**

**EVALUATION**

Figure 10: Framework for Human Resource Planning in an organization

### Framework of a Human Resource Model

In the simplest form, the elements of Human Resource Planning can be depicted as shown in the framework Human Resource Model as shown in Figure 11below.

**(A)**

Environment

**(H)**

HR Action Plan

**(E)**

Projected HR *Demand*

**(F)**

Projected HR *Supply*

**(D)**

External HR Supply Forecast

**(C)**

Internal HR *Supply Forecast*

**(B)**

Mission, Objectives and Strategies

Figure 11: Framework of Human Resource Model

**Source: Modified from Torrington, Hall, and Taylor, 2008**

The model provides a basis for analyzing Human Resources. The major components of the model are:

1. Environment
2. Mission, Objectives and Strategies
3. Internal HR Supply Forecast
4. External HR Supply Forecast

(E) Projected HR Demand

(F) Projected HR Supply

(G) Reconciliation of the Demand and Supply projections

(H) Preparation of HR Action Plan

In the model framework illustrated in Figure 11 above:

1. Stands for the environment in which the organization exists and operates (which influences what and how the organization operates).
2. Stands for what the organization aims to achieve and how it plans to achieve it.

(C) Represents the availability of the organization’s work force that is available for work on a particular date. Forecasting Supply should normally attempt to look ahead at the number of people likely to be available from within the organization, having allowed for attrition (labour wastage and retirements), absenteeism, internal movements and promotions, and changes in hours and other conditions of work. The forecast will be based on areas such: an analysis of existing human resources in terms of numbers in each occupation, skills and potential; forecast losses to existing resources through attrition (the analysis of labour wastage); forecasting changes to existing resources through internal promotions; effect of changing conditions of work and absenteeism; and sources of supply from within the organization. It also involves the use of techniques and procedures to measure performance such as performance appraisal and management audit/staff inspection.

(D) Represents sources of supply from outside the organization. This may include those coming out of training and educational institutions, from other organizations, or the labour market in general within and outside the country.

(E) Represents the requirements for specified types of human resources with particular skills to achieve the work of the organisation based on its Mission, objectives and strategies, as stipulated at (B) above, usually expressed as a number of posts required on a particular date. The additional number of posts/people required will obviously be related to work that the organization is estimating that it will need to undertake in the plan period, based on its objectives. Some of the methods to be used may be Managerial or Expert Judgment, Ratio Trend Analysis, and Work Study techniques.

(F) Reconciles supply from (C) and (D) to forecast the overall HR supply that will be available to the organization.

(G) Represents an analysis of the net outcome of Demand and Supply projections to determine any gaps that arise either in excess or deficit.

(H) Represents the attempts to equate supply with demand of Human Resources based on the reconciliation at (G) above. This requires the production of a Human Resource Plan (HR Plan) that shall enable the organization to close the gap. The choice of HR Plan will depend on the particular circumstances prevailing in the organization and the type of work under investigation. Plans may include one or more of the following:

1. Human Resource flow:

Recruitment

Promotion

Transfers

Retirement

Redundancy

1. Productivity:

Improving existing procedures/methods

New technology introduction

Alternative forms of work organization

1. Development:

Initial training

Continuation training

Re-training

Management Development

1. Environmental:

Remuneration and benefits

Conditions of service

Management-employee relations

Among other considerations, it is important that where the action plan is relying on people to be trained, of particular importance will be the time it takes to train and develop key employees. It is essential that the planning horizon must be longer than the lead time for training and development of the people concerned for any meaningful planning to occur; otherwise numbers of people entering training can never be related to numbers of staff required.

From the above explanation it should be clear that the simple model illustrated in Figure 11 above should be understood in the context that consideration is not only about hard numbers but includes plans for various variables such as training, promotion, transfer, productivity, the flow of people from and into the organization, wastage, employee behavior, organization culture and formal and informal systems; all of which are interrelated and have a key impact on success.

### Tabular Presentation of the Human Resource Model

Data collected from the HR model at Figure 11 above may then be captured and presented in tabular format illustrated in Table 70 below. Such a table can then be used to capture figures of forecast demand and supply of employees for each category in order to calculate the gap and come up with recommended action plan for each category for the planning period.

**Table 70: Tabular Presentation of the Human Resource Model**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Type of job/Occupation | | Number of Officers in job category/occupation | | | Recommended Action Plan to address gap (One or combination of options at (G) in Figure 11 |
| Projected Demand (E) in Figure 11 | Projected Supply (F) in Figure 11 | Net Employee Requirement (Projected HR Demand minus Projected HR Supply) |
|  |
|  | Year 1 |  |  |  |
| Year 2 |  |  |  |  |
| Year 3 |  |  |  |  |
| Year 4 |  |  |  |  |
| Year 5 |  |  |  |  |

### Human Resource Model for Malawi

Using the model framework above and the data collected during the survey it is possible to come up with a Human Resource Model for Malawi that includes recommendations on actions that should be taken in various areas based on the findings of the survey. Table 71below presents in a tabular model format, the Demand and Supply forecasts derived from analysis of the data that was collected during the survey. The analysis includes calculations of human resource gaps for the various occupations targeted during the survey and provides proposed action to be taken in order to address gaps for the respective occupations:

**Table 71: Tabular Presentation of the Malawi Human Resource Model**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **OCCUPATIONAL CATEGORY** | **YEAR** | **NUMBER IN OCCUPATIONAL CATEGORY** | | | **RECOMMENDED ACTION TO ADDRESS GAP** |
| **PROJECTED DEMAND** | **PROJECTED SUPPLY** | **NET EMPLOYEE REQUIREMENT** |
| Teaching professionals | 2014 | 70,374 | 10,422 | 59,952 | * Urgent need to increase intakes for more teachers to be trained * Urgent need to improve retention of serving teachers |
| 2015 | 72,063 | 10,718 | 61,345 | “ |
| 2016 | 73,793 | 11,032 | 62,761 | “ |
| 2017 | 75,564 | 11,364 | 64,200 | “ |
| 2018 | 77,377 | 11,717 | 65,660 | “ |
| 2019 | 79,234 | 12,092 | 67,142 | “ |
| 2020 | 81,136 | 12,458 | 68,678 | “ |
| Non-commissioned armed forces officer | 2014 | 14,553 | 956 | 13,597 | Although  supply data was scanty, increased demand and expected wastage imply need for more personnel to be trained to address gap |
| 2015 | 14,903 | 956 | 13,947 | **“** |
| 2016 | 15,260 | 956 | 14,304 | **“** |
| 2017 | 15,626 | 956 | 14,670 | **“** |
| 2018 | 16,002 | 956 | 15,046 | **“** |
| 2019 | 16,386 | 956 | 15,430 | **“** |
| 2020 | 16,779 | 956 | 15,823 | **“** |
| Business and administration professionals | 2014 | 13,250 | 1016 | 12,234 | Need for substantial increase in training intakes to address gap |
| 2015 | 13,568 | 1023 | 12,545 | **“** |
| 2016 | 13,893 | 1029 | 12,864 | **“** |
| 2017 | 14,227 | 1036 | 13,191 | **“** |
| 2018 | 14,568 | 1043 | 13,525 | **“** |
| 2019 | 14,918 | 1051 | 13,867 | **“** |
| 2020 | 15,276 | 1059 | 14,217 | **“** |
| Business and administration associate professionals | 2014 | 23,509 | 2268 | 21,241 | Need for substantial increase in training intakes to address gap |
| 2015 | 24,073 | 2299 | 21,774 | **“** |
| 2016 | 24,651 | 2331 | 22,320 | **“** |
| 2017 | 25,243 | 2364 | 22,879 | **“** |
| 2018 | 25,849 | 2399 | 23,450 | **“** |
| 2019 | 26,469 | 2436 | 24,033 | **“** |
| 2020 | 27,104 | 2474 | 24,630 | **“** |
| Other clerical support workers | 2014 | 22,650 | 1488 | 21,162 | Although supply data scanty it is clear that increased demand and normal wastage from supply imply need to conduct substantial recruitment exercises from labour market, as this category does not need prior training for the job. Induction and orientation training should take place on the job |
| 2015 | 23,194 | 1488 | 21,706 | **“** |
| 2016 | 23,751 | 1488 | 22,263 | **“** |
| 2017 | 24,321 | 1488 | 22,833 | **“** |
| 2018 | 24,904 | 1488 | 23,416 | **“** |
| 2019 | 25,502 | 1488 | 24,014 | **“** |
| 2020 | 26,114 | 1488 | 24,626 | **“** |
| Protective services workers | 2014 | 20,963 | 1377 | 19,586 | Supply data scanty but is clear that wastage and increased demand imply need to train significantly more people to address gap for this category |
| 2015 | 21,467 | 1377 | 20,090 | “ |
| 2016 | 21,982 | 1377 | 20,605 | “ |
| 2017 | 22,509 | 1377 | 21,132 | “ |
| 2018 | 23,050 | 1377 | 21,673 | “ |
| 2019 | 23,603 | 1377 | 22,226 | “ |
| 2020 | 24,169 | 1377 | 22,792 | “ |
| Science and engineering associate professionals | 2014 | 5,858 | 382 | 5,476 | Supply data scanty but it is obvious that growing demand from ERP and MGDS priorities and normal wastage effects imply need to train more for this category to address gap |
| 2015 | 5,999 | 382 | 5,617 | “ |
| 2016 | 6,143 | 382 | 5,761 | “ |
| 2017 | 6,290 | 382 | 5,908 | “ |
| 2018 | 6,441 | 382 | 6,059 | “ |
| 2019 | 6,596 | 382 | 6,214 | “ |
| 2020 | 6,754 | 382 | 6,372 | “ |
| Numerical and material recording clerks | 2014 | 18,234 | 1195 | 17,039 | **S**upply data scanty but increased demand and normal wastage from supply imply need to train more for this category to address gap |
| 2015 | 18,671 | 1195 | 17,476 | “ |
| 2016 | 19,120 | 1195 | 17,925 | “ |
| 2017 | 19,578 | 1195 | 18,383 | “ |
| 2018 | 20,048 | 1195 | 18,853 | “ |
| 2019 | 20,529 | 1195 | 19,334 | “ |
| 2020 | 21,022 | 1195 | 19,827 | “ |
| Cleaners and helpers | 2014 | 62,783 | 4109 | 58,674 | Increased demand of personnel, especially in ERP priority areas, and wastage from supply imply need to recruit from existing labour market, as this category does not need prior training for the job. Induction and orientation should be provided on the job |
| 2015 | 64,290 | 4109 | 60,181 | “ |
| 2016 | 65,833 | 4109 | 61,724 | “ |
| 2017 | 67,413 | 4109 | 63,304 | “ |
| 2018 | 69,031 | 4109 | 64,922 | “ |
| 2019 | 70,687 | 4109 | 66,578 | “ |
| 2020 | 72,384 | 4109 | 68,275 | **“** |
| Science and engineering professionals | 2014 | 5,183 | 911 | 4,272 | Supply data scanty but growing demand from ERP and MGDS priorities and normal wastage effects imply need to train more for this category to address gap |
| 2015 | 5,308 | 935 | 4,373 | “ |
| 2016 | 5,435 | 961 | 4,474 | “ |
| 2017 | 5,566 | 988 | 4,578 | “ |
| 2018 | 5,699 | 1015 | 4,684 | “ |
| 2019 | 5,836 | 1045 | 4,791 | “ |
| 2020 | 5,976 | 1075 | 4,901 | **“** |
| General and keyboard clerks | 2014 | 6,103 | 850 | 5,253 | Need for increased training intakes to address gap |
| 2015 | 6,250 | 869 | 5,381 | “ |
| 2016 | 6,400 | 889 | 5,511 | “ |
| 2017 | 6,554 | 910 | 5,644 | “ |
| 2018 | 6,711 | 932 | 5,779 | “ |
| 2019 | 6,872 | 955 | 5,917 | “ |
| 2020 | 7,037 | 979 | 6,058 | “ |
| Commissioned armed forces officers | 2014 | 997 | 66 | 931 | Supply data scanty, but increased demand and expected wastage should imply need for more personnel to be trained to address gap |
| 2015 | 1,021 | 66 | 955 | “ |
| 2016 | 1,045 | 66 | 979 | “ |
| 2017 | 1,070 | 66 | 1,004 | “ |
| 2018 | 1,096 | 66 | 1,030 | “ |
| 2019 | 1,122 | 66 | 1,056 | “ |
| 2020 | 1,149 | 66 | 1,083 | “ |
| Legal, social and cultural professionals | 2014 | 997 | 533 | 464 | Need for moderate increase in training intakes to address gap |
| 2015 | 1,021 | 553 | 468 | “ |
| 2016 | 1,045 | 574 | 471 | “ |
| 2017 | 1,070 | 596 | 474 | “ |
| 2018 | 1,096 | 619 | 477 | “ |
| 2019 | 1,122 | 642 | 480 | “ |
| 2020 | 1,149 | 667 | 482 | “ |
| Information and communications technology professionals | 2014 | 2,806 | 250 | 2,556 | Need for significant increase in training intakes to address gap and increasing ERP demand |
| 2015 | 2,874 | 253 | 2,621 | “ |
| 2016 | 2,943 | 256 | 2,687 | **“** |
| 2017 | 3,013 | 259 | 2,754 | **“** |
| 2018 | 3,086 | 262 | 2,824 | **“** |
| 2019 | 3,160 | 265 | 2,895 | **“** |
| 2020 | 3,236 | 269 | 2,967 | **“** |
| Health associate professionals | 2014 | 5,613 | 457 | 5,156 | * Need for significant increase in training to address gap and anticipated growing demand, and mitigate against wastage * Need to improve retention of serving officers |
| 2015 | 5,747 | 461 | 5,286 | **“** |
| 2016 | 5,885 | 465 | 5,420 | **“** |
| 2017 | 6,027 | 470 | 5,557 | **“** |
| 2018 | 6,171 | 474 | 5,697 | **“** |
| 2019 | 6,319 | 479 | 5,840 | **“** |
| 2020 | 6,471 | 484 | 5,987 | **“** |
| Chief executives, senior officials and legislators | 2014 | 2,208 | 149 | 2,059 | Although supply data scanty, increased demand and normal wastage imply there is need for moderate increase in training intakes to address gap |
| 2015 | 2,261 | 149 | 2,112 | “ |
| 2016 | 2,316 | 149 | 2,167 | “ |
| 2017 | 2,371 | 149 | 2,222 | “ |
| 2018 | 2,428 | 149 | 2,279 | “ |
| 2019 | 2,486 | 149 | 2,337 | “ |
| 2020 | 2,546 | 149 | 2,397 | “ |
| Customer services clerks | 2014 | 6,778 | 694 | 6,084 | * Need to recruit from the labour market to address increasing demand and wastage. * Also need for corresponding moderate increase in training to provide for the labour market |
| 2015 | 6,941 | 704 | 6,237 | “ |
| 2016 | 7,108 | 715 | 6,393 | “ |
| 2017 | 7,278 | 727 | 6,551 | **“** |
| 2018 | 7,453 | 739 | 6,714 | **“** |
| 2019 | 7,632 | 752 | 6,880 | **“** |
| 2020 | 7,815 | 765 | 7,050 | **“** |
| Legal, social, cultural and related associate professional | 2014 | 2,070 | 450 | 1,620 | Need for moderate increase in training intakes to address gap and supply wastage |
| 2015 | 2,120 | 463 | 1,657 | “ |
| 2016 | 2,171 | 477 | 1,694 | “ |
| 2017 | 2,223 | 492 | 1,731 | “ |
| 2018 | 2,276 | 507 | 1,769 | “ |
| 2019 | 2,331 | 523 | 1,808 | “ |
| 2020 | 2,387 | 540 | 1,847 | “ |
| Health professionals | 2014 | 7,346 | 760 | 6,586 | * Need for significant increase in training to address gap and anticipated growing demand, and mitigate against wastage * Need to improve retention of serving officers |
| 2015 | 7,522 | 772 | 6,750 | “ |
| 2016 | 7,702 | 785 | 6,917 | “ |
| 2017 | 7,887 | 797 | 7,090 | “ |
| 2018 | 8,077 | 811 | 7,266 | “ |
| 2019 | 8,270 | 825 | 7,445 | “ |
| 2020 | 8,469 | 839 | 7,630 | “ |
| Building and related trades workers, excluding electricians | 2014 | 13,679 | 1,999 | 11,680 | Need for significant increase in training intakes to address gap and increasing ERP demand |
| 2015 | 14,007 | 2,046 | 11,961 | “ |
| 2016 | 14,344 | 2,095 | 12,249 | “ |
| 2017 | 14,688 | 2,147 | 12,541 | “ |
| 2018 | 15,040 | 2,200 | 12,840 | “ |
| 2019 | 15,401 | 2,256 | 13,145 | “ |
| 2020 | 15,771 | 2,314 | 13,457 | “ |
| Information and communications technicians | 2014 | 1,165 | 383 | 782 | Although data was scanty there is obvious need for significant increase in training intakes to address gap and increasing ERP demand for this and higher cadres |
| 2015 | 1,193 | 396 | 797 | “ |
| 2016 | 1,222 | 410 | 812 | “ |
| 2017 | 1,251 | 425 | 826 | “ |
| 2018 | 1,281 | 439 | 842 | “ |
| 2019 | 1,312 | 455 | 857 | “ |
| 2020 | 1,344 | 471 | 873 | “ |
| Food preparation assistants | 2014 | 13,020 | 853 | 12,167 | Although supply data scanty, increased demand due to ERP requirements and normal wastage should imply need for significant increase in training intakes to provide adequate numbers in the labour market |
| 2015 | 13,332 | 853 | 12,479 | “ |
| 2016 | 13,652 | 853 | 12,799 | “ |
| 2017 | 13,980 | 853 | 13,127 | “ |
| 2018 | 14,315 | 853 | 13,462 | “ |
| 2019 | 14,659 | 853 | 13,806 | “ |
| 2020 | 15,011 | 853 | 14,158 | “ |
| Electrical and electronics trades workers | 2014 | 4,417 | 2,132 | 2,285 | Need for significant increase in training intakes to address gap and increasing ERP demand |
| 2015 | 4,523 | 2,211 | 2,312 | “ |
| 2016 | 4,631 | 2,293 | 2,338 | “ |
| 2017 | 4,742 | 2,379 | 2,363 | “ |
| 2018 | 4,856 | 2,468 | 2,388 | “ |
| 2019 | 4,973 | 2,561 | 2,412 | “ |
| 2020 | 5,092 | 2,658 | 2,434 | “ |
| Administrative and commercial managers | 2014 | 5,444 | 456 | 4,988 | Need for increase in training intakes to address gap and cover for wastage |
| 2015 | 5,575 | 460 | 5,115 | “ |
| 2016 | 5,709 | 464 | 5,245 | “ |
| 2017 | 5,846 | 469 | 5,377 | “ |
| 2018 | 5,986 | 474 | 5,512 | “ |
| 2019 | 6,129 | 479 | 5,650 | “ |
| 2020 | 6,277 | 484 | 5,793 | “ |
| Drivers and mobile plant operators | 2014 | 14,829 | 975 | 13,854 | Need for significant increase in training intakes to address gap and increasing ERP demand |
| 2015 | 15,185 | 975 | 14,210 | “ |
| 2016 | 15,550 | 975 | 14,575 | “ |
| 2017 | 15,923 | 975 | 14,948 | “ |
| 2018 | 16,305 | 975 | 15,330 | “ |
| 2019 | 16,696 | 975 | 15,721 | **“** |
| 2020 | 17,097 | 975 | 16,122 | **“** |
| Personal care workers | 2014 | 1,610 | 106 | 1,504 | Data scanty, but there seems to be need for moderate increase in training to have adequate personnel in the labour market to address gap arising from wastage and growing demand |
| 2015 | 1,649 | 106 | 1,543 | “ |
| 2016 | 1,688 | 106 | 1,582 | “ |
| 2017 | 1,729 | 106 | 1,623 | “ |
| 2018 | 1,770 | 106 | 1,664 | “ |
| 2019 | 1,813 | 106 | 1,707 | “ |
| 2020 | 1,856 | 106 | 1,750 | “ |
| Personal service workers | 2014 | 1,564 | 393 | 1,171 | Although data was scanty there is obvious need for moderate increase in training intakes to ensure that the labour market has adequate personnel to address gap and increasing ERP demand |
| 2015 | 1,602 | 405 | 1,197 | “ |
| 2016 | 1,640 | 418 | 1,222 | “ |
| 2017 | 1,680 | 431 | 1,249 | “ |
| 2018 | 1,720 | 446 | 1,274 | “ |
| 2019 | 1,761 | 460 | 1,301 | “ |
| 2020 | 1,803 | 476 | 1,327 | “ |
| Metal, machinery and related trades workers | 2014 | 11,655 | 1,993 | 9,662 | Need for significant increase in training intakes to address gap and increasing ERP demand |
| 2015 | 11,935 | 2,046 | 9,889 | “ |
| 2016 | 12,221 | 2,101 | 10,120 | “ |
| 2017 | 12,514 | 2,158 | 10,356 | “ |
| 2018 | 12,815 | 2,218 | 10,597 | “ |
| 2019 | 13,122 | 2,281 | 10,841 | “ |
| 2020 | 13,437 | 2,346 | 11,091 | “ |
| Food processing, wood working, garment and other craft and related trades workers | 2014 | 3,159 | 206 | 2,953 | Although data was scanty there is obvious need for increase in training intakes to ensure that the labour market has adequate personnel to address gap and increasing ERP demand |
| 2015 | 3,235 | 206 | 3,029 | “ |
| 2016 | 3,313 | 206 | 3,107 | “ |
| 2017 | 3,392 | 206 | 3,186 | “ |
| 2018 | 3,473 | 206 | 3,267 | “ |
| 2019 | 3,557 | 206 | 3,351 | “ |
| 2020 | 3,642 | 206 | 3,436 | “ |
| Other ranks of the armed forces occupation | 2014 | 383 | 25 | 358 | Very scanty data was available, but there is need for moderate increase in training to address gap arising from wastage and rising demand for security |
| 2015 | 393 | 25 | 368 | “ |
| 2016 | 402 | 25 | 377 | “ |
| 2017 | 412 | 25 | 387 | “ |
| 2018 | 422 | 25 | 397 | “ |
| 2019 | 432 | 25 | 407 | “ |
| 2020 | 442 | 25 | 417 | “ |
| Labourers in mining, construction, manufacturing and transport | 2014 | 9,937 | 849 | 9,088 | There is need for significant increase in education and training intakes to ensure that the labour market has adequate numbers to address gaps and growing ERP demands |
| 2015 | 10,176 | 857 | 9,319 | “ |
| 2016 | 10,420 | 866 | 9,554 | “ |
| 2017 | 10,670 | 875 | 9,795 | “ |
| 2018 | 10,926 | 885 | 10,041 | “ |
| 2019 | 11,188 | 895 | 10,293 | “ |
| 2020 | 11,457 | 906 | 10,551 | “ |
| Stationary plant and machine operators | 2014 | 7,836 | 517 | 7,319 | Supply data was scanty, but there is obvious need for significant increase in training intakes to have personnel in the labour market adequate to address gaps arising from wastage and growing ERP requirements. |
| 2015 | 8,024 | 517 | 7,507 | “ |
| 2016 | 8,217 | 517 | 7,700 | “ |
| 2017 | 8,414 | 517 | 7,897 | “ |
| 2018 | 8,616 | 517 | 8,099 | “ |
| 2019 | 8,823 | 517 | 8,306 | “ |
| 2020 | 9,035 | 517 | 8,518 | “ |
| Market-oriented skilled agricultural workers | 2014 | 567 | 176 | 391 | Although data was scanty there is obvious need for increase in intakes in training to ensure that labour market has adequate personnel to address gaps and growing ERP demands |
| 2015 | 581 | 182 | 399 | “ |
| 2016 | 595 | 188 | 407 | “ |
| 2017 | 609 | 194 | 415 | “ |
| 2018 | 624 | 201 | 423 | “ |
| 2019 | 639 | 208 | 431 | “ |
| 2020 | 654 | 215 | 439 | “ |
| Production and specialized services managers | 2014 | 2,745 | 183 | 2,562 | Although data was scanty, there is obvious need for increase in training intakes to address gaps arising from wastage and growing ERP requirements |
| 2015 | 2,811 | 183 | 2,628 | “ |
| 2016 | 2,878 | 183 | 2,695 | “ |
| 2017 | 2,947 | 183 | 2,764 | “ |
| 2018 | 3,018 | 183 | 2,835 | “ |
| 2019 | 3,091 | 183 | 2,908 | “ |
| 2020 | 3,165 | 183 | 2,982 | “ |
| Handicraft and printing workers | 2014 | 1,273 | 340 | 933 | Although supply and demand data was scanty there is obvious need for increase in training intakes to ensure that the labour market has adequate personnel to address gaps and growing ERP demands |
| 2015 | 1,303 | 351 | 952 | “ |
| 2016 | 1,335 | 362 | 973 | “ |
| 2017 | 1,367 | 374 | 993 | “ |
| 2018 | 1,399 | 387 | 1,012 | “ |
| 2019 | 1,433 | 400 | 1,033 | “ |
| 2020 | 1,467 | 413 | 1,054 | “ |
| Hospitality, retail and other services managers | 2014 | 368 | 24 | 344 | Although data was scanty there is obvious need for increase in training intakes to ensure that the labour market has adequate personnel to address gaps and growing ERP demands |
| 2015 | 377 | 24 | 353 | “ |
| 2016 | 386 | 24 | 362 | “ |
| 2017 | 395 | 24 | 371 | “ |
| 2018 | 405 | 24 | 381 | “ |
| 2019 | 414 | 24 | 390 | “ |
| 2020 | 424 | 24 | 400 | “ |
| Assemblers | 2014 | 1,365 | 92 | 1,273 | Although data was scanty, there is obvious need for increase in training to address gaps arising from wastage and growing ERP requirements |
| 2015 | 1,398 | 92 | 1,306 | “ |
| 2016 | 1,431 | 92 | 1,339 | “ |
| 2017 | 1,465 | 92 | 1,373 | “ |
| 2018 | 1,501 | 92 | 1,409 | “ |
| 2019 | 1,537 | 92 | 1,445 | “ |
| 2020 | 1,574 | 92 | 1,482 | “ |
| Agricultural, forestry and fishery labourers | 2014 | 16,547 | 1090 | 15,457 | Although supply data was scanty, increased demand of personnel and wastage from supply imply need for significant recruitment from existing labour market, as this category does not need prior training for the job. Induction and orientation should be provided on the job |
| 2015 | 16,944 | 1090 | 15,854 | “ |
| 2016 | 17,351 | 1091 | 16,260 | “ |
| 2017 | 17,767 | 1091 | 16,676 | “ |
| 2018 | 18,193 | 1091 | 17,102 | “ |
| 2019 | 18,630 | 1092 | 17,538 | “ |
| 2020 | 19,077 | 1092 | 17,985 | “ |
| Refuse workers and other elementary workers | 2014 | 3,144 | 217 | 2,927 | Although supply data was scanty, increased demand of personnel arising from growing activity, and wastage from supply imply need for continued recruitment from existing labour market, as this category does not need prior training for the job. Induction and orientation should be provided on the job |
| 2015 | 3,219 | 217 | 3,002 |
| 2016 | 3,296 | 217 | 3,079 |
| 2017 | 3,376 | 217 | 3,159 |
| 2018 | 3,457 | 217 | 3,240 |
| 2019 | 3,540 | 217 | 3,323 |
| 2020 | 3,625 | 217 | 3,408 |
| Sales workers | 2014 | 5,153 | 337 | 4,816 | Although data scanty, there is obvious need for continuous moderate training intakes to address gaps arising from wastage and growing ERP requirements |
| 2015 | 5,276 | 337 | 4,939 | “ |
| 2016 | 5,403 | 337 | 5,066 | **“** |
| 2017 | 5,533 | 337 | 5,196 | **“** |
| 2018 | 5,665 | 337 | 5,328 | **“** |
| 2019 | 5,801 | 337 | 5,464 | **“** |
| 2020 | 5,941 | 337 | 5,604 | **“** |
| Market-oriented skilled forestry, fishery and hunting workers | 2014 | 368 | 24 | 344 | Although data scanty , there is obvious need for increase in intakes in training to ensure that labour market has adequate personnel to address gaps and growing ERP requirements |
| 2015 | 377 | 24 | 353 | “ |
| 2016 | 386 | 24 | 362 | “ |
| 2017 | 395 | 24 | 371 | “ |
| 2018 | 405 | 24 | 381 | “ |
| 2019 | 414 | 24 | 390 | “ |
| 2020 | 424 | 24 | 400 | “ |

The general picture provided by the assessment shows that for most occupations there will be need for various levels of continuous training to ensure that adequate numbers of skilled personnel are available in the labour market. A thorough needs assessment involving all stakeholders, as recommended in Chapter 8 above, would give a clearer picture of the needs.

As shown in the above table, there were serious challenges in collecting adequate data for most occupations. This is testimony of the serious record management gaps that were observed during the survey. Such gaps made the process of projecting demand and supply very difficult. There may also have been an element of uncertainty among employers because the survey was mostly conducted at a time when Malawi was passing through serious economic turbulence, resulting in reduction in demand for personnel as indicated earlier in Table 20. However, although the data may in some cases be scanty, indications through in-depth interviews provided the survey with additional perspective for gauging reasonable levels of demand and supply.

It is however important to note that even if more data was to be available, the recommendations would still only provide a rough indication of the picture because the focus of the survey was limited to a small proportion of the variables that are required for a full analysis of the Demand and Supply forecasts. As noted in the 1988 Survey report, a broadened system should be able to investigate such matters as:

* Employment, unemployment and under-employment;
* Human Resource constraints;
* Wages and incomes;
* Internal and external migration;
* The educational and skill requirements of occupations.

Specific functions of the system would also include:

1. Responsibility for policy initiation and analysis in the areas of Human Resource , employment, education, training and incomes;
2. Monitoring and analysis of all labour market information, in particular:

* the current stock of skilled Human Resource ;
* vacancies;
* students studying abroad;
* expatriate workers;
* salaries and wages;
* unemployment;
* migration;
* Informal sector.

(c) Appraisal of the Human Resource and employment implications of all major development projects prior to approval, especially those in the education and training sectors;

(d) Initiating assessments of key skills requirements in selected key sector/sub-sectors and/or micro-studies of key occupations;

(e) Monitoring the supply of professional, diploma and craft skills by establishing a register for post-secondary training;

(f) The planning of the orientation of primary and secondary school curricula consistent with the forms of educational preparation and vocational education demanded by the labour market;

(g) Assessing the costs and internal efficiency of the educational system;

(h) Analysis of the level of wages with regard to the level of minimum wages and wages for specific occupations and skills;

(i) The recommendation of institutional changes and policy measures required to achieve consistency in the establishment of a structure of wage differentials attuned to development aims;

(j) The review of wage setting procedures in the public and private sectors.

Just like in 1988, this survey only managed to assess HR needs of a relatively small segment of Malawi’s labour force. Consequently, the study’s overall focus was rather narrow in terms of the global situation. The scope of the study was macro in nature – it assessed HR in all sectors of the wage economy and touched upon a fairly wide range of issues but in most cases respondents could not provide all the necessary data. As a result of this and time constraints, the type of analysis presented in this report can only be of limited help in making specific decisions about the whole range of HR issues existing in Malawi today.

Due to limited data available the model lacks data in important variables such as wastage from the projected labour supply and from the projected output from training institutions. However, in broad terms this model offers opportunity for a broad understanding of the picture year by year. As a step forward there will be need for a more thorough process of data collection through a detailed labour market survey, as recommended below. Such additional availability of data for all variables would improve the accuracy of the projections and development of an appropriate action plan.

### Observations and Recommendations

#### Urgent need for establishment of an effective and efficient Labour Market Information system

The survey experienced serious problems in obtaining data from individual organizations. It was apparent that in most cases records management was not up to standard and use of ICT was hugely inadequate. This resulted in failure by organizations to provide data required for the survey.

The survey also relied on various published reports and plans for some of the data. However it was also difficult to obtain sufficient or consistent data because of the many gaps and differences that exist even in such published reports and plans.

It is very clear that if Malawi is to have reliable data for decision making there should be urgent investment in the development of an effective and efficient labour market information system. As the initial source of data is at organizational and sectoral levels, it is necessary that urgent measures to strengthen human and institutional capacity and acquire appropriate equipment.

#### Institutionalization of scheduled regular labour market surveys

The establishment of an effective and efficient Labour Market Information system should also go hand in hand with institutionalization of scheduled regular labour market surveys. Currently there is no current labour market data to facilitate informed decision making. Urgent efforts should be made to strengthen HRP and labour market analysis to improve the quality of data. To ensure that there is a regular reliable data to facilitate continuous decision-making, it is recommended that DHRMD and the Ministry of Labour should schedule and carry out of regular comprehensive human resource surveys and Labour market surveys at more regular intervals than is currently the case.

A diagrammatic illustration of the necessary partnership is as outlined in Figure 12 below.

District Labour Offices

Vacancy Adverts in the Media

National Statistical Office

Employment Bureaus

Ministry of Labour and Vocational Training

PRIVATE SECTOR

Malawi Confederation of Chambers of Commerce and

Training Institutions

Department of Human Resource Management and Development

PUBLIC SECTOR

ECAM

**Input** **Process**  **Output/Feedback**

**Figure 12: Labour Market Information Flow Chart**

Source: Report on the Identification of Critical areas for Capacity Replenishment in the Public Service, 2003

#### Strengthening of capacity for Human Resource Planning at all levels

The last Comprehensive survey conducted in 1988, and all recent capacity assessment studies have continued to reveal the existence of a major shortfall in both the Public Service and the Private Sector: weak or no capacity for human resource planning. A Report on the Identification of Critical Areas for Capacity Replenishment in the Public Service, Volume ii published in 2003, established that apart from isolated ministries such as Health and Population; Agricultural, Irrigation and Food Security and Education, Science and Technology, there was no human resource planning capacity to inform the recruitment, training and management systems. A Capacity Assessment of the Human Resource Common Service conducted in 2010 established serious skill and vacancy gaps in HRP in the Civil service. A Training Needs Assessment on capacity building in Human Resource Planning in the Public Service conducted in 2011 also found similar shortfalls.

It seems that although the Malawi Government published and circulated a Human Resource Procedure Manual for the Malawi Civil Service in July 2000, that has a full chapter on HRP, application has been insignificant.

Even in this current survey it was clear during interviews that there are generally no methodical HRP practices even in the private sector. Decisions on staff matters are generally made on ad-hoc basis depending on how business is going, or is projected, at a particular point. All these findings point to very weak HRP capacity in Malawi. However, the nature of HRP demands much knowledge and skills from the human resources entrusted with this responsibility because of the wide range of duties that such people are required to perform.

It is recommended that DHRMD should step up its efforts to improve HRP capacity building, first by strengthening capacity in the department itself, and in all Ministries and Departments. This capacity is in terms of skills and filling the many vacancies that exist. DHRMD, in liaison with the Ministry of Labour, should also work closely with stakeholders in the Private sector, through bodies such as the MCCCI, to improve HRP capacity.

#### Strengthening of a Data Bank at DHRMD and Creation of National Data Bank at Ministry of Labour

The Human Resource data bank created in the DHRMD should be strengthened. The bank would be primarily responsible for refining data for the use of national planners, government ministries, departments and private sector users. A national Data Bank for labour market information should be created in the Ministry of Labour. Corresponding to this establishment should be the creation of data banks in key stakeholders in the Public and Private sectors and NGOs from which DHRMD and Ministry of Labour would be drawing reliable data. It is important that DHRMD be mandated to champion this initiative.

### Summary and Conclusion

This chapter has highlighted and briefly described the importance of Human Resource Planning.

The chapter has also presented a Human Resource Model for Malawi that explains the relationship between projected human resources supply and demand, based on empirical data on demand and supply variables gathered from the survey, and suggest possible action to address any emerging gaps. However it has been emphasized that the picture provided is very broad because the analysis could not include some variables that were not covered during the survey.

The chapter has also made some observations and recommendations aimed at strengthening availability of reliable data to facilitate improved projections of needs and supply and decision making in future.

## CHAPTER 10: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

### Summary

This report has presented results of a Comprehensive National Human Resource Survey which was conducted country-wide from December 2012 to August 2013 across the three regions of Malawi. Since the last survey of 1988, Malawi’s population has almost doubled, the public service and private sectors have expanded quite dramatically, and the CSO/NGO sector has mushroomed since the advent of multiparty politics in the early 1990s. Similarly, the growing population, nearly 14 million now, has put pressure on the demand for goods and effective service delivery in the areas of education, health, sanitation, electricity, water, transport, food, housing, banking, insurance and other social services.

This in turn has necessitated strategic thinking at national, ministerial, departmental and organizational levels to ensure a more focused approach to service delivery and social economic development endeavours. Malawi’s aspirations for long term sustainable growth and welfare improvement are articulated in Vision 2020 and the MGDS II which is an overarching operational medium term strategy designed to reduce poverty through sustainable economic growth and infrastructure development. The overall goal of the MGDS is to transform the country from a predominantly consuming and importing country to a producing and exporting country. The main thrust of the MGDS is to create wealth through sustainable economic growth and infrastructure development as a means of achieving poverty reduction.

The implication of all these developments on the amounts, diversity and quality of skills in the labour market is enormous. From a system’s perspective, the activities of learning and training institutions and the programmes that they offer to develop the skill base of the nation is to a larger extent shaped by the prevailing demand for various human resources in the labour market. However, the absence of information on the skills in the labour market creates a double blow. First, training institutions have no basis for their curricular development and programmes on offer. Second, the government machinery which initiates and implement development policies and programmes do so without adequate information on the capacity of various public, private and CSO/NGO organizations that are mandated to carry various roles in the national development agenda. This survey was undertaken to assess the demand and supply of vital skills and the capacity of local training institutions to provide them to ensure appropriate and timely Government intervention to facilitate the implementation of the MGDS II, ERP and future national development endeavours.

The study has reviewed the literature linking national development to human resource needs and has analyzed empirical data collected through this study. It is evident that every sector of the economy faces similar challenges regarding a huge mismatch between available skills and those in demand. The country generally lacks technical, vocational, entrepreneurial and “hard” skills that are essential for the production sector of the economy, which ought to be the base of economic growth. The mismatch in the labour market between skills needed and those available is a major concern in economic development discourse. A number of factors in human resource skills areas have been identified as militating against national development endeavors.

The study has established the current stock of skills and presented projected human resources demand in the labour market. Supply of skilled human resource and employment skills gaps are uncovered. Strategies for filling employment, education and training gaps have been proposed. A human resource model that explains the relationship between projected human resources supply and demand been presented.

### Conclusions

It can be concluded that the majority of Malawi’s human resource seems to be in the education sector. Most of the workforce is in 30-54 years age group and females are generally under-represented. There are gaps in supply of skilled personnel from the on-going education and training channels. It is evident that public training institutions are major suppliers of human resources. It is also concluded weak links between training institutions and industry and the public sector exist and this results in irrelevant curricula, inadequate practical exposure and absence of institutionalized attachment. The public sector is the major employer of current skilled, semi-skilled and unskilled personnel compared to private and CSO/ NGO sectors. If supply of human resources continues to grow at the current pace, it is projected that the gaps will keep growing. The study found a lot of employment and skills gaps in both the public and private sector organizations. It has also been noted that the absence of a comprehensive data bank and regularized labour market and human resource survey has been one of the major blows in effective human resource development and effective utilization in both the private and public sector. There are urgent interventions that need to be made on both the demand and supply side of the human resource skills- equation in order to address employment gaps and shortage of skilled human resources in priority areas of Malawi’s economic and social development.

### Recommendations

Below is a list of recommendations for addressing strategies and options available for appropriate and timely intervention in employment and skills gaps to facilitate the implementation of the MGDS II, Economic Recovery Plan in order to realize the Vision 2020 ideals. The recommendations fall in three categories: human resource development, human resource management and strengthening HRD and HRM institutional policy environment but targeted toward various stakeholders- public, private, training institutions and donors.

#### Recommendations for the Public Sector

1. *Strengthening of capacity for Human Resource Planning at all levels*

The last Comprehensive survey conducted in 1988 and all recent capacity assessment studies have continued to reveal the existence of a major shortfall in both the Public Service and the Private Sector more specifically the existence of weak or no capacity for human resource planning.

This survey recommends that DHRMD should step up its efforts to improve HRP capacity building, first by strengthening capacity of the department itself, and in all Ministries and Departments. This capacity is in terms of skills and filling the many vacancies that exist. DHRMD, in liaison with the Ministry of Labour, should also work closely with stakeholders in the Private sector, through bodies such as the MCCCI, to improve HRP capacity.

1. *Institutionalization of scheduled regular labour market surveys*

The survey found that there is no current labour market data to facilitate informed decision making at national level due to absence of the much needed database on the subject. Urgent efforts should be made to strengthen HRP and labour market analysis to improve the quality of data. To ensure that there is a regular and reliable data to facilitate continuous decision-making, it is recommended that DHRMD and the Ministry of Labour should schedule and carry out regular comprehensive human resource surveys and Labour market surveys at more regular intervals than is currently the case. At the organizational level, ministries, departments, parastatals and local authorities should also institutionalize human resource skill audit at that level

1. *Institutionalization and effective use of volunteer systems in recruitment to meet short-term human resource requirement*

The study has confirmed the presence of glaring employment gaps in the public sector. It is recommended that DHRMD should evolve a clear policy that promotes the increased use of local volunteer and expatriate volunteers. The introduction of a Local Volunteer Scheme involves employing people with skills for doing certain jobs but who do not like the idea of being in full-time employment in a particular job either because they retired from a similar job or they just do not like working in such an environment. Such people may actually not mind offering their services as and when requested on a volunteer basis; e.g. care-givers.

The expatriate volunteer system has worked in Malawi for many years whereby a proportion of HR requirements in several critical occupational areas are met through the provision of volunteer personnel under Peace Corps from the United States of America, Volunteer Services Overseas (VSO), Japanese Cooperation Volunteers (JOVC), and United Nations Volunteer (UNV) support.

Such experts may make available their expertise to organizations as volunteers thereby filling employment gaps in various Ministries and Government departments to mitigate skill shortage in the short-term

1. *Enforcement of policies on access of Women, Youths, the Disabled and other vulnerable groups to education and training at all levels.*

The existence of a big gap in skilled and educated women, youths, the disabled, and other vulnerable groups was noted in the survey. This can only be addressed if there is vigorous promotion of their access to education and training at all levels. It is recommended that in the medium to long term measures should be intensified to enforce existing policies relating to access by increasing in-takes of these groups and providing the facilities, equipment and necessary support to enable them complete their education and training. This should also increase access to science and technology programmes. It is also important that Government should enforce safety nets for primary, secondary and university education to facilitate the entry of women, youths and other vulnerable groups into employment in various fields, including science and technology. This would also empower them to be self-employed where desirable.

One of the options to be considered should be the introduction of scholarship schemes that specifically target the needy who would otherwise not afford fees required by the educational and training institutions.

*e). Improving the recruitment process and procedures and enhancing the capacity for recruitment agencies in the public sector*

With the rate of unemployment generally being high, one would think that it would be easy to hire a new employee considering that there are so many people looking for employment. This is particularly applicable in the public service where the survey has shown that there is generally a high vacancy rate for various cadres in all Ministries, including those that are catalysts for successful implementation of ERP and MGDS programmes. Most people do not understand why vacancies cannot be filled quickly and consistently when there are many eligible candidates within and outside the Public Service and many school leavers that are looking for employment.

One strategy for organizations to address employment gaps is to streamline and speed up recruitment processes and procedures so that they reduce the time it takes to recruit people. It is recommended that the procedures for filling vacancies in the Public Service in general and the efficiency of the Civil Service Commission and the Appointment and Disciplinary Committees should be reviewed to resolve delays in filling of vacancies. Besides, it is recommended that recruitment agencies like the civil service commissions and others be provided with adequate financial, human, and related resources for them to efficient and effective

Urgent review of the recruitment process and capacitating recruitment commissions in the public sector in particular and in all sectors in general, would not only improve service delivery in all sectors, it would also reduce the high level of employment, especially among the youths.

*f). Establishment of a Consolidated Training Fund to be managed by the Ministry of Labour*

The survey has revealed that the burden of training and education in Malawi is mostly left to the Public Sector. If Malawi is to quickly close the knowledge and skill gaps and create capacity to address the national development agenda, it is recommended that all stakeholders (public sector, private sector, and CSO/NGOs) should be involved. It is therefore recommended that a Consolidated Training Fund within the Ministry of Labour and Manpower Development to which all stake-holders and other cooperating partners should be contributing, be created. Modalities on how funds would be deposited and drawn from such a fund have to be discussed by the stakeholders. Such a discussion may examine the TEVETA levy arrangement as a model for a desired design.

*g). Strengthening of the Human Resource Data Bank in DHRMD and Creation of National Labour market data bank in the Ministry of Labour.*

This study has established that vital data for decision making is critical and that there is paucity of relevant data in ministries and departments relating to human resource skills demand and supply. It is recommended that a Human Resource Data Bank be strengthened in the DHRMD for the public service and a national Labour market Data Bank be created in the Ministry of Labour for the broader national labour market data. These banks would be primarily responsible for refining data for the use of national planners, government ministries and departments as well as the private sector and NGO users. Corresponding to this establishment should be the creation of data banks in key stakeholders in the Public and Private sectors and CSOs/NGOs from which DHRMD and Ministry of Labour would be drawing reliable data. It is important that DHRMD be mandated to champion this initiative

*h). Need for more training in relevant technical and vocational areas*

The survey has highlighted an urgent need for an increase in graduates in relevant vocational and technical areas. It has also shown that there is an insignificant response by training institutions to train more people in these areas. Instead, they prefer to concentrate on the production of management/service sector skills instead of focusing more on “hard”/production sector skills that are in higher demand. It is also recommended that deliberate efforts be made to increase the number of trainees in these institutions. Again, an assessment to determine whether or not Malawi should have additional technical colleges (rural polytechnics, community technical colleges) to cover more technical and vocational areas to meet industry demands should be made by the Ministry of Labour and Vocational Training.

i). *Harmonization of roles and responsibilities of training providers to focus on national needs and remove duplication of effort*

It was evident that most training institutions overlap in the provision of courses, and is some institutions they are mostly outside their mandates and this leads to a lot of duplication and overlaps of course offering. There is also mention of substandard provision due to lack of expertise and facilities to provide the whole spectrum of programmes. From findings established during the survey, it emerged that this growing practice is mostly heightened by the desire to broaden financial base for the survival of the training institution.

It is recommended that in the medium to long term there be a vigorous harmonization effort to determine what institutions should be encouraged to do, and to encourage training institutions to stick to their mandates and areas in which they are best placed to design and deliver courses. In this way, course/programme provision will reflect the demands stipulated in the national development agenda.

Government should facilitate the development of a comprehensive skills development policy to help clarify roles, improve coordination, strengthen regulation and facilitate monitoring and evaluation of progress in skills development provided by training and education providers in Malawi.

*j). Introduction of incentives to increase participation of the private sector*

Apart from financial contributions to the fund, cooperating partners, the Private Sector and CSO/NGO stakeholders could also be contributing through the provision of relevant equipment and facilities to educational and training institutions, and taking up trainees for attachments/apprenticeship in their organizations, and meeting some of the costs for such attachments.

Incentives should be provided to enable such more active participation. For example, consideration could be made for equipment ‘donated’ to training and educational institutions to be procured duty free.

#### Recommendations for Public and Private sector and CSOs/NGOs for filling gaps

The survey revealed that there are vacancies in almost all establishments in varying proportions. It is important to ensure that prevalence of such employment gaps is minimized to ensure that there are employees in right quantities with right qualities to ensure optimal employee utilization, performance and organizational productivity. Effective implementation of MGDS and ERP policies hinges on the availability of capable human resources with the appropriate quality and quantity.

a). *Providing good conditions of service to strengthen Staff Retention and attract new staff*

Gaps in employment sometimes come about because some employees have left due to a number of reasons, among which may be poor working conditions. It is therefore recommended that in all sectors organizations should deliberately explore how they may establish and sustain good working conditions that improve retention of those already employed by the organization. Considering the high cost of the recruitment process, it may prove worthwhile to put in place favourable conditions of service that promote staff retention and a performance management system that would not only increase staff retention but also enhance worker productivity.

On the other hand, providing good working conditions makes it easier to fill vacant positions as applicants may come forward quickly because the organization is perceived as a good employer. Such a strategy would ensure that established positions in various sectors of the industry including the public service are almost always filled. It is strongly recommended that organizations should improve their HRM sections to enable them implement HRM policies that may improve staff retention, and attract people to join their organizations. Good conditions of service are not only about paying higher salaries, but the other HRM policies that competent HRM officers can help an organization to put in place to provide a conducive environment for people to want to remain or to join the organization.

b). *Mitigating the effects of HIV and Aids and non-communicable diseases*

It is evident that a contributing factor to poor performance and employment gaps is the HIV and AIDS pandemic. Very knowledgeable and competent employees become less productive when they suffer from HIV and AIDS related opportunistic illnesses. People who get appropriate and timely medical care, nutritional support and moral support are likely going to work without much noticeable hindrance or recover in good time, and thereby deliver what is expected of them. It is evident that although many organizations may have documents that purport to have HIV and AIDS support programmes, in practice, there is very little on the ground and valuable employees are still being lost at a time when the Government is striving hard to provide better medical support to the affected and infected. It is also evident that most organizations do not have any programmes to promote awareness of non-communicable diseases. Deliberate efforts to mitigate the effects of HIV and Aids and non-communicable diseases can help an organization to reduce employment gaps.

It is recommended that organizations in all sectors of the Malawi economy should put in place programmes to implement robust HIV and AIDS Workplace Support programmes and encourage employees to utilize the facilities that are now readily available to identify and address non-communicable diseases in good time.

c). *Training and Development of Current Employees*

By training and developing current employees an organization will ensure that it has a steady supply of people to fill employment gaps that arise at various points in its operations. This also ensures that employees have the talent to grow within the organization.

Building capacity through training and development takes time. As such, capacity development of employees should be planned in advance. Employers should encourage professional development for every employee. It is recommended that organizations in all sectors train and develop their employees at various levels to ensure that there is a rich pool of competent personnel to fill employment gaps as they arise.

d). *Implementation of Succession Plans*

Related to the training and development of employees recommended above is the need to prepare and implement succession plans.

It is normal that people who join the organization have to exit at some set time when they reach retirement age or even earlier due to various circumstances. In some cases positions may be held by expatriate persons due to absence of qualified Malawians, and there is need to replace them at the end of the contract. All those who leave an organization generally take with them invaluable quantities of organizational knowledge and expertise accumulated over their work life in their employment.

It is therefore recommended that, as part of good HRM practice, organizations in all sectors should put in place and implement succession plans that will ensure that there is most of the time a pool of employees that are ready to take over when positions fall vacant.

e). *Paying More for Top Talent*

Another strategy for organizations to fill employment gaps is to pay more for top talent. Through brain drain, Malawi has lost a lot of highly valued skills like those of some professionals who have taken their skills out of the country all together. Individual organizations have lost valued employees to competitors. Such departures result in employment gaps.

It is recommended that organizations should, where appropriate and affordable, be willing to pay more for special skills and top talent so that they are able to address the key employment gaps in their organizations. This will, however, require competent handling from HRM officers to ensure that it does not raise discontent among other employees.

f). *Conducting Targeted Training*

Another strategy for addressing employment gaps is by conducting targeted training. This would help to ensure that qualified employees are available. The main aim of the strategy is to identify key areas where there are staff shortages and specifically target more training for those areas. An example in the private sector would be in the tobacco handling sector where employers may recruit trainable prospective employees and take them through some targeted training.

It is recommended that there be special effort to conduct special targeted training for the areas that have been identified in this survey as seriously short of staff, including the ERP and MGDS priority areas. Efforts should be made to engage the participation of cooperating partners for supplementary targeted training support in these critical areas.

g). *Encouraging Young People Early*

As a long-term strategy, it is necessary for the industry to start ‘recruiting’ long before it needs the talent. By showing interest in the collegian’s career early on, it will help students understand what organizations in various industries do and develop trust that such organizations are looking out for the students’ careers.

There should be deliberate effort made by various players of the industry to market what they do and the kind of employees they need. Career talks given to primary, secondary, college or university students, have the potential of helping some would be employees, make up their minds while still in school. Another way is that of running organizational or industry-based programmes through electronic and print media targeting young people. This shall help young people know early that there is more to employment than just the traditional professions. This is a sure way of making certain that talent required to fill employment gaps shall be available as some of the young people get to know and decide early which careers to pursue.

h). *Short term employment of Temporary or Contract employees*

A short term measure to address some of the employment gaps is through the employment of temporary or short-term contract employees. Organizations in the different sectors, particularly in the mining, construction, and production can use this strategy. The Malawi Public Service has also used this strategy in some areas of its operations so as to provide desired services to the citizenry. These are hired on temporary employment, or contract terms in order to fill employment gaps that exist in the Ministry.

Temporary or contract employees are also a convenient strategy where work is of a seasonal nature. Organizations recruit and utilize the employees only during the period when their services are required.

It is recommended that where duties are of a short term nature, or seasonal, or where it may take time to get permanent staff, organizations should utilize the services of temporary or short contract staff.

#### Recommendations for Training Institutions

*a). Strengthening training institutions through enhancing capacity of trainers and investment in equipment and training facilities*

The survey revealed a serious gap in up-to date equipment and facilities as well as the capacity of trainers in training and educational institutions that would enable them to keep pace with the demands and changes in the work-place. There is inadequate or inappropriate infrastructure and lack of learning equipment both in the Universities and TEVET colleges, and other educational and training institutions. This limits enrolment and the quality of training and education.

Efforts should be made to improve existing training institutions with necessary training infrastructure, machinery and equipment, and consider establishment of new specialized institutions where appropriate. Government should encourage establishment of specialized private training institutions that should be effectively regulated.

There is also a great need for constant development of capacity of trainers and educators to enhance their skills to meet skill demands of a rapidly changing environment, including industrial technology and special needs learners. Such efforts should be continuous, in the short, medium and long term.

*b). Need to Conduct Regular Assessment of Skills Gaps and Impact Assessment*

The survey revealed that training provided in training institutions is mostly done without Training Needs and Impact Assessment by both training providers and employers. As a way towards ascertaining availability of desired skills for filling employment gaps, there is need for employers and training institutions to conduct assessment of skills gaps regularly. Reports of such studies provide policy and decision makers with important information that enables them make informed decisions on targeted development of human resources. Areas of need in terms of skills are made known and steps taken to ensure that appropriate skills are made available as and when needed. By conducting skills gaps assessments employers and training institutions become aware of needed skills areas that are in short supply or unavailable that needs beefing up. Regular Training Needs and Impact Assessment would also provide the opportunity for training providers and employers to regularly review the curriculum and design relevant training.

*c). Involvement of professional bodies in design and delivery of training and education*

Findings during the survey indicated that there would be high value-addition to skill development if professional bodies that are active in the various occupational groups like Institute of People Management of Malawi, SOCAM, and Institute of Engineers etc. were involved in the design and delivery of training and education programmes. Such involvement would enhance the capacity of such bodies to contribute to the improvement of curriculum, and, in the long term, quality of service delivery, ethics and discipline

*d). Institutionalizing attachments to improve balance between Theory and Practice*

The survey found a significant mismatch of skills required to sustain economic growth and the type of skills being emphasized in vocational training institutions and universities*.* Thus, there is a wide gap between the balance between practical skills and theoretical knowledge that is required and what training and education providers are offering. The survey highlighted an urgent need in the short term for trainees to be exposed to the practical environment of the work place so that there can be a good balance between theory and practice, and to enable graduates immediately apply their learning in the work place or self-employment.

It is recommended that there should be need for a formal and institutionalized dialogue between industry and education and training providers in order for industry to provide input and feedback on curriculum and skills development. It is further recommended that curriculum should be benchmarked with those of renowned training institutions in the region and globally taking into account local needs.

To consolidate the ideal mix between theory and practice there is need for a training shift to strengthen more of the practical skills- ability to do and not emphasis on knowing. One way of attaining this is that attachment of students to industry be part of the curriculum. Training and education needs to take into account the needs of the workplace/industry to ensure that it is relevant. Undertaking training needs assessment by training institutions and regular dialogue with industry is the surest way of meeting this balance.

There is urgent need for a formal and institutionalized dialogue between employers and training providers in order for employers to provide input and feedback on curriculum and skills development.

*e). Increasing Skills Output from the Supply Side*

Another strategy to address employment gaps is to increase supply of skilled people. One of the possible reasons why employment gaps exist within the national employment labour market is the shortage of needed skilled people in the labour market that employees can recruit. This shortage comes about because the output from the supply side is low and therefore unable to meet the demand. This increase in the output from the supply side can be in a number of ways like doubling intake of student cohorts into existing training institutions, running open distance learning and parallel programmes. Opening more technical, vocational, teacher training and university colleges has the potential of beefing up the supply side as more graduates join the job market.

It is recommended that Government should analyze the areas where employment gaps are very high and explore, in consultation with training providers, how more people can be trained for the labour market. Such training takes time and it is important to start quickly.

*f). Need for training to incorporate inculcation of ethics, code of conduct, professionalism and patriotism*

The survey established that there is a growing challenge where although Malawi has many people that are well trained, they are not performing as expected. Despite having high qualifications many graduates are not committed to work and there is less effort towards perfection and that their negative attitude is not conducive to high productivity. This means that even where Malawi produces well trained and knowledgeable graduates, their contribution to national development will be very limited because of their low productivity, bad attitude, lack of ethical behavior, and poor conduct and professionalism.

### It is therefore recommended that training and educational institutions should, as part of their curriculum, inculcate at all levels, relevant issues regarding appropriate attitude, ethics, code of conduct, professionalism and patriotism. This would ensure that the majority of graduates contribute productively in the work place, or in their self-employment

#### Recommendations for the Private Sector

1. Contribute to the institutionalization of attachments by creating more room and increasing the number of apprentices/ trainees admitted to their organizations. This should include willingness to pay allowances to apprentices/trainees during the attachment.
2. Introduce recruitment policies that facilitate consideration of Women, Youths and the Disabled during recruitment and career development.
3. Take a more active role in establishing accredited and specialized technical and vocational colleges.
4. Contribute to strengthening of training institutions by donating relevant facilities, equipment and infrastructure.
5. Offer prizes and scholarships to needy students in primary, secondary and tertiary education and vocational and technical colleges.

#### Recommendations for Development and Cooperating Partners

1. Funding strategies aimed at strengthening training and education institutions especially in areas of physical infrastructure, teaching equipment and capacity building for trainers and managers of training and education institutions.
2. Funding support for comprehensive human resource surveys and training needs assessment at national or ministerial /organizational levels.
3. Providing financial or material support in acquisition of required equipment and facilities for vocational and technical training colleges, including for learners with special needs.
4. Providing volunteer trainers in specialized areas where there are no Malawians
5. Funding collaboration meetings for stakeholders like employers, training institutions and relevant Government departments to develop policies and strategies for capacity development endeavors at national level.
6. Providing capacity building in skills areas identified as gaps by the survey.
7. Providing scholarships:

* For ERP and MGDS related priority areas such as mining, tourism, agriculture, engineering among others for training within and outside the country
* For training and development of Vocational and Technical college trainers locally or abroad
* For training in Human Resource Planning outside the country or locally with local and external facilitators.
* For Women, Youths, the Disabled and other vulnerable groups to promote their access and retention in education and training at all levels.

1. Recommendation for Public sector, Training Institutions and Development and Cooperating Partners to filling Skills Gaps in priority areas across sectors

The study recommends a concerted effort by Government and training providers, with the help of development and cooperating partners to focus attention on the development of skills in the areas of agriculture, education, health, water development and irrigation, energy, mining, infrastructure development, tourism, ICT, land and housing and other cross cutting skill areas as summarized in the table below:

|  |  |
| --- | --- |
| **Agriculture** | **Education** |
| Animal health  Livestock development  Veterinary Laboratory  Irrigation  Irrigation Engineering  Crop production  Land resources conservation  Agricultural extension  Animal breeding  Pasture agronomy  Farming systems  Biometrician  Instrumentation technician  Corporative farming  Marketing and trade  Information technology  Policy analysis  Human resource planning  HIV and AIDS Workplace programme implementation  National scheme management  Project planning  Strategic planning  Rural development  Veterinary Medicine | Policy analysis  Education planning  Information technology  Financial management  Budgeting for project planning and implementation  Monitoring and evaluation  Teacher development  Education Methods Advisory Services  Secondary education teaching  Primary education teaching  Teacher training/education  Technical college lecturing  University lecturing |
| **Health** | **Water Development and Irrigation** |
| Health Planning  Policy Analysis  Research  Information technology  Human resource planning  Public health management  Doctors (specialists)  Doctors (general practitioners)  Clinical officers  Nursing and midwifery  Environmental health workers  HIV and AIDS coordination  Psychiatry  Pharmacy  Radiography  Laboratory technology  Medical engineering  Medical assistance  Physiology  Dentistry | Water resources analysis and planning  Policy analysis  Civil engineering  Irrigation engineering  Draftsmen  Water engineers  Water quality  Ground water  Information technology  Research  Hydrologists  Hydro geologists  Water chemists  Water resource officers  Water supply officers  Economists  Planning  Communication |
| **Tourism** | **ICT** |
| Entrepreneurial skills  Interpersonal relations  Customer service  Hospitality facility management  Catering  Tourism Marketing  Business management  Financial management  Human resource management  International hotels and hospitality standards  Wilderness safari management | Telecom engineering  Communication systems analysis  Communication equipment installation  Computer systems development  Computer systems installation  Communication hardware maintenance  Communication software maintenance  ICT training  Systems administration  Software programmes design  Security systems installation  Security systems maintenance |
| **Infrastructure Development** | **Land and Housing** |
| Policy analysis  Transport planning and evaluation  Works training  Information technology  Traffic management control  Aeronautical information  Air transport engineering  Civil aviation training  Road traffic management  Meteorology  Marine safety  Marine training  Ports operations  Ports maintenance  Road designing  Fire fighting  Heavy equipment operation | Quantity surveying  Structural engineering  Building services engineering  Building supervision  Landscape engineering  Horticulture  Property estate management and valuation  Valuation  Housing Estate management  Electrical engineering  Systems analysis  Housing policy and programme planning  Housing credit management  Information technology  Architecture  Service engineering  Property, mortgage and construction law  Urban development  Rural development |
| **Energy** | **Manufacturing** |
| Electrical engineering  Solar power engineering  Solar power installation  Solar power equipment maintenance  Hydro power generation  Coal power generation  Power distribution management  Renewable energy development  Electrical installation  Electrical installation maintenance | Coffee processing  Tea processing  Wood processing  Value adding  Production technology  Agriculture technology  Packaging  Processing plant maintenance  Wood technology |
| **Mining** | **Mining (continued)** |
| Mine geology  Mining engineering  Petroleum engineering  Chemical engineering  Pit tech sampling  Pit tech data management  Pit tech gamma  Pit tech XRF  Pit techniques  Warehouse management  Planning  Process cleaning  Power plant operation  Process Operation  Rigging  Safety and training coordination  Health and Safety  Scaffolding  Security  Laboratory  Logistics  Lubrication | Machine operation  Metallurgy  Mine surveying  Mining operation  Ore spotter pit  Ore spotter ROM  Reagents coordination  Analytical skills  Labour laws  Conflict resolution  Mining Safety  Instrumentation techniques  Fitting and fabrication  Vector control spraying  Mining superintendence  Environmental management  Artisan (bricklaying, carpentry, plumbing, etc.)  Crane operation  Electrical and instrumentation engineering  Fire officer  Hyab driving (rigging)  IT Systems support  Logistics |
| **Some skills that are cross cutting** |  |
| General management  Administrative skills  Human resource management  Human resource planning  Communication  Financial management  Accounting skills  Auditing skills  ICT  Communication skills  HIV and AIDS coordination  Supervisory skills Leadership and motivation  Planning skills  Research skills |  |

Thus, through a multifaceted approach to institutional capacity strengthening, human resource management and development policies and programmes in which various stakeholders are involved, there is a greater potential that Malawi will close the skills and employment gaps and be able to implement her development priority areas of the MGDS and ERP in the years to come.

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## APPENDICES

### APPENDIX 1: Methodology

***Management and Scope of the Survey***

The survey was led by the team leader coordinated the work of three consultants who were responsible for regional team’s efforts and outputs. The consultants coordinated the work of data collection teams which functioned under more experienced supervisors. There were eight data collection teams of 6 people each, including a Supervisor in the Southern region; three data collection teams of 6 people each, including a Supervisor in the Central region; and one data collection teams of 6 people each, including a Supervisor in the Northern region. The survey employed a total of 65 Data Collectors/Enumerators and 9 Supervisors distributed as follows: 30 Data Collectors/Enumerators and 4 Supervisors in the south; 25 Data Collectors/Enumerators and 3 supervisors in the centre; and 10 Data Collectors/Enumerators and 2 Supervisors in the northern region.

The Administrative Manager, assisted by an Accountant and a Secretary, supported project personnel which included the Team Leader, three Consultants, Supervisors, Data collection teams and drivers. The Southern region covered Blantyre, Zomba, Chiradzulu, Mangochi, Machinga, Balaka, Thyolo, Mulanje, Phalombe, Mwanza, Neno, Chikhwawa and Nsanje. The Central region consisted of Ntcheu, Dedza, Lilongwe, Salima, Mchinji, Dowa, Nkhotakota, Ntchisi, and Kasungu. The Northern region covered Mzimba, Mzuzu, Rumphi and Karonga.

***Recruitment and Training of Data Collectors/Enumerators and Data Entry Clerks***

Up to 1,610 applicants responded to its advertisement in local newspapers inviting applications for Data Collector/Enumerator. SDI administered an assessment test at four centres (Blantyre, Zomba, Lilongwe and Mzuzu) to select the desired number of Data Collectors/Enumerators. The successful candidates were trained by the consultancy team at SDI. The team of Data Collectors/Enumerators was used to pre-test and later administer data collection tools. Based on lessons from the 1988 Comprehensive National Human Resource Survey report, which highlighted the 1988 survey’s use of inexperienced and inadequately trained supervisors as a major shortfall, SDI identified team supervisors from its pool of full-time professional staff who already possess adequate research and consultancy skills, knowledge and experience. It was believed that by utilizing this pool of experienced and qualified officers the teams would be more efficient and effective, considering the limited time within which the data collection had to be done. The team of supervisors was trained together with the Data Collectors/Enumerators to ensure common understanding and application. Data collection was in phases: phase one was from 11-22 December 2012; phase two was from 11- 22 March and phase three was from June 17-28. Data entry was done throughout this period by a smaller number of well qualified and experienced staff after initial training at SDI.

***Coordination between SDI and DHRMD in terms of reporting as well as monitoring and quality control issues***

SDI reported to the Director of Human Resource Management and to the Reference Group/Core Team through regular meetings and interactions. On a more constant level, SDI worked closely with the Deputy Director Human Resource Planning and Development and Assistant Director of Human Resource Planning. This constant interaction was aimed at ensuring that the project kept within the spirit of the TORs and achieves its objectives.

***Interface between Consultants and the Support staff***

SDI used its existing organizational structures to implement the project. The consultants were supported by a full complement of support staff in all the necessary areas like human resource management, accounting, transport and logistics. This support ensured that the consultants perform their duties efficiently and effectively.

***Distribution of resources for Data Collectors/Enumerators and Consultants***

SDI used its resources to provide transport to Consultants up to the Inception Report stage. During the survey SDI, in line with agreement made with the client, would submit at the appropriate time a request for vehicles to transport Consultants and Data Collectors/Enumerators to their designated points. With the support of the Team Leader, Administrative Manager, Accountant and Secretary, SDI ensured that all necessary materials and resources were made available to the Consultants and Data collectors/enumerators at the required time.

***General Design and Framework of the assignment***

Activities included a detailed design of scope of work, population, samples and sampling techniques, logistical arrangements, coordination and key milestones. This included classification of industries, occupations and skills based on International Labour Organization (ILO) models and the 1988 National Human Resource Survey approach, and developing detailed sample frames and actually sampling various targeted populations. Additionally, the phase involved the construction of a study framework and data collection instruments and recruitment, selection, appointment and training of Data Collectors/Enumerators. Pre-testing and fine tuning data collection tools after training Data Collectors/Enumerators was done. Interviews and questionnaires were used to obtain first hand input from administrators and managers of targeted institutions as well as key informants.

***General Industrial, Occupational and Skills Classification***

***Industrial Classification***

In Malawi, the National Statistical Office (NSO) classifies all industries based on the International Standard Industrial Classification System (ISIC) devised by the [United Nations](http://en.wikipedia.org/wiki/United_Nations) Statistics Division. The system classifies industries according to the kind of economic activity in the fields of production, employment, Gross Domestic Product and other statistical areas. The third Integrated Household Survey (IHS) produced by the NSO provides seven classifications of industries which we shall adopt, as follows;

1. Wholesale, Retail, Restaurants, Trade and Hotels.
2. Manufacturing
3. Community, social and personal services
4. Transport, storage and communications
5. Construction
6. Mining and Quarrying
7. Financing, insurance, real estates and business services.

***Occupational Classification***

The International Standard Classification of Occupations (ISCO) is a tool for organizing jobs into a clearly defined set of groups according to the tasks and duties undertaken in the job. Its main aims are to provide basis for the international reporting, comparison and exchange of statistical and administrative data about occupations; presenting a model for the development of national and regional classifications of occupations; and providing a system that can be used directly in countries that have not developed their own national classifications. The survey adopted the version of the ISCO-88 as elaborated in Appendix 2 below.

**Survey Design**

***Sampling and Sampling Technique***

Sampling was done at three levels; Establishments (Business organizations, Public and Private Institutions), Employers and Persons.

1. Establishments: Systematic random sampling of businesses and organizations (Frame: business registers).
2. Employers: Systematic random sampling to identify the establishments then purposive for interviewees (HRM/AO/Directors/ etc.) (Frame: Business registers).
3. Persons : systematic random sampling (Frame: Total number of employees by level or categories (skilled, semi-skilled and unskilled staff)

**Institutional Classification**

**Public Institutions:**

1. Civil Service (sectoral ministries and departments)

(Sampling Frame source: Sectoral Catalogue at DHRMD)

1. Parastatal organizations

(Sampling frame source: Department of Statutory Corporations)

1. Local Government – District councils, City councils, Town and Municipal councils (Frame: Ministry of Local Government)
2. The Judiciary– Supreme Court, High Court, Magistrate Courts (Sampling Frame source: Judiciary)
3. The Legislature – National Assembly (Sampling Frame source: Parliament)
4. Other Government agencies (Frame: OPC)

**Private institutions:**

Business organizations / companies (Sampling Frame source: Business registers, Annual Economic Survey (NSO) and Malawi Confederation of Chambers of Commerce and Industry (MCCCI), National Construction Industry Council).

**Civil Society Organizations**:

Classification: by sector, by area of focus/ workers (Frame: Council for Non-Governmental Organizations (CONGOMA)

**Training Institutions:**

Public, Private and Civil Society related institutions. (Frame: Ministry of Education, Science and Technology, Ministry of Labour, Ministry of Industry and Trade, CHAM, CONGOMA, MCCCI, DHRMD)

**Data Collection Techniques**

There were three major techniques for collecting data: desk research, questionnaires and in-depth interviews

**Desk Research**

This involved extensive review of the literature including reports, documents, and Government policy documents like sectoral plans, Vision 2020, MGDS II, ERP and others.

**Questionnaires**

There were five sets of questionnaires**:**

1. Public/parastatal employees questionnaire
2. Private sector employees questionnaire
3. CSOs employee questionnaire
4. Employers questionnaire (for public, private and CSOs)
5. Training institutions questionnaire

Employers’ questionnaire focused on various variables like total establishment, number filled, information on ranks, recruitment and remuneration, skills, qualifications and gaps. For employees: Person Questionnaire elicited information on skills, remuneration packages, and education levels.

**Qualitative Interviews**

Focus: Policy issues relating to human resources development:

1. Chief Secretary: on Public sector Management and Policy issues.
2. Principal Secretary responsible for Statutory Corporations
3. Selected private sector associations heads e.g. business coalitions
4. MCCCI Chief Executive Officer.
5. CONGOMA
6. OPC
7. Ministry of Finance
8. Ministry of Labour and Vocational Training
9. Department of Statutory Corporations
10. Ministry of Economic Planning and Development
11. Ministry of Health
12. Ministry of Agriculture
13. Ministry of Energy and Mining
14. Ministry of Education
15. Ministry of Transport and Infrastructure Development
16. DHMRD
17. Professional Bodies/Associations/Societies (Malawi Law Society, SOCAM, Institute of Internal Auditors Malawi, IPMM, Malawi Institution of Engineers, Bankers Association of Malawi etc.)

**Data treatment**

**Quantitative Data Cleaning and Entry**

Information from questionnaires was manually entered in to SPSS for data cleaning. This involved running frequencies of key variables to check data inconsistencies and address them accordingly. The consultants used SPSS version 16.0 for main analysis of survey data where all indicators shall be generated.

**Tabulation**

**Quantitative**

Preliminary tables on indicators were produced and loose notes for each table developed to provide basic picture on the results of the survey. Weighting of the data was done based on the nature of the indicators being pursued, the sample size of the respondents for each of the information required by type of information and homogeneity of the sample frame, based on preferred characteristics, based on the survey interest.

**Qualitative Data Treatment**

Excerpts from policy interviews with heads of institutions and organizations were coded and thematically analyzed to present main issues arising from the interviews. This information provided a broader picture on information from quantitative interviews.

### Appendix 2: International Standard Classification of Occupation (ISCO - 88)

|  |  |  |
| --- | --- | --- |
|  | **INTERNATIONAL STANDARD CLASSIFICATION OF OCCUPATION (ISCO - 88)** | |
| **ISCO Code** | **Title of occupation** | **Definition** |
| **0** | **ARMED FORCES OCCUPATIONS** | **Armed forces occupations include all jobs held by members of the armed forces.** |
| 01 | (a) Commissioned armed forces officers | Commissioned armed forces officers provide leadership and management to organizational units in the armed forces and/or perform similar tasks to those performed in a variety of civilian occupations outside the armed forces. This group includes all members |
| 02 | (b) Non-commissioned armed forces officers | Non-commissioned armed forces officers enforce military discipline and supervise the activities of those employed in Armed forces occupations, other ranks, and/or perform similar tasks to those performed in a variety of civilian occupations outside the army |
| 03 | (c) Armed forces occupations, other ranks | Armed forces occupations, other ranks include all conscripted and non-conscripted members of the armed forces except commissioned and non-commissioned officers. They perform specific military tasks and/or perform similar tasks to those performed in a variety of civilian occupations outside the army. |
| **1** | **MANAGERS** | **Managers plan, direct, coordinate and evaluate the overall activities of enterprises, governments and other organizations, or of organizational units within them, and formulate and review their policies, laws, rules and regulations.** |
| 11 | (a) Chief executives, senior officials and legislators | Chief executives, managing directors, senior officials, legislators, chiefs and heads of villages formulate and review the policies, rights, responsibilities and plan, direct coordinate and evaluate the overall activities of enterprises, governments and other organizations with the support of other managers. |
| 12 | (b) Administrative and commercial managers | Administrative and commercial managers plan, organize, direct, control and coordinate the financial, administrative, human resource, policy, planning, research and development, advertising, public relations, and sales and marketing activities of enterprises, governments and other organizations with the support of other managers. |
| 13 | (c) Production and specialized services managers | Production and specialized services managers plan direct and coordinate the production of the goods and the provision of the specialized professional and technical services provided by an enterprise or organization. They are responsible for agricultural and forestry production, aquaculture and fisheries manufacturing, mining, construction, supply, storage and transportation operations, financial services, education and social welfare. |
| 14 | (d) Hospitality, retail and other services managers | Hospitality, shop and related services managers plan, organize and direct the operations of establishments which provide accommodation, hospitality, retail and other services. |
| **2** | **PROFESSIONALS** | **Professionals increase the existing stock of knowledge, apply scientific or artistic concepts and theories, teach about the foregoing in a systematic manner, or engage in any combination of these activities.** |
| 21 | (a) Science and engineering professionals | Physical, mathematical and engineering science professionals conduct research, improve or develop concepts, theories and operational methods, or apply scientific knowledge relating to fields such as physics, astronomy, meteorology, chemistry, geophysics. |
| 22 | (b) Health professionals | Health professionals conduct research, improve or develop concepts, theories and operational methods, and apply scientific knowledge relating to medicine, nursing, dentistry, veterinary medicine, pharmacy, and promotion of health. |
| 23 | (c) Teaching professionals | Teaching professionals teach the theory and practice of one or more disciplines at different educational levels (elementary, primary, secondary, vocational and higher education), conduct research and improve or develop concepts, theories and operational methods pertaining to their particular discipline. |
| 24 | (d) Business and administration professionals | Business and administration professionals perform analytical, conceptual and practical tasks to provide services in financial matters, human resource development, public relations and marketing, sales in the technical, medical, information and communication sales |
| 25 | (e) Information and communications technology professionals | Information and communications technology professionals conduct research, plan, design, write, test, provide advice and improve information technology systems, hardware, software and related concepts for specific applications, develop associated documentation. |
| 26 | (f) Legal, social and cultural professionals | Legal, social and cultural professionals conduct research, improve or develop concepts, theories and operational methods, or apply knowledge relating to the law, storage and retrieval of information and artifacts, psychology, social welfare, politics, fine and performing arts. |
| **3** | **TECHNICIANS AND ASSOCIATE PROFESSIONALS** | **Technicians and associate professionals perform mostly technical and related tasks connected with research and the application of scientific or artistic concepts and operational methods, and government or business regulations.** |
| 31 | (a) Science and engineering associate professionals | Science and engineering associate professionals perform technical tasks connected with research and operational methods in science and engineering. They supervise and control technical and operational aspects of mining, manufacturing, construction, engineering and scientific equipment. |
| 32 | (b) Health associate professionals | Health associate professionals perform technical and practical tasks to support diagnosis and treatment of illness, disease, injuries and impairments in humans and animals, and to support implementation of health care, treatment and referrals plans. |
| 33 | (c) Business and administration associate professionals | Business and administration associate professionals perform mostly technical tasks connected with the practical application of knowledge relating to financial accounting and transaction matters, mathematical calculations, human resource development, selling |
| 34 | (d) Legal, social, cultural and related associate professionals | Legal, social, cultural and related associate professionals perform technical tasks connected with the practical application of knowledge relating to legal services, social work, culture, food preparation, sport and religion. |
| 35 | (e) Information and communications technicians | Information and communications technicians provide support for the day-to-day running of computer systems, communications systems and networks and perform technical tasks related to telecommunications, broadcast of image and sound as well as other types of media and communication. |
| **4** | **CLERICAL SUPPORT WORKERS** | **Clerical support workers record, organize, store, compute and retrieve information related, and perform a number of clerical duties in connection with money-handling operations, travel arrangements, requests for information, and appointments.** |
| 41 | (a) General and keyboard clerks | General and keyboard clerks’ record, organize, store and retrieve information and perform a range of clerical and administrative tasks according to established procedures. |
| 42 | (b) Customer services clerks | Customer service clerks deal with clients in connection with money-handling operations, travel arrangements, requests for information, making appointments, operating telephone switchboards, and interviewing for surveys or to complete applications for eliciting information. |
| 43 | (c) Numerical and material recording clerks | Numerical clerks and material recording clerks obtain, compile and compute accounting, bookkeeping, statistical, financial, and other numerical data, and take charge of cash transactions incidental to business matters. |
| 44 | (d) Other clerical support workers | Other clerks perform clerical duties in newspapers, courts, libraries and post offices, file documents, prepare information for processing, maintain personnel records, check material for consistency with original source material and write on behalf of clients. |
| **5** | **SERVICE AND SALES WORKERS** | **Service and sales workers provide personal and protective services related to travel, housekeeping, catering, personal care, or protection against fire and unlawful acts, or demonstrate and sell goods in wholesale or retail shops and similar establishment.** |
| 51 | (a) Personal service workers | Personal service workers provide personal services related to travel, housekeeping, catering, child and personal care. |
| 52 | (b) Sales workers | Sales workers sell and demonstrate goods in wholesale or retail shops, at stalls and markets, door-to-door, via telephone or customer contact centres. They may record and accept payment for goods and services purchased, and may operate small retail outlets. |
| 53 | (c) Personal care workers | Personal care workers provide care, supervision and assistance for children, patients and elderly, convalescent or disabled persons in institutional and residential settings. |
| 54 | (d) Protective services workers | Protective services workers protect individuals and property against fire and other hazards, maintain law and order and enforce laws and regulations. |
| **6** | **SKILLED AGRICULTURAL, FORESTRY AND FISHERY WORKERS** | **Skilled agricultural, forestry and fishery workers grow and harvest field or tree and shrub crops, gather wild fruits and plants, breed, tend or hunt animals, produce a variety of animal husbandry products, cultivate, conserve and exploit forests, breeding and hunting.** |
| 61 | (a) Market-oriented skilled agricultural workers | Market-oriented skilled agricultural workers plan, organize and perform farming operations to grow and harvest field or tree and shrub crops and produce a variety of animals and animal products for sale or delivery on a regular basis to wholesale buyer. |
| 62 | (b) Market-oriented skilled forestry, fishery and hunting workers | Market-oriented skilled forestry, fishery and hunting workers plan, organize and perform operations to cultivate, conserve and exploit natural and plantation forests, breed and raise fish, harvest and catch fish and hunt and trap animals, for sale or delivery. |
| 63 | (c) Subsistence farmers, fishers, hunters and gatherers | Subsistence farmers, fishers, hunters and gatherers grow and harvest field or tree and shrub crops, vegetables and fruit, gather wild fruits, medicinal and other plants, tend or hunt animals, catch fish and gather various forms of aquatic life in order to make a livelihood. |
| **7** | **CRAFT AND RELATED TRADES WORKERS** | **Craft and related trades workers apply specific knowledge and skills in the fields to construct and maintain buildings, form metal, erect metal structures, set machine tools, or make, fit, maintain and repair machinery, equipment or tools, carry out printing and electrical works** |
| 71 | (a) Building and related trades workers, excluding electricians | Building and related trades workers construct, maintain and repair buildings, erect and repair foundations, walls and structures of brick, stone and similar materials, shape and finish stone for building and other purposes, and extract and work solid mine. |
| 72 | (b) Metal, machinery and related trades workers | Metal, machinery and related trades workers cast, weld, forge and, by other methods, form metal, erect, maintain and repair heavy metal structures, engage in machine-tool setting as well as in fitting, maintaining and repairing machinery, including engines. |
| 73 | (c) Handicraft and printing workers | Handicraft and printing workers make and repair precision instruments, musical instruments, various articles such as jewellery, precious metalware, ceramics, porcelain ware and glassware, as well as handicrafts made of wood or textile, leather or other materials. |
| 74 | (d) Electrical and electronics trades workers | Electrical and electronics trades workers install, fit and maintain electrical wiring systems and machinery and other electrical apparatus, electrical transmission and supply lines and cables, and electronic and telecommunications equipment and systems. |
| 75 | (e) Food processing, wood working, garment and other craft and related trades workers | Food processing, wood working, garment and other craft and related trades workers treat and process agricultural and fisheries raw materials into food and other products, and produce and repair goods made of wood, textiles, fur, leather, or other materials. |
| **8** | **PLANT AND MACHINE OPERATORS, AND ASSEMBLERS** | **Plant and machine operators, and assemblers operate and monitor industrial and agricultural machinery and equipment on the spot or by remote control, drive and operate trains, motor vehicles and mobile machinery and equipment, or assemble products from manufacturing line.** |
| 81 | (a) Stationary plant and machine operators | Stationary plant and machine operators operate and monitor, on the spot or by remote control, industrial plant and machinery and equipment that are stationary, or for which mobility is not an integral part of operation. |
| 82 | (b) Assemblers | Assemblers assemble prefabricated parts or components to form subassemblies, products and equipment, according to strictly laid down procedures. The products worked on may be moved from one worker to the next along assembly lines. |
| 83 | (c) Drivers and mobile plant operators | Drivers and mobile plant operators drive and tend trains and motor vehicles, or drive, operate and monitor industrial and agricultural machinery and equipment, or execute deck duties on board ship and other water-borne craft. |
| **9** | **ELEMENTARY (LABOURERS) OCCUPATIONS** | **Elementary occupations involve the performance of simple and routine tasks which may require the use of hand-held tools and considerable physical effort. Most occupations in this major group require skills at the first ISCO skill level.** |
| 91 | (a) Cleaners and helpers | Cleaners and helpers perform various tasks in private households, hotels, offices, hospitals and other establishments, as well as in aircraft, trains coaches, trams and similar vehicles, in order to keep the interiors and fixtures clean, and launder and press ironing |
| 92 | (b) Agricultural, forestry and fishery labourers | Agricultural, forestry and fishery labourers perform simple and routine tasks in the production of crops and livestock, cultivation and maintenance of gardens and parks, exploitation and conservation of forests, and conduct of aquaculture and fisheries |
| 93 | (c) Labourers in mining, construction, manufacturing and transport | Labourers in mining, construction, manufacturing and transport perform simple and routine manual tasks in mining, quarrying, civil engineering, building, manufacturing, transport and storage operations, and operate human powered and animal drawn vehicles |
| 94 | (d) Food preparation assistants | Food preparation assistants prepare and cook to order a small variety of pre-cooked food or beverages, clear tables, clean kitchen areas and wash dishes. |
| 95 | (e) Street and related sales and service workers | Street and related sales and service workers provide and sell goods, excluding food for immediate consumptions, and provide a variety of services on streets and in other public places such as stations. |
| 96 | (f) Refuse workers and other elementary workers | Refuse workers and other elementary workers collect garbage from buildings, yards, streets and other public places or keep streets and other public places or perform odd jobs for private households or establishments. |

#### 

### Appendix 3: Number of graduates in the University of Malawi

#### Bunda College, Undergraduates

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Faculty of Agriculture** | **2000** | **2001** | **2002** | **2003** | **2004** | **2005** | **2006** | **2007** | **2008** | **2009** | **2011** | **2012** |
| University certificate in Agriculture technology | **0** | **\_** | **\_** |  |  |  | **0** |  |  |  |  |  |
| Diploma in Agriculture | **0** | \_ | \_ |  |  |  |  |  |  |  |  |  |
| Bachelor of Science in Agriculture | 2 | \_ | \_ | **0** | **0** | **152** | **0** | **0** | **4** | **1** | **1** |  |
| Bachelor of Science in Agriculture(Environmental Science) | \_ | \_ | 11 |  |  |  |  |  |  |  |  |  |
| Bachelor of Science in Agriculture(Forestry) | \_ | 10 | 12 |  |  |  |  |  |  |  |  |  |
| Bachelor of Science in Agriculture(Aquaculture) | 6 | 9 | \_ |  |  |  |  |  |  |  |  |  |
| Bachelor of Science in Agriculture(Aquaculture & Fish Science) | \_ | \_ | 10 |  |  |  |  |  |  |  |  |  |
| Bachelor of Science in Agriculture (Agricultural Engineering) | 7 | 5 | 3 | **0** | **0** | **0** | **2** | **3** | **6** | **3** | **18** |  |
| Bachelor of Science in Agriculture (Animal Science) | 4 | 4 | 10 | **0** | **0** | **0** | **5** | **6** | **17** | **12** |  |  |
| Bachelor of Science in Agriculture (Crop Science) | 19 | 22 | 22 | **0** | **0** | **0** | **14** | **5** | **6** | **15** |  |  |
| Bachelor of Science in Agriculture (Family Science) | \_ | 2 | \_ | **0** | **0** | **0** | **6** | **0** | **2** | **0** |  |  |
| Bachelor of Science in Agriculture (Nutrition and Food Science) | \_ | \_ | 5 | **0** | **0** | **0** | **19** | **24** | **19** | **14** | **19** |  |
| Bachelor of Science in Agriculture(Human nutrition ,Food Science & Management) | 9 | 6 | \_ |  |  |  |  |  |  |  | **1** |  |
| Bachelor of science in Agronomy |  |  |  |  |  |  |  |  |  |  | **4** |  |
| Bachelor of Science in Irrigation Engineering | \_ | \_ | 14 | **0** | **0** | **21** | **20** | **24** | **14** | **14** |  |  |
| **Total** | **47** | **58** | **87** | **0** | **0** | **173** | **66** | **62** | **68** | **59** | **43** | **-** |

*Data source*: University Office, University of Malawi

Bunda College

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Faculty of Development Studies** | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2011 | 2012 |
| Bachelor of Science in Agribusiness Management | \_ | \_ | \_ | **0** | **0** | **0** | **11** | **20** | **19** | **15** | **13** |  |
| Bachelor of Science in Agriculture (Agricultural Economics) | 26 | 24 | 22 | **0** | **0** | **0** | **25** | **22** | **27** | **30** | **23** |  |
| Bachelor of Science in Agriculture (Agricultural Extension) | 15 | 18 | 19 | **0** | **0** | **0** | **10** | **11** | **11** | **6** | **11** |  |
| Bachelor of science in Agronomy | 0 |  |  |  |  |  |  |  |  |  |  |  |
| Bachelor of Agricultural Extension | \_ | \_ | \_ | **0** | **0** | **0** | **0** | **0** | **4** | **23** | **3** |  |
| Bachelor of Science in Agricultural Education | \_ | 2 | \_ | **0** | **0** | **0** | **0** | **0** | **2** | **4** | **9** |  |
| **Total** | **41** | **44** | **41** | **0** | **0** | **0** | **46** | **53** | **63** | **78** | **59** |  |

*Data source*: University Office, University of Malawi

Bunda College

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Faculty of Environmental Science** | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2011 | 2012 |
| Bachelor of Science in Environmental Science | \_ | \_ | \_ | 0 | 0 | 41 | 16 | 6 | 10 | 8 | 10 |  |
| Bachelor of Science in Aquaculture and Fisheries Science |  |  |  |  |  |  |  |  |  |  | 8 |  |
| Bachelor of Science in Horticulture | \_ | \_ | \_ | 0 | 0 | 0 | 5 | 4 | 4 | 13 | 7 |  |
| Bachelor of Science in Natural Resources Management | \_ | \_ | \_ | 0 | 0 | 0 | 16 | 5 | 8 | 9 | 8 |  |
| Bachelor of Science in Forestry | \_ | \_ | \_ | 0 | 0 | 0 | 0 | 2 | 4 | 11 | 7 |  |
| **Total** | **0** | **0** | **0** | **0** | **0** | **41** | **37** | **17** | **26** | **41** | **40** |  |

*Data source*: University Office, University of Malawi

#### Bunda College, Postgraduate graduates

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2011 | 2012 |
| Master of science in Agriculture | \_ | \_ | \_ |  |  |  |  |  |  |  |  | 0 |
| Master of Science in Agribusiness Management |  |  |  |  |  |  |  |  |  |  | 1 | 0 |
| Master of Science in Horticulture | 1 | \_ | \_ |  |  |  |  |  |  |  | 0 | 2 |
| Master of Science in Agronomy | 1 | 1 | \_ | 0 | 0 | 1 | 2 | 1 | 0 | 0 | 1 | 0 |
| Master of Science in Agronomy (Plant Bleeding) |  |  |  |  |  |  |  |  |  |  | 4 | 0 |
| Master of Science in Malacology | \_ | 1 | \_ |  |  |  |  |  |  |  |  |  |
| Master of Science in Fish Ecology | \_ | 1 | \_ |  |  |  |  |  |  |  |  |  |
| Master of Science in Epidemiology) | \_ | 2 | \_ |  |  |  |  |  |  |  |  |  |
| Master of Science in Population Genetics | \_ | 1 | \_ |  |  |  |  |  |  |  |  |  |
| Master of Science in Animal Science | 4 | 3 | 7 | 0 | 0 | 4 | 0 | 3 | 2 | 0 | 1 | 2 |
| Master of Science in Agriculture & Applied Economics |  |  |  |  |  |  |  |  |  |  | 4 | 7 |
| Master of Science in Agricultural Economics | 3 | 2 | 5 | 0 | 0 | 3 | 0 | 2 | 7 | 1 | 3 | 3 |
| Master of Science in Agroforestry | 1 | 3 | \_ | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| Master of Science in Crop Science | \_ | \_ | \_ | 0 | 0 | 1 | 0 | 0 | 0 | 0 |  |  |
| Master of Science in Food Science and Human Nutrition | \_ | \_ | \_ | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 1 |
| Master of Science in Forestry and Horticulture | \_ | \_ | \_ | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |  |
| Master of Science in Irrigation Engineering | \_ | \_ | \_ | 0 | 0 | 0 | 0 | 0 | 0 | 1 |  |  |
| Master of Science in Soil Science | \_ | 3 | 1 |  |  |  |  |  |  |  | 0 | 1 |
| Master of Science in Social Forestry | \_ | \_ | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |  |  |
| Master of Science in Crop Protection (Weed Science) | 1 | \_ | \_ |  |  |  |  |  |  |  |  |  |
| Master of Science in Crop Protection (Plant Pathology) | 1 | \_ | \_ |  |  |  |  |  |  |  |  |  |
| Master of Science in Crop Protection (Entomology) | \_ | 6 | \_ | 0 | 0 | 0 | 0 | 0 | 1 | 0 |  |  |
| Master of Science in Aquaculture and Fisheries Science | \_ | \_ | \_ | 0 | 0 | 5 | 0 | 5 | 1 | 10 | 0 | 3 |
| Master of Science in Plant Protection | \_ | \_ | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |  |  |
| Master of Science in Rural Development and Extension | 1 | \_ | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 3 |
| Master of Science in Seed Science |  |  |  |  |  |  |  |  |  |  | 1 | 0 |
| **Total** | **13** | **23** | **23** | **0** | **0** | **19** | **2** | **12** | **12** | **15** | **20** | **22** |

*Data source*: University Office, University of Malawi

#### Bunda College, Doctorates

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Doctorate degrees** | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2011 | 2012 |
| PhD in Philosophy (Agriculture) | \_ | \_ | \_ |  |  |  |  | 0 | 0 | 0 |  |  |
| PhD in Rural Development and Extensions | \_ | \_ | \_ | 0 | 0 | 0 | 1 | 0 | 0 | 0 |  |  |
| **Total** | **0** | **0** | **0** | **0** | **0** | **0** | **1** | **0** | **0** | **0** | **0** |  |

*Data source*: University Office, University of Malawi

#### Chancellor College, Undergraduates

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Faculty of Education** | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2011 | 2012 |
| University Certificate in Education | \_ | \_ | \_ | 0 | 0 | 0 | 44 | 0 | 0 | 0 | 0 | 50 |
| Bachelor of Education( Honours) | 3 | \_ | \_ |  |  |  |  |  |  |  | 20 | 15 |
| Bachelor of Education (Primary) | \_ | \_ | \_ | 0 | 0 | 0 | 0 | 0 | 0 | 20 |  |  |
| Bachelor of Education | 147 | 101 | 183 | 184 | 167 | 164 | 174 | 169 | 247 | 179 | 132 | 0 |
| Bachelor of Education(Science) | 0 |  |  |  |  |  |  |  |  |  |  |  |
| Diploma in education | 0 | \_ | \_ |  |  |  |  |  |  |  |  |  |
| **Total** | **150** | **101** | **183** | **184** | **167** | **164** | **218** | **169** | **247** | **199** | **152** | **65** |

*Data source*: University Office, University of Malawi

Chancellor College

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Faculty of Humanities** | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2011 | 2012 |
| Postgraduate Diploma in Theatre & Media Communication in Development | \_ | \_ | \_ | 0 | 0 | 0 | 0 | 0 | 0 | 4 |  |  |
| Bachelor of arts(Honours) | \_ | \_ | \_ | 0 |  |  |  |  |  |  |  |  |
| Bachelor of Arts | 45 | 39 | \_ | 47 | 70 | 70 | 24 | 65 | 68 | 101 | 143 | 136 |
| Bachelor of Arts(Humanities) | \_ | \_ | 47 |  |  |  |  |  |  |  | 34 | 26 |
| Bachelor of Arts (Media) | \_ | \_ | \_ | 0 | 0 | 0 | 0 | 0 | 0 | 21 |  |  |
| Bachelor of Arts in Theology(Honours) | \_ | \_ | \_ | 0 |  |  |  |  |  |  |  |  |
| Bachelor of Arts in Philosophy( Honours) | \_ | \_ | \_ | 0 |  |  |  |  |  |  |  |  |
| Bachelor of Arts (Theology) | 10 | 17 | 13 | 13 | 16 | 17 | 18 | 19 | 13 | 20 | 14 | 31 |
| **Total** | **55** | **56** | **60** | **60** | **86** | **87** | **42** | **84** | **81** | **146** | **191** | **193** |

*Data source*: University Office, University of Malawi

Chancellor College

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Faculty of Law** | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2011 | 2012 |
| Diploma in Law |  |  |  |  |  |  |  |  |  |  | **0** | 30 |
| Bachelor of laws | **\_** | **\_** | **\_** |  |  |  |  |  |  |  |  |  |
| Bachelor of Laws (Honours) | 18 | 33 | 20 | **20** | **43** | **44** | **23** | **38** | **32** | **18** | **31** | 30 |
| Diploma in Law | \_ | \_ | \_ | **0** | **0** | **0** | **0** | **0** | **25** | **20** |  |  |
| **Total** | **18** | **33** | **20** | **20** | **43** | **44** | **23** | **38** | **57** | **38** | **31** | **60** |

*Data source*: University Office, University of Malawi

Chancellor College

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Faculty of Science** | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2011 | 2012 |
| University Certificate in Computer Science | \_ | 1 | 2 |  |  | 0 | 1 |  | 0 | 0 | 4 | 0 |
| Postgraduate Diploma in Computer Science | \_ | 3 | \_ |  |  | 9 | 6 | 5 | 0 | 0 | 4 | 6 |
| Bachelor of science ( Honours) | 4 | 2 | \_ |  |  |  |  |  |  |  |  |  |
| Bachelor of Science | 50 | 49 | 42 | 42 | 58 | 0 | 27 | 70 | 71 | 90 |  |  |
| **Total** | **54** | **55** | **44** | **42** | **58** | **9** | **34** | **75** | **71** | **90** | **8** | **6** |

*Data source*: University Office, University of Malawi

Chancellor College

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Faculty of Social Science** | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2011 | 2012 |
| Dip in Gender & Social Development Studies | \_ | \_ | \_ | 0 |  | 17 | 0 |  | 0 | 0 |  |  |
| Bachelor of social science(Honours) | \_ | \_ | \_ | 0 |  |  |  |  |  |  |  |  |
| Bachelor of Social Science | 57 | 52 | 42 | 42 | 66 | 66 | 28 | 53 | 59 | 83 |  |  |
| Bachelor of Arts (Public Administration) | 13 | 16 | 14 | 14 | 17 | 17 | 3 | 9 | 15 | 25 | 110 | 75 |
| Bachelor of Arts (Political Science) | \_ | \_ | \_ | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 15 | 20 |
| Dip in public administration | \_ | \_ | \_ |  |  |  |  |  |  |  | 5 | 11 |
| Bachelor of Arts (Human Resource Management) | \_ | 23 | 28 | 28 | 24 | 24 | 62 | 24 | 22 | 16 | 62 | 105 |
| **Total** | **70** | **91** | **84** | **84** | **107** | **124** | **93** | **86** | **96** | **128** | **192** | **211** |

*Data source*: University Office, University of Malawi

#### Chancellor College, Postgraduates

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2011 | 2012 |
| Master of Law | \_ | \_ | \_ | 0 |  |  |  |  |  |  |  |  |
| Master of Arts | \_ | \_ | \_ | 12 | 9 | 0 | 0 | 0 | 0 | 0 |  |  |
| Master of Arts in International Relations | \_ | \_ | \_ | 0 |  |  |  |  |  |  |  |  |
| Master of Arts in Applied Linguistics | \_ | \_ | \_ | 0 | 0 | 0 | 2 | 1 | 0 | 0 |  |  |
| Master of Arts in African Social History | \_ | \_ | \_ | 0 | 0 | 1 | 1 | 0 | 2 | 0 |  |  |
| Master of Arts in Applied Linguistics | \_ | \_ | \_ | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 3 |
| Master of Arts in Development Studies | \_ | \_ | \_ | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 5 | 4 |
| Master of Arts in Economics | 9 | 6 | 9 | 0 | 0 | 15 | 6 | 5 | 21 | 16 | 22 | 12 |
| Master of Arts in Literature | \_ | \_ | \_ | 0 | 0 | 2 | 0 | 1 | 0 | 1 | 2 | 5 |
| Master of Arts in Linguistics | \_ | \_ | \_ | 0 | 0 | 5 | 0 | 0 | 0 | 0 |  |  |
| Master of Arts in Human Resources Management | \_ | \_ | \_ | 0 | 0 | 0 | 0 | 0 | 0 | 3 |  |  |
| Master of Arts in Industrial Relations | \_ | \_ | \_ | 0 | 0 | 0 | 0 | 0 | 0 | 1 |  |  |
| Master of Arts in Philosophy | 1 | 1 | \_ | 0 | 0 | 0 | 0 | 2 | 0 | 0 |  |  |
| Master of Arts in Political Science | \_ | \_ | \_ | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 24 | 0 |
| Master of Arts in Pure Linguistics | \_ | \_ | \_ | 0 | 0 | 0 | 0 | 1 | 0 | 0 |  |  |
| Master of Arts in Sociology | \_ | 4 | \_ | 0 | 0 | 3 | 0 | 0 | 0 | 2 | 0 | 6 |
| Master of Arts in Theatre & Media Communication  in Development | \_ | \_ | \_ | 0 | 0 | 0 | 0 | 0 | 0 | 6 |  |  |
| Master of Arts in Theology & Religious Studies | 2 | 2 | 3 | 0 | 0 | 3 | 0 | 5 | 0 | 3 | 0 | 4 |
| Master of Arts in Social History |  |  |  |  |  |  |  |  |  |  | 1 | 2 |
| Master of Education | \_ | \_ | \_ | 0 | 0 | 2 | 0 | 2 | 0 | 0 |  |  |
| Master of Education in Educational Psychology | \_ | \_ | \_ | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Master of Education in Language Education | \_ | \_ | \_ | 0 | 0 | 1 | 0 | 0 | 0 | 0 |  |  |
| Master of Education in Policy, Planning and Leadership | \_ | \_ | \_ | 0 | 0 | 0 | 0 | 0 | 8 | 9 | 1 | 5 |
| Master of Education (Sociology) | \_ | \_ | \_ | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 4 | 0 |
| Master of Education in Testing, Measurement & Evaluation) | \_ | \_ | \_ | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 1 | 3 |
| Master of Education (Curriculum & Teaching Studies) | |  |  |  |  |  |  |  |  |  | 6 | 5 |
| Master of Science | \_ | \_ | \_ | 33 | 13 | 0 | 0 | 0 | 0 | 0 |  |  |
| Master of Science(Ethnoict Thyology) | \_ | 1 | \_ |  |  |  |  |  |  |  |  |  |
| Master of Science in Applied Chemistry | 1 | 1 | 2 | 0 | 0 | 3 | 1 | 0 | 3 | 0 | 0 | 5 |
| Master of Science in Biology | 3 | \_ | 1 | 0 | 0 | 1 | 2 | 1 | 1 | 0 |  |  |
| Master of Science in Chemistry | \_ | \_ | \_ | 0 | 0 | 1 | 0 | 0 | 2 | 0 |  |  |
| Master of Science in Environmental Science | 15 | 12 | 7 | 0 | 0 | 2 | 0 | 7 | 3 | 3 | 18 | 1 |
| Master of Science in Geography & Earth Science | \_ | \_ | \_ | 0 | 0 | 0 | 0 | 0 | 0 | 2 |  |  |
| Master of Science in Mathematical Sciences | \_ | \_ | \_ | 0 | 0 | 1 | 3 | 0 | 1 | 1 |  |  |
| Master of Science in Biostatistics |  |  |  |  |  |  |  |  |  |  | 0 | 5 |
| Master of Science in Conservation Biology |  |  |  |  |  |  |  |  |  |  | 2 | 2 |
| Master of Science in Informatics |  |  |  |  |  |  |  |  |  |  | 0 | 9 |
| **Total** | **31** | **27** | **22** | **45** | **22** | **40** | **16** | **28** | **46** | **56** | **88** | **72** |

*Data source*: University Office, University of Malawi

Chancellor College, Doctorates

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Chancellor College** | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2011 | 2012 |
| PhD |  |  |  | 0 | 1 | 0 | 0 | 0 | 0 | 0 |  |  |
| PhD in Economic |  |  |  |  |  |  |  | 0 | 0 | 2 |  |  |
| PhD in Law (Honours) | \_ | 1 | 1 |  |  |  |  | 0 | 0 | 0 |  |  |
| PhD in Letters (Honours) | 1 | 1 | 1 |  |  |  |  | 0 | 0 | 0 |  |  |
| PhD in letters | \_ | \_ | \_ |  |  |  |  | 0 | 0 | 0 |  |  |
| PhD in Philosophy (Education) | \_ | \_ | 1 |  |  |  |  | 0 | 0 | 0 |  |  |
| PhD in Philosophy in Political Science | \_ | \_ | \_ |  |  |  |  | 0 | 0 | 0 |  |  |
| PhD in Philosophy (Honours) | \_ | 1 | \_ |  |  |  |  | 0 | 0 | 0 |  |  |
| PhD in Philosophy | \_ | \_ | \_ |  |  |  |  | 0 | 0 | 0 |  |  |
| PhD in Development Studies |  |  |  |  |  |  |  |  |  |  | 0 | 2 |
| PhD in Biology | \_ | \_ | \_ | 0 | 0 | 0 | 0 | 0 | 1 | 2 |  |  |
| PhD in Chemistry | \_ | \_ | \_ | 0 | 0 | 0 | 0 | 0 | 1 | 1 |  |  |
| PhD in Dramatic Literature | \_ | \_ | \_ | 0 | 0 | 0 | 1 | 0 | 0 | 0 |  |  |
| PhD in Education | \_ | \_ | \_ | 0 | 0 | 0 | 0 | 1 | 0 | 0 |  |  |
| PhD in Theology & Religious Studies | \_ | 2 | \_ | 0 | 0 | 1 | 1 | 3 | 1 | 1 | 0 | 1 |
| PhD Honorary | \_ | \_ | \_ | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| **Total PhD** | **1** | **5** | **3** | **2** | **1** | **1** | **2** | **4** | **3** | **6** | **0** | **4** |

*Data source*: University Office, University of Malawi

#### College of Medicine, Undergraduates

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Faculty of Medicine** | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2011 | 2012 |
| Bachelor of Medicine Bachelor of Surgery(Honours) | \_ | \_ | \_ |  |  |  |  |  |  |  | 50 | 94 |
| Bachelor of Medicine Bachelor of Surgery | 17 | 17 | 18 | 18 | 18 | 15 | 0 | 24 | 40 | 46 |  |  |
| Bachelor of Science in Medical Laboratory | \_ | \_ | \_ | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 22 | 25 |
| Bachelor of Medical Laboratory Science (Hons) |  |  |  |  |  |  |  |  |  |  | 0 | 3 |
| Bachelor of Physiotherapy | 0 | 0 |  |  |  |  |  |  |  |  |  |  |
| Bachelor of Science in Health Management | 0 | 31 |  |  |  |  |  |  |  |  |  |  |
| Bachelor of Pharmacy |  |  |  |  |  |  |  |  |  |  | 16 | 36 |
| **Total** | **17** | **48** | **18** | **18** | **18** | **15** | **0** | **24** | **40** | **60** | **88** | **158** |

*Data source*: University Office, University of Malawi

#### College of Medicine, Postgraduates

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2011 | 2012 |
| Master of Public Health | \_ | \_ | \_ | 0 | 0 | 0 | 6 | 7 | 20 | 19 | 24 | 23 |
| Master of Medicine (Internal Medicine) | \_ | \_ | \_ | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| Master of Medicine (Pediatrics & Child Health) | \_ | \_ | \_ | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 |  |
| Master of Science in Medicine(Surgery) | 0 |  |  |  |  |  |  |  |  |  |  |  |
| Master of Medicine (Ophthalmology) |  |  |  |  |  |  |  |  |  |  | 2 |  |
| **Total** | **0** | **0** | **0** | **0** | **0** | **0** | **6** | **7** | **20** | **22** | **28** | **24** |

*Data source*: University Office, University of Malawi

#### Kamuzu College of Nursing, Undergraduates

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Faculty of Nursing** | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2011 | 2012 |
| Diploma in Nursing | \_ | \_ | 24 | 0 | 15 | 13 | 24 | 22 | 37 | 20 | 16 | 0 |
| Bachelor of Science in Nursing | 79 | 40 | 26 | 41 | 20 | 19 | 41 | 48 | 56 | 64 | 102 | 0 |
| Bachelor of Science in Nursing Education | \_ | 8 | 8 | 0 | 0 | 8 | 2 | 6 | 19 | 16 | 15 | 4 |
| Bachelor of Science in Nursing - Health Service Management | \_ | 7 | 7 | 0 | 0 | 9 | 0 | 8 | 4 | 4 | 8 | 4 |
| Bachelor of Science in Community Health Nursing | \_ | 11 | 11 | 11 | 8 | 7 | 0 | 16 | 5 | 6 | 6 | 8 |
| Bachelor of Science in Midwifery | \_ | \_ | 12 | 12 | 26 | 1 | 0 | 0 | 0 | 0 |  |  |
| University certificate in management(nursing administration) | \_ | \_ | \_ |  |  |  |  |  |  |  | 0 | 86 |
| University Certificate in Midwifery | 28 | 28 | \_ | 0 | 30 | 19 | 67 | 6 | 32 | 30 | 56 | 48 |
| **Total** | **107** | **94** | **88** | **64** | **99** | **76** | **134** | **106** | **153** | **140** | **203** | **150** |

*Data source*: University Office, University of Malawi

#### Kamuzu College of Nursing, Postgraduates

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Kamuzu College of Nursing** | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2011 | 2012 | 2013 |
| |Master of Science in Midwifery |  |  |  |  |  |  |  |  |  |  | 10 | 8 | 9 |
| Master of Science in Reproductive Health |  |  |  |  |  |  |  |  |  |  |  | 8 | 8 |
| **Total** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **10** | **16** | **17** |

*Data source*: University Office, University of Malawi

#### The Polytechnic, Undergraduates

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Faculty of Applied Sciences** | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2011 | 2012 |
| Dip in laboratory techniques | 0 | \_ | \_ |  |  |  |  |  |  |  |  |  |
| Dip in public health inspection | 0 | \_ | \_ |  |  |  |  |  |  |  |  |  |
| University Certificate in Computer Studies | \_ | \_ | \_ |  | 1 | 1 | 0 | 0 | 0 | 0 |  |  |
| Bachelor of Science in Management Information Systems | \_ | \_ | \_ | 0 | 0 | 0 | 9 | 22 | 27 | 21 | 31 | 28 |
| Bachelor of Science in Information Technology | \_ | \_ | \_ | 0 | 0 | 0 | 16 | 17 | 25 | 24 | 23 | 30 |
| Bachelor of Science in Environmental Health | 51 | 15 | 27 | 27 | 33 | 33 | 32 | 40 | 44 | 36 | 38 | 46 |
| Bachelor of Science (Environmental Science Technology) | 33 | \_ | \_ | 23 | 23 | 0 | 0 | 0 | 0 | 0 |  |  |
| Bachelor of Science in Environmental Science & Technology | \_ | 15 | 15 |  |  |  |  |  |  |  | 12 | 14 |
| (Environmental Management) |  |  |  | 0 | 0 | 15 | 36 | 23 | 16 | 6 |  |  |
| Bachelor of Science in Environmental Science & Technology | \_ | 3 | 8 |  |  |  |  |  |  |  | 8 | 6 |
| (Food Technology) |  |  |  | 0 | 0 | 4 | 0 | 7 | 15 | 10 |  |  |
| Bachelor of Science in Environmental Science & Technology | 0 | \_ | \_ |  |  |  |  |  |  |  |  |  |
| Physics |  |  |  | 0 | 0 | 3 | 0 | 0 | 0 | 4 | 0 | 2 |
| Bachelor of Science in Mathematical Science Education (MC) | \_ | \_ | \_ | 0 | 0 | 0 | 0 | 0 | 4 | 5 | 2 | 0 |
| Bachelor of Science in Mathematical Science Education (MS) | \_ | \_ | \_ | 0 | 0 | 0 | 0 | 3 | 6 | 16 | 12 | 6 |
| Bachelor of Science in Mathematical Science Education (SC) | \_ | \_ | \_ | 0 | 0 | 0 | 0 | 0 | 17 | 25 | 26 | 12 |
| Bachelor of Science in Mathematical Science Education (CS) | \_ | \_ | \_ | 0 | 0 | 0 | 0 | 14 | 0 | 0 |  |  |
| **Total** | **84** | **33** | **50** | **50** | **57** | **56** | **93** | **126** | **154** | **147** | **152** | **144** |

*Data source*: University Office, University of Malawi

The Polytechnic

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Faculty of Built Environment** | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2011 | 2012 |
| Diploma in Architectural Technology | 11 | 14 | \_ |  |  |  |  |  |  |  |  |  |
| Bachelor of Science in Architectural Studies | \_ | \_ | 12 | 12 | 7 | 7 | 11 | 0 | 17 | 16 | 17 | 12 |
| Diploma in building & civil engineering | 0 | \_ | \_ |  |  |  |  |  |  |  |  |  |
| Bachelor of Science in Land Surveying | \_ | \_ | \_ | 0 | 0 | 0 | 0 | 14 | 4 | 0 |  |  |
| Bachelor of Science in Quantity Surveying | \_ | \_ | \_ | 0 | 0 | 0 | 0 | 23 |  | 15 | 12 | 11 |
| **Total** | **11** | **14** | **12** | **12** | **7** | **7** | **11** | **37** | **21** | **31** | **29** | **23** |

*Data source*: University Office, University of Malawi

The Polytechnic

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Faculty of Commerce** | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2011 | 2012 |
| Diploma in Business Studies | \_ | \_ | \_ | 0 | 24 | 22 | 0 | 0 | 0 | 0 |  |  |
| Diploma in Management Studies | \_ | \_ | \_ | 0 | 9 | 9 | 0 | 0 | 0 | 0 |  |  |
| Postgraduate Diploma in Management Studies | \_ | 11 | 5 | 0 | 0 | 0 | 10 | 8 | 6 | 20 | 31 | 12 |
| Bachelor of Accountancy | 52 | 28 | 64 | 64 | 52 | 51 | 61 | 99 | 107 | 83 | 87 | 77 |
| Bachelor of Business Administration | 50 | 40 | 57 | 57 | 61 | 61 | 81 | 97 | 107 | 92 | 79 | 61 |
| Bachelor of Procurement & Logistics |  |  |  |  |  |  |  |  |  |  | 0 | 28 |
| **Faculty Total** | **102** | **79** | **126** | **121** | **146** | **143** | **152** | **204** | **220** | **195** | **197** | **178** |

*Data source*: University Office, University of Malawi

The Polytechnic

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Faculty of Education and Media Studies** | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2011 | 2012 |
| University Certificate in Education | \_ | \_ | \_ | 0 | 0 | 0 | 0 | 0 | 0 | 18 |  |  |
| Bachelor of Arts in Journalism | \_ | \_ | 20 | 20 | 23 | 1 | 22 | 29 | 48 | 34 | 33 | 31 |
| Bachelor of Education (Business Studies) | \_ | \_ | \_ | 0 | 0 | 0 | 5 | 2 | 1 | 0 | 0 | 30 |
| Bachelor of Education (Technical) | 3 | 4 | 5 | 0 | 0 | 3 | 28 | 30 | 25 | 30 | 13 | 27 |
| Diploma in Journalism | \_ | \_ | \_ |  |  |  |  |  |  |  |  |  |
| Diploma in Communication Studies | \_ | \_ | \_ |  |  |  |  |  |  |  |  |  |
| Diploma in technical teaching | \_ | \_ | \_ |  |  |  |  |  |  |  |  |  |
| Bachelor of Science (Technical Education) | \_ | 9 | 8 | 5 | 13 | 10 | 32 | 13 | 25 | 21 | 14 | 12 |
| **Total** | **3** | **13** | **33** | **25** | **36** | **14** | **87** | **74** | **99** | **103** | **60** | **100** |

*Data source*: University Office, University of Malawi

The Polytechnic

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Faculty of Engineering** | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2011 | 2012 |
| Dip in engineering | \_ | \_ | \_ |  |  |  |  |  |  |  |  |  |
| Advanced Diploma in Transport Operations Management | \_ | \_ | \_ | 0 | 0 | 0 | 0 | 5 | 4 | 0 | 0 | 5 |
| Bachelor of science(Engineering) | \_ | \_ | \_ |  |  |  |  |  |  |  | 36 | 35 |
| Bachelor of Science in Civil Engineering | 17 | 25 | 29 | 0 | 0 | 0 | 25 | 31 | 31 | 35 |  |  |
| Bachelor of Science in Electrical Engineering | 24 | 27 | 20 | 0 | 0 | 0 | 27 | 34 | 34 | 30 | 17 | 21 |
| Dip in civil engineering | \_ | \_ | \_ |  |  |  |  |  |  |  |  |  |
| Dip in electrical engineering | \_ | \_ | \_ |  |  |  |  |  |  |  |  |  |
| Dip in mechanical engineering | \_ | \_ | \_ |  |  |  |  |  |  |  |  |  |
| Dip in mechanical & electrical engineering | \_ | \_ | \_ |  |  |  |  |  |  |  |  |  |
| Bachelor of Science in Mechanical Engineering | 22 | 17 | 14 | 0 | 0 | 0 | 12 | 9 | 8 | 11 | 11 | 15 |
| **Total** | **63** | **69** | **63** | **0** | **0** | **0** | **64** | **79** | **77** | **76** | **64** | **76** |

*Data source*: University Office, University of Malawi

#### The Polytechnic, Postgraduates

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Polytechnic** | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2011 | 2012 |
| Master of Business Administration | \_ | \_ | \_ |  |  | 14 | 8 | 7 | 12 | 13 | 17 | 7 |
| Master of Infrastructure Development |  |  |  |  |  |  |  |  |  |  | 0 |  |
| **Total** | **0** | **0** | **0** | **0** | **0** | **14** | **8** | **7** | **12** | **13** | **17** | **7** |

*Data source*: University Office, University of Malawi

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