FIRST REPORT OF THE COMMITTEE ON EDUCATION, SCIENCE AND TECHNOLOGY FOR THE FOURTH SESSION OF THE TENTH NATIONAL ASSEMBLY APPOINTED ON 24 SEPTEMBER, 2009

Consisting of:

Mr D M Syakalima, MP; (Chairperson); Mr G Chazangwe, MP; Mr L K Chibombamilimo, MP; Mr M J C Misapa, MP; Mr Y D Mukanga, MP; Mrs J C Mumbi-Phiri, MP; Mr E M Munaile, MP; and Mr M C K Mushili, MP.

The Honourable Mr Speaker
National Assembly
Parliament Buildings
LUSAKA

Sir, following the guidelines that your Committee should table the Report of the previous Committee for the Third Session of the Tenth National Assembly, your Committee studied the Report in detail and, on 28th October, 2009, adopted it.

Your Committee Mr Speaker, Sir, now have the honour to present the Report.

D M Syakalima. MP
CHAIRPERSON

September, 2009
LUSAKA

REPORT OF THE COMMITTEE ON EDUCATION, SCIENCE AND TECHNOLOGY FOR THE THIRD SESSION OF THE TENTH NATIONAL ASSEMBLY APPOINTED ON 22 JANUARY, 2009

Consisting of:

Mrs. F B Sinyangwe, MP (Chairperson); Mr M J C Misapa, MP; Mr M M Mabenga, MP; Mr E M Munaile, MP; Mr G G Nkombo, MP; Mr M C K Mushili, MP; Mr D M Syakalima, MP; and Mr W C Simuusa, MP.

During the session, the composition of your Committee changed with the appointment of Mr M M Mabenga, MP, to a ministerial position. He was subsequently replaced with Mr G W Mpombo, MP.

The Honourable Mr Speaker
National Assembly
Parliament Buildings
LUSAKA

Sir,

Your Committee have the honour to present their Report for the Third Session of the Tenth Assembly.

Functions of the Committee

2. The functions of your Committee are as follows:

(i) to study, report and make recommendations to the Government through the House on the mandate, management and operations of the Ministries of Education and Science, Technology and Vocational Training and/or agencies under their portfolio;

(ii) to carry out detailed scrutiny of certain activities being undertaken by the Ministries of Education and Science, Technology and Vocational Training; departments and/or agencies under their portfolio and make appropriate recommendations to the House for ultimate consideration by the Government;

(iii) to make, if considered necessary, recommendations to the Government on the need to review certain policies and/or certain existing legislation; and

(iv) to consider any Bills that may be referred to them by the House.

Meetings of the Committee

3. Your Committee held sixteen meetings during the period under review.

Procedure adopted by the Committee

4. Your Committee adopted the following programme of work for 2009:
   (i) consideration of submissions on Science and Technology in Basic and High Schools;
   (ii) consideration of submissions on Linkages between Training and Industry;
   (iii) local tours of selected places related to the topical issues; and
   (iv) consideration of outstanding issues from the Action-Taken Report on your Committee's Report for 2008.

PART I

TOPICAL ISSUES

REGULATION OF INSTITUTIONS OF LEARNING

5. This topic was considered following a request by the Zambia Institute of Planners to meet with your Committee with regard to the location of institutions of higher learning. As your Committee have previously discussed the misplacement of schools, contrary to educational regulations and guidelines, they took the opportunity to look at this topic again in the light of the new submission.

SUBMISSION BY ZAMBIA INSTITUTE OF PLANNERS

Your Committee were informed that the creation of new campuses of institutions of higher learning should add value to the property in the particular towns and cities in Zambia. In this regard, the Zambia Institute of Planners appealed to the Ministries of Education, Lands and Local Government and Housing to work together in granting permission and allocating land for the construction of new campuses. The witness explained that cities were similar to living organisms that come into being and grow. Hence, human settlements require regular injection of life giving energy through new physical structures, new human activity and urban renewal.

Your Committee were informed that it was against proper town planning and land use regulations to locate institutions of learning in any place. The witness lamented that Zambia was the only country not enforcing the Town and Country Planning Regulations and that it had become common practice in Lusaka to have institutions of higher learning located in all sorts of places ranging from buildings in the central business area, shopping malls and residential areas. He stated that land use could not be substituted by expedience because it brought about order in human activity. In this regard, the witness called upon Government to come up with a guiding policy on the location of institutions of higher learning.

Universities were being given operating licences without Government directing how these should operate in the country. The witness submitted that there was need to stipulate how a university should operate, for instance, by demanding that they build structures. It was necessary to give conditions even on accreditation. He stated that universities being built by people coming from

outside needed guidance from the outset since the current trend was leading to the enrichment of places of origin of these institutions.

Committee's Observations and Recommendations

Your Committee observe and agree with the submission that the coming in of new universities was not adding real value as these were being located in already existing structures previously not meant for such use. These include shopping centres, residential houses and office buildings. In this regard, your Committee further observe that there seems to be lack of a well coordinated policy, guidelines and regulations as to the establishment of a university.

Your Committee, therefore, recommend as follows:

(i) the Government should expeditiously come up with a comprehensive policy, guidelines and regulations on the construction of infrastructure of a certain minimum before universities can be allowed to operate; and

(ii) the Ministry of Education should liaise with other relevant ministries such as Lands and Local Government and Housing to ensure that the guidelines are met before issuance of an operating licence to a university.

SCIENCE AND TECHNOLOGY IN BASIC AND HIGH SCHOOLS

SUBMISSION BY MINISTRY OF EDUCATION

Adequacy of laboratories in Basic and High Schools

6. Your Committee were informed that according to the 2008 statistical bulletin of the Ministry of Education, there were only a total of 140 permanent laboratories in basic schools and 776 permanent laboratories in high schools around the country. In addition, there were twenty-nine incomplete laboratories in basic schools and thirty in high schools.

The same bulletin also stated that there were 8,794 schools, 8,195 basic schools and 599 high schools in the country. Looking at the total number of laboratories available against the number of schools, the Ministry conceded that they were inadequate.

Your Committee were informed that realising that so many basic schools did not have permanent infrastructure for laboratories, the Government, through the Ministry of Education, distributed a number of science kits and mobile laboratories to the provinces in the year 2002 and had continued producing and supplying these to the school through the National Science Center. Statistics available from the seven provinces were that 520 science kits were sent to Luapula Province while 115 were sent to North-Western Province, 666 to the Copperbelt Province, 881 Northern Province, 578 Eastern Province, 203 Lusaka and 408 Western Province.

Some basic schools had rooms that were used as laboratories where Environmental Science lessons were conducted from. These rooms were used to keep mobile laboratories, which were stocked with some chemicals and equipment for experiments.

All in all, sixty-six high schools had no laboratories while some basic schools had mobile laboratories/science kits. Therefore, the infrastructure, in terms of laboratories in high schools and basic schools, was not adequate. The Ministry of Education was looking into providing adequate infrastructure in schools.

Equipment in the laboratories

The Permanent Secretary, Ministry of Education, explained that laboratories in schools were not well equipped. Chemicals and equipment were lacking in a number of schools and, as such, individual schools had challenges in teaching science without the necessary equipment and chemicals. One of the contributing factors to non-availability of chemicals and equipment was that these were not available in Zambia. Some schools had had to procure them from South Africa at a high cost. The Ministry had been sending funds to schools to facilitate the practical teaching of Science. Science equipment and chemicals were expensive and a few specialised suppliers were concentrated in urban areas, thereby making it difficult for rural schools to access them.

Competence of Science teachers at Basic and High Schools

Your Committee were informed that teachers from the University of Zambia and the Copperbelt University were trained in such a way that they were competent enough to teach Science from Grade 8 to 12. Nkrumah and Copperbelt Colleges of Education trained teachers for upper basic schools, grades 8 and 9. However, due to shortfalls of teachers for high schools, the teachers from Nkrumah and Copperbelt were handling grades 8 to 12. As a result, there were cases of primary school teachers seconded to teach Sciences at grades 8 and 9. This cadre of teachers' competence was questionable because they were trained to teach grades 1 to 7 only and not grades 8 and 9. These primary school teachers were being made competent through the continuing professional development in place by the Ministry to teach Science at high school level at grades 8 and 9 while those from universities were competent to teach science at high school level. The seconded teachers were being encouraged to study through distance learning from recognised institutions such as UNZA and Zambia Open University. In addition, the Ministry of Education was working with UNZA to introduce a fast track upgrading programme for 6,000 diploma teachers that were teaching at high schools. The programme was scheduled to begin in August 2009.

Caliber of pupils in Basic Schools with regard to Scientific concepts

Scientific concepts being offered at basic schools level were easily comprehended by every child who qualified genuinely to grade 8 from grade 7. The syllabus of Science at basic school included topics in water, humans, matter, planets, heat, animals, electricity, gases, universe, light and energy. These, if well handled, would prepare pupils to understand scientific concepts.

Explanations for the calibre of pupils in relation to Science and Technology

Learning in Science was characterised by combining theories and practice. These had been provided for in the syllabus. Practice entailed pupils interacting with scientific concepts through hands-on experience. This meant that the teacher should take the pupils through experiments and field trips where they would be able to make inferences on their own. They must be able to make predictions about scientific phenomena and be able to prove that through enquiry or experimentation. The teachers should be able to apply the Plan, Do, See and Improve (PDSI) approach while the learners were supposed to go through the Activity, Student, Experiment and Improvisation (ASEI).

Furthermore, the colleges where the teachers were trained did not have well stocked and well equipped laboratories. This meant that the teachers were trained theoretically. The knowledge base of the student teachers had not been impressive because of much emphasis on theoretical

learning. There should be direct relationships between theory and practice. To improve on this image, the Ministry of Education had raised the entry qualification to college to five credits, which included Mathematics and Science. This, therefore, meant that the ones entering teaching were well grounded in the pre- requisites upon which training should be juxtaposed from. Technology, on the other hand, posed a lot of challenges to the Education System. At this time and age, computers were supposed to complement teaching, but very few schools had facilities for computers and Technology related subjects. All the new high schools being constructed had computer laboratories.

Other barriers to the delivery of Science lesions in Basic and High Schools

Your Committee were informed that Science and Technology were perceived to be the domain of the privileged few. The society had labeled it 'difficult' and learners came to schools with this notion. If they get to schools that were ill equipped in terms of chemicals, equipment and trained teachers, the pupil was left with nothing but to agree with the notion that Science was difficult. In order to address this, the Ministry was trying to re-look at the primary syllabus and correlate it with the syllabus for grade 8 and 9 and further liken it with the high school and university syllabi. It was hoped that the symposium on the curriculum would be able to resolve the problems of synergies.

Science teaching required that there was more investment in terms of money to procure what was needed to teach Science to pupils. The Ministry was reviewing the criteria of funding to schools in order to improve the teaching of Science and Technology. The need to invest more in the teaching of Science and Technology was to be seen as the engine of development and could not be over emphasised. There was need for regular experiments that would help pupils to interface theory and practice. The teacher needed animation which transformed theory to some realities of life. This was so because science was life.

Teacher training in the field of Science needed to be intensified. Trainee teachers should be exposed to all aspects, myths and realities of Science so that the teacher is transformed into an embodiment of Science where one becomes scientific. The Ministry was working on developing Mulakupikwa in Northern Province into a college for Science and Mathematics teacher training.

They encourage teachers to participate in continuing professional development (CPD) to upgrade their knowledge and skills. The Ministry was encouraging teachers to get involved in CPA activities such as the school based continuing professional development through lesson study approach currently being implemented in the Central, Copperbelt and North Western provinces.

Your Committee learnt that the Ministry was giving incentive to teachers wishing to take up Science and Mathematics on full sponsorships.

Stakeholders' Concerns

The following stakeholders submitted before your Committee:

(i) Zambia National Education Coalition;
(iii) Basic Education Teachers Union (BETUZ)
(iv) Copperbelt University (CBU);
(v) School of Natural Sciences, UNZA;
(vi) Nkrumah College of Education;
(vii) Copperbelt College of Education (COSTECO);
(viii) Junior Engineers, Technicians and Scientists (JETS); and
(xvi) Examinations Council of Zambia.

The issues set out hereunder were some of the concerns of the stakeholders:

Stakeholders were of the view that the introduction of the new education structure of basic education, where grades 8 and 9 were put in the same institutions with grades 1 to 7 had brought a new dimension to the already existing challenges that the teaching of Science and Technology had been facing. There was little in common between primary and basic school infrastructure, such as laboratories, industrial arts, technical drawing, furniture, and the pedagogical methodological approaches. Whilst there had been an increase in the number of primary schools turned in basic schools and some basic schools into high schools, there had been little corresponding infrastructure development in terms of qualified teachers, acquisition of equipment and funding to facilitate effective teaching of science and technology in basic and high schools. The upgrading of primary schools to basic schools meant that more teachers needed to go for further training in science and technology studies. However, this had not been the case due to poor funding towards professional development. Consequently, the majority of teachers teaching science at high school level were diploma holders, leaving unqualified teachers to teach in basic schools. The increase in basic school enrolment was not commensurate with the existing qualified teachers. This had been worsened with the phasing out of in-service at the National In-Service Teachers College – Chalimbana.

Consequently, most basic schools had little or no equipment at all. As a result, teaching was purely theoretical, thereby compromising the teaching of science and technology. Initially, the Ministry of Education supplied basic and newly upgraded high schools with mobile science tool kits, but since then there had been little effort made in restocking these kits as most of the apparatus were breakables. The other challenge was that there were very few shops that stocked science equipment mostly in rural and peri-urban areas and, where they were available, they were too expensive for schools to afford due to the poor and erratic funding of schools by the Government.

Additional problems included inadequate laboratories, lack of science equipment, the high pupil teacher ratio, the lack of an effective professional development policy, out dated text books and the high pupil text book ratio.

Committee's Observations and Recommendations

Your Committee observe the following:

(i) the introduction of the basic school concept was done hurriedly and not matched with the corresponding infrastructure such as laboratories, equipment and qualified teachers in science;

(ii) as a result of (i) above, the introduction of basic schools has created problems with regard to the quality of teaching, especially in science and technical subjects;

(iii) there is a critical shortage of qualified science teachers, and

(iv) the science syllabus has been watered down due to the lack of teachers in certain science topics.

Consequently, your Committee recommend as follows:

(i) the Government should increase resources to basic schools to ensure that pupils will access quality education by having the required facilities such as well equipped laboratories and qualified teachers;

(ii) the Government should train more teachers of science as well as to build more secondary schools ; and

(iii) the Government should take affirmative action of rewarding science teachers in the same way as the rural hardship allowance was awarded.

LINKAGES BETWEEN TRAINING AND INDUSTRY

SUBMISSIONS BY MINISTRY OF SCIENCE, TECHNOLOGY AND VOCATIONAL TRAINING

Framework for collaboration between the Vocational Training Providers and the Industry

7. The Acting Permanent Secretary submitted that the framework set out below existed for collaboration between training providers and the industry.
   (1) a number of members of the industry were members on the boards for various training institutions under the Ministry of Science, Technology and Vocational Training. For example, the Zambia Federation of Employers (ZFE) are members on the board for the Technical Educational Vocational Entrepreneurship Training Authority (TEVETA); Kansanshi Mine under First Quantum Mineral was a member of Solwezi Trades Training Institute Management Board and Barloworld Equipment was a member on the Northern Technical College (NORTEC) Board. Through their participation, they contributed to the delivery of training;
   (2) a number of members of industry were on the Sector Training Advisory Committees (STACs) under TEVETA which discussed issues of training;
   (3) industry also participated in curriculum development as a way of ensuring that their needs are addressed in curricula; and
   (4) students in training institutions were attached to industry in order to afford them a chance to have practical industry experience. The industry also used this opportunity to identify their potential employees from the trainees.

Linkages between Industry and Training Providers

Your Committee were informed that apart from the above mentioned measures, the Ministry of Science, Technology and Vocational Training also hosted industry in a Consultative Forum where the Ministry of Science, Technology and Vocational Training reported on activities planned for implementation in the technical education vocational and entrepreneurship training and obtained advice from the industry on how to improve the delivery of training.

Frequency of Higher Education and Labour Market Surveys

Your Committee heard that labour force surveys were planned to be undertaken every two years by the Ministry of Labour and Social Security in conjunction with the Central Statistical Office (CSO). The latest labour force survey findings were yet to be published as the data was being analysed.

The Ministry used the information from the labour force surveys to determine national training priorities. The Ministry were developing the National Skills Developed Plan (NSDP) in collaboration with the Central Statistical Office (CSO) and the Ministry of Labour and Social Security which would mainly feed from labour force surveys. The NSDP projected skills requirements for the next five years although it was reviewed annually. This helped in planning training needs for the nation.

National Human Resources Development Policy

Zambia does not have a national human resources development policy. However, there are training policies which are implemented either at institutional level or at sector level. For instance, most sector-wide programmes have human resource development plans which also contain the policy governing the plans. The effectiveness of these human resource development programmes was limited with the main challenges being limited resources, poor coordination and limited local capacity to train.

Ministry of Science, Technology and Vocational Training Inspectorate for Vocational Training Providers

The Acting Permanent Secretary stated that the Technical Education, Vocational and Entrepreneurship Training Authority Act empowered the Technical Education, Vocational and Entrepreneurship Training Authority (TEVETA) to maintain standards in the technical education, vocational and entrepreneurship training. TEVETA, therefore, had an inspectorate and it was a legal requirement that before any training provider was registered, they were inspected.

Measures available to the Ministry to deal with Institutions which do not line up their Curriculum with the demands of the Industry

The TEVETA Act prescribed punitive measures for institutions which did not operate in line with standards prescribed for a training institution. Failure by an institution to meet the requirements might lead to the institution being downgraded to a lower grade or even be de-registered and closed. TEVETA had the mandate to grade down an institution which was operating below the set standards from a higher to lower grade, i.e. from Grade 1 to Grade 2, or from Grade 2 to Grade 3. There was need, however, to strengthen the punitive measures for institutions operating without a licence from TEVETA.

Flexibility of Programmes vis-à-vis the speed at which Knowledge and Techniques change in Industry

Your Committee were informed that the programmes were generally flexible, especially with regard to the theoretical teaching of training courses. However, it took time and resources to develop curriculum and it was, therefore, a challenge to keep the curriculum always up to-date with the speed at which knowledge grows and techniques change in industry.

Facilitation by Industry to Technological Developments, Operational Techniques and Socio-economic Information

Your Committee were informed that in most cases, industry facilitated access to technological developments and operational techniques for its third level staff. This was to ensure that staff had the required skills to operate new technology relevant to their line of operation. This was especially common in large corporations such as the mining companies where the users of the technology were usually the third level staff. This was mainly done through elaborate in-house induction programmes usually held at the company's internal training facilities. In some cases, they interacted with training institutions such as Northern Technical College for short intensive tailor made programmes. However, the extent to which industry facilitated access of third level staff to technological developments, operational techniques and socio-economic information was dependent on the nature of the work that the third level staff were involved in and the extent to which technological proficiency was relevant.

In some rare cases, enterprises might restrict access of third level staff to technological developments and operational techniques, but this did not provide any advantage to the competitiveness of the company.

Way forward

There was need for more interaction between industry and higher training institutions in order to facilitate exchange of ideas. This could be facilitated by regular meetings between industry and training providers where ideas could be shared and a concerted effort by Government to facilitate this networking. The Ministry was actively working to facilitate more networking and collaboration between industry and TEVETA on standards and regulations and with training institutions on the delivery of training. industry was also constantly consulted on policy development.

As regards the competence of inspectors in the TEVETA sector, your Committee heard that reforms started in the around 1998/1999 and that inspectors were competent, but few, and unable to cover the whole country. The witness concluded that there was room for improvement in the inspectorate system.

On the question of unsuitable graduates from technical colleges, the Acting Permanent Secretary explained that this was as a result of past technological changes which could not be matched with Government resources. Your Committee heard that the students were academically and theoretically strong, but that they were weak in practicals. The Acting Permanent Secretary explained that the private sector decided whether in not to take on students for individual attachment and this was beyond the control of the Government. The colleges could not offer proper practicals due to dilapidated and outdated equipment, which made graduates uncompetitive on the market.

Stakeholders' Concerns

The following stakeholders submitted before your Committee:

(i) Zambia Federation of Employers;
(ii) Lusaka Technical and Business College;
(iii) The Technical Education, Vocational and Entrepreneurship Training Authority (TEVETA);
(iv) Luanshya Technical and Vocational Teachers' College/ Association of Training Providers;
(v) Lusaka Vocational Training Centre;
(vi) National Science and Technology Council;
(vii) Technical Development and Advisory Unit (TDAU);
(viii) Ministry of Labour; and
(ix) Ministry of Commerce and Industry.

Committee's Observations and Recommendations

Your Committee observed that:

(i) there was no collaboration among the Ministries of Education, Science and Technology, Commerce Trade and Industry, Labour and Home Affairs to ensure linkages between training and industry;
(ii) training providers had lagged behind technological and industrial advancements due to lack of string linkages; and

(iii) the Citizen's Economic Empowerment Fund was so far removed from the intended beneficiaries.

Recommendations

In view of the foregoing observations, your Committee recommend that:

(i) there should be liaison among the ministries involved in ensuring that there were strong linkages between training and industry;

(ii) training providers should synchronise their curricular with the current technological and industrial trends; and

(iii) the Citizen's Economic Empowerment Fund should, like its counterpart, the Constituency Development Fund, be decentralised to make it accessible to the most needy.

PART II

TOURS

8. Your Committee, following up on their issues considered above toured various institutions as listed below.

Mulungushi University, Kabwe

Your Committee's tour of Mulungushi University was a follow up on their previous tour and followed an invitation from the University. Your Committee held meetings with management followed by a physical tour of the facilities. The details about this institution had been adequately tabulated in your previous Committee's reports.

Committee's Observations and Recommendations

Your Committee observed that infrastructure development and management at this institution are commendable. Your Committee's only concern are the user fees which the institution is charging which they feel are beyond the reach of the average Zambian. In this regard, your Committee urge the Government to expedite the study on the unit cost of producing a graduate so that there is clarity on fees charged by public universities to ensure that these are not exploitatively high.

Ndola Girls Technical School, Ndola

Your previous Committee had had an opportunity to tour this institution before it was completed. This tour was, therefore, a follow up and the details have been tabulated in your previous Committee's report.

Committee's Observations and Recommendations

Your Committee urge the Government to ensure that there is scheduled maintenance instituted at the school to ensure that the standards are maintained.

Copperbelt College of Education, Kitwe

The college, which was initially a secondary school, was opened in 1974 to offer teacher training in Mathematics and Sciences. All the infrastructure was, therefore, that of a secondary school. The college had twenty-one teaching staff, nineteen Board workers, fourteen support staff and 403 students. The college was requested to convert into a university college, but very little had changed except for a bit of rehabilitation which included the construction of a library. The college was understaffed in the science department with no physics nor chemistry lecturers while biology had only one.

Your Committee were informed that the college was transformed into a University College which would produce teachers of science. From the tour, your Committee observed that:

(i) the library was small and lacked qualified staff;
(ii) there were only two small ill-equipped laboratories, one for physics and the other for biology;
(iii) the college had problems of water supply; and
(iv) the hostels had not been rehabilitated from inception and were dilapidated, overcrowded and inadequate to cater for the number of students at the college.

Committee's Observations and Recommendations

Your Committee make the general observation that the conversion of a secondary school into a college and, subsequently, the college into a university college, was ill conceived and premature as there was no change in infrastructure nor improvement in facilities from the time it was a secondary school.

Additionally and most importantly, there is neither a legal framework nor backing nor any official documentation to support the conversion of the college into a university college.

In this regard, your Committee wish to state that until the Government has put in place the necessary legal framework and corresponding facilities in term of infrastructure and staff, the "conversion" remains a fallacy. Your Committee, therefore, urge the Government to speedily put the necessary legal framework as well as the infrastructure necessary.

Nkrumah College of Education, Kabwe

Your Committee were informed that the College was transformed into a University College which would produce teachers of science. However, your Committee's tour of this institution revealed that it has "laboratories" that do not qualify to be termed as such because they lacked equipment as well as furniture.

Committee's Observations and Recommendations

As with Copperbelt College of Education, there was no legal framework to back the conversion of this college. Further, your Committee was worried that both colleges have enrolled students in the absence of qualified teachers, thereby risking producing ill qualified people.

In this regard, your Committee wish to state that until the Government has put in place the necessary legal framework and corresponding facilities in term of infrastructure and staff, the "conversion" remains a fallacy. Your Committee, therefore, urge the Government to speedily put the necessary legal framework as well as the infrastructure necessary.

National In-Service Teachers College (NISTCOL), Chalimbana

Following submissions from several witnesses regarding the removal of up-grading courses for teachers of science at NISTCOL and the effect this had had on the teaching of science in basic and secondary schools, your Committee undertook a tour of the facilities at the college.

Your Committee were informed that since 1964, NISTCOL had undergone a number of transformations. Chalimbana Teacher Training College became purely In-Service in 1970 to service primary school teachers and primary school administrators, most of whom had standard six or form two qualifications and the college was named National In-service Training College (NISTCOL). The courses offered were of three months duration. These were the Head Teachers' Course and Deputy Head Teachers' Course as Management and Administrative Courses, the Senior Teachers' Course as a professional course, the Zambia Primary Course and Skills Training Courses in Practical Subjects i.e. Industrial Arts, Fine Arts and Home Economics.

In 1975 the Advanced Primary (APC) and Advanced Industrial Arts (AIA) courses were introduced. These were upgrading courses for primary school teachers who had the necessary school certificate qualifications. They were one-year courses. APC was meant to upgrade primary school teachers with good school certificates to become school managers, teacher trainers and inspectors of primary schools, while AIA was meant to sharpen the teachers' skills in Industrial Arts at primary school level.

The three months courses were phased out when the World Bank introduced a certificate in Education Management Training (EMT) for basic school head teachers in 1995. It was run by the Ministry of Education Headquarters in all colleges of education. This programme had a lifespan of four years. From 1998 to 2005, there was no formal educational management training in colleges of education.

In order to upgrade the professional status of the primary school teachers with certificates, the Ministry of Education introduced a Primary Teachers' Diploma by Distance Learning (PTDDL) at NISTCOL in 2001. This programme was being revised in order to address issues of concern as it lacked subject content and methodology. As regards Secondary Teachers' Diploma (STD), the college had the first intake in 1994. It began as a Basic School Diploma programme in 1989. It became an STD in order for the college to be affiliated to the University of Zambia (UNZA). The aim of coming up with STD was to upgrade primary school teachers with certificates so that they could effectively teach from Grades 1 to 9.

Changes Affecting the College

The Ministry of Education was transforming all GRZ Colleges of Education with a view to achieving the concept of realignment and rejuvenation. For example, Copperbelt College of Education and Nkrumah College of Education had been transformed into University Colleges. At the National In-Service Teachers' College, the Ministry of Education had decided to phase out the Secondary Teachers' Diploma courses. In view of this, the selected students for the 2009 academic year had been directed not to report to the college in all subject areas except in Home Economics and Industrial Arts. NISTCOL was the only Ministry of Education College that had been offering Music and Art and Design but all these have been phased out.

Eight (8) members of staff from NISTCOL had been transferred to either Nkrumah or Copperbelt Colleges of Education to be part of the transformation of these institutions into University Colleges. NISTCOL had been directed to maintain the Diploma in Education Management, Practical Subjects (Industrial Arts and Home Economics), Primary Teachers' Diploma as well as Guidance, Counselling and Placement.

NISTCOL's Position

In relation to the ongoing transformations, the position of the college was that the existing programmes should not be phased out. These programmes could run side by side with courses like Industrial Arts, Home Economics, Primary Teachers' Diploma, Guidance, Counselling and Placement which had been earmarked for upgrading. Indeed, maintaining and upgrading of Industrial Arts, Home Economics, Primary Teachers' Diploma, Guidance, Counselling and Placement was not mutually exclusive with the existing courses. Furthermore, the growth of the college could best be measured by the type and number of programmes it could offer at a given period of time.

Alongside the existing programmes, there was a need to initiate demand-driven courses that responded to needs in the field as reflected in the college's 2008-2010 Strategic Plan which was submitted to the Permanent Secretary, Ministry of Education. In the strategic plan the college suggests and proposes the upgrading of the following courses into degree courses:

- Education Management;
- Guidance, Counselling and Placement;
- Industrial Arts (Design and Technology);
- Home Economics (Home Science); and
- Primary Education.

Your Committee were informed by the management of the College that the existing programmes should continue because:

a. they played a major role in meeting the Millennium Development Goals (MDGs) as they add to the number of trained teachers at all basic school levels;
b. a lot of seconded teachers at upper basic school level continued to lack training in specialised areas. Therefore, there was a need to continue with the existing programmes since they added to the upgrading of the seconded teachers;
c. the college has adequate and suitable infrastructure and equipment for the training of teachers in all the courses that are being phased out;
d. additionally, the infrastructure and equipment in the college is adequate to merit the upgrading of some courses to degree level. As cases in point, the investment in terms of both infrastructure and equipment in Science, Industrial Arts and Home Economics and other subject areas is enormous; and
e. the college has adequate qualified staff who can competently handle courses that are being phased out as well as new programmes.

Since the transformation of Nkrumah and Copperbelt College of Education to university college status had brought about staff transfers from this college, there was a need to replace the staff in the affected subject areas (even as an interim measure) so that:

a. students (second years) had lecturers to teach them; and
b. affected programmes such as PTDDL which also needed subject specialists in areas such as Language, Mathematics, Science, Expressive Arts and Social Sciences could continue.

Committee's Observations and Recommendations

Your Committee observe that the stoppage of the National In-Service Teachers College from offering science education in spite of the massive infrastructure available was ill conceived and contrary to the education policy of 1996. In relation to the purported conversion of Nkrumah and Copperbelt College of Education, your Committee are of the view that the National In-Service Teachers College which has superior facilities and qualified staff would have been in a better position to be up-graded to a university college. They observe that the overall problems at the National In-Service Teachers College, Nkrumah and Copperbelt College of Education are due to poor and haphazard planning which has not been thought out properly.

PART III

CONSIDERATION OF THE ACTION-TAKEN REPORT OF THE COMMITTEE"S REPORT FOR 2008

In closing most matters, your Committee wish to pursue the matters set out hereunder.

University Education in Zambia

9. Your previous Committee had observed that the lack of adequate funding was the principal factor to the problems at the University of Zambia and the Copperbelt University. They had observed further that there was lack of cost sharing between the Government and students and that students had taken it for granted the K300, 000 meal allowance was an entitlement to cover all feeding requirements. They also noted that the administration of the bursaries scheme was not based on vulnerability but that it was paid across the board to students. They were surprised that the University of Zambia had no audited reports since 1997, a situation that was illegal.

Arising from the above observations, your previous Committee recommended that, owing to limited resources, the Government should allow the University to charge economical fees which reflect the true cost of producing a graduate.

In response, the Executive informed your Committee that a consultant had been engaged to determine the unit cost of providing university education. The consultant was yet to submit a report. Furthermore, the financial status and management at the University of Zambia remained a great challenge to the Government. Many of the challenges being faced by the university were historical and had accumulated to a position where they had become a burden. The Government, however, had put in place measures that would provide solutions to these challenges in the short, medium and long terms.

Committee's Observations and Recommendations

Your Committee are dismayed at Government's response indicating that they do not know the cost of producing a university graduate when they award bursaries to university students. Your Committee wish to be availed a time-frame in which the consultant will come up with a unit cost for producing a university graduate. In this regard, they urge the Government to expedite the process.

Tour of University of Zambia

10. Arising from their tour of the University of Zambia, Great East Road Campus, your previous Committee had recommended that the Government should invest in infrastructure expansion at the institution to match enrolment levels.

In response, the Executive stated that they were constructing and rehabilitating hostels at the institution. Cooperating partners had also funded the construction of a 64-bed space hostel. It was stated that rehabilitation and expansion of infrastructure at UNZA was an on going activity. In addition, the Government, through Private Public Partnerships had put in place a plan for infrastructure development at UNZA and other tertiary education institutions.

Committee's Observations and Recommendations

Your Committee needs clarity on the actual programme and investment by the Government towards the construction of students' hostels outside the cooperating partners and Private Public Partnerships.

Tour of Ridgeway Campus

11. Your previous Committee had recommended that the Government must improve conditions of service in order to retain and recruit qualified and experienced staff.

The Executive's response was that the Ministry of Education had encouraged the University Council, in consultation with the unions, to work out conditions of service for their staff in order to retain and recruit qualified and experienced staff. However, the limited resources and the debt burden had made this difficult.

Committee's Observations and Recommendations

Your Committee, while stating that they are tired of the perennial strikes at the university, are of the view that the university is dependent on the Government, and as such, the Government should sit with the University Council to work out conditions for lecturers.

Public Hearings

12. (i) In relation to Northrise University, your previous Committee had recommended that this University should create capacity with help from the Government in order to recruit and retain staff.

Your Committee were informed that the Government was in the process of establishing the National Qualification Authority, which would regulate standards and procedures of various educational qualifications (local and international). All the staff to be recruited in all higher educational institutions would have to meet the standards that the authority would set. The Government hoped that, once this was done, the University would be able to recruit qualified staff. This would be part of the registration requirement for any higher education institution.

Furthermore, your Committee heard that should it be found by the Government that a University or College had recruited staff who did not meet the standards set out by the National Qualification Authority, such an institution would risk being de-registered for failure to comply with laid down conditions.

Committee's Observations and Recommendations

Your Committee wish to urge the Government to move quickly in establishing this Authority and give it the necessary legal backing.

(ii) Your previous Committee had recommended that there was need for the Government to build universities as opposed to merely converting an existing tertiary school into a university.

In response, the Executive stated that building new universities was a costly venture. The Government was, however, considering building regional Universities in the nine Provinces as funds were made available.

Committee's Observations and Recommendations

Your Committee observe that the idea is commendable, but are uncertain as to how achievable this is. In this regard, they are of the view that it is better to have a programme earmarking a university per province as funds are available. In this regard, they wish to be availed the Government programme on the same.

Funding for Research

13. Your previous Committee had recommended that the Government should seriously consider funding research separately.

In response, the Executive explained that the Ministry of Education had research units under the Directorate of Planning and Information, Curriculum Development and Examination Council of Zambia, which were funded by the Ministry. The Universities had their own funding for research activities. The Ministry planned to revamp research activities at universities so that research could find solutions to the country's socio-economic problems.

Committee's Observations and Recommendations

Your Committee urge the Government to have a deliberate policy of directly funding research separately and adequately.

School infrastructure

14. Your previous Committee had urged the Government to be mindful of the need to equitably distribute infrastructure and further that the Government should improve infrastructure especially in older schools.

The Executive's response was that infrastructure development was a priority of the Ministry and was a continuous activity. In ensuring that the Ministry developed a comprehensive infrastructure plan, the lower levels of education system were involved since they knew their priorities well. Through the process of rehabilitation of school infrastructure, which was ongoing, the Government hoped that existing buildings such as classrooms and houses would be improved.

Committee's Observations and Recommendations

Your Committee are concerned that while construction of new infrastructure is taking place, the older schools, which are in a deplorable condition, are unattended to and may become

unsalvageable. They, therefore, recommend that the Government should put in place a deliberate policy to rehabilitate these older schools.

Certification of Private Schools

15. Your previous Committee, being dissatisfied with the response, had urged the Government to put into practice the intention to revisit certification of private schools with a view to properly regulating them and closing those operating in private residences.

The Executive's response was that the Government, through the Ministry of Education, continued to monitor and make recommendations to close schools operating in non-designated areas. An appeal had been made to local authorities to designate land for education development in their plans.

Committee's Observations and Recommendations

Your Committee urge the Government to regulate, inspect and monitor all such schools with a view to eventually closing them.

Education for All Plan

16. Your previous Committee had been dissatisfied with the response and had urged the Government to continue with the expansion of classroom space with a view to reducing the teacher–pupil ratio to be within acceptable standards so that remedial work could take place as a matter of course. Your previous Committee had observed that there was nothing happening on the ground to promote this concept and recommended that they truly wanted to see implementation and not mere promises.

The response was that the Government, through the Ministry of Education, had taken the following measures to make the Free Education Policy a reality: (1) allowed school-going children aged between 7 – 10 years to be enrolled in school. Therefore, the Free Education Policy from Grade 1- 7 was continuing to bear positive results; (2) further, the issue of uniforms was no longer a factor to stop pupils from going to school; (3) the payment of examination fees at Grade Seven (7) level had been abolished to encourage everyone to go to school; (4) there was also a policy of equity in enrolment of the boy and girl child; and (5) the re-admission policy which allowed pregnant girls to go back to school was also bearing positive results. Your Committee was being assured that the Education For All Plans was being realised.

Committee's Observations and Recommendations

Your Committee wish to be availed a progress report on how far Zambia has gone in meeting the targets for Education for All as well as the Millennium Development Goal on Education. They further urge the Government to have adequate school infrastructure in a good proximity to school-going children if the issue of compulsory education is to be meaningful.

Review of 1966 Education Act

17. Your previous Committee had recommended that the Government should expedite the enactment of the new Education Bill by Parliament.

The Executive responded that the draft Education Bill was being refined and would be submitted to Parliament during the 2009 Session.

Committee's Observations and Recommendations

Your Committee wish to be availed progress on the matter.

Early Childhood Learning

18. Your previous Committee had emphasised the need for more resource allocation to Early Childhood Learning and the need to see results of implementation, which should permeate to all teacher-training colleges.

The response was that the Government, through the Ministry of Education, planned to develop the ECCDE Curriculum and establish coordination mechanisms for the provision of ECCDE at all levels of the education sector. It is hoped that resources will be made available to the ECCDE once the ECCDE curriculum is developed.

Committee's Observations and Recommendations

Your Committee urge the Government to expedite this process.

Special Education

19. Your previous Committee had urged the Government to expedite the building of specialised schools and further that the Government should address the issue of misplacement of specialised teachers.

Your Committee was informed that the evaluation process for the successful bidder for the construction of 'Munali Centre of Excellence' had just been completed. Construction works would begin as soon as the contract was signed. As for misplaced specialised teachers, the District Education Board Secretary's (DEBS) Office was addressing the issue of misplacement of specialised teachers.

Committee's Observations and Recommendations

Your Committee wish to be availed progress on the matter.

Academic Production Units

20. Your previous Committee stood by their earlier recommendation that APU classes be phased out and insisted that the APU programme should not be included in either policy or legislation.

The Executive responded that the Government had taken note of the Committee's stance on APU classes and submitted that, as more classes were built, APU classes would be phased out.

Committee's Observations and Recommendations

Your Committee wish to be availed progress on the matter.

Rural Hardship allowance

21. Your previous Committee had stressed that their concern was the use of the Post Office as a measure to determine the payment of rural hardship allowances. They, in this regard, had urged the Government to find another mechanism of determining what was rural as opposed to using the post office rule.

The response was that eligibility of rural hardship allowance did not only depend on the Post Office as one factor. There were also other factors that the Government considered in effecting payment of rural hardship allowance to eligible officers. These factors included: the Post Office, Police Stations, Hospitals/Clinics and Banks. This was in line with Public Service Management Division Circular No B.2. of 2008.

However, the Government continued consulting on the development of a clear and inclusive policy that would clearly define who was eligible. So far, two (2) policy measures had been put in place defining eligibility of these allowances into two categories, which were rural hardship and remote allowances. This was being done for the purpose of providing incentives and to retain teachers serving in rural areas.

Committee's Observations and Recommendations

Your Committee wish to be availed progress on the matter.

Girls Technical Schools

22. Your previous Committee had wanted to be availed a time frame when this programme would be fully completed.

The Ministry of Education responded that it had begun the programme of constructing Girls Technical High Schools similar to the Ndola Girls Technical High School as follows:

Girls Technical High Schools under construction in 2008:

- Mushindamo Girls Technical Boarding High School in North/Western Province;
- Nakaanya Girls Technical Boarding High School in Western Province; and
- Rufunsa Girls Technical Boarding High School in Lusaka Province.

Girls Technical High Schools advertised and construction to begin in 2009:

- Luapula Province Girls Technical Boarding High School in Luapula Province;
- Niko Technical Girls Technical Boarding High School in Southern Province; and
- Kapiri Mposhi Girls Technical Boarding High School in Central Province.

Girls Technical High Schools to be advertised in 2009 and construction to begin in 2010:

- Northern Province Girls Technical Boarding High School in Northern Province and
- Eastern Technical Girls Boarding High School in Eastern Province.

Your Committee were informed that it was not possible to give a time frame in which the construction works would be completed due to the amount of work involved and the lengthy tendering procedures.

Committee's Observations and Recommendations

Your Committee, while appreciating this commendable work, urge the Government to ensure quality workmanship through close supervision and monitoring to safeguard this massive investment.

CONCLUSION

23. In conclusion, your Committee wish to express their gratitude to you, Mr Speaker, and the Office of the Clerk of the National Assembly for the support rendered to them since the inception of your Committee.

They are indebted to all witnesses who appeared before them for their co-operation in providing the necessary memoranda and briefs. Your Committee are hopeful that the observations and recommendations contained in this report will go a long way in improving the education, science, technology and vocation sectors in Zambia.

Mrs. F B Sinyangwe, MP *August 2009*
CHAIRPERSON ***LUSAKA***