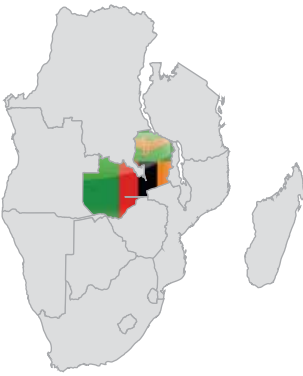


# 15 Zambia

Compiled by Godfrey Hampway and Liberty Mweemba

COUNTRY CONTEXT STATISTICS	
	Population: 13.5 million (2011)
	GDP per capita: US\$1 238 (2010)
	Human development index: 0.430
	Unemployment: 14% (2006 est.)
	Key economic sectors: mining, agriculture, manufacturing, tourism
	Principal exports: cobalt, copper, cotton, flowers, electricity
	HIV and AIDS prevalence: 13.5% (2009 est.)
Gross primary enrolment ratio: 115% (2010)	
Gross secondary enrolment ratio: 28% (2002)	
Gross tertiary enrolment ratio: 2% (1999)	
Country context data were obtained from a variety of sources: CIA (2012), SADC (2007), UNAIDS (2011), UNDP (2011), UNESCO (2011).	

Zambia is a landlocked country in Southern Africa, with a tropical climate. It consists mostly of plateau, with some hills and mountains, dissected by river valleys. With an area of 752 614km<sup>2</sup>, it is the 39<sup>th</sup>-largest country in the world, slightly larger than the US state of Texas. According to the 2010 population census, the total population is 13 046 508 (CSO 2011). Zambia is one of the most urbanised countries in sub-Saharan Africa, with 44 per cent of the population concentrated in a few urban areas along the major transport corridors, while rural areas are sparsely populated. Unemployment and under-employment are serious problems in the urban areas, while the majority of Zambians in rural areas depend on subsistence farming (CIA 2008; Bloom, Cuning and Chan 2006).

Historically, the Zambian economy has been based on the copper mining industry. Output of copper fell to a record low of 228 000 metric tons in 1998 after a 30-year decline due to lack of investment, low copper prices and uncertainty over privatisation. In 2002, following the privatisation of the industry, copper production rebounded to 337 000 metric tons. Improvements in the world copper market have magnified the effect of this volume increase on revenues and foreign exchange earnings (CIA 2008; Bloom, Cuning and Chan 2006).

The Zambian government is pursuing an economic diversification programme to reduce the economy's reliance on the copper industry. This initiative seeks to exploit other components of Zambia's rich resource base by promoting agriculture, tourism, manufacturing, gemstone mining and hydro-power. Agriculture plays a very important part in the economy, providing many more jobs than the mining industry. Zambeef is the leading Zambian private company in agri-business, with over 4 000 employees and a total land capacity of about 6 500 hectares (5 000 irrigated and 1 500 non-irrigated). Some of the agricultural outputs from agri-processing include cattle by Zambeef, pork by Master Pork, chicken by ZamChick, eggs by ZamChick Egg, feedstock by Novatek and edible oil by Zamanita. Other agriculture-related products are dairy products, leather and fish. Zambeef operates eight abattoirs, four farms and numerous retail stores (also in co-operation with Shoprite) and a fast-food chain (ZamChick Inn) throughout the country (GRZ 2011).

In 2003, exports of non-metals increased by 25 per cent and accounted for a 3 per cent overall increase in all export earnings to 38 per cent. The Zambian government has recently granted licenses to international exploration companies to prospect for minerals such as nickel, tin, copper and uranium. It is expected that nickel will take over from copper as the country's top metal export. In 2009, Zambia was adversely affected by the world economic crisis. However, the economy has been improving, as observed in the June 2011 Euromoney Country Risk (ECR) rankings, in which Zambia was ranked the 112<sup>th</sup> safest investment destination in the world, moving 14 places up the table (ECR 2011).

## Higher education landscape

The three public universities in Zambia operate under legislation that makes them responsible to parliament through the Ministry of Education. The legislation confers academic freedom and managerial autonomy on each university. Academically, each university is responsible for determining its own programmes of instruction at undergraduate and postgraduate level, determining and regulating the requirements for admission, regulating and conducting examinations, and conferring degrees and other awards. The universities are also responsible for promoting, co-ordinating and controlling the direction of academic research. Each university engages its own staff, manages its own internal and institutional affairs, charges fees and carries out its business as it perceives fit. The universities derive their income from annual government grants, student fees and income-generating undertakings.

### Brief historical overview of higher education

At independence in 1964, Zambia had just over 100 university graduates and no public university. The University of Zambia, the first public university, was established in 1966 and opened its doors to 310 students in its first year. By 1994, the University of Zambia and the Copperbelt University had a total enrolment of almost 6 000 students, with 4 592 enrolled at the University of Zambia and 1 393 enrolled at the Copperbelt University. By then both universities had cumulatively awarded more than 16 000 degrees, diplomas and certificates (UNESCO 2007; Bloom, Cuning and Chan 2006). The University of Zambia is the country's largest university with a student population of over 15 000 on its two campuses. The main campus is called the Great East Road Campus and is on the Great East Road about 7km from Lusaka. The second campus is the Ridgeway Campus in Lusaka, located at the University Teaching Hospital (popularly known as UTH). This campus specifically houses students pursuing courses in medical and pharmacological fields. The University of Zambia has nine Schools (known in some universities as faculties): Agricultural Sciences, Education, Engineering, Humanities and Social Sciences, Law, Medicine, Mines, Natural Sciences, and Veterinary medicine.

The Copperbelt University (CBU) is located in the city of Kitwe and has four Schools: Business Studies, Environmental Studies, Forestry and Wood Sciences, and Technology. CBU was established as an autonomous university, having started in 1987 as a satellite campus of the University of Zambia. Since becoming a fully-fledged university, CBU has enjoyed significant growth, particularly since the turn of the 21<sup>st</sup> century. The School of Business and Industrial Studies and the School of Environmental Studies were inherited from the University of Zambia when CBU was transformed from a satellite campus to a full university. In 1989, the Zambia Institute of Technology was incorporated into the university as the School of Technology. This was followed in 1995 by the School of Forestry and Wood Science which was later renamed the School of Natural Resources. Currently, two new schools are in the process of being incorporated into CBU: the School of Mathematics and Natural Sciences (which will comprise biological sciences, chemistry, computer science, mathematics, physics, and mathematics and science education, with each offering BSc degrees with prospects for postgraduate studies), and the School of Graduate Studies (which will co-ordinate and encourage all existing postgraduate academic programmes as well as seek international research linkages).

The third public university is the Mulungushi University, which was established in January 2008. Mulungushi University is still in development and not a fully operational higher education

institution. Starting with just 1 000 students in 2008, the projections are that enrolments will reach 10 000 by 2018. This new university combines third-stream income activities and private-public partnerships. Thus far, partnerships exist between the university and Konkola Copper Mines operating in the Zambian Copperbelt Province, and the university and the Massachusetts Institute of Technology in the United States. Some of the income-generating innovations on the drawing-board include promoting Mulungushi Rock as a tourist attraction, investing in the stock exchange, and establishing a commercial radio station. The university is also looking for other opportunities for third-stream income-generating activities. The core business of a university is not being ignored, however, in the excitement of income generation and commercially viable partnerships, and two campuses are in the process of being developed. The main campus is being built on a lavish site on the banks of the Mulungushi River, 26km north of Kabwe, while the town campus will be situated on the site of the Zambia Railways Training School in the heart of Kabwe, some 140km north of Lusaka (GRZ 2009). The academic structure of the university includes three main schools (faculties): Business Studies, Social Sciences, and Agricultural Development Studies. In addition to the schools, three academic centres have been identified to boost the academic contributions from the university. These are the Centre for Labour Studies, the Centre of ICT Education and a Disaster Management Training Centre. An Institute of Distance Learning promotes that mode of academic delivery, while a Directorate of Research and Postgraduate Studies co-ordinates these essential academic activities.

### National higher education policy context

The higher education policy environment in Zambia is increasingly diverse and complex, with more institutions, students and regionalisation. It is regulated by autonomous, semi-autonomous and government institutions. The main regulator of higher education is the Higher Education Authority through the Ministry of Higher Education.

There are various pieces of legislation, regulation and policy governing education in Zambia. Goals and objectives for the higher education sector have been set through consultative processes, involving all stakeholders (including civil society, non-governmental organisations and co-operating partners). In addition, Zambia's Poverty Reduction Strategy Paper (2007) identifies a series of broad roles for higher education.

**Table 1:** Higher education legislation

Higher education legislation	Brief description
The Education Act of 1966, supported by the Zambia Statutory Instrument No. 43 of 1993	Provides a legal framework for the development of the education system in Zambia (basic, high school, college education and university education).
The Technical Education, Vocational and Entrepreneurship Training (TEVET) (Amendment) Act, 2005	Provides the necessary legal framework for the development of TEVET in general and the establishment of the TEVETA and management boards for training institutions in particular. It also provides for the active participation of the private sector in the provision of TEVET programmes in Zambia.
The University Act No. 11 of 1999	Provides a legal framework for university education in Zambia. It stipulates the legal requirements for the establishment and governance of university education. It also defines the conditions and parameters for establishing private institutions and for maintenance of academic standards.

Source: Umlilo we Mfundo (2007)

**Table 2:** List of statutory bodies in the higher education sector

Statutory body	Brief description
The Technical Education and Vocation Training Authority (TEVETA)	The regulatory body for technical and vocational training institutions.
The Examination Council of Zambia	The body responsible for regulating examinations with the exception of university examinations.
University councils	The bodies responsible for overseeing university education within the institutions themselves at policy level.

Sources: SARUA MoE questionnaires (2011)

Other important documents that inform higher education policy and planning include the Zambia Vision 2030 document, the fifth National Development Plan (2006–2010) and the sixth National Development Plan (2011–2015) (GRZ 2006a, 2006b). Vision 2030 is Zambia's first long-term plan, expressing the country's aspirations by the year 2030. Its intention is to provide a common planning interface for all sectors and a source of direction for subsequent short and long-term plans.

With the growing number and types of higher education institutions, the policy considerations imply that, in the absence of an integrated national policy for higher education, provision at this level tends to be fragmented and uncoordinated. To remedy this situation, the government plans to establish a Higher Education Authority (HEA) for the co-ordination of all higher level education, and will mandate the Ministry of Education to facilitate its establishment. The HEA will have advisory, planning, quality assurance, financial and administrative functions.

Six points sum up the higher education policy context in Zambia:

1. The Ministry of Education promotes the co-ordination and harmonisation of higher education and policy through the Higher Education Authority (HEA).
2. The ministry's policy framework for publicly-funded universities is that: (a) their teaching and research programmes be responsive to the real needs of society; (b) their teaching, research and service be of international standards; and (c) they establish suitable quality assurance and public accountability systems.
3. The financing of higher education will be shared between the government, the institutions themselves, and students.
4. Higher education institutions will develop strategies for widening their resource base and diversifying their sources of revenue.
5. Government support for students in higher education institutions will be in the form of loans that will be recovered once the students find employment.
6. Higher education institutions will be given equal opportunity to access government consultancies for which they will compete on an equal footing with other applicants.

## Size and shape of higher education

Higher education is provided by three public universities, 32 private universities and colleges, and 48 public technical universities and colleges, including 14 teacher training colleges which fall under the Ministry of Education. In addition there are 239 technical and vocational institutions which fall under TEVETA.

**Table 3:** Higher education institutions

Type of higher education institutions	Number of institutions	Percentage of students enrolled
Publicly-funded universities	3	22
Publicly-funded technical universities and colleges	48	32
Privately-funded accredited universities and colleges	32	20
TEVETA	239	26
Total	317	100

The apparent inconsistency in the data is explained by the Ministry of Education are being due to the fact that 'it was difficult to get data on private universities. Even data on registered private universities and students enrolled in these institutions could not easily be obtained' (SARUA MoE questionnaire response).

## Demand for higher education

The demand for higher education institutions is very high and is far from being satisfied. More than 50 000 pupils complete secondary school each year. Of these, 30 000 or more obtain a full certificate. The higher education institutions have a total intake of about 10 000, including some mature students. Hence, only about a quarter of the applicants to higher institutions are admitted

each year. While it can be argued that not all applicants satisfy institutional admission requirements, the main reason for this mismatch is the lack of institutional capacity and financial and material resources to admit all the applicants who qualify.

## Student profile

Students in the three public universities follow different types of programmes. Currently, public universities have students enrolled at bachelors level in the following categories: 558 students enrolled in agriculture sciences; 3 335 enrolled in business, management and law; 7 030 students in the school of education; 1 009 enrolled in health sciences; 4 144 are in humanities and social sciences; 5 981 enrolled in science, engineering and technology; 208 in mineral sciences; and 41 in environmental sciences. At masters level 643 students are enrolled, and at PhD level only 11 are enrolled. Public universities are predominantly contact institutions, although some distance learning is also provided. In 2010, the universities had a total enrolment of 24 425 students, of whom 18 477 were contact students and 5 948 distance students. The majority of the students enrolled were Zambian nationals, with 92 SADC nationals and 23 students from non-SADC countries.

## Enrolment patterns

The University of Zambia is Zambia's largest university with a student population of over 15 000 (51 per cent of all enrolments in public universities). Copperbelt University has a student population of approximately 8 000 (39 per cent), while Mulungushi University has about 2 000 students (10 per cent). Mulungushi University is based on a public-private partnership and is administered by an independent board of trustees (Manyukwe 2008).

Enrolments have increased over the past five years in Zambia, and the country has attempted to provide some higher education programmes in fields of study essential for national development (such as agriculture). However, increasing enrolments have placed enormous constraints on institutional capacity and impacted negatively on academic quality. This has resulted in overcrowded lecture halls and libraries, dilapidated infrastructure, high student-lecturer ratios, lack of expansion in facilities, high levels of indebtedness, and inadequate education materials and ICT. The low levels of funding over the years meant that the bulk of financial subventions is used to cover recurrent expenditure such as salaries, leaving insufficient funds for investment, staff development and research activities. Enrolments in science, engineering, technology and the health sciences are insufficient to meet the country's needs. The vast majority of students in public universities are enrolled in undergraduate programmes, with the largest enrolments being in education (7 130), followed by science, engineering and technology (5 986), humanities and social sciences (4 194), business, management and law (3 858) and health sciences (1 009). Less than 3 per cent of all registered students at public universities are enrolled at postgraduate level. From a gender perspective, there are significant disparities in enrolment patterns as about 65 per cent of students are male (MoE 2005).

## Staff profile

Most of the academic members of staff are Zambians (95 per cent), while staff from other SADC countries represent about 1 per cent and other international staff approximately 4 per cent. 70 per cent of the academic staff are appointed on contract and 30 per cent are permanent staff with pensionable conditions. Out of a total of 1 024 academic and research staff, only 255 (approximately 22 per cent) have a doctoral degree. A wide gender disparity in staff numbers is evident, with only 25 per cent of academic and research staff members being female. The gender disparity for management and administrative staff is equally biased against women, with only 31 per cent being female. The greatest number of staff members (46 per cent) are employed in the humanities and social sciences, with the rest distributed as follows: education 14 per cent, health sciences 12 per cent, and science, engineering and technology 11 per cent.

Weakening socio-economic conditions in Zambia and low standards of living have made it difficult for the universities to attract and retain the services of nationals and foreign qualified staff. Although university conditions of service are relatively better than those in other sectors of the civil service, they are low compared to what is offered in other SADC countries or in careers in politics or the private sector (MoE 1996). There is therefore an exodus of highly-qualified staff (some of them being PhD holders with considerable experience). The threat of further losses will continue for as long as a large gap remains between the terms and conditions of service that Zambian universities can offer and those offered elsewhere. Critical staff shortages have been identified in various areas, particularly in science, engineering and technology.

### Additional higher education providers

In addition to public universities there is an array of higher education institutions in Zambia designed to meet the human capital and special skills needs in various sectors of the national economy. Government-supported institutions fall under different ministries, depending upon the particular ministry's function and the type of qualified person the ministry requires. Currently, a variety of ministries interface with specific higher institutions in respect of different areas of responsibility, as follows:

- Agriculture, food and fisheries sector: The Natural Resources Development College and other agriculture-based institutions
- Cabinet office: The National Institute of Public Administration
- Defence: The Military Training Establishment of Zambia
- Education: Teaching colleges and the three public universities
- Environment: Mwekera Forestry College
- Health: Colleges of nursing, medical training and dental training
- Science, technology and vocational training: Technical education, vocational training, arts and business colleges, etc.

### National higher education outputs and alignment with policy imperatives

#### Quality assurance

There is no doubt that higher education has enormous social, economic, private and public benefits. Hence nations that designed and invested in well-structured quality higher education systems have leap-frogged significantly and are well advanced in their socio-economic development initiatives. Proper higher education systems are important in terms of a nation's long-term survival or sustainability. Much still lies within the sphere of higher education that needs to be harnessed for sustainable economic development. A high standard of quality is a *sine qua non* for relevant higher education (MoE 1996, UNESCO 2007, GRZ 2009). The quality of teaching, research and development that is undertaken by the higher institutions is critically important for economic growth, national prosperity and social cohesiveness. However, in Zambia, the contribution that higher education can make in this regard is being severely compromised by consistent and significant lack of resources and adequate funding. This has been observed by the recently elected President Michael Sata (2011) who has stated that 'our universities and colleges do not only have dilapidated infrastructure but are also faced with shortage of staff and apt teaching and learning materials'.

In terms of quality control, Zambian universities use both internal and external examiners. In addition, there are regular curriculum reviews, staff and student exchange programmes and staff performance appraisal systems. Examinations are administered and moderated within the institutions, and the delivery of lectures and class attendance are monitored.

The government intends to establish a Higher Education Authority (HEA) for the co-ordination of all higher education, and will mandate the Ministry of Education to facilitate its establishment. The HEA will have advisory, planning, quality assurance, financial and administrative functions over higher education institutions. According to the Ministry of Education (2005), quality in tertiary institutions was addressed mainly through improved academic staff training, curriculum reforms

and supply of adequate teaching and learning resources to colleges and universities. Quality is used as an indicator to measure the level of human resources input in terms of student: academic staff ratio in a particular subject discipline. The higher the ratio, the lower the access of students to academic assistance and hence the lower the quality of higher education offered. However, many other factors contribute to the quality of learning and teaching, such as the availability of teaching and learning materials, lecturer qualifications, contact time between students and staff, and the motivation levels of lecturers.

### Research output

The main activity of a university is the production of new knowledge. This could be in the form of graduating students, academic publications, innovation and through informal networks. However, knowledge from the university is predominantly measured in the form of academic publication in accredited journals, student output at undergraduate and postgraduate level, and through scientific innovation and patents. In Zambia the majority of universities are characterised by low research output and few scientific publications (as is common in most African countries). If not addressed promptly, the low number of postgraduate students is likely to exacerbate the problem of knowledge output in the future. It was not possible for the research team to gather accurate information on specific research output, because the Directorate of Research and Graduate Studies merely co-ordinates research activities of the university. Research is conducted in specific schools and the directorate rarely receives research reports from schools, despite many requests. The university academic staff have published a number of journal articles, but such information still has to be properly captured and documented.

### Recent developments and debates in higher education

In addition to the three public universities, more than ten private universities have been permitted to open in the last five years. For university education, the focus has been on increasing access to higher education through traditional contact instruction and distance learning modes, particularly for those with special education needs, women and vulnerable groups. A second area of concern has been to re-organise the universities' financial management systems in order to reduce an exceedingly onerous debt burden and establish a more effective university management system to address administrative and financial needs (especially those related to cost-recovery of student loans).

Another major development was the 2011 announcement of the construction of a new state-of-the-art university for teachers in Chinsali in the Northern Province. The university is aimed at addressing challenges facing teacher training as stated by the Education Minister Dora Siliya (Phiri 2011). This has been emphasised by the president, who has acknowledged the importance of higher education in development planning. Two colleges and a mission have been converted into universities in order to increase human capital provision and enhance economic and social development<sup>29</sup>.

## Regionalisation

The Ministry of Education and the three public universities in Zambia value regional co-operation highly. The country emphasises regional collaboration and integration as part of its planning in the higher education sector. The Ministry of Education implements programmes and activities as required by the SADC protocol and reports progress on the protocol to SADC meetings of ministers of education. Elements of the SADC Protocol on Education and Training have had direct influence on higher education policy and practice in Zambia. Developments include the following:

- Regional policies such as the SADC protocol and qualifications framework, as well as participation in SARUA, which is focused specifically on higher education in the region, are regarded positively.

29 [www.zimtelegraph.com/?p=4361](http://www.zimtelegraph.com/?p=4361)

- On the issue of gender, which is a cross-cutting issue, there is a deliberate policy to increase female participation in higher education through bursaries and the reservation of 30 per cent of places for female students.
- Other specific regional development priorities include a regional focus on university entrance requirements, consideration of credit transfer from one university to another, and harmonisation of the academic year across countries. The funding challenges faced by national higher education sectors limit the focus on regional collaboration.
- At present, the University of Zambia and Copperbelt University provide a 5 per cent admission quota each year for non-Zambian students. Currently, the three public universities have a total of 92 foreign students enrolled.
- The three public universities have various academic or research programmes involving collaboration with other higher education institutions.

The study found that the public universities expect the following tangible benefits from regional collaboration:

- staff development, exchange and training;
- access to academic and research facilities;
- capacity-building in research methodology and access to study materials focused on research skills;
- development of graduate studies;
- improved skills and knowledge; and
- improved learning and teaching facilities.

Based on this findings of this study, it could be argued that the Zambian government could further promote regional collaboration by providing adequate funding to higher education institutions, and by promoting a legal, political and economic environment conducive to attracting and retaining potential staff and students. It could also be proposed that donor support be sought to facilitate meetings among universities in the region, the training of human resources to implement regional initiatives, and for the provision of technical and financial support for collaboration between Zambia and other SADC countries.

## Conclusions

Higher education in Zambia mainly consists of university education, which is offered by three public universities. The University of Zambia is the largest and oldest higher education institution, while Mulungushi University is the smallest and most recently established. As a result of high demand for higher education, there has recently been a proliferation of private universities offering a variety of programmes. By and large, the majority of the students in Zambian universities are pursuing undergraduate studies and there is a small proportion of international students. There seems to be little emphasis on postgraduate training at the universities.

Zambian higher education institutions experience several challenges. Among these are inadequate funding resulting in poor infrastructure, unattractive working conditions, and a lack of co-ordinated knowledge output. These challenges have adversely affected the quality of education to varying extents, and have compromised research and development for national socio-economic development. The lack of investment in higher education over a long period of time has significantly compromised the capacity of the higher education institutions to provide the places needed to meet the increasing demand for higher education among school leavers.

The study reveals that many faculties in Zambia's public universities have been critically affected by a staff exodus, thus increasing the staff: student ratio. This problem is compounded by the fact that the majority of the remaining teaching staff do not have doctoral degrees. This limits the output and quality of knowledge production from the higher education system.

From a regional perspective, the higher education system in Zambia is making significant efforts to align itself with the SADC regional framework – the SADC Protocol on Education and Training. However, quality assurance remains an area of concern, and a greater focus on the collection and

accumulation of institutional data would enable the country to measure its knowledge output more effectively.

In spite of these constraints, there are opportunities to invest in university education, both by the public and private sectors, but a robust regulatory framework by the Ministry of Education needs to be established and implemented to ensure quality control.

There are expectations around the creation of new higher education institutions to increase access and build human resources for the economy.