

DEVELOPMENTS IN THE ZAMBIAN CONSTRUCTION INDUSTRY AND THE (EXPECTED) ROLES OF OUR CONSTRUCTION SCHOOLS

Dr. Sylvester Mashamba

*B.Arch (UNZA), Mphil.Arch, PhD (Newcastle-UK),
MCIQB, MASI, MZIA, MRICS, MCI Arb, Minst.D
Registered Architect, Chartered Surveyor, Arbitrator and Mediator
registered with the High Court of Zambia*

Executive Director- National Council for Construction
(NCC) and former Dean in the School of the Built
Environment at the Copperbelt University

Zambia

- ▣ Location: Sub-Saharan Africa – Southern Central Region, landlocked and surrounded by 8 countries
- ▣ Area: 752, 000 sq. Km/250,000 sq. Miles
- ▣ Population: 11.92 million (2007 estimate)
- ▣ GDP per capita: US\$ 969
- ▣ GDP growth %y-o-y: 5.7%
- ▣ Exchange rate 2009 aver.ZMK/US\$: 5,200
- ▣ Lending rate 2009 aver. 27.89%

▣ Source: IMF/Zambia Central Statistical Office

Priority areas in infrastructure investment in Zambia (Fifth National Development Plan-FNDP and Vision 2030)

- ▣ **Roads:** *Road Sector Investment Plan (RoadSIP) with a total investment of US\$ 1.6bn over a ten year period [2004- 2013]*
- ▣ **Energy:** *Rehabilitate and upgrade existing Hydro power stations and build new ones, build new Thermal power station in Maamba-Southern Province , Rural electrification*
- ▣ **Sports Infrastructure:** *Rehabilitate Independence Stadium and build a new stadium in Ndola*
- ▣ **Health:** *New cancer Research Centre in Lusaka, Lusaka and District hospitals, rural and per-urban clinics, Nursing schools*

Priority areas in infrastructure investment in Zambia (Fifth National Development Plan-FNDP)

- ▣ **Housing:** *Both for public sector workers and for the private sector*
- ▣ **Other Public Sector Infrastructure:** *Boarder posts, Government buildings such as those for Government Ministries, Parastatals, organizations/institutions, the Police and the Defense Forces*
- ▣ **Water and Sewage disposal infrastructure:** *Rehabilitate and build new water dams, water reticulations systems including its associated sewage disposal systems in both urban and rural areas*
- ▣ **Education:** *Build new public Universities and upgrade existing colleges to universities, Build and rehabilitate existing colleges, schools and staff housing*

Ongoing and recently completed infrastructure Projects

- ▣ Roads and bridges: *Mwanawasa Bridge, Kafulafuta -Ndola bypass, Katima Mulilo bridge,*
- ▣ Commercial Buildings (Private Sector)– *Barclays Bank Headquarters,*
- ▣ Students Hostel Accommodation: *at the University of Zambia, Everly Hone College, National Institute of Public Administration (NIPA), Copperbelt University (CBU)*
- ▣ Rehabilitation of Existing Hydro power stations – *Itezhi Tezhi, Kafue Gorge, Livingstone*

Approved and Planned Energy Projects

PROJECT	CAPACITY (mw)	ESTIMATED COST (US\$ billion)	TARGET
Kafue Gorge Lower	750	1,5	Regional -SAPP
Luapula River Projects	950	2,5	Regional - SAPP
Kalungwishi River Projects	218	0,5	Regional - SAPP/EAPP

Zambia's Infrastructure related investment opportunities

- ▣ **Roads:** *Kitwe-Chingola Dual Carriageway (52Km) & the Chingola-Solwezi Road (173Km).*
- ▣ **Railways:** *Construction of the Chingola-Solwezi Railway link, rehabilitation of the TAZARA rail line currently jointly owed by Tanzania and Zambia, (may be commercialized or privatized)*
- ▣ **Border posts through -PPP:** *Government is thinking of building new boarder posts at Nakonde, Kasumbalesa and other border posts through PPPs initiatives.*
- ▣ **Kazungula Bridge and Boarder posts:** *linking Zambia, Zimbabwe and Botswana, Feasibility study has been funded by the African Development Bank*
- ▣ **Upgrading Lusaka and Livingstone International airports:** *Airports are earmarked for improvements in readiness for the 2010 world Cup*

Zambia's Infrastructure related investment opportunities (cont.)

- ▣ **Olympic sized swimming pool:** *Planned in line with the forthcoming 2011 All Africa games to be held in Lusaka*
- ▣ **Multi-facility Economic Zones in Lusaka and Chambeshi:** *Multi-Facility Economic Zones are planned, the Chinese have already started building the other one in Chambeshi (Copperbelt Province) and investors are sought for the one planned for Lusaka South.*
- ▣ **Olympic sized running truck and indoor sports arena:** *Both these sports facilities are planned for the 2011 All Africa Games with a view to handing them over to the private sector/relevant sports bodies after the games.*
- ▣ **Water, Solid waste and sewerage disposals:**

Construction industry statistics 2000-2007

- ▣ Zambian's infrastructure and its concomitant construction industry have recorded the highest growth rates in the Zambian economy and is poised to continue on that positive trend.

Construction Industry	2000	2001	2002	2003	2004	2005	2006	2007
GDP at constant 1994 prices (Unit K' Billion)	123.6	137.8	161.8	196.8	237.1	287.3	328.7	369.6
GDP Annual Growth Rate %	11.5	17.4	21.6	20.5	20.5	21.2	14.4	12.4
Industrial Share %	4.9	-	-	-	-	9.1	9.8	10.4

- ▣ *Source: Bank of Zambia annual reports*

Weakness of the local construction industry

- Lack of skills at all levels (technical/managerial/business)
- Poor contract management skills
- Inadequate marketing skills
- Ability to price
- On going post qualifying training
- Weak organizational capacity
- Training in appropriate regional technologies
- Access to training
- Lack of training facilities

Industry's expectations from Construction schools

- ▣ That the benefits of the construction boom will have trickled down to our construction schools i.e.
- ▣ Attracting students to construction based courses
- ▣ Attract more resources (financial, capital and human) to the construction based training institutions
- ▣ *The reverse was actually true in that industry tended to recruit from the among university staff*
- ▣ Availability of more research funds

Industry's expectations from Construction schools

- ▣ Play the role of advocacy in "topical issue discussions" e.g.
 1. Banning of advance payment
 2. Blacklisting of 42 contractors
 3. Use of World Bank standard contracts
- ▣ Bridge between industry and society in terms of innovations and product improvements for future trends
- ▣ Develop true partnerships with society, industry and other key stakeholders
- ▣ Develop educational and research programmes relevant to the needs of the community
- ▣ Engage industry when developing and updating curriculum
 1. External examiners
 2. Public lectures
- ▣ Centre for academic and applied research excellence, including Libraries
- ▣ Service to their communities through community partnership and outreach programmes

Corrective steps needed to improve our construction schools

- ▣ Improved funding to Education sector in general and Universities in particular
- ▣ Remove political interference to Universities (e.g. Setting of University fees, currently the public Universities charge fees below what private secondary schools charge in Zambia)
- ▣ Government should direct all research funds through universities
- ▣ Increase the retirement age for all teaching staff and thus allow those eminent persons retiring from industry to teach

Negativities

- ▣ Primary focus on teaching (underground) academic courses.
- ▣ Agents of importing Western knowledge rather than producers or originators of knowledge.

Most if not all reference books are from the developed world.

- ▣ Have not gained the trust and confidence of **Zambian industries and entrepreneurs.** *Very little applied research projects are awarded to University faculties or departments*

Challenges facing Zambian public Universities:

- ▣ Under funding
- ▣ Brain drain: *Many PhD holders have left UNZA and CBU for greener pastures both locally and abroad*
- ▣ Degrees not universally recognized
- ▣ Perception that African public universities are not good enough. *In the 2008 University World Ranking, only Cape Town University in (South) Africa is ranked at no. 200.*

- ▣ Become proactive in single sourcing/recruiting full and part-time (including international) renowned lecturers and professors rather than rely on adverts.
- ▣ Liberalize the current academic staff salary structure to attract targeted staff.
- ▣ Institutionalise the numerous individual research projects currently being carried out by their staff and consequently involve students and other junior staff in the University.

Challenges facing Zambian public Universities:

- ▣ Primarily pre-occupation with teaching: using academic material produced from the developed world and the rest of the world.
- ▣ Very high staff-student ratios: *Political rallies or lectures?*
- ▣ Lack serious research, publications and applied consultancy
- ▣ Very high incidences of campus closures: *four year degree programmes taking six to eight years*

The End!

- ▣ Thank you for your attention.