NATIONAL CONSTRUCTION COUNCIL

STUDY FOR REVITALISATION OF NATIONAL CONSTRUCTION COUNCIL WITHIN THE FUNCTIONAL CONTEXT OF TANZANIA'S CONSTRUCTION INDUSTRY

FINAL REPORT

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Abbreviations

AAT	Architectural Association of Tanzania
ACCT	Association of Citizen Contractors Tanzania
ACET	Association of Consulting Engineers Tanzania
AQRB	Architects and Quantity Surveyors Registration Board
CATA	Contractors Association of Tanzania
CTB	Central Tender Board
BOQ	Bill of Quantities
CAF	Contractors Assistance Fund
GDP	Gross Domestic Product
CI	Construction Industry
CIDB	Construction Industry Development Board
CIDC	Construction Industry Development Council
CIP	Construction Industry Policy
COET	College of Engineering and Technology
CRB	Contractors' Registration Board
ERB	Engineers' Registration Board
FY	Financial Year
IAP	Implementation Action Programme
IET	Institution of Engineers Tanzania
IGF	Internal Generated Funds
IR	Inception Report
GDP	Gross Domestic Product
GOT	Government of Tanzania
GFCF	Gross Fixed Capital Formation
LGA	Local Government Authorities
MDAs	Ministerial Departments and Agencies
MLHHSD	Ministry of Lands, Housing and Human Settlements Development
MOF	Ministry of Finance
MOID	Ministry of Infrastructure Development
MOT	Ministry of Transport
MOW	Ministry of Works
MOWTC	Ministry of Works, Transport and Communication
NACTE	National Council for Technical Education
NAO	National Audit Office
NBS	National Bureau of Statistics
NCC	National Construction Council
NCIC	National Construction Industry Council

NHC	National Housing Corporation
OSHA	Occupational Safety and Health Authority
PCCB	Prevention and Combating of Corruption Bureau
PMORALG	Prime Ministers Officer Regional Administration and Local Government
PPP	Public Private Partnership
RC	Reinforced Concrete
RFB	Road Funds Board
TAA	Tanzania Airports Authority
TACECA	Tanzania Civil Engineering Contractors Association
TANROADS	Tanzania Roads Agency
TARA	Tanzania Road Association
TBA	Tanzania Buildings Agency
TBS	Tanzania Bureau of Standards
TIQS	Tanzania Institute of Quantity Surveyors
TIVEA	Tanzania Institute of Valuers
TEMESA	Tanzania Electrical, Mechanical and Electronic Services Agency
TOR	Terms of Reference
TPA	Tanzania Ports Authority
SC	Steering Committee
URT	United Republic of Tanzania
VETA	Vocational Education and Training Authority

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The Governing Council of the National Construction Council (NCC) extends appreciations to all individuals who in one way or another provided valuable contributions in the course of undertaking this study. Most importantly, the Governing Council conveys special appreciations to the Honourable **Prof Makame Mbarawa**, Minister for Works, Transport and Communication for calling upon the NCC Management to undertabe this study to guide revitalisation of the NCC. The Governing Council is also grateful to **Eng Joseph Nyamuhanga**, Permanent Secretary, Ministry of Works, Transport and Communication (Works) for providing funds for carrying out this study. Lastly, the Governing Council is grateful to **Dr Eng. Ramadhan S. Mlinga, Mr Joseph Haule and, Mr Casmir Kyuki** who carried out this study and prepared the report.

EXECUTIVE SUMMARY

The National Construction Council (NCC) is a body corporate established under the National Construction Council Act of 2008, Chapter 162. While NCC has been discharging its roles and functions in accordance with the NCC Act of 2008, new developments have emerged in the construction industry (CI), including the establishment of regulatory and other bodies for specific branches of the industry, some of whose functions may be within the functional domain of NCC. In addition, a number of inconsistencies and shortfalls have been noted in the NCC Act of 2008, which make the Act not to be supporting the proper functioning of the Council in accordance with its intended mandate. Furthermore, the Act does not explicitly indicate on how NCC could draw its financing from various sources within the construction industry, making the Council too much reliant on Government subventions despite the enhanced vibrancy of the industry.

Therefore, in view of the above stated developments and weaknesses and in order to ensure that NCC effectively plays its critical role in supporting and coordinating the construction industry in Tanzania, the NCC Management commissioned a Team of Experts to carry out a comprehensive review in the form of a study of NCC within the broader context of the national CI's situational analysis and in comparison with what prevails in institutional, operational, legal and financial frameworks in similar institutions in some countries in Eastern and Southern Africa, as well as beyond these two regions. The study was aimed at revitalizing NCC for it to effectively implement the Construction Industry Policy (CIP) framework within the functional context of the CI in Tanzania. The study results would then guide the Government in developing a concept paper towards revitalisation of NCC for effective implementation of its mandate. This report presents findings and the recommendations from the study.

On the basis of Terms of Reference the Team undertook the following activities:

(a) Comprehensive review of the National Construction Act, 2008 for purpose of making appropriate legislative proposals that would enable NCC to have appropriate legal framework, institutional structure and financing structure upon which the roles and responsibilities of institutions supporting the development and performance of the construction industry would be coherently aligned, and the functions effectively supported, coordinated and implemented in the light of CIP framework.

(b) Situational analysis with respect to NCC's mandate as well as institutional, operational, legal and financing structures in comparison with similar institutions in Eastern and Southern African countries and beyond the two regions.

The Team reviewed the current status of the construction industry and its share in the Gross Domestic Product, key actors in the construction industry including but not limited to the Ministry of Works, Transport and Communication, contractors, consultants, clients,

suppliers of construction materials, suppliers of construction plant and equipment, financiers of construction industry as well as attendant challenges. The Team also analysed the historical context of the National Construction Council by reviewing studies undertaken previously, such as the Construction Industry Study of 1976, Ministry of Works Study of 1985, Review of NCC Study of 2002, Sustainable Financing Arrangement for NCC Study of 2002, the Construction Industry Policy of 2003 and the 2006 Implementation Strategy. A review was also made to evaluate the status of the CI after the Government adopted the Construction Industry Policy (CIP) it in February 2003, which went along with amendment of the National Construction Council Act in 2008. It was observed that all along the desire of the CI Stakeholders was to have an apex organization but the 2008 amendments of the NCC Act fell short of that.

The Team also undertook an overview of the experience of similar institutions in the Republics of Zambia, Malawi, Mauritius, Malaysia, Kenya and India. From that overview, it was observed that the main objective of the national construction development bodies was to engender quality, speed, economy and efficiency in all types of construction activities necessary for achieving the objectives of construction programmes and projects, planned and executed; to be competent and competitive in the local and international markets, and to be responsive to the latest economic, technical, environmental and social public policies.

It has also been observed that membership to these bodies is open to public and private bodies, institutions, local government and central government. The Kenyan system goes further by setting an objective of overseeing the construction industry and coordinating its development. For Malaysia, some of the functions of the Construction Industry Development Board (CIDB) focus on promoting quality assurance, encouraging standardization and improvement of construction techniques and materials, initiating and maintaining a Construction Industry information system, as well as providing, promoting, reviewing and coordinating training programmes organized by public and private construction centres for skilled construction workers and construction site supervisors.

On the institutional structure of the CI, the Team of Experts recommends that the institutional structure of the CI should be streamlined for proper coordination, with NCC being positioned to fully assume that role. A pictorial representation of this recommendation is presented in **Figure 7.2** shown on page 75 of this report. The structure positions NCC as the overall coordinator of the CI in the country, for which it is also supposed to provide strategic leadership. The Team recommends that the NCC Act of 2008 should be amended to enable NCC adequately promote and provide strategic leadership for the growth, development and expansion of the CI in Tanzania. In that regard, it is recommended that the objectives, functions and powers of NCC should be reviewed as proposed under Section 6.2.1 of the report.

On the institutional structure of NCC, the Team observed that given the vastness of the CI, it will not be possible to have every stakeholder represented in the Council. Therefore,

it is recommended that the current structure of NCC be maintained but the NCC Governing Council as an apex body be constituted of a maximum of 8 members drawn from the Stakeholders. The Secretariat should as well be reorganized to accommodate the new functions proposed for the amendment of the NCC Act 2008.

The Team also recommends that the NCC Act should provide for a mandatory Annual Construction Industry Forum which would bring together all the industry wide stakeholders to discuss matters related with the development of the Construction Industry. In order for NCC to realise the principle objectives outlined in Section 6.2.1 of the report, the institution requires personnel of good academic qualifications and commitment. To attract and retain such staff, it is recommended that the Council establishes a competitive remuneration package and should ensure that the working environment is conducive.

The Team also looked into the financing structure of NCC and observed that for NCC to deliver its mandate it needs main and supplemental sources of income. The main sources of income would include government subvention, charging percentage of entrance and annual subscription fees charged by ERB, CRB and AQRB, dedicated levy on selected key construction materials and equipment, fees for conducting technical audit for public and private projects, fees for mandatory vetting of applications for building permits for building projects; and fees for issuing permits for construction of roads, bridges and other civil engineering structures, and a proportion from the skills development levy. Supplemental sources would include fees from training courses, training and certification of technical auditors, dispute resolutions, certification of construction laboratories, and suppliers of construction materials.

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It has also been observed that membership to these bodies is open to public and private bodies, institutions, local government and central government. The Kenyan system goes further by setting an objective of overseeing the construction industry and coordinating its development. For Malaysia, some of the functions of the Construction Industry Development Board (CIDB) focus on promoting quality assurance, encouraging standardization and improvement of construction techniques and materials, initiating and maintaining a Construction Industry information system, as well as providing, promoting, reviewing and coordinating training programmes organized by public and private construction centres for skilled construction workers and construction site supervisors.

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Therefore, in view of the above stated developments and weaknesses and in order to ensure that NCC effectively plays its critical role in supporting and coordinating the construction industry in Tanzania, the NCC Management commissioned a Team of Experts to carry out a comprehensive review in the form of a study of NCC within the broader context of the national CI's situational analysis and in comparison with what prevails in institutional, operational, legal and financial frameworks in similar institutions in some countries in Eastern and Southern Africa, as well as beyond these two regions. The study was aimed at revitalizing NCC for it to effectively implement the Construction Industry Policy (CIP) framework within the functional context of the CI in Tanzania. The study results would then guide the Government in developing a concept paper towards revitalisation of NCC for effective implementation of its mandate. This report presents the findings and the recommendations from the study.

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(a) Comprehensive review of the National Construction Act, 2008 for purpose of making appropriate legislative proposals that would enable NCC to have appropriate legal framework, institutional structure and financing structure upon which the roles and responsibilities of institutions supporting the development and performance of the construction industry would be coherently aligned, and the functions effectively supported, coordinated and implemented in the light of CIP framework.

(b) Situational analysis with respect to NCC's mandate as well as institutional, operational, legal and financing structures in comparison with similar institutions in Eastern and Southern African countries and beyond the two regions.

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The Team also recommends that the NCC Act should provide for a mandatory Annual Construction Industry Forum which would bring together all the industry wide stakeholders to discuss matters related with the development of the Construction Industry. In order for NCC to realise the principle objectives outlined in Section 6.2.1 of the report, the institution requires personnel of good academic qualifications and commitment. To attract and retain such staff, it is recommended that the Council establishes a competitive remuneration package and should ensure that the working environment is conducive.

The Team also looked into the financing structure of NCC and observed that for NCC to deliver its mandate it needs main and supplemental sources of income. The main sources of income would include government subvention, charging percentage of entrance and annual subscription fees charged by ERB, CRB and AQRB, dedicated levy on selected key construction materials and equipment, fees for conducting technical audit for public and private projects, fees for mandatory vetting of applications for building permits for building projects; and fees for issuing permits for construction of roads, bridges and other civil engineering structures, and a proportion from the skills development levy. Supplemental sources would include fees from training courses, training and certification of technical auditors, dispute resolutions, certification of construction laboratories, and suppliers of construction materials.

1.0 INTRODUCTION

1.1 Background and Rationale for the Study

Tanzania Development Vision 2025 envisions that by 2025 Tanzanians would graduate from a least developed country to a middle-income country with a high level of human development (GOT, 1995). Among the driving forces towards the realization of Vision is competence and competitiveness, of which it is stipulated that "Competence of the nation in the management of development will be achieved when the government provides a conducive environment for actors to effectively harness domestic resources in order to attain competitiveness in their diverse economic activities. Competence and competitiveness, as driving forces, will be realized through sound macroeconomic policies, adequate and reliable infrastructural development, quality education, effective utilization of domestic resources, higher productivity and strengthening of the capacity to effectively anticipate and respond to external changes". Infrastructural development is among the strategies set to realize this goal. The attainment of necessary infrastructural development poses a need to have a strong construction industry as noted in the Policy.

> "Investment in infrastructure must be accorded the highest priority and be spearheaded by the government. This investment must also involve the private sector and communities generally. In particular, the development of the road network is absolutely essential for promoting rural development. Investment in energy, water and telecommunications is also central to the stimulation of local and foreign investment and for creating wealth and employment-generating activities."

Despite the need to have a strong construction industry, the National Construction Council, a body intended to oversee the development of the industry, has not been performing as expected. Since its establishment in 1981, new developments have emerged in the construction industry including the establishment of regulatory and other bodies for specific branches of the industry, some of whose functions are within the functional domain of NCC. This has created unnecessary duplication of functions.

In addition, a number of inconsistencies and shortfalls have been noted in the NCC legal regime which makes it unable to support proper functioning of the Council in accordance with its intended mandates. The law does not explicitly indicate how NCC could draw its financing from various sources within the construction industry, making the Council to be too much reliant on Government subventions despite the enhanced vibrancy of the industry. In view of these developments and weaknesses and in order to ensure that NCC effectively plays its critical role in supporting and coordinating the construction industry in Tanzania, it was found necessary to undertake a comprehensive institutional review of NCC within the broader context of the national construction industry's situational analysis in comparison with what prevails in institutional, operational, legal and financial frameworks in similar institutions in some countries in Eastern and Southern Africa, as well as beyond these two regions.

1.2 Terms of Reference

The review is aimed at revitalization of NCC towards implementing the CIP framework within the functional context of the construction industry in Tanzania. The study results will guide the Government in developing a concept paper towards revitalisation of NCC for effective implementation of its mandate.

The broad objective of the study was to undertake the national construction industry's situational analysis with respect to NCC's mandate as well as institutional, operational, legal and financial frameworks in comparison with what prevails in similar institutions in some countries in Eastern and Southern Africa, as well as beyond these two regions, focusing on developing a system that will guide strategic implementation of the 2003 CIP framework.

The review specifically entailed undertaking the following:

(a) Comprehensive review of the NCC Act 2008 and propose appropriate amendments that will enable NCC to establish an appropriate organizational, operational and financing frameworks upon which the roles and responsibilities of institutions supporting the development and performance of the construction industry would be coherently aligned, activities effectively supported, coordinated, and implemented in consonance with the CIP framework; and

(b) Situational analysis with respect to NCC's mandate as well as institutional, operational, legal and financing frameworks in comparison with similar institutions in some countries in Eastern and Southern Africa, as well as beyond these two regions.

On the basis of these undertakings, the review team was required to analyse and recommend on:

(a) An appropriate organizational framework of NCC, upon which the roles and responsibilities of institutions supporting the development and performance of the construction industry would be coherently aligned, activities effectively supported, coordinated and implemented in consonance with the CIP framework;

(b) A streamlined procedural and national regulatory framework for the construction industry in order to enhance the capacity and performance of the industry in the country, in terms of accountability, productivity and quality assurance in consonance with the CIP framework.

(c) Sustainable financing mechanism for NCC within the context of Tanzania's construction industry in consonance with the CIP framework.

The Terms of Reference for the review are attached as **Annex 1.**

1.3 Methodology

The methodology adopted for the review mainly involved literature and Internet search on Tanzania's construction Council, the NCC and similar organizations in the world. Few individuals were consulted including the current and former staff of NCC to solicit opinion about the Construction Industry in Tanzania and the role that NCC could play towards the development of the Industry. Most of these individuals were consulted in year 2015 as part of a study to Review Construction Industry Policy of which Dr. Ramadhan S. Mlinga of University of Dar es Salaam was among the members of the team that carried out that study. A list of individuals consulted is shown in **Annex 2.**

The Study Team found it unnecessary to consult the same key stakeholders again due to the fact that issues which were under scrutiny in the Study to Review the Construction Industry Policy are the same as those required under this review as National Construction Council was a focal organization in the implementation of the Construction Industry Policy.

2.0 CURRENT STATUS OF CONSTRUCTION INDUSTRY

2.1 Performance of Construction Industry

Tanzanian Construction Industry has been performing well since year 2000. Construction output has grown at an average rate of 10% a year since 2000. The share of construction in Gross Domestic Product (GDP) has increased, year on year, from 7.0% in 2005 to 12.5% in 2014. According to the Tanzania National Bureau of Statistics (NBS), the growth was attributed to the ongoing construction of roads, residential and non-residential buildings. The trend of contribution of construction industry to GDP is shown in **Figure 2.1**.

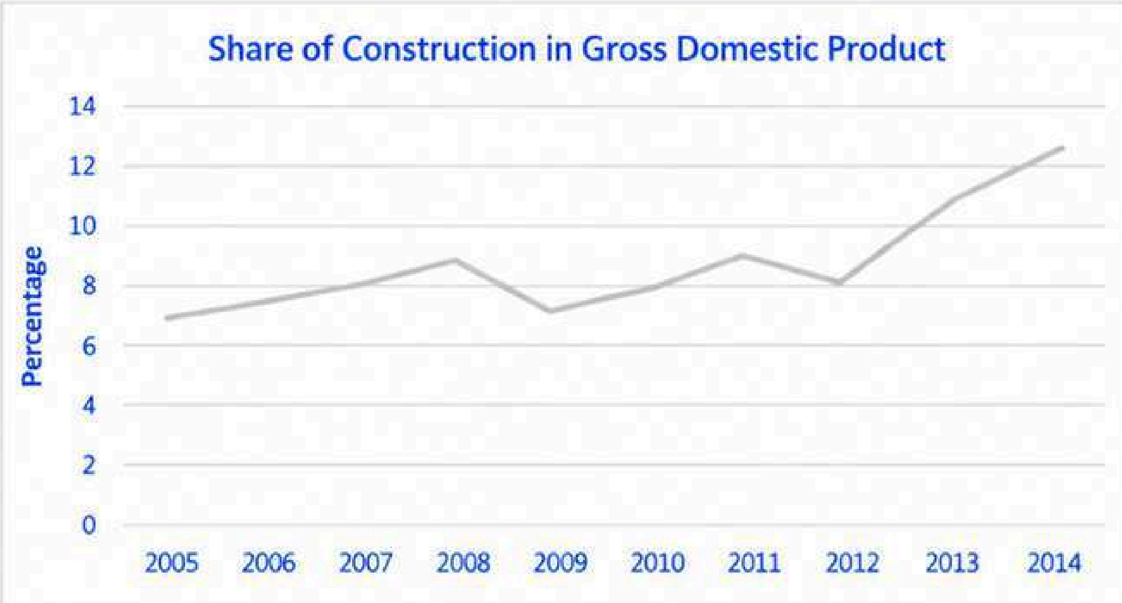

Figure 2.1: Contribution of the Construction Industry to the National GDP
(**Source:** National Bureau of Statistics)

The contribution to GDP is measured as value-added (i.e. the value of work on construction sites minus the purchased inputs). But the gross value of construction output, which includes the value of materials and services purchased by contractors, is also measured and recorded under Gross Fixed Capital Formation (GFCF). Gross value of construction is generally around double the value-added. Analysis of the published data on GFCF for 2010 reveals that buildings comprised a surprising 56% of the total and civil works 44%. The output of buildings was further divided into residential (20%), non-residential (50%) and own account rural (30%). It is not possible to get accurate data on the division of buildings and works between the public and the private sector. But analysis of GFCF as a whole (which includes capital formation in equipment) revealed that the private sector was responsible for 74% of the total. The private sector is certainly the biggest investor in buildings. GFCF in buildings in 2010 was reported by the National Bureau of Statistics (NBS) to be above TShs. 900 billion (excluding own account rural), whereas public sector investment in buildings in 2012/13 was only TShs. 151 billion, National Audit Office (NAO, 2014), which is only 16.7% of the total (NAO, 2014). However, the public sector still predominates in civil works.

Construction industry remains to be one of the most important sectors of Tanzanian economy with a very big potential of providing the country with its infrastructural and housing needs, and alleviating poverty through creation of employment. For example, the Government through its budget has set an ambitious target towards infrastructure development. For example, in fiscal year 2016/17 the Government has budgeted 5.47 trillion equivalent of 25.4% of the total budget excluding servicing of public debt, for infrastructure development. Despite the Government investment in the infrastructure development, Tanzania's firms have not benefitted as much. In 2003 Tanzanian contractors were estimated to be responsible for only 20% of the total value of construction contracts put out to tender in any one year. Data compiled by the CRB shows that the market share of Tanzanian contractors had grown to 40% by 2014, but large contracts are still awarded to foreign firms. Therefore, we still have a long way to go before most of the services in the industry can be offered by the local players.

2.2 Key Actors in Construction Industry

2.2.1 The Ministry of Works, Transport and Communication

The Ministry of Works, Transport and Communication (MoWTC) is responsible for policy and planning in the construction sector. It has the overall responsibility for creating an economic, safe and reliable construction industry through development and implementation of appropriate policies, strategies and standards. Relevant public sector institutions have been created in this respect, including:

The National Construction Council (NCC) for promotion and providing strategic leadership for growth, development and expansion of the Construction Industry in Tanzania with emphasis on the development of the local capacity;

(a) The Tanzania Buildings Agency (TBA), the Tanzania National Roads Agency (TANROADS), the Tanzania Electrical, Mechanical and Services Agency (TEMESA), Tanzania Airports Authority (TAA), Tanzania Ports Authority (TPA) and Railways Holding Corporation (RAHCO); Tanzania Communication Regulatory Authority (TCRA), Surface Marine Transport Regulatory Authority (SUMATRA); Tanzania Metrological Agency (TMA);

(b) The Contractors Registration Board (CRB), as regulatory body charged with responsibility for registration, regulation and development of contractors;

(c) The Engineers Registration Board (ERB) charged with the responsibility and

(d) mandate for regulating engineering activities and conduct of engineers and engineering consulting firms in Tanzania;

(e) The Architects and Quantity Surveyors Registration Board (AQRB) charged with the responsibility of protecting the public, promoting professionalism and excellence in the construction industry, and creating and maintaining standards of the built environment.

2.2.2 Contractors

Contractors are represented through various associations such as: the Tanzania Civil Engineering Contractors Association (TACECA), the Contactors Association of Tanzania (CATA) and the Association of Citizen Contractors of Tanzania (ACCT). Contractors working in Tanzania must be registered by the CRB. Under the CRB Act, 1997 as amended in 2008, all construction work for structures which have an input of structural design and those which are for public utility must be carried out by a registered contractor. CRB categorizes contractors into five types: Building, civil works, mechanical, electrical and specialist contractors. There are also categorized into local and foreign contractors, with the latter comprising of firms with local shareholding of less than 50%. Temporary registration is also available for foreign firms which have won contracts to work in Tanzania for the duration of the contracted works. Temporary registration may also apply to joint ventures of local firms as part of a capacity building strategy. The four main types of contractors (building, civil, mechanical and electrical) are registered in seven classes. **Table 2.1** shows the number of registered contractors in each class as of January 2015.

Table 2.1: Registered Contactors by class and type (2015)

CLASS	CIVIL	BUILDING	MECHANICAL	ELECTRICAL	TOTAL
One	60	107	16	36	219
Foreign	38	39	9	15	101
Local	22	68	7	21	118
Two	16	37	0	8	61
Three	44	58	5	7	114
Four	168	191	11	44	414
Five	2,740	580	21	140	3,481
Six	900	560	28	72	1,560
Seven	1060	1,360	39	560	3,019
TOTAL	**4,988**	**2,893**	**120**	**867**	**8,868**

(**Source:** Contractors Registration Board (CRB))

(m) Local Government Authorities
(n) Pension Funds

In the private sector, particularly in the buildings and industries sub-sector there has been an increase in the size and complexity of the structures being built which are intended for use by the general public. Unlike the public sector, many of these structures built by the private sector clients are not subject to the same scrutiny to ensure that they are built in accordance with the standards.

2.2.5 Suppliers of Construction Materials

Suppliers of construction materials are key stakeholders for the provision of the much-needed construction materials for the realization of the projects. Of recent there has been an increase in local construction materials manufacturers in cement, reinforcement steel, paints, ready- mix concrete etc. The consumption of cement which is one of the major indicators of a vibrant construction industry has been increasing from 1,454,992 tons in 2005 to 4,082,681 tons in year 2014. Of the consumed amount a total of 1,375,222 tons was locally produced compared to 2,795,687 tonnes in 2014. At the same time, there is an increasing proportion of imported construction materials into the country including formwork and false work. The trend of cement consumption and production in Tanzania is summarized in **Figure 2.2.**

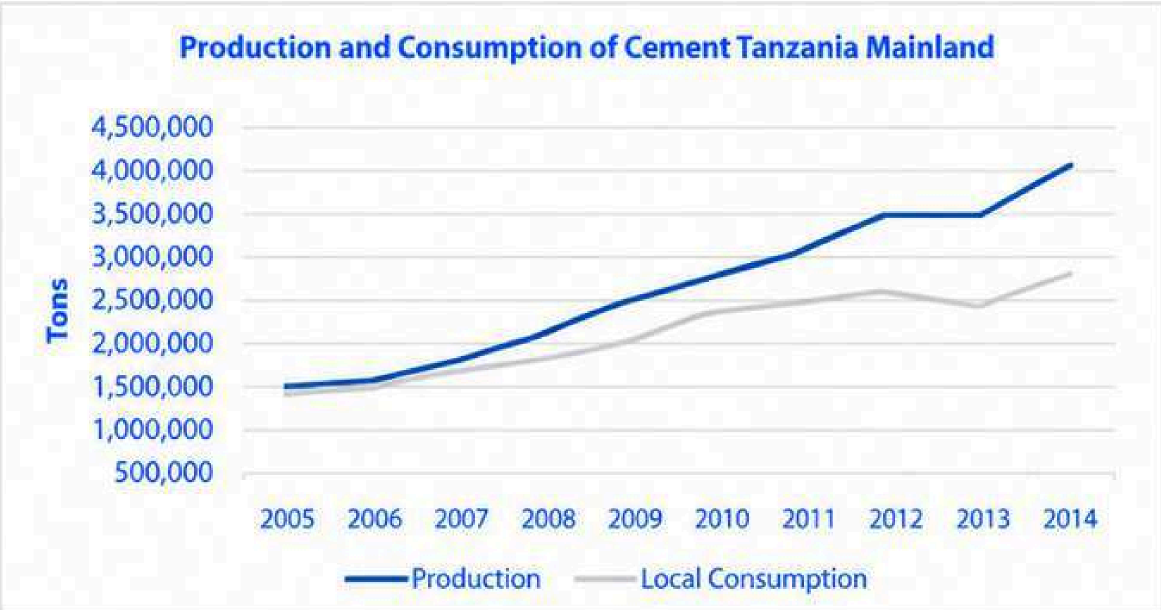

Figure 2.2: Production and Consumption of Cement Tanzania Mainland
Source: National Bureau of Statistics, 2014.

2.2.6 Suppliers of Construction Plant and Equipment

The only data we have on the availability of plant and equipment is the CRB report on Study of Construction Plant and Equipment Availability in Tanzania of 2008. The study was carried out on 157 Civil Works Contractors registered in Class 1 to IV and revealed the status of equipment ownership as shown in **Table 2.2.**

Table 2.2: Equipment owned by Civil Works Contractors in Classes 1 to 4

	Source of Data	Number of Contractors	Type of Equipment and Quantity									
			Grader	Compactor	Loaderr	Bulldaztors	Exeraactors	Bimnen Spraeir	Pcenuimie Brabers	Chip Ssprators	Asphalt Pater	Scraper
1	Physical Inspection Conducted During the Survey	72	80	55	73	62	59	12	13	3	1	1
2	Data Extracted from Annual Return Forms 2006	48	38	46	28	34	24	6	1	1	0	0
3	Data Extracted from Contractor's Registration Data Base	37	24	13	20	38	10	5	4	3	0	0
Total		**157**	**142**	**114**	**121**	**134**	**93**	**23**	**18**	**7**	**11**	**1**

(**Source:** Contractors Registration Board)

The 2008 equipment study focused only on Civil Works Contractors. However, from the various exhibition of construction equipment done yearly during Annual Contractors' Consultative Meetings, it is observed that the status of construction equipment in the country is improving, with many suppliers of used and new construction equipment coming forward to provide such equipment to contractors on relaxed terms. But still the problem of lack of finance and tough banking terms makes it difficult for contractors to acquire a sizeable number of construction equipment.

2.2.7 Financiers of Construction Industry

Financing of construction industry falls under two categories. The first category is the financing of the industry through providing the necessary funds for investment in infrastructure development projects. As a country, Tanzania has a big backlog of construction projects that would have been executed if there were adequate funding for the same. At the same time because of lack of adequate funding there is a backlog of payment due to contractors who are now executing various construction works. For example, in year 2015 it was reported that the debt due to contractors was ranging between TShs 850 to 900 billion (Daily News, May 2015).

The second category is of financing the capital requirements of the actors in the Industry, a role that is currently undertaken by major banks. This also has been an area of concern particularly with small contractors who do not have adequate assets as collaterals for bank loans. Despite the booming banking and insurance sector, many industry stakeholders have not enjoyed as much particularly of the high interest rates charged on loans.

2.2.8 Other Institution in Other Ministries

There are Institutions falling into other ministries which are major stakeholders in the construction industry including the following:

(a) Occupational Health and Safety Authority established in 2001 with the aim of improving the health and well-being of workers, and of workplaces.

(b) The National Environment Management Council (NEMC) came into being in 1983 with a broad mandate in response to the national need for such an institution to oversee environmental management issues and also implement the resolutions of the Stockholm Conference (972), which called upon all nations to establish and strengthen national environmental Councils to advise governments and the international community on environmental issues.

2.3 Challenges in Construction Industry

2.3.1 Contractors

While Tanzanian contractors participate, and win the largest number of contracts, it is foreign contractors registered in class 1 who undertake a disproportionate share of works in terms of value. At the time of publication of the CIP in 2003, Tanzanian contractors were estimated to be responsible for only 20% of the total value of construction contracts put out to tender in any one year. Data compiled by the CRB shows that the market share of Tanzanian contractors had grown to 40% by 2014. This falls short of the stated CIP objective of "more than 50% share by local contractors". Local firms are still working mainly on small contracts, with large contracts remaining the preserve of foreign firms.

The challenges facing Tanzanian contractors were examined in a baseline study of civil works contracting capacity in Tanzania, which was undertaken for the MOT in 2011 (Allan and Mworia, 2011). The authors divided contractors into three groups and studied the problems facing each group through interviews with a representative sample. *Small contractors* (classes VI and VII) typically undertake contracts of TShs. 50-150 million, working mostly on gravel roads and small building projects put out to tender by LGAs. The main challenge they face is excessive competition in the market in which they operate, with anything from 20 to 60+ contractors bidding for each open tender opportunity. There are simply too many contractors in the market and on average they are only working as contractors for less than five months of the year. The situation is exacerbated by large firms chasing small contracts. Competition on price and the fact that many small contractors are technically incompetent leads to the submission of unrealistically low tenders, with insufficient funds to complete the works to the required quality.

Medium sized contractors (classes III to V) undertake contracts of TShs. 300-600 million and work mostly on gravel, small building projects and some paved roads. They also face intense competition with up to 50 bidders across the classes. Most are only working for one third to one half of the year, with long periods without work, which make it difficult to retain staff and to invest in buying equipment. Access to working capital is a major problem, which is exacerbated by late payment and the fact that access to the CAF (operated by the CRB) is restricted to only one payment at a time. Contractors in this group would like access to larger contracts and suggest CRB needs to review its class limits.

A large proportion of *Large contractors* (classes I and II) were found to be still bidding for public work contracts through all class thresholds right down to class VII limits. They claim this is due to difficulty in accessing higher value market due to stringent financial prequalification criteria set by public sector clients, as well as reluctance on the part of the foreign contractors who dominate the market in Tanzania to use local firms as subcontractors. There are complaints about delayed payments and the fact that the procurement process is too long (6-9 months) which ties up capital in bonds and suggest that insurance bonds should replace bank guarantees. Corruption is a problem with many senior procurement officers believed to be having their own construction firms. However, the most successful contractors in the sample (which the authors call "super Class 1") reported strong growth by targeting private clients who value quality and offer repeat work to companies who can demonstrate good performance.

2.3.2 Consultants

Professional Architects, Engineers and Quantity Surveyors engaged as consultants, play a vital role in the delivery of construction projects. They are responsible for designing projects, estimating the cost and for supervising construction. Improving the performance of consultants is critical to improving the performance of the industry, particularly with regard to improved quality and productivity through better designs and sound project supervision.

The biggest challenge facing Tanzanian consultancy firms is getting opportunities to gain experience, particularly on large projects. A report was commissioned in 2000 to develop a training programme for consultants in the roads sector to enable them to compete on equal terms with expatriate consultants (Hollway, 2000). The author found that consultants lacked both knowledge and experience and concluded "training alone, without the opportunity to put the learning into practice in the workplace will be largely wasted" (Hollway, 2000, p.3).

While hard data on the value of contracts undertaken by Tanzanian versus foreign consultants was difficult to find, analysis of major road contracts in a study for the

Prevention and Combating of Corruption Bureau (PCCB) shows the predominance of international firms. However, while international firms may be awarded the contract, much of the actual work is outsourced to Tanzanians. Tanzanians who have formed JVs with foreign firms suggest that they did most of the work while receiving only 15% of the money. Local consultants are of the opinion that a preferable form of JV is when the Tanzanian firm takes the lead and the foreign firm is the associate, who is engaged just to bring in specific expertise that is considered to be needed.

Local consulting firms also complain about the proliferation of unrealistically low fees – a problem that is even severe in the private sector (Manga, 2014). Consultancy services are procured by the public sector in Tanzania under the Quality and Cost Based System whereby consultants compete on fees as well as quality. On large and complex projects, where specialized services are required, quality takes precedence over cost. But local firms are small and lack specialization and therefore they are unable to compete in this market and are left to compete for jobs under the fee competition system. The above source concluded that open market competition has had a negative effect on building the capacity of consultants. A further problem in the management of projects is the lack of properly trained, qualified and competent project managers.

While there are complaints that designs are not always done by appropriate professionals, there is evidence from recent studies that registered consultants in Tanzania, whether local or foreign, are not always performing duties as required. The report of an audit on cost control in public procurement examined buildings constructed by seven LGAs, based on data covering the period from 2011 to 2013 (NAO, 2014). Most of the contracts sampled exhibited inadequate drawings, which contributed to inacurate engineers' estimates. The quality of the work was unsatisfactory on 19 of the 51 projects visited by the auditors with main attribute being poor supervision by consultants.

An earlier audit of 10 major roads completed in Tanzania between 2004 and 2007 (NAO, 2010) found significant cost overruns on all contracts. It concluded that a *huge part of the increasing cost was related to miscalculation of some kind already in the design stage ... design work was not done properly and efficiently, resulting in re-design and leading to inevitable cost overruns*. PPRA value for money audits of 137 construction contracts in FY 2011/12 provide further evidence of poor performance on the part of consultants, noting the following:

- Inadequate designs, incomplete and ambiguous drawings;
- Unrealistic pre-tender estimates, inaccurate computation of quantities in the BOQ due to inadequate assessment of site locations – all of which caused unnecessary variations to the works thus increasing project costs;
- Consultants' failure to produce complete designs and specifications, not mobilizing all key personnel, not submitting reports on time or not submitting at all; and
- Lack of honesty, integrity among supervising engineers and technicians.

Poor performance by consultants is, however, a symptom of a more serious issue of failure on part of the client to properly enforce the conditions of contract.

2.3.3 Clients

2.3.3.1 Public Sector Clients

In late 1980s the Government of Tanzania (GOT) withdrew from direct involvement in the implementation of construction projects, managing and operating public construction companies and force account units, in favour of outsourcing the private sector. However, this presents its own set of challenges as private sector service providers still need to be managed and supervised by public sector clients. There is inadequate capacity at central government to efficiently manage the preparation of projects, procurement, contract supervision and administration. There are major clients at central government virtually in all ministries, many of which have little technical expertise or understanding of construction. The lack of expertise in the delivery of construction works is even more serious at local government level. LGAs are responsible for spending some TShs. 250 billion each year for road maintenance from the Road Fund, in addition to significant investment in buildings (estimated at TShs. 88 billion in 2012).

There is also evidence that some clients are not prepared to play by the rules. The Public Procurement Regulations, 2013 require that project below TShs. 1 billion (recently increased to 10 billion) be exclusively set aside for Tanzanian contractors. But analysis of CRB data revealed that the central government awarded 12 contracts and parastatal organizations awarded 13 contracts below TShs 1 billion to foreign contractors (Mamiro and Haule, 2014).

The challenges on the clients' side are well illustrated by various audits that have been undertaken recently. The audit by the NAO (2014) on controlling costs in public procurement examined buildings constructed between 2011 and 2013 by the following seven LGAs:

(a) Three Municipal Councils: Ilala, Kinondoni, Morogoro
(b) Three District Councils: Kilombero, Bagamoyo, Bahi
(c) One Town Council: Kibaha

The audit revealed serious problems at all stages of the project cycle. 47% of the projects examined were not included in the Annual Procurement Plans and 45% were not budgeted for. When the funds allocated were found to be inadequate to finalise the projects, still the work continued until available funds were exhausted and then stopped. In this case, only 2 out of 10 projects in Kinondoni were completed.

Inadequate drawings on most of the projects meant that engineers' estimates were not based on analysis and in some instances, they simply replicated figures in the annual budget. In 35% of projects that were included in the budget, engineers' estimates were within + or – 5% of the budget. Yet despite the engineers estimate being unreliable, LGAs generally awarded the contract to the bidder closest to the estimate. The LGAs do not have a working mechanism to ensure that the prices offered by contractors are genuine and reflect the actual costs of the respective project. In addition, more than half of the projects used Competitive Quotation to appoint a contractor, which limited competition as the opportunities are only advertised at Local Government's public notice boards. This practice undermines the principles of transparency and value for money in public procurement.

notice boards. Tender evaluation was not always conducted properly and not always evaluated by qualified professionals. Some tenders were unfairly disqualified.

The projects were not adequately supervised and monitored giving rise to unsatisfactory quality of works. Payments were certified without verification and re-inspection of the works and site meetings were not conducted. In all visited projects, documents, which were supposed to be kept under care of the management unit, were largely missing. Projects were not completed on time but most LGAs failed to charge liquidated damages. They did this by ignoring the clauses in the contract required that damages be paid, making them non-applicable, or issuing unjustifiable extensions of time. Similarly, clauses requiring interest on delayed payments by the client were either ignored or made non-applicable. Not surprisingly, it was concluded that contracts in LGAs are not well managed.

The poor performance of LGAs in contract administration was confirmed by the PPRA's 'value-for-money' audit on 137 construction contracts (PPRA, 2012). Again, failures were noted throughout the project cycle right from planning through completion. Many projects revealed a total absence of quality control system for checking and approving designs, drawings, specification, BOQ, pre-tender estimates, payment certificates, etc., as well as inadequate supervision of construction contracts and consultancy services. The authors described the situation in LGAs as 'pathetic' with only 18 out of 89 contracts (20%) showing satisfactory performance.

The PPRA audit also revealed clearly that failures of this nature are not confined to the LGAs. The 137 contracts which were audited were selected on random basis. In addition to 89 contracts belonging to LGAs (which represented only 8% by value) there were 20 with Public Authorities (29% by value) and 28 with Ministerial Departments and Agencies (MDAs) (63% by value). There were also 10 consultancy service contracts. Three big projects with MDAs accounted for 53% by value of all contracts (Rita Tower, Chalinze Water Project and Mandela Road). Clients with unsatisfactory performance on planning include Tanzania Port Authority (TPA), Registration Insolvency and Trusteeship Agency (RITA), Ministry of Water and Irrigation and Ministry of Home Affairs (Fire and Rescue Department). Most of the above also had unsatisfactory performance on procurement, while the Ministry of Water & Irrigation, National Social Security Fund, Provident Fund, and TANROADS-Regional Office in Dar es Salaam had unsatisfactory performance in terms of quality of works.

Problems in the management of contracts by TANROADS was detected in 2010 when the NAO conducted audit on 10 major roads completed between 2004 and 2007. None of the projects was completed on time and TANROADS approved all extensions of time without an independent analysis. Cost overruns were also significant largely due to problem in design and poor management of consultants. Quality control systems also needed improvement in the design phase which is clearly inadequate (NAO, 2010).

Nonetheless there have been some improvements since 2010. The PPRA (2012) audit found that clients with good performance in contract administration included TANROADS (DAR) with 78%; TANROADS Iringa 94%, TANROADS Coast 83%.

All TANROADS regional offices and 8 LGAs were also adjudged to have performed satisfactorily on the quality of works.

2.3.3.2 Private Sector Clients

Private sector clients are mainly involved in the construction of buildings – residential, industrial and manufacturing. Unlike the public-sector clients, the developers in the private sector are not regulated, apart from the requirement to have building plans approved by the relevant local government authorities. Information gathered by the Study Team on the status of the construction sector in the country revealed the following:

(a) Professional bodies i.e. CRB, AQRB and ERB are primarily concerned with the availability of professionals at the projects sites and their involvement in the projects. There is no coordination among the three professional bodies as their inspectors visit project sites seperately and there is no a central body that collects, stores and analyse information about project particulars and team of professionals involved, capacity of professional personnel in terms of education, experience, quality of work, working drawings, plants and equipment available at the site for the benefit of the construction industry.

(b) LGAs being responsible for issuing building permits and monitor construction of major projects such as high rise buildings have no capacity in terms of number of professionals available to carry out monitoring activities, equipment such as computers and software to analyse engineering and architectural drawings, and transport to visit the sites for inspections.

(c) Procurement procedures and system available in the public sector are not available in the private sector. There are no proper systems for selecting professionals for projects especially contractors to check qualifications and experience requisite to execute the project. More often than not contractors and other professionals are not selected on competitive basis thereby making the issue of value for money of no importance.

(d) The absence of legislation that regulates construction of buildings in the country is a major problem as it renders regulating the sector complicated and difficult. This is because there are to be followed by developers. The sector relies on good practices which are not backed by law, hence making it even difficult to sanction developers for non-compliance with standards.

2.3.4 Quality of Construction Materials

To appreciate the status of construction materials subsector would require a detailed study by the Study Team which, unfortunately, was given very limited time to carry out the assignment. Needless to say, the problems associated with poor quality of constructed facilities like the building which collapsed and killed people shown in **Figure 2.3**, has their root cause on the poor quality of construction materials both locally produced and imported ones.

Figure 2.3: An aerial view shows bystanders watching rescuers search for survivors amongst the rubble of a collapsed building in the Kariakoo district of central Dar es Salaam March 29, 2013: (Source: Times Live; 2013)

The problem of poor quality of construction materials is a serious one and of which a solution needs to be be found. In a presentation by Rubaratuka (2013) on "Challenges of Reinforced Concrete Structures in Dar es Salaam, he cited main causes of unsatisfactory quality of RC structures to be:

(a) Design deficiencies;
(b) Unsatisfactory quality of concrete ingredients and steel reinforcement;
(c) Poor workmanship; and
(d) Lack of adequate supervision.

In the area of design deficiencies, he pointed out that absence of national codes and standards for buildings was a big problem. Different codes and standards were being used and there were no legally binding codes and standards. He also pointed out that in many construction projects formwork and false works were not designed and not adequately supported, as a result, they deformed and got displaced thereby affecting the concrete works.

With regards to unsatisfactory quality of concrete ingredients and steel reinforcement, Rubaratuka pointed out that although the cement used complied with the required standards sometimes the quality of water, fine and coarse aggregates used was not satisfactory. Although the tensile strength of steel used was adequate, steel reinforcement used showed signs of rust and were used without being treated.

Rubaratuka finally recommended that professional training of technical personnel

(Artisans, Technicians, Engineers, and Architects etc.) in the construction industry be intensified so as to meet the demands of construction works and deliver quality works. In addition, he recommended that national standards be developed and adopted.

The problem of lack of standards is echoed in one feature which appeared in the Citizen Newspaper (The Citizen, August 2014), quoted as follows:

- "....... The mushrooming of brickyards that make and sell substandard bricks is just one aspect of the mess in the construction sector that industry sources blame on lack of building code and effective regulator. When a brick is finally out, some parameters should be clear: the sand-cement ratio, quality of water and sand, type of cement used, and the kind of compression applied in making the brick. Who does the checks to ensure that the bricks have been sufficiently cured before they are put up for sale? The traditional answer should be the Tanzania Bureau of Standards (TBS), the National Agency for quality checks. But players in the construction industry feel that ensuring quality building material should go beyond TBS and into the realm regulation by the national building and housing policy. A building policy will set minimum standards for residential and commercial buildings. It will be applied not only by architects, engineers, constructors and regulators but also set rules and standards for manufacturers of building products and materials. Unchecked brickyards are now found in almost every corner of the city. They make bricks and sell. But do the products meet professional standards? Are those standards known to brick makers? The answer to the above questions indicates a business that has been left to regulate itself, sometimes in the hands of crooked traders who are not ready to hear anything do with standards. As an engineer, I see this problem in a bigger perspective and it is not just about bricks or even iron bars, says Mr. Steven Mlote, the Registrar of the Engineers Registration Board. Shops are full of iron bars made of scrap in backyard factories. They use these iron bars to erect high-rise buildings, but they are not useful. It is all over the country. He blames the situation on the absence of a strong institution to regulate the business. And this has given unscrupulous brick-makers the leeway to thrive. The consequences of using sub-standard bricks or other poor quality building materials is that home owners and the government are forced to pay twice or thrice the amount of a project completed using substandard materials. It devastates the economy at an individual and national level. Low quality bricks are used to construct public drainage systems and schools but they have to undergo major repairs within no time says Mr Mlote. We need to do something to reverse this trend."

Tanzania also suffers the problem of counterfeit products as revealed in a study conducted by the Confederation of Tanzania Industries as quoted below from The Citizen newspapers of June 2016:

- "At least 50 per cent of goods consumed in Tanzania including drugs, foods, construction materials and other working tools are counterfeit, according to findings of a research commissioned by Confederation of Tanzania Industries (CTI).

  In this presentation, Prof Honest Ngowi of the Dar es Salaam-based Mzumbe University campus said that the findings resulted from interviewing 250 consumers' countrywide and 47 manufacturers and companies the primary and secondary data.

  The acting CTI chairman, Mr Evasist Maembe, said at a forum that they had commissioned such research because the problem of fake goods is alarming, especially imported items from China, Bangladesh, Vietnam, Singapore, Kenya, South Africa and others.

  According to the study, entry points for the fake goods include ports, airports and porous borders which cause imported counterfeits, existence of domestically produced fake goods and lack of levelled playing field in the market.

Prof. Ngowi gave out 10 reasons for the rampant fake commodities including wrong view of free market economy, organized counterfeif dealers and poverty which encourages rush to low priced counterfeits.

Despite the efforts taken by Tanzania Bureau of Standards, which are being commended by the industry stakeholders, as quoted (Mtanzania, 24th June 2013) below, still there is much which needs to be done in order to prevent the Tanzania construction industry from becoming a dump ground for poor quality products.

> CONTRACTORS Registration Board (CRB) called for concerted efforts by all stakeholders towards raising the quality of construction materials to guarantee the safety of buildings and other structures.
>
> CRB Registrar, Boniface Muhegi, told the 'Daily News' in Dar es Salaam that it was high time key stakeholders in the construction sector - contractors and their clients - work together towards identifying genuine materials before deciding on the purchase.
>
> Eng. Muhegi was commenting on a move by Tanzania Bureau of Standards (TBS) to inspect the quality and standards of building materials.
>
> "The move to inspect quality of the construction materials by the standards regulator is welcome and would ultimately curb the importation and manufacture of substandard building materials," said the registrar.
>
> TBS launched a nation-wide campaign recently, targeting shoddy manufacturers of building materials, iron bars in particular and has already closed two factories in Dar es Salaam over violation of standard regulations.
>
> The standard body impounded over 389 tones of sub-standard iron bars worth TShs. 1.3bn/- and closed two wholesale shops for selling defective construction materials.
>
> Mr Muhegi said some investors never seek advice from authorized consultants and instead go for low price suppliers at the expense of quality of the materials. Construction sector averagely grows at 12 per cent but it's feared that local manufacturers are producing most of the iron bars out of scrap materials.

2.4 Conclusion

A survey on the historical context on the development of the construction industry in Tanzania reveals a disheartening scenario despite contribution which the industry has made to the economy in the country in terms of creation of employment, capital formation and the general support to the country's socio-economic development. Local industry players are plagued with many challenges which hinder their growth and at the same time there are problems which hinder attainment of value for money of the constructed facilities both by the private and public Sector. This is a situation which needs redress.

3.0 HISTORICAL CONTEXT OF THE NATIONAL CONSTRUCTION COUNCIL

3.1 Construction Industry Study of 1976

In 1976, the Tanzania Government through the Ministry of Works commissioned a study on the construction industry. The objective of the study was to review the existing conditions and recommend measures to improve efficiency and capacity of the Construction Industry (CI).

Among the findings of the study were specific shortcomings that led to the formation of NCC. These were as follows:

(a) Lack of co-ordination within the sector and therefore most institutions were working more or less in isolation and had only arbitrary information on what other institutions were doing;

(b) Overlapping of activities and efforts, much to the misuse and wastage of scarce national economic resources not to mention the negative effects on smooth implementation of sectoral programmes.

The study specifically recommended the following, among others:

(a) Strengthening of the Planning Unit in the Ministry of Works; and

(b) Establishing a Construction Council.

Following the Study, the National Construction Council was formed through an Act of Parliament No. 20 of 1979. The primary responsibility of NCC was, and still is, to promote the development of the CI in Tanzania.

The functions of NCC as stipulated under the Act are to:

(a) Promote the development of the CI in Tanzania;

(b) To plan and coordinate activities of the persons engaged in the CI in Tanzania;

(c) Provide advisory services and technical assistance necessary for, or incidental to the proper development of the CI to institutions and other persons engaged in the CI;

(d) Provide and promote training facilities for persons engaged in, or employed or to be employed in the CI;

(e) Advise the government on all matters relating to the development of the CI and to formulate proposals and recommendations for their implementation;

(f) Promote the documentation and dissemination of information on any aspect of research into any activity connected with the CI, carried out by the Council or any person or institution, and may for that purpose publish any newspaper, journal or periodical or do any other thing designed to promote research in any matter which is necessary or desirable for the efficient development of the national construction policy;

(g) Monitor the implementation of standards and regulations relating to the CI;

(h) Monitor construction costs and make suggestions for their control;

(i) give advice on the economical use of materials for construction and to encourage the maximum use of local materials;

(j) Carry out and promote the carrying out of research in various aspect of the CI and to co-ordinate that research;

(k) Advise the government, or institutions engaged in the CI, on the adaptation of technology in the CI;

(l) Participate in, or to make arrangements for, conferences, seminars and discussions on matters connected with the activities of the council; and

(m) Establish and monitor guidelines for tendering procedures so as to ensure fairness, speed and economy.

3.2 Ministry of Works Study of 1985

The Ministry of Works commissioned a study in 1985 to review the registration set-up. This study was later reviewed in 1992 and came with the following recommendations:

(a) The Boards which were existing at that time (i.e. Engineers Registration Board responsible for registering engineers and the National Board of Architects, Quantity Surveyors and Building Contractors responsible for registering architects be reviewed to allow for registrations of professionals as well as consulting firms;

(b) A new registration board for all contractors (Building, Civil and Specialized) be established;

(c) Existing registration laws be reviewed in order to strengthen the monitoring and regulating activities of the proposed Boards; and

(d) Activities of the Boards be effectively monitored and coordinated by NCC.

As a measure towards implementation of the recommendations, in 1997 three laws were enacted, namely:

(a) The Engineers Registration Act No. 15 of 1997;

(b) The Architects and Quantity Surveyors Registration Act No. 16 of 1997; and

(c) The Contractors Registration Act No. 17 of 1997.

It was expected that the NCC Act would consequently be amended to enable NCC monitor and coordinate activities of the newly established Boards. This was not done, resulting in to making the newly established Boards to work in isolation and the resultant fragmentation of the CI.

3.3 Review of NCC Act Study of 2002

In year 2002, a study was commissioned by the NCC aimed at reviewing the status of the CI and recommending amendments to the Act which established the NCC with the view to spearheading the development of the CI in Tanzania. The study noted that NCC has played a significant role in the development of the CI in Tanzania. However significant changes had occurred both nationally and internationally, thereby necessitating review of the Act in order to enable NCC meet the new challenges that faced the CI.

The study revealed major setbacks that, despite noted success in some areas, prevented NCC from reaching its full potential. The following issues posed the main setback:

(a) Inadequacy of financial resources to perform its mandated functions;

(b) Inability to retain adequate number of competent staff caused by inadequate financial resources;

(c) Inadequate legal provisions in the NCC Act, in particular, there were no specific legal provisions to set-up and enforce regulations and by-laws to perform mandated functions;

(d) Developments in the regulatory setup of the CI has led to some of the functions to be carried out by other regulatory bodies with stronger legal mandate to its members. Similarly, with the establishment of reasonably strong professional and allied trade associations some functions that were under NCC were seen to be no longer relevant; and

(e) The delay in the adoption of the CI Policy continued to cloud the roles of various stakeholders.

The study further found that there was considerable overlap of functions of NCC and those of other regulatory bodies (ERB, AQRB and CRB). Similarly, there was overlap with the Public Procurement Act, 2001 on matters related to procurement of goods, works and services. The study came up with recommendations on areas of CI that NCC should focus at. These include:

(a) **Policy and Strategic Direction** aimed at ensuring that appropriate policies are adopted and their implementation promoted. Further, NCC should provide strategic leadership in the development direction of the industry.

(b) **Business Development Role** with regards to dealing with the improvement of the business environment of the CI and strengthening the capabilities of local firms through the provision of appropriate information and management tools.

(c) **Manpower Development Role** aiming at co-ordination of development of competent and sufficient construction professionals and workforce.

(d) **Technology Development Role** aimed at helping the industry to raise its productivity and quality levels through the promotion of innovative construction technology, use of buildable designs, appropriate quality management systems and the application of Information and Communication Technology (ICT) by the industry.

Based on the recommendations and the proposed CI Policy, the team proposed the review of the mission of NCC to be: **"To provide quality strategic leadership to the CI in Tanzania to enable the players to perform efficiently and effectively in the national socio-economic development and be competitive in the changing global environment with emphasis on the development of local capacity."** The mission statement was the basis of the amendments to the NCC Act No. 20 of 1979 which were proposed by the Study Team.

The study further established that lack of Regulations and By-Laws in the NCC Act No.20 of 1979 as being one of the major reasons for the NCC's failure to perform some of its statutory functions. The reasons for the absence of the regulations was identified as being lack of the appropriate provisions in the NCC Act to prepare Regulations and By- laws for effective development of the industry.

3.4 Sustainable Financing Arrangements Study of 2002

In year 2002, a study was commissioned by the NCC aimed at proposing sustainable funding arrangements for the NCC to enable it play its role effectively. The study looked into ways in which Industry Development Agencies were funded in other countries as shown in **Table 3.1.**

Table 3.1: Comparison of Funding Mechanisms for the Development of CI

Country	Feature of CI Development Funding	Remarks Relating to Tanzania
India	Funds from member's contribution	NCC has no members to make such financial contributions
Malaysia	Funding based on levy on projects according to their value	There is no legal provision for registration of projects
Singapore	Funding are from registration of contractors, training and testing of tradespersons, and quality assessment and certification	CRB registers contractor and VETA undertakes trades training and testing. Moreover, the industry has not developed to the level where quality assessment and certification is possible[1]
South Africa	Currently, funding is by government. In the medium term, most funding will be from registration of contractors and projects	Government subvention for industry development has been declining. Again, NCC does not register contractors. Moreover, there is no legal provision for registration of projects
Sri Lanka	Funds are from grants, training and registration of contractors	The NCC does not register contractors, neither does it train tradespersons.

The study further considered the merits and demerits of different funding arrangements for the development of CI as summarized in **Table 3.2**. The Study considered different possible sources for funding NCC activities including:

(a) Tax on construction materials payable by all purchasers of the same;
(b) Levy on the value of projects payable by clients;
(c) Fixed annual contributions by construction companies and consulting firms;
(d) Central funding by the Government; and
(e) Donations.

[1] However, currently the need for quality assessment and certification is seen given incidences of collapse of buildings, poor quality building and infrastructure works

Table 3.2: Comparison of different funding mechanisms for the CI

SOURCE OF FUND	COUNTRIES	MERITS	DEMERITS
From government grants	South Africa	• In a strong economy, provides sustainable funding. • Industry is recognized as a national asset and managed accordingly.	• In a faltering economy, flow of funds may be irregular. • Government has full control of the agency, leading to possible failure by the agency to adopt market-responsive initiatives. Industry may become dependent on government.
From project-based levies	Malaysia	• Good flow of funds where the industry is vibrant. • Clients, who are direct beneficiaries or more effective industry, bear expense on its improvement.	• Volume of funds may fall when levels of demand decline. • "Difficulty" in having a public agency funded by all clients. • Expectations of clients can be high as they fund agency's activities. • Effective collection mechanism necessary. • Checks to ensure there is no under-declaration of project values and costs.
Agency's own internally generated funds	Singapore	• Where level of activity in industry is high, ample funds can be raised.	• In declining industry, level of funds may fall. • Industry development agency should not compete with industry organizations it is supposed to promote and nurture. • Opportunities for raising funds in initial stages may be limited.
Members' annual fees	India – CID Council UK – Construction Industries Board USA – Construction Industry Institute.	• Flow of funds is assured if membership base is large and members are able to pay.	• Organizations are mostly private, and have little authority, limiting their effectiveness. • Organization's activities would only benefit members.

The Study, through views by stakeholders was that there was a need of establishing a Construction Industry Fund (CIF) for developing the CI which would cater for the financial requirements of all key institutions in the CI including NCC, AQRB, ERB and CRB. The fund would also cater for key developmental activities of the industry such as training, and research and development. The study considered possible sources of the CIF including levy based on the value of construction projects, fixed annual contributions by companies, and use of skills development levy. The use of skills development levy was seen as viable and best option although it could as well along other options.

3.5 Construction Industry Policy

3.5.1 The Policy

The 2003 Construction Industry Policy (CIP) and the 2006 Implementation Strategy were respectively adopted by the Government.

The main objectives of the CIP are to:

(a) Improve the capacity and competitiveness of the local construction enterprises (contractors, consultants and informal sector) to enable them undertake most of the construction projects by the year 2012;
(b) Improve public sector delivery;
(c) Encourage, enable and improve performance of the informal sector;
(d) Promote the export of goods and services;
(e) Improve quality and productivity of constructed facilities and services;
(f) Promote technological development;
(g) Develop capacity building for the industry's human resources;
(h) Enhance the availability of adequate construction equipment;
(i) Support the provision of adequate human settlements;
(j) Promote regional and international collaboration;
(k) Ensure the provision of adequate financial support to promotional and regulatory bodies;
(l) Promote effective co-operation among key stakeholders;
(m) Ensure that the institutional framework is strengthened;
(n) Formulate and enforce the application of appropriate building regulations and standards;
(o) Promote the application of sustainable construction practices that are environmentally friendly;
(p) Mobilize adequate financial resources for physical infrastructure development;
(q) Support poverty eradication;
(r) Promote women and youth participation in CI activities;
(s) Enlist the support of international development and funding agencies;
(t) Ensure that corporate governance is enhanced; and
(u) Promote the prevention of corruption in the industry.

The analysis of the 22 broad objectives of the CIP reveals that only two are key i.e. to increase the capacity and performance of local enterprises (contractors, consultants, materials and equipment suppliers); and to improve the delivery, quality and productivity of construction investments. The rest of the objectives are basically facilitative of achievement of the two. The CIP acknowledged the challenges of the institutional setup which were clearly shown in Policy Objective 8.1.14. To strengthen the institutional setup, the CIP in particular required the NCC Act 1979 to be revised in order to enable NCC to:

(a) Provide leadership and marshal the support of stakeholders for ongoing growth and development reforms in the Industry;
(b) Provide a focal point for sector coordination and promotional activities for the development and competitive performance of the Industry;
(c) Promote and establish forums for enhancing Industry-wide co-ordination and collaboration;
(d) Monitor and provide advice on the effectiveness of government policies and programs for the enhancement of industry development and performance;
(e) Establish reform priorities, targets and performance and development indicators;
(f) Facilitate accelerated formulation of standards, and regulations and promote their use;
(g) Facilitate the prevention of corruption through technical auditing of projects, monitoring and recommending measures against malpractice in tendering and contract administration;
(h) Co-ordinate and promote the understanding and implementation of the CIP aimed at ensuring that the actions by various actors are consistent with the requirements of the policy; and
(i) Strengthen legally and financially to enable it play its role effectively.

3.5.2 Implementation of the Policy

In order to implement the policy, the then Ministry of Infrastructure Development developed an Implementation Action Plan (IAP) that was published in 2006. The IAP was to be implemented by all stakeholders with tasks assigned to each one of them, with overall coordination vested in the NCC.

The IAP is a detailed document, setting out actions to be carried out under each policy direction in the CIP. It also lists actors responsible for each action, the starting date and the body responsible for coordination. There is a total of 240 separate actions required to implement over 100 policy directions. A steering committee would be formed for monitoring the implementation of the policy and action programme. The committee would be chaired by the Permanent Secretary of MOID with the NCC providing the secretariat. Three ministries – MOID, PORALG and MLHHSD would be members of the committee along with NCC, AQRB, ERB, CRB, TANROADS, TBS, ACET, TACECA, AAT, University of Dar es Salaam / College of Engineering and Technology (UDSM / COET) and Vocational Education and Training Authority (VETA).

The committee would meet on quarterly basis to review progress, conduct stakeholder workshops and report annually to the CI Forums, also organized by NCC. However, for some reasons there was no cooperation among the institutions and the committee was never constituted. Stakeholders consulted, refer to political, personality conflicts and lack of commitment on part of the MOW to implement the policy. Despite failure by the Steering Committee to spearhead implementation of CIP, the Government made a number of interventions in support of the CIP, notably the following:

(a) Repeal of the Public Procurement Act 2001 (PPA 2001) and enactment of the Public Procurement Act, 2004 and promulgation of the Public Procurement Regulations, 2005 in which there is improvement in the Preference Scheme to Local Players.

(b) The Preference Scheme was further enhanced in PPA 2011 and its Regulations, which set exclusive preference to contracts for works of up to TShs. 10 billion, and consultancy contracts up to TShs. 3 billion and allowed splitting of contracts to bring such contracts within the local limits.

(c) PPA 2011 and its Regulations also encourage joint ventures between local and foreign firms under national and international competitive bidding by granting a margin of preference of 6, 8 or 10% depending on the share of the local firm in the JV or subcontracting arrangement.

(d) Amendments of the laws establishing the National Construction Council (NCC), the Contractors Registration Board (CRB) and the Engineers Registration Board (ERB);

(e) Repeal of the Architects and Quantity Surveyors (AQRB) Registration Act, 1997 and enactment of the Architects and Quantity Surveyors Registration Act, 2010;

(f) Establishment of Sustainable Structured Training Programme by CRB;

(g) Introduction of the Contractors Assistance Fund by CRB to give guarantee to medium and small contractors (Class IV to VII) for bid bonds and advance payments;

(h) Expansion of the Road Fund which now stands at above TShs. 800 billion and almost all of it is paid to local contractors for maintenance of road works;

(i) Approval of the National Public Private Partnership Policy (2009) and enactment of the Public Private Partnership Act 2010 and promulgation of PPP Regulations;

(j) Establishment of the Occupational Safety and Health Authority (OSHA);

(k) Enactment of the Financial Leasing Act 2007; and

(l) Expansion of the capacity of several organizations PPRA, NAO and RFB to conduct regular audits of construction projects and bring cases of poor quality and suspected corruption to the public notice through the publication of such reports.

Some of the achievements outlined, particularly the procurement reforms, provide a platform for further achievement of the key objective of increasing the capacity and performance of local construction enterprises. However, despite the opportunities created by recent reforms, the overall objectives of the CIP (2003) are yet to be achieved.

3.5.3 Status of the Industry after Adoption of CIP

Despite such achievements the main constraints facing the local CI still remain largely in place, namely:

(a) Lack of strong leadership in the promotion of the local CI;

(b) Under sourced and under-capitalized local CI in combination with lack of supportive institutional mechanism for financial credit facilities and equipment hire;

(c) Uncoordinated approach and insufficient incentive towards promoting continuous professional skills development in the local CI, particularly in targeting the youth;

(d) Unfavourable bid eligibility criteria making it very difficult for local contractors to qualify for larger (foreign funded) tenders;

(e) Unbalanced packaging of works and unpredictable work load discourages contractors from making investments in their business;

(f) Rapidly increasing cost of construction including local labour cost; and

(g) Climate change effects and environmental pollution caused during construction and unsustainable use of construction material.

In 1997 it was estimated that participation of local CI only accounted for 10% of the market value of the sub sector (Malongo, 2013). This was one of the main reasons to prepare the CIP, with a series of policy directives to improve the capacity and competitiveness of the local CI thus enabling it to undertake the majority of construction projects by the end of 2012.

In 2003 (when the CIP was adopted) the share of local contractors was about 20% of the market value. Some improvements have been achieved since, i.e. in 2013 it is estimated that local contractors execute up to 30% (Mwombeki and Njaa, 2013) of the market share as against 70% by foreign contractors. However, the main objective of CIP (more than 50% carried out by local contractors by the end of 2012) and the potential multiplier effect for domestic growth and employment generation have not been fully realized.

3.6 National Construction Council Act NO.277 of 2008, CAP 162

Following the recommendation of the Study to Review NCC Act 2002 and the requirements of the CIP to strengthen institutional setup, the law establishing the NCC was amended in 2008 to enable it to provide leadership and marshal the support of stakeholders for ongoing growth and development reforms in the industry and to provide a focal point for sector coordination and promotional activities for the development and competitive performance of the industry. The amendments were generally in line with the recommendations of the Study to review NCC Act 2002 with exception of two functions that were not included namely to:

(a) Provide advisory services on procurement matters and promote the application of best practices in the CI; and

(b) Establish and maintain a register and a directory of suppliers of construction materials and equipment.

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(a) Provide advisory services on procurement matters and promote the application of best practices in the CI; and
(b) Establish and maintain a register and a directory of suppliers of construction materials and equipment.

Also, although inadequate financing was cited as one of the reasons for the NCC to fulfil its mandate, the revised Act did not address the issue of financing.

Table 3.3 gives the comparison of NCC's functions as contained in Act, No. 20 of 1979 and in the revised NCC Act of 2008. It also shows areas of overlap of functions of NCC with other institutions operating in the CI. **Table 3.4** gives a comparison of NCC powers, source of funds and composition of Council contained in Act, No. 20 of 1979 and in the revised NCC Act of 2008.

Unlike the NCC Act No.20 of 1979, Section 19 of the revised NCC Act of 2008 empowers the Minister to make regulations for better carrying out of objects and functions of the Council. Lack of powers to make regulations and by laws in the NCC Act, 1979 was cited by some stakeholders that it prevented NCC from performing its duties effectively. However, seven years after the enactment of the Revised NCC Act, no regulations have been made. The study team was informed by NCC that regulations providing for coordination of training and research, and information collection were prepared but were never submitted to the Minister.

Several issues can be gathered from **Tables 3.3 and 3.4**, namely:

(a) The function of planning and coordinating the activities of the persons engaged in the CI in Tanzania which was contained in the NCC Act, 1979 was removed from the revised NCC Act, 2008. This is despite of the fact that the Ministry of Works Study of 1985 recommended that the activities of the registration boards (ERB, CRB, AQRB) be effectively monitored and coordinated by NCC, and the CIP requirements to have the NCC Act 1979 be revised to make NCC a focal point for sector coordination and promotional activities for the development and competitive performance of the industry.

(b) The function of **"Monitoring construction costs and make suggestions for their control"** was not adopted in the revised NCC Act 2008 despite there being an outcry from stakeholders of very fast increase of costs of constructed facilities; and

(c) The function of "Giving advice on the economical use of materials for construction and encouraging the maximum use of local materials" was not adopted in the revised NCC Act 2008 while it is an area that is posing serious problems of quality to the industry players.

(d) The revised NCC Act 2008 contained the same sources of funding as the NCC Act 1979 which through the two studies, Review of NCC Act and Sustainable Financing Arrangements for NCC studies of 2002, has been shown not to be able to provide NCC with adequate funds to finance its operations.

Table 3.3: Comparison of NCC's Functions under NCC Act No. 20 of 1979 and Revised Act of 2008.

NCC Act No. 20 of 1979	NCC Revised Act 2008	Overlaps of NCC's Functions with Other Bodies							
		AQRB	ERB	CRB	PPRA/ CTB	LGA	COSTECH	TBS	TAU
a) To promote the development of the CI in Tanzania;	**(a)** To promote and provide strategic leadership for the growth, development and expansion of the CI in Tanzania with emphasis on the development of the local capacity for socio-economic development and competitiveness in the changing global environment								
b) To plan and coordinate the activities of the persons engaged in the CI in Tanzania;									
c) To provide advisory services and technical assistance necessary for, or incidental to the proper development of the CI to institutions and other persons engaged in the CI;	**(c)** To provide advisory services and technical assistance to CI stakeholders on all matters related to the CI	V	V	X	V	X	X	X	
d) To provide and promote training facilities for persons engaged in, or employed or to be employed in the CI;	**(d)** To promote and co-ordinate quality training for persons engaged, or to be engaged in the CI	V	V	V	V	X	X	X	
e) To advise the government on all matters relating to the development of the CI and to formulate proposals and recommendations for their implementation;	**(b)** To advise the government on all matters relating to the development of the CI and to formulate proposals and recommendations for their implementation.								
f) To promote the documentation and dissemination of information on any aspect of research into any activity connected with the CI, carried out by the Council or any person or institution, and may for that purpose publish any newspaper, journal or periodical or do any other thing designed to promote research in any matter which is necessary or									

NCC Act No. 20 of 1979	NCC Revised Act 2008	Overlaps of NCC's Functions with Other Bodies							
		AQRB	ERB	CRB	PPRA/ CTB	LGA	COSTECH	TBS	TAU
desirable for the efficient development of the national construction policy;									
g) To monitor the implementation of standards and regulations relating to the CI;	**(g)**To promote and monitor the development and implementation of standards, regulations and codes of practices on all matters related to the CI								
h) To monitor construction costs and make suggestions for their control;		V	V	X	V	X	X	X	
i) To give advice on the economical use of materials for construction and to encourage the maximum use of local materials;									
j) To carry out and promote the carrying out of research in various aspect of the CI and to co-ordinate that research;	**(e)**To promote, conduct and coordinate research on all matters related to the CI	X	X	X	X	X	V	X	
k) To advise the government, or institutions engaged in the CI, on the adaptation of technology in the CI;	**h)**To promote the use of innovative technologies and the application of best practices in the CI								
l) To participate in, or to make arrangements for, conferences, seminars and discussions on matters connected with the activities of the council; and	**(i)** To promote and establish forums for enhancing industry wide co-ordination, collaboration and discussion on matters related to the CI								
m) To establish and monitor guidelines for tendering procedures, so as to ensure fairness, speed and economy;		X	X	X	V	X	X	X	
	(j) To compile and maintain a list of projects and promote the documentation and dissemination of information related to the CI								
	(l) To benchmark, monitor and evaluate the performance of the CI								
	(k) To solicit and manage the fund for training of personnel in the CI								

NCC Act No. 20 of 1979	NCC Revised Act 2008	Overlaps of NCC's Functions with Other Bodies							
		AQRB	ERB	CRB	PPRA/ CTB	LGA	COSTECH	TBS	TAU
	(l) To promote quality management including provision of technical auditing services in the CI								
	(m) To promote environmentally sustainable construction practices including health and safety aspects								
	(n) To promote the export of goods and services related to the CI								
	(o) To facilitate efficient resolution of disputes in the CI								

Key:
V means - There is overlap
X means – There is no overlap
Blank space means - Functions carried out by NCC alone

Table 3.4: Comparison of NCC's Powers, Source of Funds and Composition of Council as contained in Act No. 20 of 1979 and in the revised NCC Act of 2008.

NCC Act No. 20 of 1979	NCC Revised Act 2008
Powers of NCC	
The Council may, for the purpose of carrying its functions under this Act, do all such acts as appear to it to be requisite, advantageous or convenient for or in connection with the carrying out of those functions or to be incidental to their proper performance and may carry on any activities in that behalf either alone or in association with any other person or body of	(1) The Council may, for the purpose of carrying its functions under this Act, do all such acts as appear to it to be requisite, advantageous or convenient for or in connection with the carrying out of those functions or to be incidental to their proper performance and may carry on any activities in that behalf either alone or in association with any other person or body of persons (2) The Council shall be a focal point for sector co-ordination of all the institutions engaged in the CI activities for the purpose of ensuring consolidation, harmonization and competitive performance of the industry.
Funds for the Council	
14.-(1) The Funds and resources of the Council shall Consist of: a) Such sums as may be provided for the purpose of the Council by Parliament, either by way of grant or loan;	14.-(1) The Funds and resources of the Council shall Consist of: a) Such sums as may be provided for the purpose of the Council by Parliament, either by way of grant or loan;
b) Such donations, grants, requests and loans as the Council may, from time to time receive from any person or organization; c) Any sums or property which may vest in the Council under this Act or any other written law or which may vest in the Council in any other manner in the performance of its functions.	b) Such donations, grants, requests and loans as the Council may, from time to time receive from any person or organization; c) Any sums or property which may vest in the Council under this Act or any other written law or which may vest in the Council in any other manner in the performance of its functions.
Composition of the Council	
(a) A Chairman who shall be appointed by the President	A Chairman who shall be appointed by the President among persons with sufficient knowledge in CI and related activities

NCC Act No. 20 of 1979	NCC Revised Act 2008
(b) Twelve members appointed by the Minister representing one each: (i) The Prime Minister's Office; (ii) The Ministry of Capital Development; (iii) The Ministry of Finance and Planning; (iv) The Ministry of Industries; (v) The Ministry of Labour and Social Welfare; (vi) The Ministry of Lands, Housing and Urban Development; (vii) The Ministry of Manpower Development; (viii) The Ministry of National Education; (ix) The Ministry of Natural Resources and Tourism; (x) The Ministry of Trade; (xi) The Ministry of Water, Energy and Minerals; (xii) The Ministry of Works	(b) Seven members representing the public sector appointed by the Minister one each from the following; (i) Ministry responsible for infrastructure development; (ii) Ministry responsible for local government; (iii) Ministry responsible for lands, housing and human settlements development; (iv) Ministry responsible for water; (v) Ministry responsible for finance; (vi) Ministry responsible for science and technology; (vii) An institution of higher learning training persons to be engaged in the CI
(c) Three other members appointed by the Minister to represent such technical and professional institutions as are likely to assist the Council in the discharge of its functions.	(c) Seven other members representing the private sector appointed by the Minister from the professionals, category of groups or institutions as follows: (i) Two contractors; (ii) Architects; (iii) Engineers; (iv) Quantity Surveyors; (v) Manufacturers and suppliers of construction equipment and materials; and (ci) Tanzania Private Sector Foundation.
(d) Three other members appointed by the Minister from amongst persons who, in his opinion, have necessary experience or qualification to enable them make a useful contribution to the realizations of the objectives of, and to the deliberation of the Council.	

3.7 Review of Construction Industry Policy Study 2015

As part of EU funded Capacity Building for the Transport Sector in Tanzania, which is part of the Road Transport Sector and Policy Support Programme – Phase II, a study was commissioned to review the CI Policy in Tanzania. According to the Study, constraints facing the CI were identified by the MOW in 2014 as being:

(a) Lack of strong leadership in the promotion of the local CI;

(b) Under sourced and undercapitalized local CI in combination with lack of supportive institutional mechanism for financial credit facilities and equipment hire;

(c) Uncoordinated approach and insufficient incentive towards promoting continuous professional skills development in the local CI, particularly in targeting the youth;

(d) Excessive competition in the market for small contracts;

(e) Unfavourable bid eligibility criteria making it very difficult for local contractors to qualify for larger (foreign funded) tenders;

(f) Unbalanced packaging of works and unpredictable work opportunities discourages contractors from making investments in their business;

(g) Rapidly increasing cost of construction including local labour cost; and

(h) Climate change effects and environmental pollution caused during construction and unsustainable use of construction material.

Further challenges among public sector clients were identified by the Study Team in various studies and audits. They include the following:

(a) Awarding contracts with inadequate funds in the budget, leading to delayed payment to contractors and consultants;

(b) Poor performance in managing contracts for construction and for design;

(c) Poor quality designs and failure to ensure that design is complete before tender for construction contracts, which necessitates expensive changes during construction;

(d) Inability of LGA clients to produce accurate estimates of actual construction costs and to distinguish actual costs from sums in the budget: the contract is generally awarded to the bid closest to the budget, which makes a nonsense of competitive tendering; and

(e) Weak supervision of construction and failure to ensure the contract is carried out according to the specifications and required quality.

The Study Team proposed the following vision, mission, goal and objectives:

Vision

The **Vision** of CI Development is to have a dynamic, efficient and competitive local CI that is able to undertake construction projects of any magnitude and provide high quality construction in Tanzania and eventually in the regional and global market place.

Mission

The **Mission** is to create an enabling environment for the development of a vibrant, efficient and sustainable local industry that meets the demand for its services to support sustainable economic and social development objectives.

Goal

The goal of the CI development policy is to improve the quality and productivity of Tanzanian construction with greater participation by Tanzanian service providers.

Objectives

The policy has eight objectives, namely to:

(a) Improve the capacity and competitiveness of construction enterprises owned by Tanzanians (such as contractors, consultants and material suppliers) to enable them to undertake most of the construction projects by the year 2025.

(b) Improve availability of work opportunities to Tanzanian construction enterprises.

(c) Improve public sector delivery capacity.

(d) Improve quality and productivity of public investment in constructed facilities and services.

(f) Create an appropriate framework for implementation of the CIP

(g) Improve governance and reduce corruption in the construction sector.

(h) Ensure compliance with Health, Safety and Environmental regulations in the construction Process.

(i) Promote equal opportunities for men and women in the CI and address HIV & AIDS and other infectious diseases.

Challenges towards implementation

Consultation with stakeholders suggests two key factors required to push forward with implementation to achieve the objectives set out above are adequate funding and strong political support. Strong political support will be manifested through revitalizing NCC institutional capacity to carry out its function as an Apex organization in the CI.

3.8 Conclusion

This chapter has revealed the need to ensure that a strong framework is in place in order to support and coordinate the industry in a more coherent, efficient and productive manner for ensuring and assuring quality. Towards this end, a robust body is required for coordinating the proper and efficient functioning of the CI. The current situation whereby NCC assumes diffused status within the CI need a redress. It is high time that NCC assume the central role in supporting the industry. This can only be possible by revitalizing it in order to shoulder the control and supportive roles of the industry in Tanzania. Consultants, contractors, material suppliers, clients and other players all have stake in NCC depending on where each one stands. More important, as has revealed also in Chapter 2, there is a need to cover the gaps existing in the institutional and regulatory setup with regards construction projects undertaken by both public and private sector with the latter being more vulnerable to poor quality and mismanagement.

4.0 EXPERIENCES FROM OTHER COUNTRIES

4.1 Introduction

In order to establish the relevance of and come up with new functions of NCC, it was also necessary to study the structure and the functions of institutions in other countries playing the developmental and coordination role in the CI. Such Institutions included the National Council for Construction of Zambia, Construction Industry Development Board of Mauritius, National Construction Industry Council of Malawi, Construction Industry Development Board of Malaysia, Construction Industry Development Council of India, Construction Industry Development Board of South Africa and National Construction Authority of Kenya.

The institutions listed above were selected based on the availability of information within the Team members and the NCC, and the internet. Despite the team's desire to make a detailed analysis of the performance of such institutions, the information provided in this chapter is limited to what was available to them.

4.2 The National Council for Construction of Zambia

4.2.1 Functions

The National Council for Construction (NCC) is a statutory body set up under the National Council for Construction Act No. 13 of 2003 responsible for the promotion, development, training and regulation of the CI in Zambia. Under the Act, the NCC is further charged with the responsibility of registering contractors, affiliated professional bodies or organizations whose members are engaged in activities related to the CI and to provide for matters connected with or incidental thereto.

Its functions are to:

(a) Promote and develop the CI in Zambia, and give priority to Zambian firms and Zambian Companies;

(b) Assess the performance of contractors in the execution of contracts and thus provide a performance record for contractors;

(c) Regulate the behaviour and promote minimum standards and best practice of contractors;

(d) Provide data on the size and distribution of contractors operating within the industry;

(e) Facilitate, where possible, access by Zambian firms or Zambian Companies to resources for the development of their operations;

(f) Promote, in liaison with other bodies in construction related fields, development issues relating to the construction industry;

(g) Promote research into construction and the development and use of local materials and appropriate construction materials;

(h) In consultation with the National Housing Authority, the Director in the Buildings Department and other bodies, promote the construction of affordable low cost and medium density housing;

(i) Set and promote safety standards in the CI;

(j) Prescribe and vary the categories for the registration of persons engaged in the CI;
(k) Conduct training and co-ordinate the training programmes of persons engaged in the CI;
(l) Make available to persons engaged in the CI, published information, advice and assistance in relation to the CI;
(m) Monitor and evaluate, from time to time, the capacity and progress of persons engaged in the CI;
(n) Promote and maintain competition among the professionals or other persons engaged in the CI and promote efficiency and economy on the part of the professionals and persons so engaged;
(o) Regulate activities in the CI through the appropriate institutions, Boards and other authorities, as the case may be;
(p) Co-ordinate construction related activities;
(q) Formulate policies and programmes of the School;
(r) Recommend to the Minister the conditions under which a foreign firm or foreign company may be registered and permitted to operate in Zambia;
(s) Review, from time to time, the process of awarding contracts;
(t) Standardise quality control, contract documentation, codes of practice, procurement processes, legal and contractual processes in liaison with other relevant bodies or organizations and in accordance with other written laws; and
(u) Do all such acts or things as are connected with or incidental to the functions of the Council under the Act.

6. The Council has powers to–

(a) Direct any contractor or person providing services in the CI to deliver its services in such manner as to ensure compliance with this Act;
(b) Require any contractor or person to submit such information and records as may be necessary to enable the Council to monitor the performance of the contractor;
(c) Consider any matter affecting the CI and make representations thereon to the Minister;
(d) Recommend training institutions in Zambia and outside for the training of persons engaged in the CI;
(e) Obtain information related to the industry from any person engaged in the CI in Zambia;
(f) Obtain and collate information concerning any existing or proposed project and where necessary, advise persons engaged in the CI on the project; and
(g) Generally, to do such things as the Council may consider necessary or expedient for the performance of its functions under this Act.

One important function carried by the NCC of Zambia as prescribed in the Act is to own a Construction School. The Act under section 17 that;

17. (1) There is hereby established the Construction School which shall—

(a) Conduct training for technical staff in construction and construction related subjects;
(b) Provide courses in labour based technology;
(c) Provide courses or training skills for personnel in the CI;
(d) Offer courses in research and consultancy for persons in the field of construction; and
(e) Provide for and offer such other capacity building programmes as the Council may consider necessary.

4.2.2 Composition of the Board

The composition of the Council stipulated under Section 4 of NCC Act No. 13 of 2003. It is provided that;

4. (1) The Council shall consist of the following part time members appointed by the Minister:

- (a) An architect nominated by the Zambia Institute of Architects;
- (b) A consulting engineer nominated by the Association of Consulting Engineers of Zambia;
- (c) A surveyor nominated by the Surveyors Institute of Zambia;
- (d) A contractor nominated by the Association for Building and Civil Engineering Contractors;
- (e) A contractor nominated by the National Association for Small-Scale Contractors;
- (f) A member nominated by construction materials manufacturers and suppliers;
- (g) A representative of the public universities in Zambia;
- (h) A representative of the Technical Education, Vocational and Entrepreneurship Training Authority;
- (i) A representative of the Zambia Bureau of Standards;
- (j) A representative of the Energy Regulation Board;
- (k) A representative of the Attorney-General;
- (l) The Permanent Secretary to the ministry responsible for works and supply;
- (m) The Permanent Secretary to the ministry responsible for finance and national planning;
- (n) The Permanent Secretary to the ministry responsible for local government and housing; and
- (o) One other person.

(3) The Minister shall appoint the Chairperson and the members shall elect the Vice-Chairperson from among their number.

4.2.3 Sources of Funding

Sources of funding of NCC of Zambia stipulated under paragraph 10 of the First Schedule of the NCC Act:

10. (1) The funds of the Council shall consist of such monies as may:

- (a) Be appropriated by Parliament for the purposes of Council;
- (b) Be paid to the Council by way of fees, grants or donations; and
- (c) Otherwise vest in or accrue to the Council.

(2) The Council may;

- (a) Accept monies by way of grants or donations from any source in Zambia and, subject to the approval of the Minister, from any source outside Zambia;
- (b) With the approval of the Minister, raise by way of loans or otherwise, such monies as it may require for the discharge of its functions; and
- (c) Charge and collect fees in respect of programmes and seminars conducted by the Council.

4.3 The National Construction Industry Council of Malawi

4.3.1 Functions

The National Construction Industry Council (NCIC) was established in 1996 by an Act of Parliament with the mandate to Regulate, Develop and Promote the CI in Malawi. NCIC's role is to create an enabling environment that will not only facilitate the fulfiment of its mandate, but one that will provide the drive and the organizational structure to raise quality levels across the industry among local and foreign players thereby enhancing wider appreciation of the interests of the CI by all stakeholders.

In order to develop and promote the construction industry, NCIC undertakes various activities that include but are not limited to the following: advising Government on policy formulation related to the industry that will facilitate growth and enhance professionalism, standardization of construction contracts and procedures, training manpower both at the skilled and contract management level, grading and monitoring of moniourlng of onsnsruction entities, creating an enviornment that ensures quality operations for all Malawian contractors and interaction and networking with local and interatoonal organizations to promote research and information sharing on technologies and best practices.

Its functions can be grouped into the following functional groups:

(a) **Development of Regulations & Standards:** NCIC ensures that all Contractors, Consultants, Material Manufacturers and Suppliers and all stakeholders in the CI are operating within the governing rules as stipulated in the National Construction Industry Act (NCI Act) as well as Codes of Ethics (2009). These include registration of firms with the council and commitment to Professionalism and ethical conduct by stakeholders.

(b) **Registration of CI Players:** Only those players certified by the Council can carry out construction related activities in Malawi (NCIC Act section 20) which ensures commitment to professionalism and ethical conduct. Registration is for all players including contractors and consultants.

(c) **Monitoring the Activities of CI Players:** All players in the industry are expected to give paramount consideration to issues of safety, health and welfare of the public; perform services only in areas of their competence; refrain from any corrupt practices and deceptive acts and to conduct themselves honourably and lawfully. To ensure that the above requirements are met by all players in the industry, NCIC conducts regular monitoring activities by players and transgressors are disciplined accordingly.

(d) **Development of Standards:** NCIC works in liaison with various stakeholders in identifying areas that need standards or adoption of standards and coordinating the development of various standards for the CI and promoting the use and compliance of standards. Organizations and all stakeholders who observes any gaps in standards are required to communicate to the Council for appropriate action. So far in liaison with Malawi Bureau of Standards, the Code of Practice for design loadings for buildings were created in 2010 and the NCIC is in the process of finalizing the National Building Standards.

(e) **Project Registration:** This initiative effectively started in March 2013 in accordance with the Project Registration Regulations (Government Notice No. 19). The initiative was developed as a response to the need by the CI players. The aim of project registration is to effectively monitor the performance of CI. It facilitates gathering data which assist the industry in:

(i) Accurately determining the volume and value of construction activities;

(ii) Monitoring the performance of contractors, consultants, material suppliers and other stakeholders;

(iii) Consolidating best practices; and

(iv) Consolidating challenges and proposing mitigating measures.

(f) **Training:** NCIC as a centre of excellence for the fostering of a vibrant and highly developed CI in Malawi, actively promotes the development of a competitive, competent, updated, creative and innovative industry through the provision of short courses. This not only enables productiveness and continuous professional development, but also bridges the capacity gaps among players at all levels in the industry. The NCIC organizes training courses in various fields of the CI including project/contract management, procurement, tendering and cost estimation as well as other technical aspects of the CI. Tailor made courses are also organized and conducted.

4.3.2 Composition of the Council

The composition of the NCIC of Malawi is provided under Section 4 of the Act as follows:

4 (1) The Council shall consist of the following members appointed by the Minister three quarters of whom shall, save in the case of an ex officio member, be citizens of Malawi-

(a) Three members who shall be contractors nominated by the Master Builders' Association and the Malawian Building Contractors and Allied Trades Association;

(b) One specialized subcontractor nominated by the Master Builders' Association and the Malawi Building Contractors and Allied Trades Association;

(c) One quantity surveyor nominated by the Board of Architects and quantity Surveyors;

(d) One engineer nominated by the Board of Engineers;

(e) One consulting engineer nominated by the Association of Consulting Engineers;

(f) Two members representing material manufacturers;

(g) One member nominated by the Board of Registration of Land Economy Surveyors;

(d) Promote and assist in the export of services relating to the CI;
(e) Promote and stimulate quality assurance in the construction industry;
(f) Promote the awareness of the need for a safe and healthy work environment in the CI;
(g) Promote and establish best practice in the CI;
(h) Promote research and development relating to the construction industry; and
(i) Facilitate communication between stakeholders of the construction industry.

6. Functions

The functions of the Board shall be to;

(a) Implement government policy relating to the CI;
(b) Regulate and register providers of construction works and construction services;
(c) Exercise regulatory functions in respect of the construction industry, including the registration of consultants and contractors;
(d) Provide advisory services to the CI and to the public in general;
(e) Publish an annual list of registered consultants and contractors;
(f) Advise and make recommendations to the Minister on matters relating to the CI;
(g) Encourage the standardisation and improvement of construction materials and techniques;
(h) Develop standard forms of construction agreements and contracts;
(i) Develop and maintain a CI information system;
(j) Develop and promote training programmes for operators of the CI;
(k) Advice relevant authorities on human resources development of the CI;
(l) Conduct surveys on the CI;
(m) Entertain complaints in connection with construction works and construction services and where necessary refer them to appropriate authorities;
(n) Publish periodically indicative schedules of rates for construction works; and
(o) Perform such other functions as may be necessary to further its objects.

7. Powers of the Board

The Board may–

(a) Do all such acts as are necessary for it to achieve its objects and perform its functions, and in particular;
  (i) Register consultants and contractors in the construction industry;
  (ii) Cancel, suspend or reinstate the registration of any consultant or contractor;
  (iii) Charge a reasonable fee in respect of any services provided by the Board;

(b) Subject to the approval of the Minister, accept grants or take a loan.

4.4.2 Members of the Board

The composition of the Board includes representation of all key stakeholders of the CI.

The Council

(1) The Board shall be administered by the CI Development Council.
(2) The Council shall consist of–
  (a) A Chairperson, who shall be appointed by the Minister;
  (b) Two representatives of the Ministry responsible for the subject of public infrastructure;
  (c) A representative of the Ministry responsible for the subject of human resource

development;

(d) A representative of the Ministry responsible for the subject of employment;

(e) A representative of the Mauritius Standards Bureau;

(f) A representative of the Mauritius Association of Architects;

(g) A representative of the Institution of Engineers Mauritius;

(h) A representative of the Mauritius Institute of Surveyors;

(i) A representative of the Mauritius Association of Quantity Surveyors;

(j) A representative of contractors' association to be appointed by the Minister;

(k) A person to be appointed by the Minister to represent the interest of small and medium enterprises of the construction sector.

4.4.3 Sources of Funds

The Act provides for a Fund into which monies received by the Board shall be received but does not explicitly state the sources of the funds. However, the main sources are registration fees and other fees charged for the services rendered to the industry. The powers vested on the Board, particularly the powers to cancel, suspend or reinstate the registration of any registered consultant or contractor ensures the payment of necessary registration fees by the relevant groups.

4.5 Construction Industry Development Board of Malaysia

4.5.1 Functions

The Construction Industry Development Board (CIDB) of Malaysia was established in 1994 to provide leadership and co-ordination among the players in the CI to enable them to move towards global competitiveness. It was established to handle issues affecting the CI in Malaysia including lack of unskilled manpower, unreliable materials supply, frequent construction defects, low productivity, high number of accidents at sites, insufficient information and data base and poor coordination among industry players. Its overall objective is to develop the capacity and capability of the CI through the enhancement of quality and productivity by placing great emphasis on professionalism, innovation and knowledge, in the endeavour to improve quality of life.

The functions of the CIDB of Malaysia are as follows (CIDB, 2016):

(a) To promote and stimulate the development, improvement and expansion of the CI;

(b) To advise and make recommendations to the Government on matters related to the CI;

(c) To promote, stimulate and undertake research in matters relating to the CI;

(d) To promote, stimulate and assist in the export of service relating to the CI;

(e) To provide consultancy and advisory services with respect to the CI;

(f) To promote quality assurance in the CI;

(g) To encourage the standardization and improvement of construction techniques and materials;

(h) To initiate and maintain a CI information system;

(i) To provide, promote, review and coordinate training programmes organised by public and private construction training centres for skilled construction workers and construction site managers;

supervisors;

(j) To accredit and register contractors including to cancel, suspend or reinstate the registration of any registered contractors; and

(k) To accredit and certify skilled construction workers and construction site supervisors.

4.5.2 The National Construction Cost Centre

The National Construction Cost Centre or N3C is a key initiative undertaken by CIDB to fulfil one of CIDB's functions under Part II, Section 4(1)(e) and (h) of Act 520 that is "to provide consultancy and advisory services with respect to the CI" and "to initiate and maintain a CI information system".

The main objective of N3C is to provide construction cost information with respect to the following:

(a) Building materials price, labour wage rate, machinery hire rate & equipment purchase;

(b) Cost indices pertaining to building materials, labour, machineries & equipment;

(c) Construction costs indices for major building categories; and

(d) Construction labour productivity on selected trades in construction works including labour unit rates (cost data collection is under development).

The Construction Cost Centre is one of key initiatives which need to be considered to be undertaken by the NCC of Tanzania to assist the country overcome problems of "*Rapidly increasing cost of construction including local labour cost*" mentioned in section 3.7of this report.

Other noted initiatives undertaken by the CIDB are to publish a quarterly Construction Statistics Bulletins and yearly Construction Demand of Malaysia. In addition, CIDB of Malaysia runs a CI Resource Centre (CIRC) which was established to prioritize cost-related information derived from the traditional factors of production' - 3M' perspective [Man, Materials and Machinery]. Details of CIRC are given in **Annex 3.**

4.5.3 Composition of Board

The Board shall consist of the following members:

a) A Chairman;
b) Six representatives from the private sector: and
c) Four representatives who shall hold office in the public services who shall be appointed by the Minister.

4.5.4 Funding of Board

The CIDB is financed by a fund to be administered and controlled by the Board. The Fund consists of:

(a) Such sums as may be provided from time to time for the purpose of this Act by Parliament;
(b) Monies earned from the consultancy and advisory services provided by the Board;
(c) Monies earned by the operation of the CI information system;
(d) Monies earned or arising from any property, investments, mortgages, charges or debentures acquired by or vested in the Board;
(e) Any property, investments, mortgages, charges or debentures acquired by or vested in the Board;
(f) Sums borrowed by the Board for the purpose of meeting any of its obligations or discharging any of its duties;
(g) Monies earned from the registration of contractors and the accreditation, certification and registration of skilled construction workers and construction site supervisors;
(h) Monies collected by way of levy under section 34 of this Act; and
(i) All other sums or property which may in any manner become payable to or vested in the Board in respect of any matter incidental to its functions, powers and duties.

LEVY

34 (1) Every registered contractor shall notify and submit to the Board any contract which he has executed on any construction works having a contract sum of above five hundred thousand ringgit.

(2) There shall be imposed by the Board on every registered contractor, before the commencement of any construction works having a contract sum of above five hundred thousand ringgit, a levy which shall be a quarter per centum of the contract sum.

(3) The Board shall then notify the registered contractor of the amount of levy to be paid within such period as it may prescribe

(4) The Levy may be paid to the Board or its authorized agents at such office or place as may be determined by the Board

(5) Where a registered contractor fails to pay any levy due within such period as may be prescribed, the registered contractor shall be guilty of an offence and shall, on conviction, be liable to a fine not exceeding fifty thousand ringgit.

(6) The Minister may, from time to time, by order published in the Gazette reduce or increase the rate of levy specified in subsection (2).

(7) The amount of any levy payable under this section shall be recoverable as a civil debt due to the Board.

(8) In this section, contract sum means the consideration for a contract in respect of any construction work.

4.6 Construction Industry Development Council of India

4.6.1 Functions

The Planning Commission, Government of India along with the CI has set up Construction Industry Development Council (CIDC) to initiate activities for the development of the Indian CI.

The Council started functioning in full swing from August 1996 and has taken up several important projects related to several vital issues of concern. A notable few are:

(a) Standardizing contract conditions for Domestic Bidding Documents.

(b) Computation and publication of Construction Cost Indices.

(c) Human Resource Development:

  (i) Training & certification of construction workers & supervisors.

  (ii) Diploma programme in Civil and Electrical & Mechanical Engineering - for Army Jawans.

  (iii) Vocational & job-oriented training for the secondary level students.

(d) Setting up Arbitration & Dispute Resolution Centre for construction contracts (for details see www.ciac.in);

(e) Issues related to financing in CI.

(f) Development & implementation of Grading of construction entities.

(g) Networking with National and International construction bodies.

(h) Establishing a Construction Equipment Bank.

(i) Insurance products for construction projects.

(j) Development of Harmonized Eligibility Criteria for Lending to Construction Entities.

The Objectives of the CIDC are:

(a) To improve, strengthen and develop all aspects of the CI in India – its magnitude, corporate strength, its diversity and specialization, project execution systems, machinery and material backing and financial support systems so as:

  (i) To be able to engender quality, speed, economy and efficiency in all types of construction activity necessary for achieving the objectives of construction programmes and projects planned and executed in India.

  (ii) To be competent and conspetitive in the domestic and international market.

  (iii) To be responsive to the latest economic, technical, environmental and social public policies.

(b) To act as a nodal agency for an all-round modernization, growth and development of construction sector as a whole including consulting organizations, engineering, architecture, design, contracting and other specialist agencies, manufacturers and suppliers of construction material, machinery and plant, trained workers, supervisors and managers and also clients, supervisory departments and their project execution systems.

(c) To make suggestions/recommendations regarding policies and procedures concerning supervision/execution of construction works and infrastructure development in areas like modernization, industrialization, energy and ecology conservation, privatization, joint venturing etc.

(d) To suggest ways and means to improve the quality and economy of all types of inputs as well as the products of construction.

(e) To suggest ways to bring about more effective and harmonious coordination among concerned Government departments, PSUs, other councils, project authorities, executing agencies, machinery and material manufacturers and their associations for promoting more efficient and effective methods of project management as well as better and more environmental friendly methods and materials of construction to be adopted by construction, designing, supervising and executing agencies.

An example Construction Cost Indices produced by the Board is shown in Figure 4.1.

4.6.2 Composition of the Council

Membership of CIDC is open to corporate bodies, institutions, Central and State Government departments and PSUs with major interest in various aspects of construction. They are admitted as corporate or institutional (educational, research, training, etc) members. Those who pay ten times the annual subscription will become Permanent members. Such corporate and institutional members including permanent members will constitute the General Body of the Council.

CCI – January 2016
Base - 100.00 October 2007

S. No.	Market	Building CCI	Road CCI	Bridge CCI	Dam CCI	Power CCI	Railway CCI	Mineral Plant CCI	Medium Industry CCI	Transmission CCI	Urban Infra CCI	Maintenance CCI
1	Agartala	143.35	144.06	140.27	143.24	142.39	144.19	142.18	138.46	141.08	137.36	136.2
2	Agra	145.16	146.47	141.7	145.02	143.71	145.74	143.33	139.89	142.74	138.95	137.13
3	Ahmedabad	143.01	145.48	141.97	144.84	142.44	143.85	142.87	138.38	139.81	138.41	136.79
4	Aizawl	143.63	145.66	139.85	143.49	141.79	143.94	141.13	136.1	141.14	137.33	136.81
5	Ajmer	145.73	148.28	142.94	146.49	144.09	147.08	144.41	141.12	144.11	140.26	138.07
6	Allahabad	145.16	145.78	142.08	145.09	144.16	146.04	144.08	140.22	142.67	136.12	136.06
7	Ambala	143.96	146.2	140.89	144.25	142.86	144.77	142.05	136.92	141.92	138.1	136.75
8	Amritsar	142.83	144.72	139.76	143.14	141.74	143.77	141.29	137.99	140.85	137.09	135.12
9	Anand	142.47	146.3	143.35	145.13	143.24	143.58	143.29	140.05	142.5	139.64	139.82
10	Anziaiswar	141.12	146.21	146.17	145.18	143.03	142.51	143.27	140.14	142.38	139.99	141.16
11	Asansol	145.02	144.7	142.48	146.93	144.86	148.27	144.94	140.58	142.9	139.22	139.2
12	Bengaluru	141.54	145.65	138.09	144.42	142.64	141.63	141.87	136.99	139.58	135.11	134.65
13	Bhopal	144.89	145.96	140.63	145.43	143.2	144.61	142.91	139.11	141.46	137.65	136.68

Figure 4.1 Format of Construction Cost Indices for India

According to the establishment order of CIDC of India, it has a Board of Governors consisting of 30 members as follows:

(a) Chairman nominated by the Chairman of Planning Commission

(b) Elected members from among and by each of the three categories of members for tenure of two years, eligible for re-election after a gap of two years

- (i) Permanent Members 4
- (ii) Corporate Members 4
- (iii) Institutional members 2

(c)	Industry Associations	3
(d)	Institutional Members (nominated)	1
(e)	Government Departments (major clients of the CI)	2
(f)	Central Public Sector undertaking with major stake in Construction	3
(g)	State Governments or their nominee departments/PSUs	3
(h)	Persons of Eminence in the Field of Construction	2
(i)	DG, CIDC – Member Secretary	1

A Managing Committee of 10 members from the Board supervises the day to day working of the CIDC assisted by the Director General and his staff.

4.6.3 Funding of the Council

The CIDC is funded through a corpus of funds created, and annual subscription paid by its members. The corpus is invested in long term securities, and the yield is used by the CIDC. The legal provision for the funding mechanism of the CIDC is inherent in the Constitution of the Council. The funds are managed by the CIDC's Board of Governors.

4.7 National Construction Authority of Kenya

4.7.1 Functions of the Authority

The National Construction Authority was established as a result of the enactment of The National Construction Authority Act in 2011. The Act was assented on 2nd December 2011 and operationalized on 8th June 2012.

The functions and powers of the Authority are given in Section 5 and 6 of the Act respectively as follows:

(1) The object for which the Authority is established is to oversee the CI and coordinate its development.

(2) Without prejudice to the generality of subsection (1), the Authority shall—

- (a) Promote and stimulate the development, improvement and expansion of the CI;
- (b) Advise and make recommendations to the Minister on matters affecting or connected with the CI;
- (c) Undertake or commission research into any matter relating to the CI;
- (d) Prescribe the qualifications or other attributes required for registration as a contractor under this Act;
- (e) Assist in the exportation of construction services connected to the CI;
- (f) Provide consultancy and advisory services with respect to the CI;
- (g) Promote and ensure quality assurance in the CI;
- (h) Encourage the standardisation and improvement of construction techniques and materials;
- (i) Initiate and maintain a CI information system;
- (j) Provide, promote, review and co-ordinate training programmes organized by public and private accredited training centres for skilled construction workers and construction site supervisors;
- (k) Accredit and register contractors and regulate their professional undertakings;
- (l) Accredit and certify skilled construction workers and construction site supervisors;
- (m) Develop and publish a code of conduct for the CI; and
- (n) Do all other things that may be necessary for the better carrying out of its functions under the Act.

6. Powers of Authority

(1) The Authority shall have all the powers necessary for the proper performance of its functions under this Act, and, in particular, but without prejudice to the generality of the foregoing, the Authority shall have power—

   (a) To award certificates of proficiency to contractors, skilled construction workers and construction site supervisors;
   (b) With the approval of the Minister, to impose fees or any other charges as it deems fit in respect of any of its functions or powers;
   (c) With the approval of the Minister, to facilitate, or promote the establishment or expansion of, companies, corporations or other bodies to carry on any activities related to construction either under the control or partial control of the Authority or independently; and
   (d) To receive, in consideration of any services that may be rendered by it, such commission or payments as may be agreed upon with any person.

4.7.2 Membership of the Board

The membership of the Board as stipulated in Section 7 of the Act is as follows:

(a) A chairperson. who shall be appointed by the Minister from among the members appointed under paragraph (g);
(b) The Permanent Secretary in the Ministry for the time being responsible for matters relating to public works;
(c) The Permanent Secretary in the Ministry for the time being responsible for matters relating to roads;
(d) The Permanent Secretary in the Ministry for the time being responsible for matters relating to local government;
(e) The Permanent Secretary to the Treasury;
(f) The Permanent Secretary in the Ministry for the time being responsible for housing;
(g) Seven members comprising representatives of each of the organizations specified in Parts I and II of the First Schedule and appointed by the Minister from amongst three persons nominated by each of the organizations; and
(h) Two members appointed by the Minister to represent groups with special interests in the CI.

Organisations mentioned in Part I of the First schedule are the Architectural Association of Kenya, the Institution of Engineers of Kenya, the Institute of Quantity Surveyors of Kenya; and the Law Society of Kenya. Those in Part II are the Kenya Federation of Master Builders, the Kenya Association of Building and Civil Engineering Contractors, and the Roads and Civil Engineering Contractors Association.

4.7.3 Funds of the Authority

In accordance with Section 30 and 31 of the Act, the funds of the Authority shall consist of—

30. Funds of the Authority

(a) Such income as may be provided by Parliament for the purposes of the Authority;
(b) Such monies as may accrue to the Authority in the performance of its functions under this Act;
(c) All the proceeds of the levy imposed under section 31; and
(d) All monies from any other source provided for or donated or lent to the Authority.

31. Imposition of levy

(1) The Minister may, by notice in the *Gazette*, impose a levy to be known as the construction levy on construction work carried out by persons registered under this Act.

(2) The levy shall be in an amount not exceeding an equivalent of 0.5%, of the value of any contract whose value exceeds five million shillings.

(3) The Minister may make regulations prescribing the manner of payment of the levy.

4.8 Conclusions and Lessons Learnt

From the reviewed institutions, the following can be concluded with regards to the following items:

(a) Functions: Almost all of them have been established with objects of spearheading development of CI. However, their ambit differs from country to country. In Zambia, Malawi and Mauritius these organisations are responsible for registration of all CI players i.e. contractors and consultants. Most of the functions resemble those of NCC in Tanzania but it seems there is a leaf to borrow from the following:

(i) Computation and publication of various construction indices through creation of construction cost related one-stop centre;

(ii) Training and certification of construction workers and supervisors including the setting of construction school for that purpose;

(iii) Registration of projects for the purpose of effectively monitoring the performance of CI.

(b) Composition of the Board: Given the diversity of the CI, the compositions of the Board have an industry wide representation of stakeholders of the industry which is an important element if the institutions are to spearhead the development of CI.

(c) Funding: Most of the surveyed organisations get their funds through fees payable by their members which is made possible through the powers granted to cancel, suspend or reinstate the registration of any registered person thus ensuring the payment of necessary registration fees by the relevant groups.

5.0 FINANCING STRUCTURE OF NCC

5.1 Background

Despite the fact that NCC is mandated to spearhead the development of the CI in Tanzania, one of its major obstacles in fulfilling its mandate has been lack of adequate finances. The NCC Act 2008 stipulates that NCC shall be funded through mainly budget allocations from the Government as provided in Section 14 of the Act as follows:

14.-(1) The Funds and resources of the Council shall consist of:

(a) Such sums as may be provided for the purpose of the Council by Parliament, either by way of grant or loan;

(b) Such donations, grants, requests and loans as the Council may, from time to time receive from any person or organization;

(c) Any sums or property which may vest in the Council under this Act or any other written law or which may vest in the Council in any other manner in the performance of its functions.

The above sources of funds are the same as those that were provided in NCC Act. No 20 of 1979 despite the Sustainable Financing Arrangements Study of 2002 which proposed to have a Construction Industry Fund funded through a levy based on the value of construction projects, fixed annual contributions by companies and use of skills development levy derived from key players of the CI.

5.2 Financial Situation of NCC

NCC has two main sources of revenue, namely, revenue from Government subvention to cover personnel emoluments (PE) and other charges (OC), and internally generated funds. **Table 5.1** shows the trend of funds allocation to the NCC from both the Government subvention and internally generated funds.

From **Table 5.1,** it is seen that the Government subvention has become unreliable and erratic due to the fact that, the Government has not been disbursing all the moneys in time. For instance, in the FY 2015/2016 total approved Government subvention was TSh. 1,074 million but only TSh. 511.0 million was disbursed, which is only about 47.7% of the approved budget. The situation in the FY year 2014/2015 and 2013/2014 was much better because the funds disbursed were about 61% and 90% respectively. The general trend indicates that Government subvention is declining.

Table 5.1: Summary of Budget Trend for Five years from 2011/2012-2015/2016

SN	PERIOD	SOURCE		PLANNED BUDGET (TZS)	APPROVED BUDGET (TZS)	ACTUAL RECEIVED (TZS)
1	2011/2012	GOV. SUBV	PE	366,069,000.00	366,069,000.00	397,203,514.00
			OC	501,080,000.00	138,480,000.00	138,480,000.00
		TOTAL		**867,149,000.00**	**504,549,000.00**	**535,683,514.00**
		IGF		1,155,500,000.00	1,155,500,000.00	773,355,398.00
		TOTAL BUDGET		**2,022,649,000.00**	**1,660,049,000.00**	**1,309,038,912.00**
2	2012/2013	GOV. SUBV	PE	569,748,000.00	569,748,000.00	475,866,000.00
			OC	360,000,000.00	200,000,000.00	154,503,000.00
		TOTAL		**929,748,000.00**	**769,748,000.00**	**630,369,000.00**
		IGF		786,620,000.00	786,620,000.00	462,017,118.00
		TOTAL BUDGET		**1,716,368,000.00**	**1,556,368,000.00**	**1,092,386,118.00**
3	2013/2014	GOV. SUBV	PE	485,579,000.00	485,579,000.00	553,570,000.00
			OC	358,991,000.00	198,991,000.00	61,723,900.00
		TOTAL		**844,570,000.00**	**684,570,000.00**	**615,293,900.00**
		IGF		935,200,000.00	775,200,000.00	513,175,694.00
		TOTAL BUDGET		**1,779,770,000.00**	**1,459,770,000.00**	**1,128,469,594.00**
4	2014/2015	GOV. SUBV	PE	991,266,000.00	662,774,000.00	440,138,023.00
			OC	186,713,270.00	178,423,789.00	72,003,875.00
		TOTAL		**1,177,979,270.00**	**841,197,789.00**	**512,141,898.00**
		IGF		701,470,000.00	701,470,000.00	356,766,595.00
		TOTAL BUDGET		**1,879,449,270.00**	**1,542,667,789.00**	**868,908,493.00**
5	2015/2016	GOV. SUBV	PE	991,266,000.00	991,266,000.00	488,234,196.12
			OC	138,010,800.00	83,496,500.00	23,683,172.00
		TOTAL		**1,129,276,800.00**	**1,074,762,500.00**	**511,917,368.12**
		IGF		542,010,600.00	542,010,600.00	467,244,720.00
		TOTAL BUDGET		**1,671,287,400.00**	**1,616,773,100.00**	**979,162,088.12**
	ABBREVIATION					
	GOV. SUBV: GOVERNMENT SUBVENTION					
	PE: PERSONAL EMOLUMENTS					
	OC: OTHER CHARGES					
	IGF: INTERNALLY GENERATED FUNDS					

Revenue from internally generated funds (IGF), consultancies and training courses has been erratic as well due to the fact that other institutions within and outside the Ministry responsible for construction also conduct courses and consultancy services in the same areas. Institutions that conduct such courses include Morogoro Works Institute, ATTI, CRB and AQRB. The Technical Audit unit in the Internal Audit Department at the Ministry of Finance also conduct technical audit for the Government and is occasionally requested by the RFB to conduct technical audit on projects financed by the RFB. Private Consultancy firms are also contracted by the RFB to carry out the audits, hence denying NCC the much-needed revenue. **Table 5.2** shows internally generated funds for NCC from 2011/2012 to 2015/2016.

Table 5.2: NCC's Internally Generated Funds (IGF) per Income Sources

S/N	PERIOD	INCOME CODE	INCOME SOURCE	ACTUAL AMOUNT (TZS)
1	2011/2012	650/650	General Consultancy Income	552,461,349.00
		650/651	Income from Arbitration and Advisory services	52,131,848.00
		650/652	Income from Technical Audit Services	17,766,000.00
		650/653	Income from Seminars, Workshops and Training	79,585,000.00
		650/654	Rental Income - Leased office and staff Quarters	59,518,601.00
		650/657	Sale of NCC Documents	11,892,600.00
			TOTAL	**773,355,398.00**
2	2012/2013	650/650	General Consultancy Income	296,317,390.00
		650/651	Income from Arbitration and Advisory services	39,866,064.00
		650/652	Income from Technical Audit Services	26,251,639.00
		650/653	Income from Seminars, Workshops and Training	41,208,051.00
		650/654	Rental Income - Leased office and staff Quarters	45,071,662.00
		650/657	Sale of NCC Documents	13,302,312.00
			TOTAL	**462,017,118.00**
3	2013/2014	650/650	General Consultancy Income	186,364,867.00
		650/651	Income from Arbitration and Advisory services	56,260,830.00
		650/652	Income from Technical Audit Services	124,754,818.00
		650/653	Income from Seminars, Workshops and Training	79,601,500.00
		650/654	Rental Income - Leased office and staff Quarters	46,589,800.00
		650/657	Sale of NCC Documents	9,354,961.00
			TOTAL	**502,926,776.00**

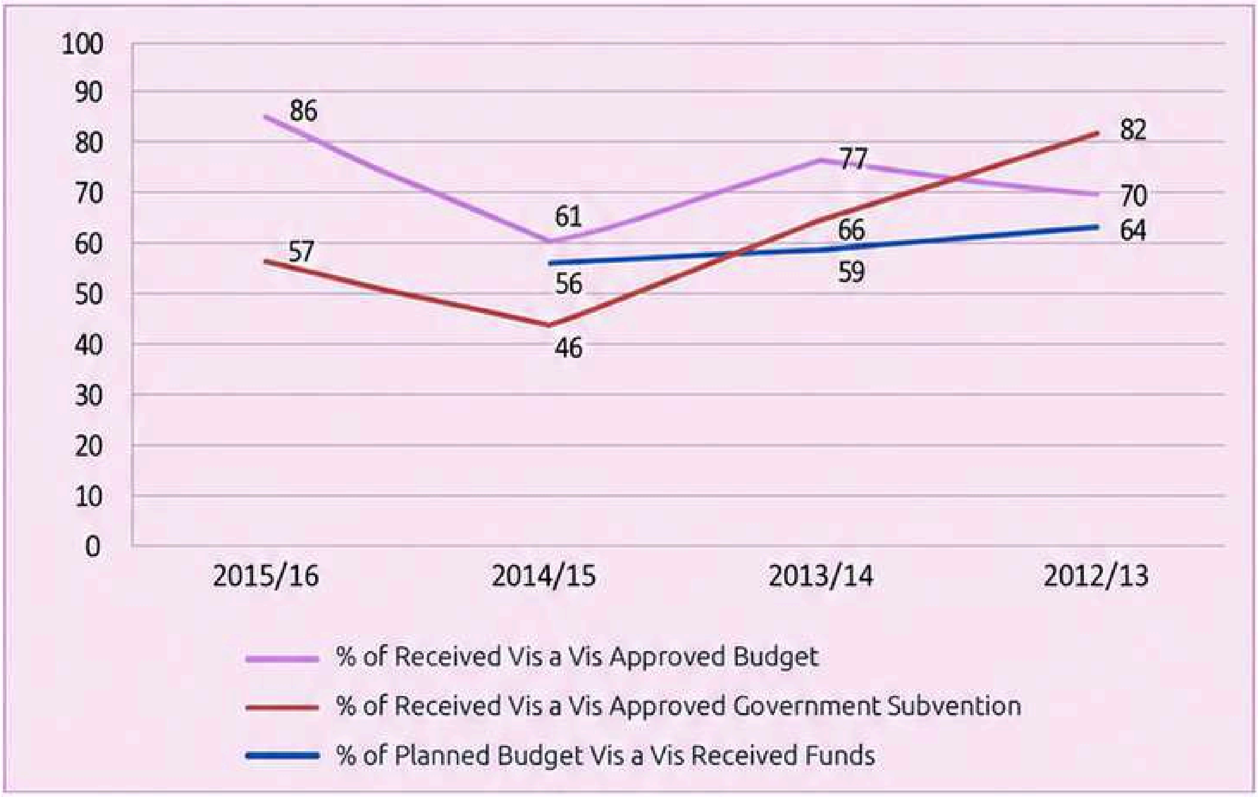

Figure 5.1: Funds Received by NCC in Comparison with Budget

5.3 Financing Reforms

Sustainable financing mechanism of a public institution requires that the main sources of revenue must be backed by law, capable of providing predictable stable revenue streams for planning and budgeting purposes. In order for NCC to have sustainable sources of revenue and be able to meet recurrent and capital expenditures, it is recommended that the following two categories of revenue be considered:

(a) Main Sources of Revenue; and
(b) Supplementary Sources of Revenue.

5.3.1 Main Sources of Revenue

Under this category, the following sources of revenue are recommended:

(a) Percentage of entrance and annual subscription fees charged by ERB, CRB and AQRB for registration of their members and registration of contracted projects

Explanation: This source of fund is justified by the fact that NCC's services, if performed as stipulated in the NCC Act, will benefit all players in the CI comprising of contractors, consultants, private and public sector clients, suppliers and producers of construction materials, and suppliers of construction equipment. Currently contractors and consultants are regulated by their respective registration boards and they pay entrance and annual subscription fees. To avoid multiple fees to these groups, it is therefore recommended that their financial contribution to NCC be through a percentage of revenue collection from those organizations obtained registration and annual fees, and registration of construction projects.

(b) Dedicated Levy on selected Key Construction Materials and equipment to support the development of the construction industry

Explanation: As above this source of fund is justified because suppliers of construction materials and equipment are the beneficiaries of a vibrant construction industry. The surcharge may be payable on selected materials like cement, reinforcements, paints, and roofing sheets. The surcharge could be levied at the point of purchase and would cover all construction projects.

(c) Fees for conducting technical audits for public projects and private projects which are intended for public use to check compliance to construction standards and ascertaining value for money

Explanation: The central Government sets aside annually funds for conducting Technical Audit of Development projects to ascertain value for money. For example, in the FY 2015/2016, NCC collected TSh. 213.8 million for carrying out technical audits without a statutory requirement for NCC to conduct these audits. There is also a room for collection of revenue from Road Safety Audits for all road projects which is not being done at present.

(d) Fees for mandatory vetting of applications for building permits for buildings before LGA can issue a building permit

Explanation: Currently, the LGAs issue building permits to all buildings to be erected in their respective localities. However, LGAs have demonstrated lack of capacity to analyse and approve for issuance of building permits for tall and complex buildings. Application for permits for such buildings should be vetted by NCC within its larger mandate of ensuring the implementation of standards, regulations and codes of practice.

(e) Fees for issuing permits for construction of roads, bridges and other civil engineering structures

Explanation: Currently, roads, bridges and other civil engineering structures are designed by consultants and the designs are approved by the client's team without an independent check to ensure that they comply with the standards. Some of the public bodies like LGAs, lack capacity to analyse and approve designs prepared by the consultants. The technical audits carried out while the project is under construction or after it has been completed do not help the clients address some of the problems with the design. Therefore, as part of its larger mandate of carrying out technical audits NCC Act can have provision for mandatory application of construction permits for such projects.

(f) Skills Development Levy

Explanation: One of key function of NCC is to provide training to the industry personnel. NCC has not been given the budget for training by the Government. Therefore, as part of its mandate of training to the industry personnel NCC is entitled to be given part of the skills development levy for that purpose.

5.3.2 Supplemental Sources

In addition to the main sources of funding proposed above when backed up by the law, the following supplemental sources of income are proposed:

(a) Government subvention to cater for personnel emoluments and other charges.

(b) Fees from training courses: There is room of increasing revenue from this source if NCC establishes a construction training school or other complimentary actions are taken to acquire the ATTI and MOWTI, as is the case for India, Malawi and Zambia.

(c) Fees for training and certification of Technical Auditors and Dispute Resolution Experts. The role of technical auditing and dispute resolution is expected to increase as the economy grows and many other sectors being audited for compliance. There is a need of establishing technical auditing standards and the cadre of technical auditors under NCC's mandate. This should as well apply to specialists in construction dispute resolution.

(d) Fees for obtaining information from the construction cost centre.

5.4 Conclusion

From the analysis, it is obvious that NCC is experiencing inadequate funding from the Government whose gap cannot be bridged through IGF. A proposal that was put forward in 2002 for a dedicated fund to finance NCC's activities was not taken on board when the NCC Act was revised in 2008. The Minister should ensure that the proposed funding arrangement is incorporated in the NCC Act.

6.0 FINDINGS AND ANALYSIS

6.1 Introduction

This chapter puts forward the Study Team's observations for the legal framework, institution structure, staff and funding for the NCC based on the findings and analysis. It is expected that information provided in this report will assist the Minister to facilitate revitalization of NCC for its effective functioning.

6.2 General Observations

Having reviewed the current situation of the CI in Tanzania, the requirements of the CIP, the Revised NCC Act of 2008 and experience from other countries and having made findings on the adequacy of the NCC Act intended to meet the requirements and the current challenges of the CI, The Study Team observed that there is a need to:

(a) Build capacity of all major players in the CI including: consultants, contractors, and clients both as the private and public sectors.

(b) Create more opportunities for Tanzania services providers to participate in construction projects in order to take advantage of the investments made in the construction sector.

(c) Make improvements in the quality and productivity in the construction projects.

(d) Bridge the gap existing in the regulatory setup in construction projects undertaken by the private sector.

(e) Establish a robust cost information centre which would provide players in the CI with key information required for managing costs of constructed facilities.

(f) Develop and ensure compliance with technical standards and codes of good practice for all constructed facilities.

(g) Build stronger institutional and legal frameworks for coordination and policy implementation.

6.2.1 Legal Framework

The CI Policy framework adopted by the Government in 2003, stands out as the principle blueprint intended to provide quality products and services that guarantee value for money to the CI and its clients. Towards giving effect to the CIP, the NCC Act was amended in 2008. The Act underscores the principle objective as being to **"promote and provide strategic leadership for the growth, development and expansion of the CI in Tanzania, with emphasis on the development of the local capacity for supporting socio economic development and competitiveness in the changing global environment".** This objective is captured as the main function of NCC Act of 2008. It is the observation of the Study Team that this should be rightly captured as the principle objective of establishing the NCC, and the proposed functions be facilitative towards attaining that objective.

The Study Team also observed that most of the functions of NCC currently spelt in the NCC Act 2008 are relevant, but there are other areas which need to be addressed based on good practice from other Countries. An example can be taken on the need to ensure quality of constructed facilities, information on construction cost centre, economic use of materials and coordinate training programmes. To achieve these roles, the functions of the NCC can be amended to include the following paragraphs:

(a) To ensure quality of constructed facilities NCC be mandated to carry out the following:

(i) Vet reports for approval of building permits to ensure that they comply with set standards and codes of practice before issuance of permits for building projects.

(ii) Register all projects for the purpose establish a data bank of all projects being undertaken in the country.

(iii) Conduct technical audits to establish and monitor compliance with standards and codes of practice;

(iv) Issuing permits for roads, bridges and other civil engineering works/projects.

(v) Certification of construction industry laboratories and practitioners.

(b) To establish a construction cost centre which will provide necessary information to all industry stakeholders for the purpose of estimating the construction costs and ascertaining achievement of value for money;

(c) To advise on the economical use of materials for construction and to encourage the maximum use of local materials;

(d) To conduct training and coordinate training programmes of persons engaged in the CI, and for that purpose establish a construction training school or designate existing construction schools to undertake this functions under the auspice of NCC.

Based on the CI Policy, the Study Team further observed that the legal framework for the NCC should reflect the policy directive. As such, the objectives, functions and powers recommended to be incorporated in the law are as follows:

Objective	The Objective of the NCC shall be to provide quality leadership to the construction industry in Mainland Tanzania with a view to enabling the construction industry to perform efficiently and effectively in the national socio-economic development and be competitive within the regional and global environment with emphasis on the promotion and enhancement of the development of local capacity	
	To meet its objectives, the functions of the National Construction Council shall be to a. Advise the Government on all matters relating to the development of the Construction Industry b. Set national benchmarks for the construction industry c. Provide advisory services and technical assistance to stakeholders in the CI d. Benchmark, monitor and evaluate performance of the CI; e. Conduct, evaluate and coordinate quality training for persons engaged or intending to engage in the CI; f. Provide and promote documentation and dissemination of CI related information g. Promote and monitor the development and implementation of standards, regulations and code of conduct for the CI. h. Carry out certification of CI laboratories and practitioners i. Carry out applied research and promote the use of modern technology and the application of best practice in the CI j. Carry out technical auditing of the projects with a view ensuring compliance to technical standards and specifications. k. Vet reports for approval of building permits to ensure that they comply with set standards and codes l. Establish and promote forum for enhancing industry wide coordination and collaboration. m. Establish and maintain a database of construction materials, equipment and plant n. Establish and publish data on unit costs of the construction projects o. Promote environmentally sustainable construction practices including health and safety p. Establish and maintain a register of construction projects for the purpose of monitoring performance of the Construction Industry q. Facilitate efficient disputes resolution in the CI. r. Certification of construction industry laboratories and practitioners s. Register all projects for the purpose of enabling it to have a data bank of all projects being undertaken in the country	

In order for the NCC to be able to effectively perform new functions, it needs robust powers. It is observed that the powers of the NCC should be as follows:

Powers	2. (1) The National Construction Council shall have and assume general powers as may be necessary for effective performance and exercise of its functions
	(2) Without prejudice to subsection (1), the National Construction Council shall have powers to: a) Require in writing any person or body of persons engaged in CI or engaged in activity affecting or relating to construction related activities in Mainland Tanzania to furnish to it such information relating to construction works or activity as it may specify b) Call upon or demand any document from a person undertaking construction works for satisfying compliance to this Act; c) Issue compliance order in relation to performance of its functions or the exercise of its powers d) Pronounce administrative sanctions in relation to the promotion of environmentally, friendly, healthy and safe construction activities e) Access any facility with respect to which or place or site where construction works are undertaken; or f) Delete or cancel any construction project from the register. g) Delete or cancel any supplier of construction materials from the register.

It is necessary that the legislations establishing other institutions in the construction industry be looked at and streamlined to be in line with the proposed amendment to NCC Act. This will ensure that there is no conflict of laws as well as duplication of activities.

6.2.2 Institutional Structure of NCC

Experience gathered from other countries shows that an institution like NCC need to have industry wide representation of CI stakeholders. The Study Team observed that other stakeholders should be represented in the Council. Alternatively, there could be limited stakeholder representation in the Council and use industry wide forums as discussion grounds of wider CI matters, as it is the case for India.

6.2.3 Staffing

In order for the Council to provide strategic leadership in the CI, the Study Team observed that NCC needs to attract and retain high calibre of personnel who will be able to provide various tools and guidelines for the industry. Recruitment to the Council should consider candidates of good academic qualifications. The Council needs to establish a competitive remuneration package and create a conducive working environment which would attract and retain staff.

6.2.4 Funding

The Study Team observed that funding is a critical issue for NCC to be able to execute its mandate and be able to attract and retain staff of the required calibre as discussed in Section 5.3. Section 14 of NCC Act needs to be amended to reflect proposed main sources of funding discussed in section 5.3.1.

The Study Team further observed that agreeing on the proposed sources of revenue is pivotal to the future of NCC. Undoubtedly, most of the proposed sources, as has been the case in the past, will face resistance from CI stakeholders. This has always been the case when new levies are introduced. However, since Government leadership was committed to make reforms in those areas, it nonetheless went ahead and approved the levies.

7.0 CONCLUSIONS AND RECOMMENDATIONS

7.1 Conclusions

As one of the objective of the study, a comprehensive review of the NCC Act is intended to enable the NCC to establish appropriate organizational, operational and financial frameworks upon which the roles and responsibilities of institutions supporting the development and performance of CI would be coherently aligned, and the activities in the CI effectively supported, coordinated, and implemented in consonance with the CIP framework.

The study concludes that the construction industry is fragmented with the actors working in isolation without proper coordination. The current structure of the industry can be well summarized in **Figure 7.1.** Such a structure exists despite efforts that have been made in the past to amend the NCC Act in order to make NCC an apex organization to spearhead the implementation of the CIP.

The study has established a need for proper coordination of existing players and the need to fill up gaps left by players who are not regulated. The desired coordination of the industry is summarized in **Figure 7.2.** The law establishing NCC should be amended to make it an apex organization to effectively regulate the Construction Industry. Along with that, actors of the industry, who are the beneficiaries of an efficient and vibrant construction industry should contribute to the funding of NCC to enable it to champion the development of the industry.

The proposed amendments to NCC Act and the proposed funding arrangements are paramount and inevitable to the development of Construction Industry in Tanzania. It is therefore recommended that a top down approach be used in which the Government puts forward the proposed amendments for the industry players to adopt.

7.2 Recommendations

Based on the observations stipulated in **Section 6.0** and the conclusion drawn under, the Study Team makes the following recommendations:

7.2.1 Legal Framework

The Study Team recommends that the legal structure of NCC should be amended to enable it adequately promote and provide strategic leadership for the growth, development and expansion of the Construction Industry in Tanzania with emphasis on the development of the local capacity for supporting socio-economic development and competitiveness in the changing national, regional and global environment. Towards which, the objectives, functions and powers of NCC should be reviewed in the light of legislative rules proposed under **Section 6.2.1.**

7.2.2 Institutional Structure of NCC

Given the vastness of the Construction Industry, it will not be possible to have every stakeholder represented in the Council. Therefore, it is recommended that the:

(a) Current structure of NCC be maintained but the NCC Governing Council as an apex body constituting a maximum of 8 members be formed with members picked from the Stakeholders and the Secretariat reorganised to accommodate the proposed new functions.

(b) NCC Act should provide for a mandatory Annual Construction Industry Forum which will bring together all the industrywide stakeholders to discuss matters related to the development of the Construction Industry.

7.2.3 Institutional Structure of the CI

The Study team recommends that the institutional structure of CI should be streamlined for proper coordination. A pictorial recommendation of the institutional set up in the Construction Industry is shown in **Figure 7.2**, where NCC is appropriately positioned to offer coordination and provide strategic leadership of the Industry.

7.2.4 Staffing

The Study Team recommends that in order for NCC to realize the principle objective as outlined in **Section 6.2.1**, it needs personnel of good academic qualification and commitment. In that regard, the Council should put in place a competitive remuneration package and should ensure that there is a conducive working environment.

7.2.5 Funding

Funding of the restructured NCC is the bottom line of success in realizing its objectives. The Study Team recommends that sources of revenue for NCC should be reviewed to reflect actual needs and experience from other jurisdictions as observed in **Section 6.2.4.** Despite resistance likely to be encountered, a case for NCC should prevail with the political will of the Minister under whose Ministerial portfolio NCC falls.

The Study Team recommends the following as the main sources of revenue for the revitalised NCC:

(a) Government subvention.

(b) Percentage of entrance and annual subscription fees charged by ERB, CRB and AQRB for registration of their members and registration of projects.

(c) Dedicated Levy on selected key construction materials and equipment to support the development of the construction industry.

(d) Fees for conducting technical audits for public projects and private projects which are intended for public use to check compliance to construction standards and ascertaining value for money.

(e) Fees for mandatory vetting of application for building permits for buildings before LGA can issue a building permit.

(f) Fees for issuing permits for construction of roads, bridges and other civil engineering structures.

(g) Skills development levy.

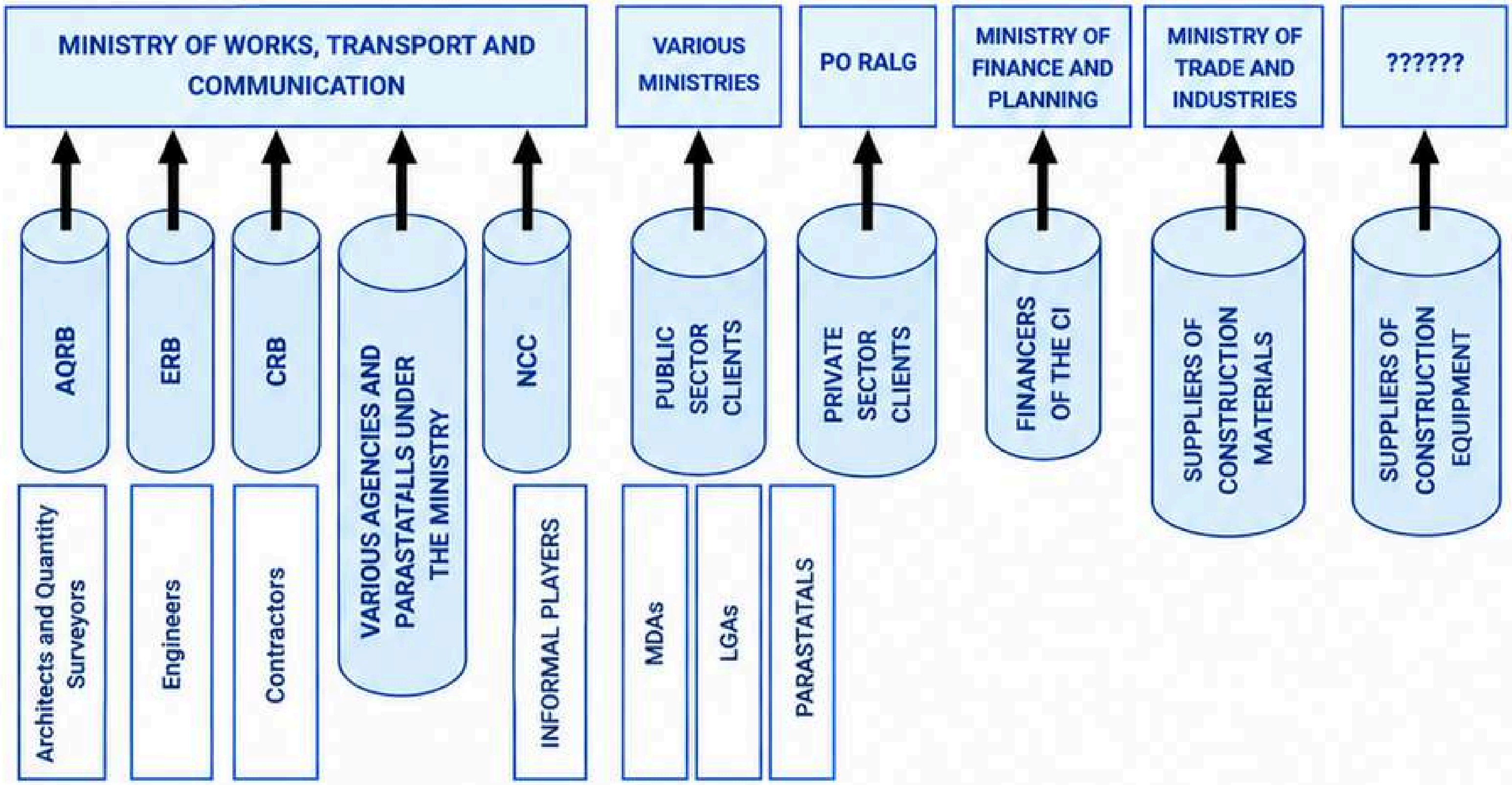

Figure 7.1 Current Structure of the Construction Industry - Uncoordinated

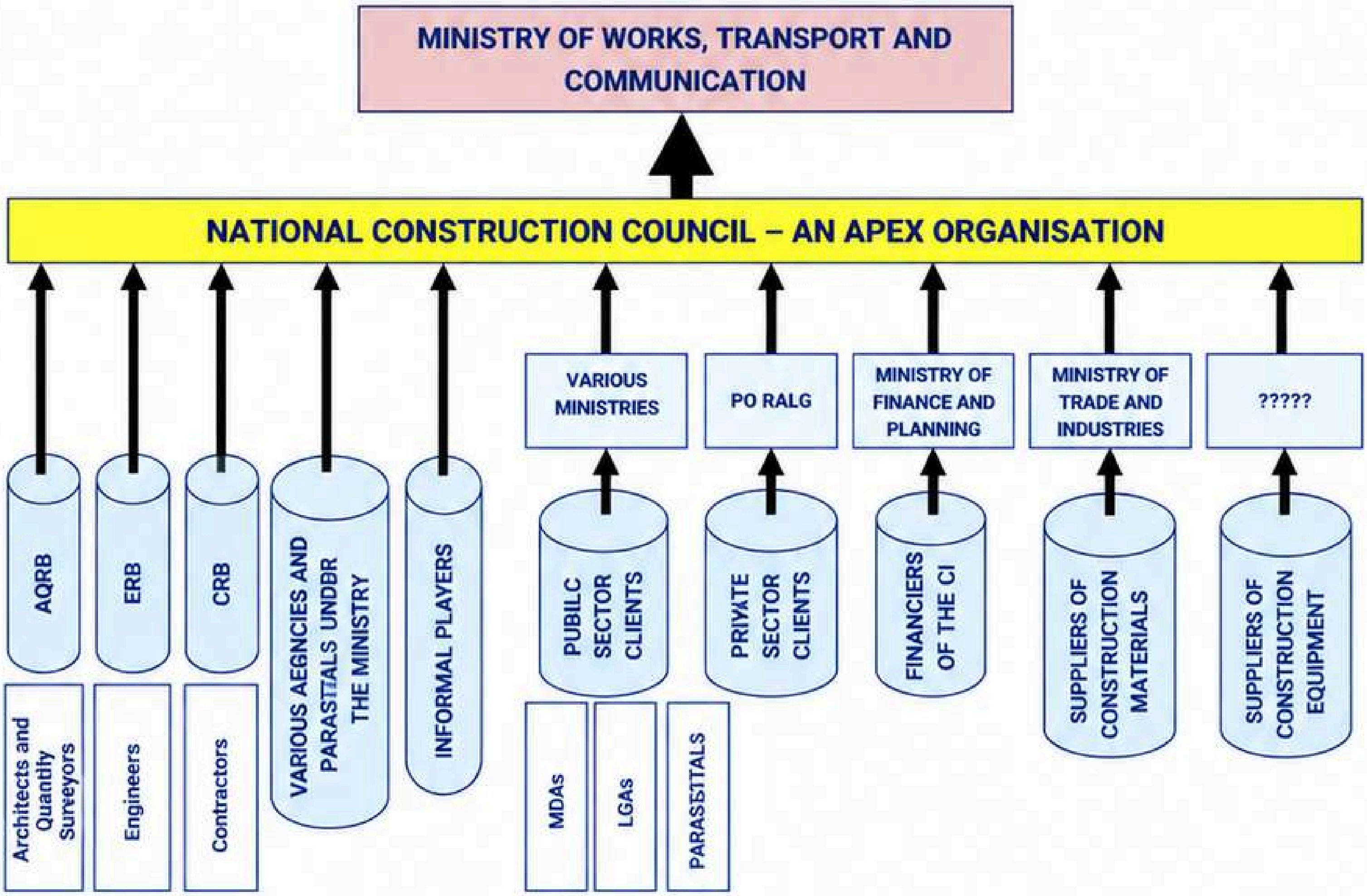

Figure 7.2 Desired Structure of the Industry as per Construction Industry Policy

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ANNEX 1- TERMS OF REFERENCE

NATIONAL CONSTRUCTION COUNCIL

TERMS OF REFERENCE FOR STUDY FOR REVITALISATION OF NATIONAL CONSTRUCTION COUNCIL WITHIN THE FUNCTIONAL CONTEXT OF TANZANIA'S CONSTRUCTION INDUSTRY

1.0 INTRODUCTION

The National Construction Council (NCC) is a body corporate established under the National Construction Council Act of 2008, Chapter 162. Since the establishment of NCC there have been a number of developments in the construction industry, including exponential growth to the extent that currently its contribution in employment creation in the country accounts for about 9 percent, while its average contribution to the total Capital Formation stands at 57 percent. This indicates that the industry commands a significant role in supporting the country's socio-economic development. In that context, there is need to ensure that a strong framework exists in Tanzania that would support and coordinate the industry in a coherent, efficient and productive manner, and in ensuring and assuring quality. This would ensure that the industry operates and prospers through streamlined growth and development as guided and coordinated under a central institutional framework. That was the guiding principle for the establishment of NCC, whose broad-based functions as spelt out in the NCC Act of 2008 include the following:

(a) promote and provide strategic leadership for the growth, development, and expansion of the construction industry in Tanzania, with emphasis on the development of the local capacity for supporting socio-economic development and competitiveness in the changing global environment;

(b) advise the government on all matters relating to the development of the construction industry and to formulate proposals and recommendations for their implementation;

(c) provide advisory services and technical assistance to construction industry stakeholders on all matters related to the industry;

(d) promote and coordinate research on all matters related to the construction industry; and

(e) promote and establish forums for enhancing industry-wide coordination, collaboration, and discussion on matters related to the construction industry.

These objectives indicate the central role of NCC in supporting and coordinating the proper and efficient functioning of the construction industry in Tanzania. In that regard and considering that currently NCC tends to have a diffused status within the construction industry, it is important that the institution is revitalized for it to effectively and efficiently shoulder the central supportive and coordination role of the industry in the country. Therefore, it is imperative that the NCC institutional, operational, financing and legal setups are comprehensively reviewed in order to functionally align the Council for implementing of the Construction Industry Policy (CIP) framework, which was adopted by the Government in February 2003 as the Principal Guideline for the development of a competitive and vibrant local construction industry in Tanzania that is capable of delivering quality products and services that guarantee value for money to industry clients. In that regard, there is need to undertake a situational analysis of the institutional, operational, financing and legal setups of NCC and sister institutions in some SADC and EAC countries and beyond in a comparative manner in the form of a comprehensive study which will enable the Government to develop a concept paper that will guide informed decision on revitalisation of NCC, within the context of implementation of the CIP framework.

2.0 RATIONALE FOR THE STUDY

As over the years NCC has been discharging its roles and functions in accordance with the NCC Act of 2008, new developments have emerged in the construction industry, including the establishment of regulatory and other bodies for specific branches of the industry, some of whose functions may be within the functional domain of NCC. In addition, a number of inconsistencies and shortfalls have been noted in the NCC Act of 2008, which make the Act not to be supporting the proper functioning of the Council in accordance with its intended mandates. Furthermore, the Act does not explicitly indicate on how NCC could draw its financing from various sources within the construction industry, making the Council to be too much reliant on Government subventions despite the enhanced vibrancy of the industry. Therefore, in view of these developments and weaknesses and in order to ensure that NCC effectively plays its critical role in supporting and coordinating the construction industry in Tanzania, there is need to undertake a comprehensive institutional review of NCC within the broader context of the national construction industry's situational analysis in comparison with what prevails in institutional, operational, legal and financial frameworks in similar institutions in some countries in Eastern and Southern Africa, as well as beyond these two regions. This is what prompted NCC to decide commissioning a study, whose Terms of Reference are the subject of this document. The study is aimed at revitalization of NCC towards implementing the CIP framework within the functional context of the construction industry in Tanzania. The study results will guide the Government in developing a concept paper towards revitalisation of NCC for effective implementation of its mandate.

3.0 STUDY OBJECTIVES

The broad objective of the study is to undertake the national construction industry's situational analysis with respect to NCC's mandate as well as institutional, operational, legal and financial frameworks in comparison with what prevails in similar institutions in some countries in Eastern and Southern Africa, as well as beyond these two regions, focusing on developing a system that will guide strategic implementation of the 2003 CIP framework (see **section 5** below). Hence, specifically the study should involve:

(a) Undertaking:

- (i) Comprehensive review of the NCC Act 2008 and propose appropriate amendments that will enable NCC to establish an appropriate organizational, operational and financing framework upon which the roles and responsibilities of institutions supporting the development and performance of the construction industry would be coherently aligned, and the activities in the construction industry in Tanzania are effectively supported, coordinated, and implemented in consonance with the CIP framework; and

(ii) Situational analysis with respect to NCC's mandate as well as institutional, operational, legal and financing frameworks in comparison with what prevails in similar institutions in some countries Eastern and Southern Africa, as well as beyond these two regions; and

(b) Proposing:

(i) An appropriate organizational framework of NCC, upon which the roles and responsibilities of institutions supporting the development and performance of the construction industry would be coherently aligned, and the activities in the construction industry in Tanzania are effectively supported, coordinated, and implemented in consonance with the CIP framework;

(ii) A streamlined procedural and national regulatory framework for the construction industry in order to enhance the capacity and performance of the industry in the country, in terms of accountability, productivity and quality assurance in consonance with the CIP framework.

(iii) Sustainable financing mechanism (s) for NCC within the context of Tanzania's construction industry in consonance with the CIP framework.

4.0 SCOPE OF THE STUDY

In order to achieve the above objectives, the experts commissioned to undertake this assignment shall be required to:

(a) Study the:

(i) existing institutional set up of the construction industry in some countries in SADC and EAC regions and identifying positive aspects for adoption in Tanzania;

(ii) existing institutional set up of the construction industry in Tanzania including relevant legal instruments and suggest areas for improvement in consonance with the CIP framework; and

(iii) operations of key institutions in the sector in Tanzania, identifying areas of duplication of efforts and propose measures to harmonize performance in consonance with the CIP framework.

(b) Undertake a comprehensive analysis based on the results in (a), and then to propose:

(i) an appropriate organizational framework for NCC, upon which the roles and responsibilities of institutions supporting the development and performance of the construction industry will be clearly and coherently aligned, and the activities in the construction industry in Tanzania would be effectively supported, coordinated and implemented in consonance with the CIP framework;

(ii) a streamlined procedural and regulatory framework that will enhance the capacity and performance of the construction industry in the country, in terms of accountability, productivity and quality assurance in consonance with the CIP framework; and

(iii) Sustainable financing mechanism (s) for NCC within the context of the construction industry in consonance with the CIP framework.

(c) Undertake a comprehensive review of the NCC Act 2008 aimed at redressing inconsistencies in the Act and accordingly streamlining the NCC Act in accordance with the outcome of this study in consonance with the CIP framework.

5.0 EXPECTED OUTCOME

It is expected that the study and comprehensive review of the NCC Act 2008 will provide a clearly defined framework for NCC's revitalization for the Council to effectively deliver on its mandate, and establishment of a sustainable financing mechanism for NCC. Among others, the study and comprehensive review of the NCC Act 2008 should focus on guiding the strategic implementation of the CIP framework, which was adopted by the Government in February 2003 as the Principal Guideline for the development of a competitive and vibrant local construction industry in Tanzania that is capable of delivering quality products and services and guaranteeing value for money to industry clients. Thus, the study and comprehensive review of the NCC Act 2008 should focus on guiding the NCC institutional, functional framework with respect to:

(a) proposing improved institutional, organizational operational, legal and financial frameworks upon which the roles and responsibilities of institutions supporting the development and performance of the construction industry are clearly defined and their activities are effectively coordinated and implemented in consonance with the CIP framework;

(b) influencing macro-economic policies and public sector investment in the construction industry consistent with spending patterns so that both public and private sector investors in the industry may respond to a more predictable environment;

(c) establishing streamlined procedural and regulatory framework in order to enhance the industry's capacity and performance in terms of accountability, productivity and quality assurance;

(d) ensuring that bilateral, regional and international trade agreements afford maximum advantage to the local construction industry; and

(e) defining a sustainable financing mechanism for NCC with the Government and the construction industry, and exploring other possible funding avenues.

6.0 TIMEFRAME AND OUTPUTS

The assignment is expected to take six calendar weeks as guided by the following schedule:

End of Week 1	Presentation of Inception Report
End of Week 3	Submission of Draft Report
End of Week 4	Presentation of findings in a Stakeholders' workshop
End of Week 5	Submission of the final report

The draft report and final report shall be submitted in three hard copies and a soft copy in MS Word.

(iii) Sustainable financing mechanism (s) for NCC within the context of the construction industry in consonance with the CIP framework.

(c) Undertake a comprehensive review of the NCC Act 2008 aimed at redressing inconsistencies in the Act and accordingly streamlining the NCC Act in accordance with the outcome of this study in consonance with the CIP framework.

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ANNEX 2: LIST OF PEOPLE INTERVIEWED[2]

No.	Name	Organisation
1.	Eng. Joseph Malongo	Registrar, Contractors Registration Board
2.	Prof. Ninatubu Lema	Chairman, Engineers Registration Board
3.	Eng. Steven Mlote	Registrar, Engineers Registration Board
4.	Arch, Jehad A. Jehad	Registrar, Architects and Quantity Surveyors Registration Board
5.	QS Mashaka Bundala	Architects and Quantity Surveyors Registration Board
6.	Eng. Leonard Chamuriho	Former, Chief Executive Officer of National Construction Council
7.	Eng. Julius Mamiro	National Construction Council
8.	Eng. Mwakyambike	MAC Contractors Limited
9.	Eng. Milton Nyerere	ACCT
10.	Eng. Davis Baitan	CATA
11.	Eng. Johanes Maganga	TBS
12.	Mr. Clement Mworia	TACECA
13.	Eng. Henry Chacky	Chairman, Association of Consulting Engineers Tanzania
14.	Eng. Laurent Shirima	Chief Executive Officer, Public Procurement Regulatory Authority
15.	Eng. Eva Mbuya	Manager of Guidelines Development and Dissemination, Public Procurement Regulatory Authority
16.	Eng. Kesokugewele Msita	Former, Chief Executive Officer of National Construction Council
17.	Eng. Yusuph Fundi	Former, Chief Executive Officer of National Construction Council
18.	Mr. Landa Gabriel	Tanzania Private Sector Foundation

[2] As part of the Study to Review of the Construction Industry Policy in Tanzania

No.	Name	Organisation
19.	Mr. Raymond Mbilinyi	Executive Secretary, Tanzania Business Council
20.	Eng. Jates Karugendo	Contractors Registration Board
21.	Mr. Joseph Haule	Road Funds Manager
22.	Eng. Crispianus B. Ako	Director of Projects, Tanzania Roads Agency
23.	Eng. Ephrem P. Kirenga	Director of Procurement and Contracts, Tanzania Roads Agency
24.	Eng. Victor H. Seif	Head of Bilateral Projects, Tanzania Roads Agency
25.	Mr. Isaac Peter	Director of Innovation, National Housing Corporation
26.	Eng. Ray Sengege	ITECO Consult, President of ACET
27.	Mr. Bernard Mchomvu	MCA
28.	Eng. Ronald Mneney	World Bank
29.	Eng. Yonas Mchomvu	World Bank, Senior Transport Specialist
30.	Mr Gisbert Kinyero	World Bank, Procurement Specialist
31.	Mr Negede Lewi	World Bank, Senior Highway Engineer, Africa Transport Unit (AFTTR)
32.	Mr. Fabrizio Moroni	EU
33.	Mr Tachibana Eisuke,	JICA, programme adviser, Transport and Energy
34.	Dr. Ono Yuji	JICA, policy adviser
35.	Mr. Kobe Nobuyuki	JICA
36.	Mr. Hagos Abdie	HabCon Consult, Addis Ababa
37.	Mr. Dave Jennings	Principal Consultant, Cardno TT Transport
38.	Mr. Sion McGeever	DFID
39.	Eng. Musa Iyombe	Permanent Secretary, Ministry of Works
40.	Mrs. Elizabeth Tagora	Director of Policy and Planning, Ministry of Works.
41.	Mr. Fanuel Mathiya	Deputy Director of Policy and Planning, Ministry of Works

ANNEX 3: CONSTRUCTION RESOURCE CENTRE OF MALAYSIA

The CIRC - An Information-Rich Resource for Construction Industry-Related Cost Information

CIDB fulfils one of its functions via a Construction Industry Information System.

The CIRC [Construction Industry Resource Centre] was established by CIDB to prioritize cost-related information derived from the traditional factors of production - 3M perspective [Man, Materials and Machinery].

TURNING INFORMATION INTO KNOWLEDGE

Information generally can be defined as what is told while knowledge implies awareness gained by experience.

The construction industry is an information rich environment with working individuals internalizing the information and transforming valuable understanding of the industry into professional insights and invaluable knowledge. The understanding and experiences earned from working in the industry forms the opinions that underpin the professional advice they share with their clients. While this is a natural career progression, it is more natural for individuals with inquiring minds to be more rigorous and self-aware about the processes of transforming information within the industry into invaluable knowledge for the benefit of the client.

Organizations, however, need to put a system in place. Many build systems to capture important industry information from individuals and retain the knowledge within that organization. They introduce procedures to capture the information and invest in processing and recording the knowledge that they derive from it. This way, the information becomes the organization's and industry's resources and is more than simply a database that informs an individual or the organization in their learning process.

The real knowledge comes from using and analysing the information. Just as individuals learn by experience of working with information, the industry must ensure that the results of the analysis and the conclusions and advice derived from it are also recorded in an accessible form. In order to capture information systematically, it is necessary to establish what it is and what the industry wishes to use it for.

The CIDB Construction Industry Resource Centre (CIRC) intends to establish a cost information service by setting out goals and collecting information in a planned and systematic way.

The CIRC has taken off by collecting and disseminating information on a number of elemental cost analyses available at the moment. These cost plans will further expand in time and users will be able to select the database using a range of criteria: type of building, floor area, date, client type, number of storey, location and method of construction, among others. Once these indices are available, the costs can be adjusted for time and location.

Other cactivities that CIRC will undertake are the study on various resources pertinent to the construction industry. The traditional factors of production namely materials, men and machineries, will be given priority in terms of their cost related data. Other non-traditional factors such as financial and management aspects will follow.

The Construction Industry Development Board Malaysia set up the CIRC with the aim of having a body to compile and produce cost information relating to the construction industry. It is hoped that CIRC will eventually be a reliable and authoritative source of information on construction costs and trends in Malaysia. With this objective in mind, it is essential that every sector in the construction industry actively participates and get involved in this exercise.

CIRC is created to collect, analyse and disseminate the various cost information for the Malaysian construction industry; it will assist players in the industry to become more competitive towards realizing the CIDB objectives and mission.

The initial focus of the CIRC includes:

- Building Elemental Cost Analysis
- Construction Materials Cost Indices
  - Building Materials Cost Index
  - Building Materials Price
- Labour Cost Index
- Plant Costs Index

Other non-traditional factors like financial and management aspects of the Construction Industry will be part of the Centre's cost information service deliverables in the future.
The CIRC's efforts in collecting, analysing and disseminating cost information are targeted at helping the Construction Industry Players increase their competitive edge.

Construction Industry Players will benefit from the CIRC's intention to produce:

- comprehensive cost indices that incorporate all construction resources via the availability of accurate and regularly updated data.
- building indices for all Construction sectors in order that proper and accurate indices can be utilized for price adjustments.

The process of supporting Construction Industry Players in their efforts to enhance their competitive edge represents one of the 3 key focus areas via which CIDB plans to realize its Vision.