

CONSTRUCTION INDUSTRY POLICY

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PREAMBLE

Tanzania has embarked on a long-term development strategy which aims at achieving sustainable human development with all pre-requisites for a middle income country by the year 2025. This envisages creation of a strong, diversified, resilient and competitive economy that can effectively cope with the challenges of development and that can easily adapt to the changing market and technological conditions in the regional and global economy. The priorities identified as the essential catalyst for the attainment of the Vision 2025 objective include development of infrastructure as an important ingredient towards attainment of faster economic growth.

The construction industry is a fundamental economic sector which permeates most of the other sectors as it transforms various resources into constructed physical economic and social infrastructure necessary for socio-economic development. It embraces the process by which the physical infrastructure are planned, designed, procured, constructed or produced, altered, repaired, maintained, and demolished. Thus, the realization of Vision 2025 partly depends on the existence of a reliable and competitive local construction industry that is capable of delivering quality services

and value for money in the development and maintenance of the physical infrastructure.

Since independence there have been a number of initiatives geared towards fostering the local construction industry. Despite such interventions, the state of the local construction industry has remained poor. Performance constraints include inadequate capacity of local contractors and consultants, inadequate public sector delivery capacity, corruption, erratic work opportunities, use of outdated technologies and practices, lack of effective supporting policies and poor state of the economy. Thus, the Construction Industry Policy aims at creating 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.

The goal of the construction industry development is to develop an internationally competitive industry that will be able to undertake most of the construction projects in Tanzania and export its services and products and ensure value for money to industry clients as well as environmental responsibility in the implementation of Construction projects.

The attainment of the Construction Industry Policy goals and objectives requires the implementation of mutually reinforcing policy directions, identified in two categories, Overall Construction Industry Policy Directions, and Policy Direction for Cross-Cutting Issues.

Following the adoption of the Construction Industry Policy, and since the formulation of the Policy was through a bottom up approach involving all key stakeholders, it is now important that the actions of stakeholders in relation to the development and performance of the construction industry should be tailored within its requirements. Furthermore, in order to achieve meaningful results within a short timeframe, there is need for total commitment from all stakeholders and that a higher level of collaboration among stakeholders is a prerequisite for success.

**MINISTRY OF WORKS
November, 2003**

1.0 INTRODUCTION

1.1 Definition of the Construction Industry

The construction industry is a sector of the economy that transforms various resources into constructed physical economic and social infrastructure necessary for socio-economic development. It embraces the process by which the said physical infrastructure are planned, designed, procured,

constructed or produced, altered, repaired, maintained, and demolished. The constructed infrastructure include:

- Buildings
- Transportation systems and facilities which are airports, harbors, highways, subways, bridges, railroads, transit systems, pipelines and transmission and power lines.
- Structures for fluid containment, control and distribution such as water treatment and distribution, sewage collection and treatment distribution systems, sedimentation lagoons, dams, and irrigation and canal systems.
- Underground structures, such as tunnels and mines.

The industry comprises of organizations and persons who include companies, firms and individuals working as consultants, main contractors and sub-contractors, material and component producers, plant and equipment suppliers, builders and merchants. The industry has a close relationship with clients and financiers. The government is involved in the industry as purchaser (client), financier, regulator and operator.

1.2 Characteristics

A substantial part of the construction work takes place in the informal sector of industry too. About 80% of the population lives in the rural areas. The buildings and other small infrastructure facilities for this major part of the population are constructed by the informal sector. The informal construction sector comprises of unregulated and unprotected individuals engaged in economic activities that include the supply of labour, materials and building components to the formal construction sector directly in response to needs of clients. It also includes works carried out by individuals and groups on a self-help basis without contracting.

The majority of enterprises in the construction industry in least developed countries (LDCs) are small with a few of them being in the medium category. It is said that, world-wide, small and medium enterprises (SMEs) account for 90% of all enterprises and over 99% in developing countries. They are mostly owned by indigenous people. In Tanzania, 86% of the 1091 registered local building contractors by January 2000 were

small and of lower classes. They were capable of undertaking works of value less than Tshs. 250,000,000; of which 98% of them were local. On the other hand 74% of the registered 531 civil works were small contractors but capable of undertaking works of up to about Tshs. 375,000,000; of which 97% of them were local. To date, the trend is the same. Small and medium enterprises are a very diverse group, ranging from small establishments to medium-sized units, scattered throughout the country. Small and medium enterprises are vital for ensuring diversity and flexibility of the economy responsible for the creation of employment and growth. They are the only firms willing and able to undertake the small, scattered projects, especially in rural areas, which are among the key components of development required to satisfy the basic needs of people such as housing, health facilities, sanitation and roads for geographical mobility. Growth of the SMEs provides also a platform for future medium and large-scale firms owned by indigenous people in the respective countries.

In developed countries and countries with economies in transition, other than the least developed countries, their local construction industries have the lions share in market opportunities. However, for least developed countries, the construction industries are dominated by foreign service providers to the tune of at least 65% in terms of money value of market share. For example, in the Southern Africa Development Community (SADC) region, and with the exception of South Africa, local contractors and consultants have approximately 30% market share in the region; Malawi (23%), Swaziland (35%), Tanzania (20%), South Africa (85%). In Tanzania foreign contractors and consultants account for about 80% of the market share.

Since the construction industry is a fundamental economic activity which permeates most of the sectors of the economy it has a major role to play in achieving social economic development objectives of any country; local firms and professionals should be fully involved in the process. The sector has indirect impact on the growth or stagnation of the overall economy. Furthermore, the development of a strong construction industry should be supported by sectoral and macro-economic policies geared towards stimulating growth and competitive position of the local actors.

Experience has shown that development of the construction industry requires government commitment, many years of sustained effort and the right operating environment. A good economy is equally important as it creates demand for its services.

1.3 Objectives of Construction Industry Development

Construction industry development is a deliberate and managed process to improve the capacity and effectiveness of the construction industry to meet the national economic demand for buildings and other physical infrastructure facilities, and to support sustainable national economic and social development objectives, while ensuring.

- Increased value for money to industry clients as well as environmental responsibility in the delivery process
- The viability and competitiveness of domestic construction enterprises
- Optimization of the role of all participants and stakeholders through process, technological, institutional enhancement and through appropriate human resource development.

2.0 VISION, MISSION AND GOAL

2.1 Vision

The vision of the Construction Industry is:

To have a dynamic, efficient and competitive local construction industry that is able to undertake construction projects of any magnitude and participate effectively in providing its services in the regional and global market place.

2.2 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.

2.3 Goal

The goal of the construction industry development is to develop an internationally competitive industry that will be able to undertake most of the construction projects in Tanzania and export its services and products and ensure value for money to industry clients as well as environmental responsibility in the implementation of construction projects.

3.0 IMPORTANCE OF THE CONSTRUCTION INDUSTRY, ITS PERFORMANCE AND CONSTRAINTS

3.1 Importance to the Economy

The Construction Industry plays a significant role in Tanzania's economic growth. The average growth rate for the Construction Sector increased from 1.3% in 1994 to 12.0% in 1998. The contribution of the construction sector in employment creation accounted for 8.9%. The informal sector participation is extremely significant since it provides housing and other infrastructure facilities to the 80% of the population which lives in the rural areas. Between 1999 and 2000 the growth of the construction sector averaged 8.5% while its contribution to GDP averaged 4.6%. The average contribution to total capital formation during the period 1988 to 1997 was 57%. In terms of government expenditure, an average of 14% of the development budget was spent on construction projects for the period 1988 to 1997 compared to an average of 30% for the period 1976 to 1985.

3.2 Economic Development Vision

Tanzania has now embarked on a long-term development Vision 2025 whose overall goal is to attain sustainable human development with all pre-requisites for a middle income country by the year 2025. This envisages creation of a strong, diversified, resilient and competitive economy that can effectively cope with the challenges of development and that can easily adapt to the changing market and technological conditions in the regional and global economy. The priorities identified as the essential catalyst for the attainment of the Vision 2025 objective include development of infrastructure as an important ingredient towards attainment of faster economic growth.

3.3 Performance Constraints

The inefficient and deteriorated state of the construction industry with poor performance has detrimental effects to the development of the industry. Weaknesses, problems and constraints hampering the performance and development of the industry include:

- Low capacity and capability of the local contractors and consultants due to weak resource base and inadequate experience.
- Inadequate and erratic work opportunities, inappropriate contract packaging of works which favour foreign firms in donor funded projects, low public investment in infrastructure projects and over dependence on donor funding.
- Inefficient and non-transparent procurement systemsCorruption and financial mismanagement in public/private sectors.
- Lack of supportive institutional mechanisms in terms of financial credit facilities, equipment for hire and professional development.
- Unfavorable donor conditionalities which tend to marginalize local construction enterprises.
- Unfavorable tax regime
- Poor working environment, including low standards of safety and occupational hazards on construction sites
- Weak and non-facilitative policies and regulatory framework
- Low productivity and quality
- Low technological base.

3.4 Remedies to Performance Constraints

Some of the issues which need to be pursued to curb some of the constraints above include:

- Improvement of capacity and performance of the local contractors and consultants
- Improvement of public sector delivery capacity
- Improvement of the performance of the informal construction sector
- Promoting export of goods and services
- Improvement of quality and productivity
- Application of appropriate building regulations and standards

- Promoting technological development
- Promoting sustainable construction practices
- Mobilization of adequate financial resources
- Human resources development
- Enhancing availability of construction equipment
- Supporting human settlement development
- Supporting poverty eradication.

The Construction Industry Policy (CIP) reckons the fact that the basic requirement for effective development and performance of the construction industry is an institutional framework which guarantees that the issues raised will be tackled to counter existing problems, weaknesses and constraints.

4.0 CONSTRUCTION INDUSTRY AND NATIONAL DEVELOPMENT

4.1 Government Economic Reforms

The various economic reforms undertaken by the government in recent years have gradually continued to bring positive economic effects. However, these reforms have had so far very insignificant impact on poverty reduction among Tanzanians whom about 50% live below the poverty line, while 36% are considered to be extremely poor and destitute. The long term development goal of Tanzania is to reduce poverty by raising the standard of living and quality of life of the people through the enhancement of all productive and non-productive sectors of the economy from the present level of per capita income of about USD 210 to the tune of USD 2,000 for a typical medium developed country (National Vision – 2025). It is envisaged that the development of any nation can be measured through the availability of constructed buildings to cater for provision of decent shelter and the availability of infrastructure facilities to cater for the movement of people, goods, and services. Together with the national strategic goal, the Construction Industry Policy likewise takes into account the significant role of the other guiding national initiatives like National Poverty Eradication Strategy, Civil Service Reform programme, Parastatal Sector Reform, Private Sector Involvement in Economic Development, Strategic Environmental Sustainability, Gender Issues, Eradication of Diseases and Literacy Campaign and other sectoral development programmes.

4.2 Construction Industry Policy

The National Construction Industry Policy takes into account of the fact that the realisation of the objectives and goals of the identified priority sectors such as education, health, water, agriculture, manufacturing, tourism, mining, energy, construction, land and good governance operates on the availability of reliable, strong and competitive local construction industry which is capable of delivering quality services to its stakeholders. New investments in the construction and rehabilitation of infrastructure will be given priority parallel with the maintenance of the existing constructed facilities so as to enable speedy development of the other sectors which depend upon the performance of the local construction industry. The interim policy is anticipated to provide guidance towards the increased involvement of the local construction industry in construction activities. The Construction Industry Policy emphasises the development of an efficient and self sustaining roads network that is capable of meeting the diverse needs for construction, rehabilitation and maintenance of civil works for trunk, regional, districts and feeder roads network through the involvement of private sector. Public sector involvement in the enhancement of housing, infrastructure and other constructed facilities to assist in the mobilization of financial resources as well as capital investment will be emphasized.

The pursuance of all the above general goals will be carried out in tandem with all the other key national sectoral policies, e.g. agricultural policy, land policy, investment policy, industry and trade policy, energy policy, housing policy, health, education and all other sectoral policies which have direct or indirect impact on the construction sector.

5.0 GOVERNMENT INITIATIVES IN THE DEVELOPMENT OF THE CONSTRUCTION INDUSTRY

Since independence there have been a number of government-led initiatives geared towards fostering the local construction industry. Notable initiatives are:-

- Establishment of the National Construction Council in 1981 to promote the development of the Construction Industry,

- Formulation of the Construction Industry Development Strategy in 1991 to guide the development of an efficient and effective Construction Industry,
- Commercialization of road construction and maintenance works under the IRP and phasing out of Force Accounts Works;
- Establishment of Plant and Equipment Hire Company Limited (PEHCOL) in 1992 to manage road equipment. PEHCOL is currently being privatized.
- Establishment of Vocational Training Centres, expansion and improvement of training institutes and universities so as to address shortage of skilled manpower;
- Introduction of a Training Levy, which is under VETA management, to increase the training of skilled workers in various trades as a way of promoting quality works and self employment;
- Establishment of Building Research Unit (BRU) and Tanzania Bureau of Standards (TBS) to support production and utilization of local building materials, standards and specifications;
- Establishment of Regulatory Institutions in the Construction Industry, i.e. Contractors Registration Board; Architects and Quantity Surveyors Registration Board and Engineers Registration Board. These Regulatory Institutions were established in 1997 to register, regulate and develop contractors, consultants and individual professionals in the construction Industry',
- Liberalization of the economy to attract local and foreign private investors to finance infrastructure development programs;
- Promotion of professional and trade associations
- Mobilization of donor support in financing infrastructure projects in support of the local economy;
- Establishment of the Roads Fund and Roads Fund Board in 1998 and 1999 respectively.
- Establishment of Executive Agencies in 1997 so as to enhance efficiency and reduce red tape in the delivery of public services. The Tanzania National Roads Agency (TANROADS) was established in July 2001 aimed at efficient execution of roads maintenance and development works for trunk and regional roads network.

Despite such interventions, the state of the local construction industry has remained poor. Thus, the industry continues to

exhibit features that include inadequate capacity, lack of working capital, low participation in work opportunities, dominance of foreign players and poor quality services and products.

6.0 CHALLENGES

In order to attain the envisaged Vision, Mission and Goal, the Construction Industry in Tanzania faces major challenges which include:

- a) Developing adequate local capacity
- b) Mobilizing adequate resources in terms of finance, equipment and human resources.
- c) Achieving international competitiveness
- d) Increasing the share in work opportunities for local contractors and consultants
- e) Applying environmentally friendly products and practices,
- f) Harmonizing the different laws and regulations (domestic and international) governing the construction industry.
- g) Increasing the participation of women and youth in the construction Industry
- h) Improving the industry's performance in a poor economic environment
- i) Poverty eradication
- j) Ridding the construction industry of corruption

7.0 CONSTRUCTION INDUSTRY POLICY OBJECTIVES

7.1 Need for Construction Industry Policy

Since the 1990s there has been a marked increase of uncoordinated initiatives geared towards fostering the construction industry. This has involved identification of solutions to various problems inhibiting the performance of the industry and preparation of supportive systems and processes. For these initiatives to bear tangible results, on a sustainable basis, there is need to implement policies that are deliberately designed to develop and sustain the local construction industry.

Furthermore, the Construction Sector needs a comprehensive policy to ensure compliance with the national, social and economic development objectives and goals. The Policy is aimed at attaining the requirement of the National Development Vision 2025.

7.2 Objectives

The main objectives of the Construction Industry Policy include:

- a) To improve the capacity and competitiveness of the local construction enterprises (contractors, consultants and informal sector)
- b) To develop an efficient and self-sustaining roads network that is capable of meeting the diverse needs for construction rehabilitation and maintenance of civil works for trunk, regional, districts and feeder roads network.
- c) To improve the capacity and performance of the public sector and private sector clients so as to ensure efficient, transparent and effective implementation and management of construction projects.
- d) To ensure efficient and cost effective performance of the construction industry that will guarantee value for money on constructed facilities in line with best practices.
- e) To promote application of cost effective and innovative technologies and practices to support socio-economic development activities such as road works, water supply, sanitation, shelter delivery and income generating activities.
- f) To ensure application of practices, technologies and products which are not harmful to both the environment and human health.
- g) To mobilize adequate resources from both the public sector and the private sector for construction and maintenance of public infrastructure.
- h) To enhance participation in regional and international co-operation arrangements for the purpose of promoting the capacity and competitiveness of the industry and developing markets for export of its services and products.
- i) To improve co-ordination, collaboration and performance of the institutions supporting the development and performance of the construction industry.

8.0 POLICY DIRECTIONS

The attainment of the policy's goal and objectives requires implementation of the mutually reinforcing policy directions and strategies identified in two categories: overall construction industry directions, and policy directions for cross-cutting issues.

8.1 Overall Construction Industry Policy Directions

8.1.1 Capacity and Performance Improvement of Local Construction Enterprises

a) Issues

The participation of the local construction industry in available work opportunities is currently about 20% in terms of value. Enhanced participation in construction sector work opportunities is a cry of every local supplier of goods and Services. Low participation is a result of stiff competition from foreigners aggravated by poor capacity of the local players (be it contractors, consultants or material suppliers) and inadequate supportive environment. Inadequate capacity of local contractors and consultants is a result of factors that include lack of skills, inadequate capital, unfavorable donor conditions and application of inappropriate delivery practices.

b) Objective

To 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.

c) Policy Directions

- The government in collaboration with the private sector shall promote the application of best practice standards on productivity, quality management and appropriate, state-of-the art, delivery arrangements;
- The government shall support the establishment of financing facilities for the construction sector enterprises to access working capital in terms of credit, bonds, guarantees, training funds, and capital for tools and equipment.
- The government shall ensure both local and donor procurement policies provide a comprehensive framework for fostering the local construction industry in Tanzania.

- The government shall ensure that public funded works carried out within the country involve the partnership with local players.

8.1.2 Improvement of Public Sector Delivery

a) Issues

Since Tanzania embarked on the Economic Recovery Program, implementation of physical infrastructure projects has demonstrated inadequate capacity of the public sector – at central government level – to efficiently manage the procurement process and contract supervision and administration. Local authorities are facing even more of constraints due to the fact that contracting of works and services are new regimes. Public delivery bottlenecks are due to factors that include lack of appropriate technical and managerial skills, understaffing, inadequate working facilities, lack of appropriate operating systems and procedures, poor remuneration, bureaucracy, inadequate accountability and corruption. Such delivery bottlenecks have partly contributed to the dismal performance of the industry and its poor image.

The attainment of the long-term development Vision 2025 for Tanzania demands for accelerated infrastructure development. This in turn places an onus on public sector delivery agencies to perform beyond current capacity. Thus, rapid development of the capacity is required to ensure effective management of the delivery process in a way that creates an enabling environment for the performance improvement of the industry and value for money of the constructed facilities.

b) Objective

To improve public sector delivery capacity.

c) Policy Directions

- The government and the private sector shall adhere to established appropriate procurement practices so as to ensure quality and cost effectiveness in the delivery process.

- The government in collaboration with the private sector shall promote training, research and information dissemination on delivery processes geared towards application of innovative and/or state of the art delivery processes.
- The government shall develop the capacity of its staff in project management and contract administration.
- The government in collaboration with the private sector shall formulate standard guidelines for procurement and project delivery arrangements.

8.1.3 Performance Improvement of Informal Construction Sector

a) Issues

The informal construction sector comprises of unregulated individuals and enterprises engaged in economic activities in construction involving the supply of labour, production of building materials and building components. It is also involved in the production of buildings - without the involvement of contractors - directly in response to client needs.

The informal construction sector has a great role to play in the development of the construction industry and the economy - particularly with regard to employment creation and supply of houses in rural and urban areas. It supplies building materials and labour to the formal sector through sub-contracting arrangements. On the other hand, the formal sector acts as one of the outlets of the output of the informal construction sector. This symbiotic relationship makes the promotion of the informal construction sector a growing necessity in the context of the overall national economic policies and with regard to the effective performance of the construction industry. It is, however, beset by a number of constraints, which negate its effective contribution. Such constraints include lack of adequate skills, lack of capital, prohibitive regulations, and insecure operating environment.

b) Objective

To encourage, enable and improve the performance of the informal construction sector.

c) Policy Directions

- Recognize and promote the useful existence of the informal construction sector as an integral part of the construction industry.
- Carry out research, document and disseminate information on the informal sector for the purpose of its development.
- Improve productivity and quality of products
- Support the establishment of credit facilities for the informal sector.

8.1.4 Export of Goods and Services

a) Issues

The local construction industry hardly exports its services. However, meaningful international competitiveness of the industry shall be attained when firms carry out their operations beyond national borders. Perceiving the opportunities to compete regionally or globally is very innovative but challenging since this involves entry issues beyond current domestic capabilities in terms of start-up capital; business, managerial and technical skills, such as marketing and formation of strategic alliances with foreign partners.

b) Objective

To promote the export of goods and services.

c) Policy Directions

- Promote the delivery of quality goods and services for international competitiveness.
- Facilitate access to information on market opportunities and business partners.
- Promote the establishment of financing schemes that support export activities.
- Negotiate regional and international co-operation arrangements that facilitate exports.

- Promote strategic alliances with regional and international players.
- Establish business advisory services for exports.
- Create incentives for exports.

8.1.5 Improvement of Quality and Productivity

a) Issues

Local consultants and contractors are marginalized partly due to the general low productivity and poor quality of services. For example, productivity (by local contractors) for gravel road rehabilitation of regional and rural roads under the Integrated Roads Projects has not exceeded 2 kilometers per month compared to an expected minimum output of 4.5 kilometers per month. Furthermore, some of the rehabilitated gravel roads were lost within the first two years following their completion. With the relatively high quality of products and services being offered by foreign competitors, and as a cost reduction measure, and due to growing quality demands by customers; the local construction industry must mount a productivity and quality improvement revolution to achieve international competitiveness.

b) Objective

To improve quality and productivity of constructed facilities and services

c) Policy Directions

- Promote the application of best practice standards on productivity, quality, management and appropriate, state-of-the art, delivery arrangements.
- Promote the use of modern technologies and facilities.
- Ensure effective supervision.
- Promote self-regulatory mechanisms for the industry.
- Establish sustainable arrangements for provision of construction equipment to the industry.
- Ensure transparency and accountability in procurement, design and contract administration.

8.1.6 Promote Technological Development

a) Issues

The construction industry and the nation in general lags behind in terms of technological development. However, the improvement of the capacity and performance of the industry to international competitiveness cannot be achieved through use of obsolete or inappropriate technologies and practices. Thus, to meaningfully improve the competitiveness of the industry, vigorous pursuit for technological development is needed. The strategic application of information technology that is increasingly becoming cheaper, more powerful and more easily available requires also aggressive promotion.

Furthermore, world wide, there are renowned research and development institutions which act as forums for exchange of knowledge. However, Tanzania does not effectively participate in most of these forums. Thus it loses opportunities for capturing best practices much needed for technological improvement.

Over the years, there has also been an unfortunate disregard of good traditional materials and technologies. However, attainment of the nation's development goal requires the optimal use of traditional or local materials and technologies.

b) Objective

To promote technological development.

c) Policy Directions

- All stakeholders shall be required to enhance technological development in the industry.
- Enhance research activities for the industry by the establishment of research institutions or technology transfer centres in sub-sectors where they do not exist.
- Promote measures for acquisition and application of appropriate advanced technologies.
- Establish well-organised and co-ordinated information systems, which will enhance the dissemination and application of research findings and innovative technologies and practices.

- Ensure that there is optimum utilization and application of local materials, technologies and practices.
- The government and the private sector shall ensure the establishment and application of standards and regulations that promote the use of local materials and application of innovative technologies and practices.

8.1.7 Human Resource Development

a) Issues

Development of adequate human resources is essential if the industry is to meet the demands of the national development goals and the needs for its growth and competitiveness.

The study by the National Construction Council on human resources in the construction sector in 1996, revealed that future manpower growth demands for the sector are estimated to lie between 8 and 10 percent per annum for the technical and skilled manpower. The sector is likely to create even a larger demand when the economy stabilizes and gains the intended growth pattern in future. In that case while education of construction-related manpower is a responsibility of the education sector, there is however need for the construction industry to ensure that training capacities for its manpower are enhanced.

b) Objective

To develop capacity building for the industry's human resources.

c) Policy Directions

- Training institutions shall be urged to ensure demand driven curricula.
- Establish a training and employment advisory board which will co-ordinate training for the industry, and look after accreditation matters
- Establish and manage an equitable and sustainable financing arrangement for training that recognizes the need for stakeholders' contribution.

8.1.8 Availability of Construction Equipment

a) Issues

Inadequate availability of equipment for construction works is one of the major problems facing the local construction industry. The problem is further compounded by poor capital base of the local contractors and consultants, lack of credit facilities in the market and low level of investments through the sector.

In 1992 the government established the Plant and Equipment Hire Company (PEHCOL) to manage, on commercial basis, all road construction equipment, which were under the Ministry of Works. This was the government's long term plan and sustainable strategy for providing the road sector with reliable equipment. PEHCOL's performance has not lived to the expectation of the industry partly due to few numbers and old age of equipment. A 1994 study indicated that 64% of the equipment that were retained by PEHCOL - by then - had life expired; and only 12% of the retained equipment had a reliability index of at least 5%. The situation has since worsened.

The government further established, on experimental basis, plant hire facilities under three Regional Engineers' offices. Private contractors also have been acquiring mostly second hand equipment, which have a reliability index of 9 - 14%. Such type of equipment has not provided optimum availability at site due to frequent breakdowns. To-date the situation has not improved. Thus, all the measures taken so far have not guaranteed the industry of adequate availability of equipment on sustainable basis. Effective development and performance of the industry require availability of adequate levels of equipment.

b) Objective

To enhance the availability of adequate construction equipment

c) Policy Directions

- Revive the establishment of plant hire facilities, hire purchase and other forms of credit arrangements.
- Provide incentives to franchise dealers to provide equipment and spare parts to contractors on credit or hire purchase arrangements.
- Reduce the cost of construction equipment through financial rebates such as tax relief.
- Assist local contractors and consultants to acquire equipment through plant advances, hire purchase and other forms of credit arrangements.
- Ensure sustainability of the Construction Industry Development Fund (CID).
- The Fund will provide working capital and guarantees on easier terms than traditional banks to contractors, consultants and the informal sector. The Fund will also provide loans for equipment and will act as a guarantor for loans secured through banks and other credit schemes.
- Enhance technical and managerial capability for proper selection and efficient utilization of equipment.

8.1.9 Human Settlement Development

a) Issues

The development of human settlements in the country has neither been adequate nor sustainable for both urban and rural areas. Urban areas suffer from inadequate housing stock and poor infrastructure. The rural scene exhibits poor housing conditions too. These issues shall be resolved through implementation of the National Human Settlement Development Policy; However, a supportive role of the construction industry is important.

b) Objective

To support the provision of adequate human settlements.

c) Policy Directions

- The government and the private sector shall co-operate in supporting the development of sustainable human settlements.
- Promote the optimum use of low cost and local building materials, innovative technologies and practices.
- Facilitate self-help initiative and informal sector activities for adequate shelter delivery particularly through provision of building designs and construction practice guidelines.
- Ensure that the design, construction and refurbishment of buildings shall take into account the special needs of the aged and disabled.

8.1.10 Compliance with International Trade Agreements

a) Issues

Most of the stakeholders in the construction industry, as is the case for other sectors, are not well informed about the General Agreement on Trade and Services (GATS), the World Trade Organization (WTO) and other protocols under the East African Cooperation (EAC) and the Southern Africa Development Cooperation (SADC). So far no concrete action has been taken which is geared at taking full advantage of special and preferential treatment provided under GATS for the special needs of least developed countries in order to develop the capacity and competitive performance of local enterprises.

b) Objective

To ensure that policies and strategies consistent with International Trade Agreements are adopted.

c) Policy Directions

- To ensure that the local construction industry takes full advantage of special and differential treatment provided under GATS and other regional and international trade protocols. Thus, the government shall ensure that full advantage is taken of special and preferential treatment provided under GATS for the purpose of development of the capacity of local industries.

- Local participation requirement shall be mandatory in all construction projects.
- Create awareness on WTO protocols and those of sub-regional arrangements particularly EAC and SADC.
- Ensure that in negotiating for development support funds from bilateral and multilateral funding institutions, support for the development of capacity of the local construction industry is embodied.

8.1.11 Promoting Regional and International Collaboration

a) Issues

The conditions in the world economy have and are changing at a fast pace. Globalization and regionalism are transforming nation - state economic behavior by undermining economic nationalism to a great extent. Regional and international trade in construction goods and services should be accepted as both a challenge and an opportunity. The challenge is with regard to the inevitability of increased competition for which the industry must be prepared for. On the other hand, the situation should be propelled to promote industry development and competitive performance.

b) Objective

To promote regional and international collaboration.

c) Policy Directions

- Enhance collaborative mechanisms at regional level that require development of a vibrant, capable, varied and geographically extensive contracting and consulting industry.
- Enhance international co-operation arrangements that shall facilitate the improvement of the capacity and performance of the construction industry locally and regionally.
- Avoid inequalities that may create more benefits to countries with relatively stronger local industries and economic situations at the expense of the local construction industry.

- Facilitate the movement of construction resources, firms and personnel within the region.
- Co-operate in resource mobilization from donors and other sources to support development of physical and commercial infrastructure.
- Create arrangements for co-ordination and co-operation in research and development initiatives regionally and internationally to ensure that the benefits of the joint framework are shared throughout the region
- Promote meaningful joint ventures and other forms of strategic alliances with foreign partners to ensure effective participation of local players in construction projects.
- Adhere to Regional and International Protocols that permit developing countries to device national policies that are aimed at strengthening the competitiveness of their construction sectors.

8.1.12 Financial Support to Promotional and Regulatory Bodies

a) Issues

The Architects and Quantity Surveyors Registration Board, the Engineers Registration Board, and the National Construction Council cannot at present adequately meet their operational expenses. Thus, they have limitation in fulfilling their legal mandate.

b) Objective

To ensure the provision of adequate financial support to promotional and regulatory bodies

c) Policy Directions

- The government shall collaborate with these institutions to secure adequate and sustainable financial support.

8.1.13 Promotion of Co-operation Among Key Stakeholders

a) Issues

The co-operation among key stakeholders which are the government, promotional and research bodies, promotional and allied trade associations is weak and inadequate. This phenomenon leads to the polarization of various constituents and duplication of some of the development initiative.

b) Objective

To promote effective co-operation among key stakeholders.

c) Policy Directions

- Ensure that the Ministry responsible for Works establishes sector-wide approach programmes to improve the co-ordination between government ministries and its institutions.
- Strengthen the National Construction Council so that it can play its role effectively.

8.1.14 Strengthening of the Institutional Framework

a) Issues

- Major institutional players in the construction industry are the government - represented by the sector Ministry responsible for works; promotional and advisory government institutions, particularly the National Construction Council and regulatory bodies (registration boards). Others are the Tanzania Bureau of Standards and local authorities, training and research institutions, professional associations, individual firms, bilateral and multilateral development and funding agencies.
- The government for a foreseeable future will continue to dominate the business environment as the principal regulatory authority and as the main client of the local construction industry. Consequently, government commitment is an essential requirement for the development of the capacity of the industry.
- The current institutional arrangement in the construction industry is fragmented and characterized by overlapping functions. There are also roles, for example, enforcement of some of the non-compulsory

standards, for which no one is responsible. There is no effective collaboration among the promotional and regulatory bodies and some of their functions do overlap.

- Professional institutions and trade associations have a key role to play in the development of the industry. They can act as catalysts for change through dialogue, application of peer pressure and formulation and implementation of strategic development interventions and act as forums for the sharing of ideas and experiences. It is however noted that professional and trade associations allied to the construction industry have generally remained weak. Each institution has its own set of weaknesses. The weaknesses observed include:
 - Fewer numbers of members which could be interpreted that they are not true representatives of a particular constituency
 - Undemocratic leadership
 - Failure to adhere to the requirements of their constitutions
 - Nationalistic tendencies
 - Lack of vision and strategic goals

They have thus not greatly impacted on the improved performance of the construction industry. But they have the potential to promote and maintain standards of performance and ethics of their members.

- The National Construction Council has been a prime mover in the development of the local construction industry. Success of the implementation of the Construction Industry Policy greatly hinges on the Council's ability to effectively play its promotional, co-ordination and advisory roles. However, the Council currently cannot effectively carry out its statutory role and functions due to inadequate financing and lack of legal mandate in certain respects.

b) Objective

To ensure that the institutional framework is strengthened.

c) Policy Directions

i) Government

Overall responsibilities by the government through the Ministry responsible for works:

- Ensuring that an appropriate organizational framework, upon which the roles and responsibilities of all institutions supporting the development and performance of the construction industry are clearly defined and their activities are effectively co-ordinated and implemented.
- Influencing macro-economic policies and public sector investment in construction with the aim of ensuring consistent spending pattern so that private sector investors may respond to a more predictable environment.
- Establishing a streamlined procedural and regulatory framework in order to enhance the industry's capacity and performance in terms of accountability, productivity and quality.
- Ensuring that bilateral, regional and international trade agreements afford maximum advantage to the local construction industry.

ii) Registration Boards

The government shall revise the laws establishing the registration boards so as to empower them to:

- Ensure that at all times all respective professionals and firms rendering services in the industry possess adequate competence
- Establish and enforce ethical codes of conduct for the registered professionals.
- Approve the employment of foreign professionals in the construction industry for the purpose of ensuring maximum utilization of local manpower.
- Facilitate employment and growth of local professionals and enterprises.
- Promote training programs and establish accreditation schemes geared towards enhancing growth and competitiveness.

iii) National Construction Council

The laws establishing the National Construction Council shall be revised so as to enable it to:

- Provide leadership and marshal the support of stakeholders for on going growth and development reforms in the industry.
- Provide a focal point for sector co-ordination and promotional activities for the development and competitive performance of the industry.
- Promote and establish forums for enhancing industry-wide co-ordination and collaboration.
- Monitor and provide advice on the effectiveness of government policies and programmes for the enhancement of industry development and performance.
- Establish reform priorities, targets and performance and development indicators
- Facilitate accelerated formulation of standards and regulations and promote their use.
- Facilitate the prevention of corruption through technical auditing of projects, monitoring and recommending measures against malpractice in tendering and contract administration.
- Co-ordinate and promote the understanding and implementation of the Construction industry Policy aimed at ensuring that the action by various actors are consistent with the requirements of the policy.
- Generally, continue to carry out all its current functions
- Strengthen legally and financially to enable it play its role effectively.

iv) Professional Private Allied Associations

While the government, particularly through its promotional and regulatory bodies, will continue to support the strengthening of the associations allied to the construction industry, these associations will:

- Evolve self-regulatory mechanisms for their members as a way of ensuring delivery of quality service, competitive performance and prevention of corruption.
- Provide training and guidance on innovative approaches to problem solving to their members so that they can effectively respond to challenges of their own development and performance.
- Enhance the participation of women and youth in construction industry activities
- Promote application of technologies and practices, which are cost effective and affordable having regard to poverty eradication, environmental protection, human health and safety, and the special circumstances of vulnerable groups.
- Participate in regional and international collaborations for the purpose of capacity improvement, performance improvement, and promotion of export of services and goods.

8.2 Cross-cutting Issues

8.2.1 Application of Appropriate Building Regulations and Standards

a) Issues

The Tanzania Bureau of Standards has been in existence for over 20 years. So far it has published 51 standards of direct relevance to the construction industry. This number falls short of the industry's expectation. Formulation of standards has been slow mainly due to lack of sufficient human and financial resources on the part of TBS and lack of direct commitment by the industry in standardization work. Financing for establishment of standards has been mainly through government subvention, which has not been adequate. Due to the noted deficiencies, the industry continues to a large extent, to use foreign standards without any formal evaluation of their appropriateness. Furthermore, building regulations currently in use are outdated and their enforcement is weak. While the Ministry responsible for lands and human settlements formulates building regulations, their enforcement is the responsibility of the local authorities. Lack of appropriate building

regulations and standards is one of the contributing factors to poor quality of products and services.

b) Objective

To formulate and enforce the application of appropriate building regulations and standards.

c) Policy Directions

- Accelerate the formulation and updating of regulations and standards and ensure industry-wide usage.
- Ensure effective co-ordination and collaboration of institutions responsible for formulation, updating and enforcement of regulations and standards.

8.2.2 Promoting Application of Sustainable Construction Practices (Environment)

a) Issues

The importance of the construction industry is generally acknowledged, but at the same time it can be a major source of environmental damage and occupational health problems. A number of the industry's activities are environmentally not sustainable partly due to lack of awareness of environmentally sound practices and technologies.

Construction activities affect the environment in many ways: through resource deterioration, physical disruption and chemical pollution. Large civil engineering projects can easily destabilize fragile hill slopes. Deforestation associated with construction can cause loss of land by soil erosion, silting of reservoirs and disruption of aquatic ecosystems. Cement, lime and bitumen production pollutes the atmosphere.

Furthermore, it has long been recognized that many types of construction activities present serious health hazards. However, only recently have occupational problems in construction received much attention. Safety hazards are those that pose imminent danger of causing injury or death to workers or damage to materials, equipment, or

structures. Health hazards in construction include heat, radiation, noise, dust, shock and vibrations, and toxic chemicals. The production and use of building materials also contribute to health hazards. Health risks usually result from exposure to harmful environmental conditions.

b) Objective

To promote the application of sustainable construction practices that are environmentally friendly.

c) Policy Directions

- Promote and undertake research programmes geared towards application of technologies, products and practices, which are not harmful to the environment, human health and safety.
- Promote education and training programmes on environmental sustainability, sustainable construction practices and human health and safety issues.
- Establish procedures for Environmental Impact Assessment (EIA) of all projects and enforce their application

8.2.3 Mobilization of Adequate Financial Resources

a) Issues

Financing of construction related activities has always been inadequate. Thus, the government cannot effectively deal with the massive needs of physical infrastructure required for development without the mobilization of resources from both the public sector and the private sector. However, the government has the responsibility of ensuring adequate mobilization of public resources for the purpose of promoting development of backward sub-sectors of the economy. It is also to be noted that private sector financing has not been adequately mobilized to complement government financing. Erratic work opportunities being faced by the industry is equally a result of inadequate public and private sector financing of construction related activities.

b) Objective

To mobilize adequate financial resources for physical infrastructure development.

c) Policy Directions

- The government and the private sector shall continue to mobilize resources for physical infrastructure for the purpose of economic and social development of the whole country.
- Establish mechanisms for efficient collection of dedicated funds.
- The government shall ensure proper utilization of all dedicated funds, loans and grants.
- Promote private sector participation in financing construction and maintenance of infrastructure projects through innovative arrangements of Public Private Partnerships (PPPs) such as Build Own Operate Transfer (BOOT), Build Operate Transfer (BOT), and Design Build Finance Operate (DBFO).

8.2.4 Supporting Poverty Eradication

a) Issues

The construction industry is one of the sectors that can contribute to poverty eradication through sustainable employment creation and human resource development. Immediate possibilities to create employment opportunities are available through labour based construction related activities and community based delivery arrangements.

Successful implementation of either labour based or community based delivery arrangements must begin with the design brief and the design itself. However, consultants and public clients are technically ill equipped to commission and manage these types of delivery arrangements. The majority of contractors also lack necessary technical and managerial skills for labour-based works particularly with regard to works of civil engineering nature.

It is important to recognize further that without proper design and management, and beyond a certain threshold,

labour based construction can be less cost effective than machine based. In terms of cost trade-off between labour and machines based projects, one should balance the need for job creation against the need to deliver construction goods and services in cost-effective manner. Furthermore, community participation can equally be less cost effective. A strict cost comparison of the different construction delivery models however will fail to take account of the benefits of poverty alleviation and community empowerment.

b) Objective

To support poverty eradication.

c) Policy Directions

- The government and the private sector shall co-operate to promote employment creation in construction related activities in a manner that will provide quality assets and address the need for poverty alleviation.
- The Government and the private sector shall ensure the transfer of technical and managerial skills to consultants and public clients to enable them design and manage community based works.
- Transfer technical and managerial skills to contractors, consultants and clients for labour based and labour intensive works.
- Create awareness and commitment of the importance and viability of both labour-based and community based delivery arrangements.

8.2.5 Promoting Women and Youth Participation in Construction Activities

a) Issues

In Tanzania the construction industry is men dominated. Some efforts have been made to involve women in some activities like road works. However, the level of involvement is still minimal. Furthermore, since most of them lack technical skills, they tend to be confined to manual jobs. At the moment there are very few female artisans, technicians and technical professionals compared

to men. Since late 1980s the government has been making efforts towards women empowerment. In 1992 the Policy on Women in Development was formulated. The policy aims at ensuring full recognition and appreciation of women participation and involvement in national development programs at all levels. There is also an increasing level of youths both in rural and urban areas who are unemployed. Developing a strong construction industry would be an effective instrument in creating employment to rural as well as urban youth and ensuring their gainful contribution to the nation and themselves.

b) Objective

To promote women and youth participation in construction industry activities.

c) Policy Directions

- The government and the stakeholders of the industry shall promote the development, participation and representation of women and youth in the construction industry to enable them acquire marketable skills and thus enhance income generation opportunities.
- The Government shall at regional levels establish co-ordination units to facilitate implementation of women and youth participation activities.
- Implement positive discrimination measures in order to allow enhanced participation of women.
- Promote voluntary collaboration forums for women and youth in technical fields related to the construction industry.

8.2.6 Involvement of International Funding Agencies

a) Issues

Bilateral and multilateral development and funding agencies have a crucial role in supporting the fostering of the local construction industry. A good number of them have been providing support particularly through training, work packaging and preferential treatment. However, the measures are considered inadequate. Thus, more coherent interventions are needed from their end.

b) Objective

To enlist the support of international development and funding agencies.

c) Policy Directions

Bilateral and multilateral agencies shall be required and encouraged to:

- Provide technical as well as financial support for the fostering of the local construction industry.
- Enhance diffusion of information on innovative technologies and best practices and support their application.
- Support government initiatives in creating a conducive environment for the sector's development, particularly in capacity building and local players in foreign funded projects.

8.2.7 Promoting Corporate Governance

a) Issues

Corporate Governance has now become a critical element of business management and economic growth. There is lack of effective corporate governance in the construction industry.

b) Objective

To ensure that corporate governance is enhanced.

c) Policy Direction

- Create awareness and promote adherence to principles of corporate governance in the construction sector.

8.2.8 Promoting the Prevention of Corruption In the Industry

a) Issues

The construction industry in Tanzania is perceived as one of the most corrupt sectors of the economy. Reasons for corruption are many and well documented; they include bureaucracy, greed, lack of transparency and accountability, and inadequate remuneration of employees.

b) Objective

To promote the prevention of corruption in the industry.

c) Policy Direction

The government and the stakeholders of the industry are committed towards preventing corruption in the construction sector by:

- Enhancing efficiency, transparency and accountability in procurement, design and contract administration.
- Instituting mandatory technical auditing of all major public-financed projects and any other projects where there shall be suspicion of malpractice.
- Ensuring payment of living wages to employees
- Adhering to Public Procurement Act.