**Developing the construction industries in developing countries to enhance performance: the case of Ethiopia**

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**Abstract**

Ethiopia has produced a national construction industry policy. In 2017, the Construction Industry Transformation Council was set up. Thus, the country has established some of the building blocks of the "institution building" component of construction industry development. This should enable the industry to take advantage of the continuing high volume of construction demand to develop the local industry.

This workshop seeks to consider recent trends in the construction industry globally, with the view to enhancing the performance of the industry in Ethiopia in a sustainable way. It is appropriate to examine the nation's programme for developing the construction industry and compare it with good international practice. The objectives of the study are to present a synthesis of construction industry development and the historical development of the subject; to explore the plans and policies of Ethiopia for developing its construction industry; to consider good practice around the world and precautions to take; and to discuss what Ethiopia should do.

The paper is based on a review of the literature, with a reliance on government’s policy documents and reports. It is suggested that Ethiopia has put together a construction industry development programme which is similar to what pertains in other countries. There is scope for the country to learn from good practice elsewhere. However, in the end, only a truly Ethiopian construction industry development programme will work.

*Keywords*: construction industry development; performance improvement; international trends, good practice; national context

INTRODUCTION AND OBJECTIVES

**Introduction**

There is a need to improve the capacity and capability of the construction industries in all countries, especially the developing nations owing to the vital role the industry plays in putting in place the physical foundations for national socio-economic development. In the latter economies, it is necessary to enable the industries to address real acute basic needs of the countries and their citizens such as in affordable housing, access to clean water and improved sanitation. Data from the United Nations Children Emergency Fund (UNICEF) (2018a) show that by 2015, some 2.3 billion people around the world lacked access to a basic sanitation service; and some 850 million people did not have access to basic drinking water services (UNICEF, 2018b).

Ethiopia is one of a few countries to have produced a national construction industry policy (Ministry of Urban Development and Construction, 2012). Ethiopia’s *Construction Industry Policy* is being implemented. It has formed the basis of the Construction Industry Capacity Development Framework, a holistic ten-year programme, and various components of the regulatory framework (CIDB Malaysia, 2018). A statutory agency has also been established. Thus, Ethiopia is taking measures to develop its construction industry.

What is construction industry development? Which countries need it? What does it involve, and who undertakes it? What has Ethiopia done, and proposes to do? What have other countries done, and what have been the results of effort around the world? What are good practices in the world? What are prerequisites and precautions? What should Ethiopia consider as its next steps?

The objectives of the study are to:

* present a synthesis of construction industry development
* explore the plans and policies of Ethiopia for developing its construction industry
* consider good practice around the world in construction industry development, and cautions
* discuss what Ethiopia should do next in developing its construction industry. (This point will be explored with the participants in the workshop.)

The paper considers the *Construction Industry Policy*, which is the base document, as the ‘umbrella’ document for construction industry development activities and plans in Ethiopia.

CONSTRUCTION INDUSTRY DEVELOPMENT

**Defining construction industry development**

The importance of the construction industry for economic growth and long-term socio-economic development is well known. The industry’s ability to have multiplier effects on the economy owing to its linkages, and to create jobs, are also highlighted. For example, the UK government states in the New Construction Sector Deal, a strategy document prepared by the government and industry, that: “Construction underpins our economy and society. Few sectors have such an impact on communities across the UK or have the same potential to provide large numbers of high-skilled, well-paid jobs” (HM Government, 2018). Thus, countries need an effective and efficient local construction industry. Therefore, it is necessary for countries to have policies, strategies and programmes aimed at building up the capacity and capability of this important industry.

The CIB Task Group 29 (1999) on Construction in Developing Countries defined “construction industry development” as: “a deliberate and managed process to improve the capacity and effectiveness of the construction industry to meet the national economic demand for building and civil engineering products, and to support sustained national economic and social development objectives”.

How important is construction considered to be in Ethiopia? The construction industry policy of Ethiopia makes it clear that the country must have “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” if it is to realise the national aspirations outlined in Vision 2025”. The policy offers this definition: “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” (p. 4).

Thus, the policy document extends the definition by adding the main broad objectives of the development effort.

**Brief history of construction industry development**

The concept of “construction industry development” emerged from studies on the construction industries in developing countries. Such studies began in the 1960s. The report of the United Nations Expert Group on Housing (Department of Economic and Social Affairs, 1962) made the case for a major programme of action to improve upon the capacity and capability of the construction industries in order to address the poor housing, sanitation and services situation in these countries. Other works at this time were by the pioneering group of researchers at University College London, UK, the University College Economics Research Group (Turin, 1969). The studies then: (a) considered the role of construction in the national economy and in development; (b) undertook studies on specific construction industries; and (c) made proposals for the development of the industries in the developing countries in general (see, for example, Turin, 1973). In the 1980s, the World Bank (1984) and Wells (1986) wrote the first books on the subject.

Aspects of construction in developing countries which have been studied have included:

1. materials development (Syagga, 1993) – research and development (R&D) on local materials; promotion of the adoption of such materials; with an initial focus on import substitution
2. human resource development – education and training at all levels (International Labour Organisation, 2001)
3. technology development – ‘appropriate’ and labour-based technologies; technology transfer (van Egmond and Erkelens, 2008); more recently, application of information and communication technology (ICT) in the context of development
4. corporate development – mainly local contractor development focusing on small firms United Nations Centre for Human Settlements (1996); local-foreign joint ventures
5. institution building – regulations and standards; procurement processes; establishment and development of professional institutions and trade associations; formation of dedicated industry development agencies.

Some of the other subjects on which research has been undertaken have included: the role of construction in the economy; the nature and structure of the construction industry in particular countries, with different kinds of focus; the problems and challenges of the industry in some countries, and in general; and the overall subject of managing construction industry development.

“Construction Industry Development” is now an established subject; it is a module in some good universities such as University College London where (Construction Industry Development is an optional module on the M.Sc.(Construction Economics and Management) programme. It has a global research group, Working Commission 107 on Construction in Developing Countries of the International Council for Research and Innovation in Building and Construction (CIB) (which was established as Task Group TG29 in 1998). In practice, the literature on the field has provided the background and framework for policy formulation in construction industry development in many countries (see Ofori, 2012). A major new work in the subject is the *Construction Industry Capacity Framework*, a diagnostic tool for analysing the industry of any nation (Arup, 2018).

This paper focuses on two aspects of construction industry development: the establishment of a national statutory agency to manage industry development; and the formulation of a policy to provide direction for the process.

**Agencies and policies**

It has been suggested that every nation should establish a dedicated statutory organisation to manage the continuous development of the nation’s construction industry. The first construction industry development agency was established in Tanzania; it started operations in 1981. The second was set up in Singapore in 1984, followed by the one with a similar name in Malaysia. In Africa, other countries with construction industry development agencies include Botswana (the most recent, set up in 2017), Kenya, Malawi, Mauritius, South Africa and Zambia. Countries which have announced an intention to establish such agencies include: Ghana, Rwanda, and Uganda. In Uganda, the Uganda Construction Industry Council Bill has already been prepared, and is going through the process of being approved. The government of Ghana announced that it is committed to setting up such an agency in August 2018.

The first national construction industry policy in the world was formulated and released in Tanzania in 1991 (National Construction Council, 1991). The policy document was revised in 2005, and published with a set of action plans after a considerable amount of stakeholder discussions. In Africa, other countries which have formulated policies are Rwanda and Uganda, although these countries have no industry development agencies yet.

ETHIOPIA’S CONSTRUCTION INDUSTRY AND THOSE OF OTHER COUNTRIES

**Recent construction growth in Ethiopia**

Many reports highlight the remarkable expansion of the construction industry in Ethiopia as it has built large volumes of buildings and infrastructure items. The expansion in the size of the industry is most notable. National accounts data in the *African Statistical Yearbook* (Economic Commission for Africa *et al*., 2018) show that construction Gross Domestic Product (GDP) grew from 16,074 million Ethiopian Birr in 2009 to 292,209 Ethiopian Birr in 2017, an 18-fold growth. The annual growth rates of the industry in the past decade has been remarkable; the figures were as high as 31.5, 38.7 and 20.7 percent in 2012, 2013 and 2017 respectively. The contribution of the industry to national [GDP](http://search.news.cn/language/search.jspa?id=en&t=1&t1=0&ss=&ct=&n1=GDP&x=33&y=11) during the period 2009 to 2017 ranged between 5 and 17 percent (Economic Commission for Africa *et al*., 2018). However, the construction industry faces many problems and challenges which need to be addressed.

Ethiopia’s national construction industry policy has the aim of developing a construction industry which can contribute to the attainment of the requirements of the National Development Vision 2025, the long-term development strategy which aims at achieving for the nation, sustainable human development with the features of a middle-income country by year 2025. This requires the country to create “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”. To this end, Vision 2025 identified the development of infrastructure as an important contributor to the attainment of the desired levels and rates of economic growth, and recognised the need for a construction industry which can fulfil these requirements.

**Problems and challenges: Ethiopia is not alone**

Ethiopia’s Minister for Construction noted that the construction industry has a poor performance; it faces challenges such as quality-related problems, and time and cost overruns ([Ethiopian News Agency, 2018](http://www.ena.gov.et/)). There is a shortage of competent, registered and certified human resources, and lack of effective project management. Moreover, the industry is not willing to adopt the fast changing technologies and this has resulted in low productivity. The national construction policy document outlines the weaknesses, problems and performance constraints of the construction industry in Ethiopia as: (a) low capacity and capability of local contractors and consultants due to a weak resource base and inadequate experience; (b) inadequate and erratic work opportunities, inappropriate packaging of works which favour foreign firms in donor-funded projects (this results from the dependence on donor funding for infrastructure investment); (c) inefficient and non-transparent procurement systems; (d) corruption and financial mismanagement in public and private sectors; (e) lack of institutional support mechanisms for credit facilities, plant and equipment for hire, and professional development; (f) donor conditionalities which tend to marginalise local firms; (g) poor working environment, including low standards of safety and occupational hazards on construction sites; (h) weak and non-facilitative policies and regulatory framework; (i) low productivity and quality; and (j) low technological base.

The problems found in Ethiopia are similar to the catalogue of challenges facing the construction industries in developing countries. For example, among the constraints of the construction industry in India are (Planning Commission, 2013): (a) less than 6 percent of construction workers have had structured training; (b) there is no unified regulatory framework for construction firms in India; (c) there is a lack of an efficient dispute resolution regime, leading to costly and long disputes; (d) contracting procedures are cumbersome and costly for project owners and contractors; (e) there is also lack of standardisation of core contract conditions, procedures and evaluation criteria; (f) time and cost over-runs are caused by factors including ambiguities in some contract conditions; (g) industry faces high operation, maintenance, and financial costs; (h) institutional finance is inadequate and costly; (i) the poor state of technology in manufacturing of materials and during construction, leads to inefficiencies, wastage and low value added; (j) the industry recognises that the quality of construction is poor; (k) productivity growth of the industry is an average of 35-45 percent lower than in other countries such as China, US and in Europe; and (l) investment in R&D is 0.03-0.05 percent of investment in construction as against 1.50 to 2.00 percent in South-East Asian countries and 4.00-6.00 percent in developed economies.

Operating and environmental constraints and performance gaps in construction are not peculiar to only developing countries. The construction industry in every country faces some problems issues. Those highlighted in a review of the UK construction industry include (HM Government, 2013): (1) low vertical integration in the supply chain, with high reliance on sub-contracting which often leads to fracture between design and construction management and to lost opportunities to innovate; (2) low investment in R&D and intangible assets such as new processes (particularly in contracting) due to uncertain demand for new goods and limited collaboration; (3) lack of collaboration and limited knowledge sharing; learning points from projects are often team-based and lost when the project ends and team breaks up; there is low technology transfer; and (4) high construction costs in comparison with foreign competitors, driven by inefficient procurement and processes rather than material input costs.

**Policy directions in industry development**

The policy directions outlined in Ethiopia’s construction policy include that 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
* shall support the establishment of financing facilities for construction enterprises to obtain working capital in terms of credit, bonds, guarantees, training funds, and capital for tools and equipment
* shall ensure both local and donor procurement policies provide a framework for fostering the local construction industry in Ethiopia
* shall ensure that public-funded works carried out in the country involve partnership with local players.

The government’s stress in the Construction Industry Policy on its own leadership and collaboration with the private sector in some areas, as well as the declaration of its clear intent in key areas is worth noting.

It is, again, pertinent to compare these with the directions elsewhere. In Sri Lanka, the construction industry policy initiatives include (National Advisory Council on Construction, 2014): (1) support for human resource development; (2) targeting of the construction sector for employment generation, poverty alleviation and social upliftment; (3) ensuring the availability of materials, plant and equipment through the growth of the local materials and related industries, and through liberalised trade; (4) creating an enabling regulatory framework; (5) enabling fair competition for government contracts through the establishment of clear procurement guidelines and regulations; (6) establishing national registers for stakeholders by the Construction Industry Development Authority; and (7) creating an attractive investment climate for infrastructure development including private capital and foreign direct investment.

It is also pertinent to consider the policy directions for industry development in an industrialised country. The ambition for the UK construction sector in the *New Construction Sector Deal* is to deliver: (1) better-performing buildings that are built more quickly and at lower cost; (2) lower energy use and cheaper bills from homes and workplaces; (3) better jobs, including a high increase in apprenticeships; (4) better value for taxpayers and investors from the huge infrastructure and construction pipeline; and (5) a globally-competitive sector that exports more, targeting the US$2.5 trillion global infrastructure market. This ambition indicates that there is a need for significant improvement in the industry’s performance. Indeed, the new deal builds on Construction 2025, prepared by the Construction Industry Council (HM Government, 2013), which provides the framework for a sector that delivers: (a) a 33 percent reduction in the cost of construction and whole-life cost of assets; (b) a 50 percent reduction in the time taken from inception to completion of new build; (c) a 50 percent reduction in greenhouse gas emissions in the built environment; and (d) a 50 percent reduction in the trade gap between total exports and total imports of construction products and materials. These goals will be met by focusing on three strategic areas: (a) digital techniques deployed in design to deliver better results during construction and operation of buildings, with improved safety, quality, productivity, optimised life-cycle performance; (b) offsite manufacturing technologies to help to minimise wastage, inefficiencies and delays on site; and whole life asset performance to shift focus to costs across the building life cycle.

**Objectives of construction industry policy**

The objectives of construction industry policy in Ethiopia are:

1. to improve the capacity and competitiveness of local construction enterprises
2. to develop an efficient and self-sustaining roads network that is capable of meeting the diverse needs for construction rehabilitation and maintenance of various types of civil works
3. to improve the capacity and performance of the public-sector and private-sector clients to ensure efficient, transparent and effective implementation and management of projects
4. 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
5. 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
6. to ensure application of practices, technologies and products which are not harmful to both the environment and human health
7. to mobilise adequate resources from the public and private sectors for the construction and maintenance of public infrastructure
8. to enhance participation in 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
9. to improve co-ordination, collaboration and performance of institutions supporting the development and performance of the construction industry.

The guiding principles used for structuring the policy for the construction industry in Sri Lanka are to (National Advisory Council on Construction, 2014): (i) facilitate strategic national development objectives; (ii) facilitate and advance partnerships between the public and private sectors; (iii) ensure adequate co-ordination through appropriate institutional arrangements; (iv) enable effective monitoring and evaluation of industry performance; (v) ensure compliance and adherence to established guidelines, codes of practices and standards; (vi) ensure that negative environmental impacts are minimised and sustainable development is achieved; (vii) enhance competitiveness and transparency in the procurement process; (viii) create a social and economic environment that will facilitate private-sector investments and entrepreneurship; (ix) establish the government’s functions and priorities in relation to the construction industry (x) promote training standards to elevate the personnel to international certification levels; (xi) promote technology transfer from foreign firms working in Sri Lanka to the local industry; and (xii) promote export of construction industry related services.

The Ethiopian policy document does not mention the project results (such as cost, time and quality), but considering the constraints outlined, such features of the industry’s performance can be considered to be the norm. In general, it is clear that the traditional project performance parameters are the most commonly indicated objectives. They are: cost; time; quality; health and safety; environmental performance; productivity; profitability and corporate growth. New areas are which are being given attention at the policy level in many countries include: affordability; life-cycle value for money; job creation; stakeholder satisfaction; maximum economic linkage effects; sustainable development (not only the environmental performance). In future, other possible areas are: innovation; professionalism; lack of corruption; and value creation; development of local construction enterprises.

**Industry development agency**

The policy document states that the laws establishing the National Construction Council shall enable the council to:

* provide leadership and marshal the support of stakeholders for ongoing 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.

Table 1 compares the vision and mission of construction industry development of Ethiopia as stated in the national policy document with some agencies around the world.

Table 1 Vision and mission of construction industry development of Ethiopia and some other countries

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| --- | --- | --- | --- |
| *Country and agency* | *Vision* | | *Mission* |
| Ethiopia | To have a dynamic, efficient and competitive local construction industry that fosters economic growth and international competitiveness, affords for the improvement of the quality of life for all citizens, while creating sustainable employment through growth and participate effectively in providing its services in the regional and global market place. | | …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. |
| Singapore  Building and Construction Authority[[1]](#footnote-1) (formed, 1984) | Our vision is to have "a future-ready built environment for Singapore." | | Our mission is "we shape a safe, high quality, sustainable and friendly built environment." |
| Hong Kong  Construction Industry Authority[[2]](#footnote-2)  (formed, 2007) | To drive for unity and excellence of the construction industry of Hong Kong. | | To strengthen the sustainability of the construction industry in Hong Kong by providing a communications platform, striving for continuous improvement, increasing awareness of health and safety, as well as improving skills development. |
| Malaysia  Construction Industry Development Board[[3]](#footnote-3)  (formed, 1994) | To be an esteemed organization that delivers construction excellence in Malaysia. | | To regulate, develop and facilitate the construction industry by inculcating professionalism in delivering quality, productive and sustainable built environment. |
| India  Construction Industry Development Council[[4]](#footnote-4) (formed, 1996) | **Vision**  \* We will attain and sustain a qualitative improvement in work methods, technology levels and standards of service  \* We will harmonize the efforts of various segments of the industry, construction bodies, construction agencies, central and state government units and consultants to achieve shared goals  \* We will seek and secure for India's construction industry an enhanced professional status leading to a wider social acknowledgement of the pivotal role played by the construction industry  \* We will emphasize the construction industry's potential to not merely conserve but also upgrade ecology and environment  \* We will enhance the skill levels and earning potential of workers in the construction industry and institutionalize a concern for their welfare, safety and health  \* We will put in place mechanisms that will replace subjective appraisal with scientific methods of evaluation and transit from price centered economics to a value based professional ethos  \* We will function as an industrial constituent fully conscious of our responsibilities and keen to discharge our large obligations to society and the nation. | | |
| South Africa  Construction Industry Development Board[[5]](#footnote-5)  (formed, 2001) | A transformed construction industry that is inclusive, ethical and contributes to a prosperous South Africa and the world | | We exist in order to regulate and develop the construction industry through strategic interventions and partnerships |
| Sri Lanka  Construction Industry Development Authority[[6]](#footnote-6) | To create a reliable and globally competitive construction industry for Sri Lanka. | To ensure dynamic, professional, and reliable value added services to the nation, through regulation and facilitation of the development of construction industry resources and promotion of quality standards, to meet local and global requirements for sustainable national development. | |

The Ethiopian government launched the Construction Industry Transformation Council in 2017 (Mu, 2018). The council is a consultative platform chaired by the Prime Minister brings together ministries and stakeholders from public and private entities. It is expected to contribute to the sustainable development of the industry by providing new ideas, policies and recommendations on the prevailing state of the industry. The council is a feature of the construction industry which has significant potential benefits. Whereas countries such as the UK have public-private construction leadership councils, this chairing of the council in Ethiopia by the Prime Minister is unique; it cements the high level of importance which the government accords to the construction industry.

**GOOD PRACTICE AND CONTINUING DEBATE**

**Good practice in industry development**

How do Ethiopia's intentions and aspirations relate to good practice from around the world? Some examples of what can be considered to be good practice are now outlined.

*Singapore*

The elements of Singapore’s programme for developing its construction industry which are unique include the following:

1. the government has had a good understanding of the construction industry, its key features and its needs, as well as its potential for introducing desirable changes in the whole economy, such through pump-priming public sector investment, taking measures to restrain excessive increases in the price of real estate, or postponing projects to reduce pressure on the industry’s capacity
2. effective construction industry development with policies, an agency, and enforcement framework
3. an effective policy formulation, awareness building, implementation and feedback review (Figure 1)
4. setting of targets for the industry and providing guidance and offering of incentives to the construction industry to upgrade its resources and practices to meet the targets, such as mechanisation and application of information and communication technology (ICT)
5. application of successively advanced levels of ICT and encouraging, supporting and if necessary, compelling the industry to apply it in the most advantageous way. For example, it has been compulsory to submit proposals for development in Building Information Modelling (BIM) format since 2015.

The industry also benefits from prestigious, market boosting national-level awards for good performance which encourage efforts towards good practice, innovation and excellence in the construction industry. Also beneficial is the systematic policy and programme formulation, implementation, monitoring and review, which might lead to the formulation of a new policy. The quality development programme, which started in 1988, has become an integral part of industry practice. The current focus is on productivity, ITC application, and green construction. There is a strategic plan for each of these areas. There have been three successive Productivity Plans, prepared upon the advice of an international advisory panel. The country is also now on the third Green Building Master plan.

Figure 1 Policy formulation and implementation in Singapore construction

*Malaysia*

Some components of Malaysia’s industry development programme which are good practices include:

1. the regulations provide for a levy on projects above a certain figure in value which provides sustainable funding for construction industry development. This enables the industry development agency to obtain the funds it needs for its executive activities from this resource
2. in Malaysia, there is systematic periodic review of industry development programmes. For example, the Construction Industry Masterplan 2006-2015 (CIDB, 2006) was replaced by the Construction Industry Transformation Programme 2016-2020 (CIDB, 2016).

*South Africa*

In South Africa, the Construction Industry Development Board (cidb) also has unique good practice features, including:

* a Stakeholder Forum – this is an annual event where the industry gets the opportunity to meet the Minister in charge of construction and discuss matters of key interest with him or her
* a State of the Industry study every two years – this comprehensive study provides the basis for policy measures and business practice, as well as research
* Selection of Board members -- each appointed on merit, not as a representative of stakeholders
* the CIDB must be put through a peer review by an international panel every five years.

*Persisting issues: industry development is a sticky problem*

It should be noted that there is no panacea in construction. The countries which have developed strategies and programmes for addressing the issues facing their construction industries still have challenges. For example, the problems Singapore faces include: a fragmented construction industry and process, which efforts at integration (for example, encouragement of design and build procurement); a construction industry with a poor social image which fails to attract good calibre personnel at all levels, and has hardly any Singaporean among its site workers; and the industry has also grown rather dependent on government leadership. In Malaysia, it is a battle to enforce the systematic regulations. In South Africa, the large construction companies are facing severe problems in a declining and increasingly competitive market.

**Some conundrums and unsettled areas in construction industry development**

There are many areas of construction industry development which are not settled; some of which have been debated upon for some time. Some of them are now discussed.

1. Is it necessary to set up a separate agency?
2. Should it be developmental only (as in South Africa and Tanzania), regulatory only, or both developmental and regulatory (as in Singapore)?
3. Should it be a wholly government organisation (as in most countries which have such an agency) or should the private sector be directly involved in it as a partner (as in Indonesia)?
4. Should a national construction industry policy be prepared and published before an agency is formed (as was the case in Hong Kong) or should the policy be prepared by the agency (as in Tanzania)?
5. Who should be members of the board of the agency; should they be representatives of stakeholder organisations (as set out by the law in Sri Lanka) or appointed in their own right (as in South Africa), or a mixture of the two arrangements (as in Singapore)?
6. What will be the role of ‘traditional’ organisations such as professions’ registration boards when such an agency is established? Should the agency register contractors (as in most countries), or form a separate registration board for such business entities?

CONCLUDING REMARKS: WHAT DOES ‘GOOD’ LOOK LIKE? 

There is no complete model of a ‘good’ construction industry, but most countries appreciate the need for improvement, and are taking actions to attain progress. Some possible elements of such an industry are now outlined:

* Industry-level regulatory and developmental agency; this should be appropriately empowered, sustainably funded, staffed with the best
* National system of building control regulations and implementing and enforcement agencies
* National construction industry policy; this should have a provision for periodic review, and should indicate the circumstances under which such a review would be necessary
* National construction industry development strategy; this should developed with the industry’s stakeholders, based on comprehensive industry study
* National infrastructure plan – this would provide the basis for industry planning and capacity building
* Annual Stakeholders’ Forum, chaired by infrastructure-related Minister(s)
* A single overall umbrella organisation for private sector of industry
* Construction Leadership Council, comprising public- and private-sector representatives as the industry’s champion; this would serve as the forum for public-private dialogue
* Bi-annual state-of-the-industry studies of the construction industry, including an assessment based on agreed key performance indicators
* Accurate, comprehensive data and information on the nation’s construction industry – for policy formulation, and good practice in the industry
* Effective industry-research links for translation of research into practical use
* A technology-enabled industry (the watchwords should be “right technology in context”, but also, “we should not be left behind”)
* Knowledgeable clients
* Setting targets, benchmarking with the best around the world, and in context
* Demanding communities desiring high standards of provision, actively involved in projects
* Periodic peer review of the nation’s industry development programme by an international panel appointed by the infrastructure Minister(s)
* Long-term oriented construction contracting and consultancy firms, in all the size and specialisation ranges
* A generally conducive operating environment for the industry.

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