



NATIONAL QUALITY POLICY
FOR BOTSWANA
(1ST WORKING DRAFT)

MINISTRY OF TRADE AND INDUSTRY

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Industrialization, Diversification and Export Development for Global Competitiveness

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TABLE OF CONTENTS

ABREVIATIONS AND ACRONYMS	4
1 INTRODUCTION.....	5
2 BACKGROUND.....	6
2.1 The National Quality Infrastructure	6
2.2 Technical Regulation.....	7
2.3 The NQI of Botswana.....	8
2.4 The technical regulation regime of Botswana	10
3 POLICY ENVIRONMENT OF THE NQP	12
3.1 The interface between the NQP and other domestic policies.....	12
3.2 The external policy environment for the NQP	13
4 GUIDING PRINCIPLES FOR THE QUALITY POLICY	14
5 OBJECTIVES OF THE NATIONAL QUALITY POLICY	15
5.1 National Quality Infrastructure.....	15
5.2 Technical Regulation Framework	15
5.3 Skilled workforce	15
5.4 Quality consciousness	16
6 STRATEGIC POLICY MEASURES	16
6.1 The overall responsibility of Government.....	16
6.2 National Quality Infrastructure.....	17
6.3 Technical Regulation.....	22
6.4 Education and training.....	28
6.5 Information and awareness.....	28
6.6 The role of other stakeholders	30
6.7 International liaison.....	32
7 FINANCING THE NQI AND TECHNICAL REGULATION FRAMEWORK	32
7.1 Government Direct Investment	32
7.2 Financial sustainability.....	33
8 LEGAL FRAMEWORK.....	34
8.1 Review of current legislation	34
8.2 Developing new legislation	35
9 IMPLEMENTATION	35
9.1 Lead Ministry and Reference Group	35
9.2 Implementation Plan.....	36
9.3 Implementation responsibilities	37
9.4 Implementation period	37
10 DEFINITIONS	38

ABBREVIATIONS AND ACRONYMS

AFRAC	-	African Accreditation Cooperation
AFRIMETS	-	Intra-Africa Metrology System
ARSO	-	African Organization for Standardization
BEMA	-	Botswana Exporters and Manufacturers Association
BIPM	-	Bureau Internationale de Poids et Mesures
BITC	-	Botswana Investment and Trade Centre
BOBS	-	Botswana Bureau of Standards
BOCCIM	-	Botswana Confederation of Commerce, Industry and Manpower
BOS	-	Botswana (National) Standard
BQA	-	Botswana Qualifications Authority
CAC	-	Codex Alimentarius Commission
CIPM	-	Comité International des Poids et Mesures
CMC	-	Calibration and Measurement Capability
COMESA	-	Common Market for Eastern and Southern Africa
EU	-	European Union
FAO	-	Food and Agriculture Organization (of the United Nations)
GDP	-	Gross Domestic Product
IAF	-	International Accreditation Forum
IEC	-	International Electrotechnical Commission
ILAC	-	International Laboratory Accreditation Cooperation
IPPC	-	International Plant Protection Convention
ISO	-	International Organization for Standardization
ITU	-	International Telecommunications Union
KCDB	-	Key Comparison Data Base
NDP	-	National Development Plan
NGO	-	Non-Governmental Organization
NMI	-	National Metrology Institute
NQI	-	National Quality Infrastructure
NQP	-	National Quality Policy
OIE	-	World Organization for Animal Health
OIML	-	Organisation Internationale de Métrologie Légale
SABS	-	South African Bureau of Standards
SADC	-	Southern African Development Community
SADC TBTEG	-	SADC TBT Expert Group
SADCA	-	SADC Cooperation in Accreditation
SADCAS	-	SADC Accreditation Service
SADCMEL	-	SADC Cooperation in Legal Metrology
SADCMET	-	SADC Cooperation in Metrology
SADCSTAN	-	SADC Cooperation in Standards
SADCTBTSC	-	SADC TBT Stakeholders Committee
SADCTRLC	-	SADC Technical Regulations Liaison Committee
SANAS	-	South African National Accreditation Service
SMME	-	Small, Medium and Micro Enterprises
SPS	-	Sanitary and Phyto-sanitary
TBT	-	Technical Barriers to Trade
WTO	-	World Trade Organization

NATIONAL QUALITY POLICY FOR BOTSWANA

1 INTRODUCTION

Two issues dominate international trade. One, the globalization of markets continues at a relentless pace. Purchasers, governments and multinationals demand products and services that comply with continuously increasing quality requirements to meet expectations of the consumers and to integrate seamlessly into the manufacturing value chains that now span many countries. But, enterprises in especially the developing economies face daunting challenges in accessing these globalized markets. Over and above the financial, management, logistics and skills challenges, they also need to have access to a supportive and internationally recognized quality infrastructure that can provide the independent attestation of product or service quality, without which access to the international markets is difficult.

Secondly, negotiations on tariffs have to a large extent run their course and impediments to trade in the form of non-tariff barriers are now the focus of attention. At the international level these are regulated by two WTO Agreements. The WTO Agreement on Technical Barriers to Trade (TBT) covers all products (even those of agricultural origin) and deals with the development and implementation of standards in the non-regulatory domain, with technical regulations in the regulatory domain, as well as the conformity assessment regimes for both. The WTO Agreement on Sanitary and Phyto-sanitary (SPS) measures deals with very specific threats to the health and safety of peoples and the fauna and flora of a country such as biosecurity at international borders. At the regional level SADC Protocols have been promulgated that strengthen these two WTO Agreements even further.

But, for mostly historical reasons, the technical regulation regime of Botswana, similar to that of many developing economies, is of an *ad hoc* nature, fragmented, and not fully compliant with these international requirements. The situation is exacerbated by overlaps in activities amongst various regulatory agencies. This array of agencies, in trying to control the integrity of products, create bureaucratic chaos for suppliers, add unnecessary transaction costs and thereby render products non-competitive. In addition, many of the technical regulation regimes are ineffective, i.e. compliance is not enforced. This constitutes a serious impediment to trade. On the other hand, the national quality infrastructure of Botswana has developed over years as a “one-stop shop” concept and served its purpose in years gone by, but it is now in need of modernization in view of changed circumstances.

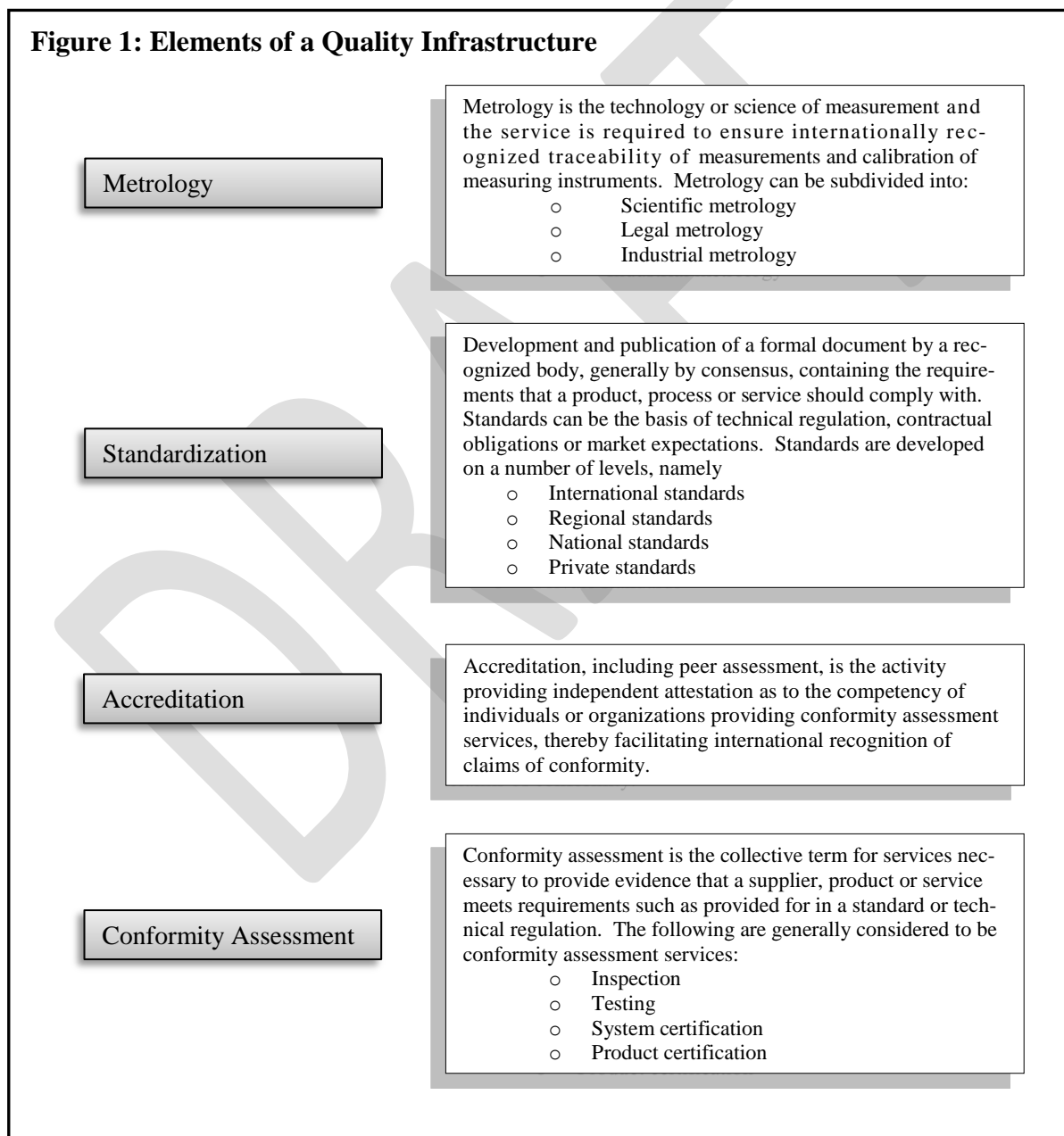
At the national level, the technical regulation regime and the quality infrastructure are interwoven in complex ways that should not be separated. International recognition of both is absolutely vital for Botswana to pursue a more effective integration into the world economy. Hence, the National Quality Policy (NQP) articulates the intentions of government as regards both these issues, i.e. the modernization of the national quality infrastructure and the re-engineering of the technical regulation regime, so that both are fully compliant with current international norms and practices. The NQP is therefore an integral part of the broader industrial, diversification and export strategies that seek the development of quality products and services, to enhance trade and thereby ultimately underpin socio-economic development.

2 BACKGROUND

2.1 The National Quality Infrastructure

The National Quality Infrastructure (NQI) is generally understood as the collection of institutions in both the public and private sector, which in the first instance provide metrology, standardization and accreditation services. These three fundamentals are necessary to support the next level of the NQI, namely the conformity assessment service providers, i.e. inspection, testing and certification services.

Figure 1: Elements of a Quality Infrastructure



The elements constituting the NQI and their main responsibilities are depicted in Figure 1. It would be most appropriate if an independent institution is established to provide the services for each of the elements. This is in fact how the quality infrastructure organizations are established at the international level, e.g. organizations such as BIPM and OIML (metrology), ISO, IEC and ITU (standards), and IAF and ILAC (accreditation). This however, is difficult in developing country context due to resource constraints. Combinations are possible provided that conflicts of interest are avoided, e.g. the combination of accreditation and conformity assessment is unacceptable. On the other hand, some combinations may even be desirable to foster long-term financial sustainability of an institution, e.g. the combination of standards, testing and certification services.

There is however, no single correct way to arrange the NQI of a country. The way in which the elements of the NQI are arranged depends on legal systems, customs and practices, resource constraints, trade partner preferences, regional and international recognition requirements and other factors. Therefore the NQI structure has to be specifically designed for Botswana taking all these issues into consideration. But, it is very important to keep in mind that the NQI organizational structure must be such that international recognition is facilitated.

2.2 Technical Regulation

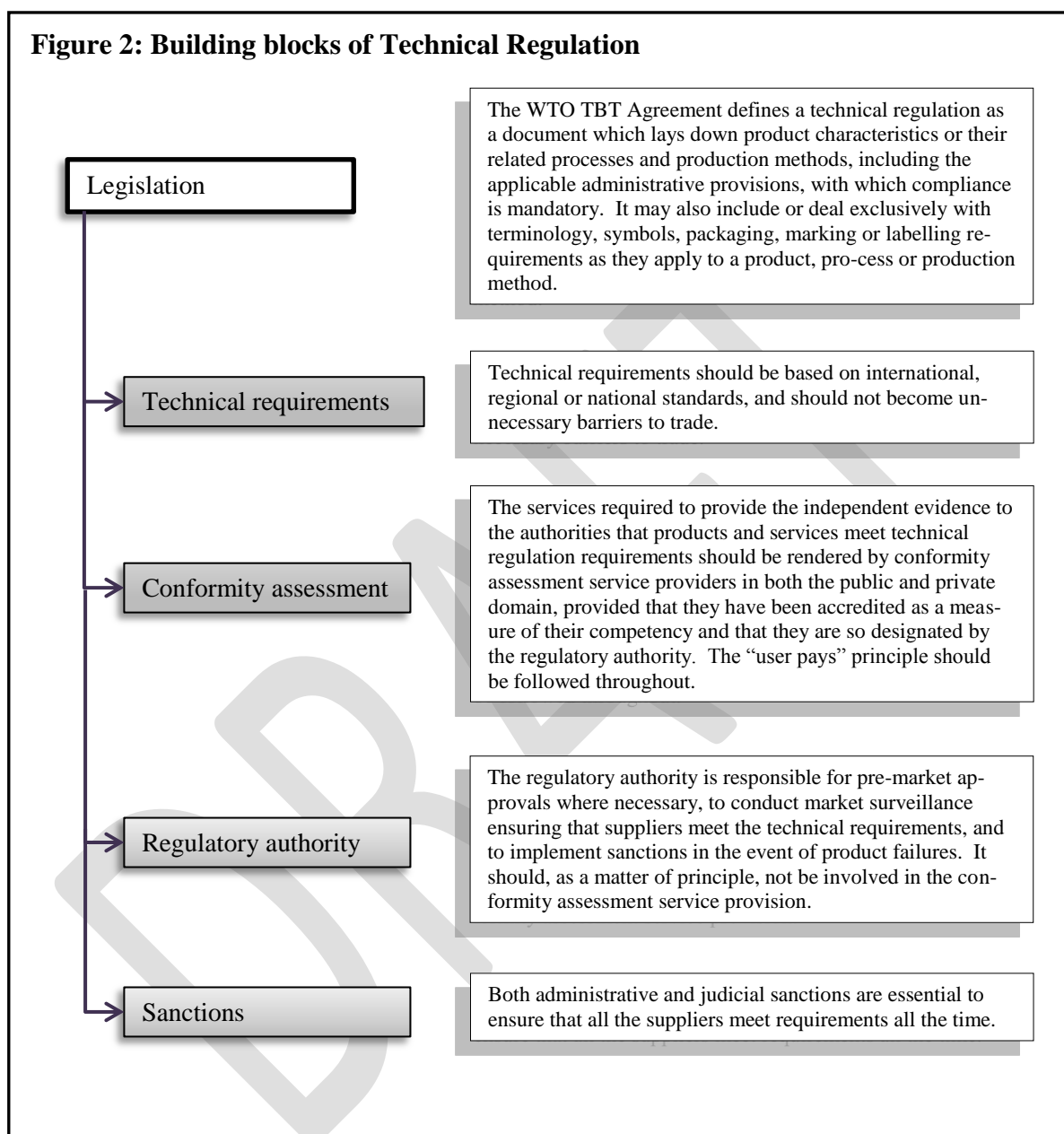
Technical regulations (which would include compulsory standards and legal metrology) as defined in the WTO TBT Agreement, are concerned with the safety and health of the population, health of plants and animals, protection of consumers against deceptive practices, and the protection of the environment. The WTO TBT Agreement endeavours to ensure that technical regulations do not become unnecessary barriers to trade, or are disguised measures to protect local manufacturers. Technical regulations and standards share many features, but there are also very important differences.

Technical regulations are developed and implemented by competent authorities such as the ministries responsible for agriculture, construction, electricity, environment, health, industry, telecommunication, tourism, trade, transport, mineral resources, and others. They are part of the legislative system of a country and compliance is legally enforced. Standards on the other hand are developed in a consensus process representative of stakeholders, including the government. Compliance with a standard is a voluntary activity, i.e. compliance is demanded through contractual agreements, or suggested by market preferences. Non-compliance of a product with a technical regulation is a punishable offence, whereas non-compliance with a standard may lead to a loss of market share but it is not a punishable offence in itself.

Technical regulations should be based on the relevant international, regional and national standards, and their implementation should utilise conformity assessment services that are technically competent and enjoy international recognition. In most countries a number of ministries and agencies are involved in developing and implementing technical regulations within their sphere of responsibilities. But, products frequently fall into the scope of more than one ministry. Hence coordination between responsible ministries amongst themselves and with the NQI institutions that provide the standards on which technical regulations should be based, and who provide the conformity assessment services to demonstrate compliance, is of paramount importance

to ensure that a product is not subject to differing requirements and unnecessary and costly multiple inspection and testing. The typical building blocks of a technical regulation are depicted in Figure 2.

Figure 2: Building blocks of Technical Regulation



2.3 The NQI of Botswana

A number of mostly public institutions constitute the NQI of Botswana. The main institutions are the Botswana Bureau of Standards (BOBS) and various government laboratories attached to Ministries such as the National Veterinary Laboratory (ministry of Agriculture), the National Food Control Laboratory (Ministry of Health) and others. There are very few Botswana based private sector NQI institutions, but a number of outside companies such as the South

African Bureau of Standards (SABS), Intertek and SGS provide conformity assessment services in the country.

2.3.1 Botswana Bureau of Standards (BOBS)

The Botswana Bureau of Standards (BOBS) was established through the Standards Act (1995). BOBS is the pinnacle body developing and publishing Botswana Standards (BOS) and it is the National WTO TBT Enquiry Point. It provides numerous inspection, testing and system and product certification services. BOBS has been made responsible for Trade Metrology through the Weights and Measures Act (2006) and is the custodian of the national measurement standards. In the development and implementation of Compulsory Standards BOBS acts as the regulatory agency of the Ministry of Trade and Industry. BOBS provides training services in respect of various standards and conformity assessment regimes.

The development of national standards basically meets the requirements of the WTO TBT Agreement. BOBS has developed approximately 1400 national standards that have been approved. The publication system however, is dysfunctional. Only about 500 of the approved standards are available as printed copies due to the lack of a print-on-demand system, and none are available electronically or over the internet. BOBS therefore does all the hard work to develop the national standards, but ultimately fails to bring them to market.

The BOBS laboratories and certification business has not yet been accredited although it is working towards it. Even if some of the services will be accredited by SADCAS in the near future, BOBS is still a very long way away from having all the relevant services accredited. The calibration laboratory has been accredited for some services. The national measurement standards have not been gazetted and international recognition of the same through listing of the Calibration and Measurement Capabilities (CMC) on the international BIPM Key Comparison Data Base has not been realized yet.

The financial challenge for BOBS is that it is to a very large extent reliant on the state to fund all of its operations, even subsidizing conformity assessment services. International evidence would indicate that the development and publication of national standards, the establishment and maintenance of national measurement standards, and international liaison (e.g. membership of ISO, IEC and relevant regional organizations) remains a government responsibility in all developing economies. Conformity assessment services however, should in principle be financially self-sufficient. Testing services that are provided free of charge to various government institutions exacerbate the financial situation of BOBS.

2.3.2 National Food Control Laboratory

The National Food Control Laboratory falls under the Department of Public Health within the Ministry of Health. The laboratory gets samples from Ministry inspection entities, BOBS (i.e. import inspection), and local authority inspectors (under the Ministry of Local Authorities). The laboratory tests these samples and provides the reports to these inspectorates for any follow up actions. The laboratory is not accredited and its premises are such that it is unlikely to be able to gain accreditation in the future.

2.3.3 National Veterinary Laboratory

The National Veterinary Laboratory falls under the Department of Veterinary Services in the Ministry of Agriculture. The laboratory is the main testing laboratory for the meat exports of Botswana to the EU and elsewhere. It is accredited by SANAS for more than 40 parameters, making it one of the most competent laboratories in the country. It is properly funded and staffed.

2.3.4 National Environmental Laboratory

The National Environmental Laboratory provides a good range of testing services of environmental pollutants in the following media: groundwater, surface (river) water, wastewater, leachates, sludge, gases, airborne dust, sediment, and soil. It provides a service not only to its Ministry, but also on request to clients in the private sector. The laboratory is not accredited.

2.3.5 Department of Geological Survey Laboratory

The laboratory carries out geochemical analysis of soils and rocks to provide the chemical composition of the samples. Parameters tested for include oxides, trace and major elements. It also carries out chemical analysis of water samples for the purpose of determining the quality of water from different sources such as boreholes. Testing is done based on BOS 32:2000 for drinking water and FAO Guidelines for livestock drinking water. The laboratory is not accredited.

Discussion: It would be useful to augment this list with additional public and private laboratories that operate in Botswana. It would also be useful if the main challenge of the laboratories listed can be added to the text.

2.4 The technical regulation regime of Botswana

2.4.1 General

In Botswana, like in most countries, every Ministry has established one or more regulatory agencies to develop and implement technical regulations within its domain. There is no definitive national guideline for the development and implementation of technical regulations. Hence each Ministry and their Agencies develop and implement technical regulations as they see appropriate. Inevitably, this approach leads has led to divergences in technical regulation development and implementation.

The WTO TBT Agreement requires Botswana to timeously notify all its technical regulations to the WTO Secretariat for comment by other WTO Member States before they are implemented. In the past few years, only the Compulsory Standards of the Ministry of Trade and

Industry administered by BOBS, were notified. Technical regulations developed by other Ministries were not notified.

Many products subject to technical regulation fall within the domain of more than one national Ministry and/or local authority. But, there is no dedicated mechanism to ensure coordination of their activities. Hence, the result is an overlap in regulatory activity, i.e. the supplier has to deal with more than one regulatory authority that frequently place differing demands on product quality and the supplier. This situation adds tremendously to the cost of products without resulting in better safety for the consumer or the environment, in fact the opposite is often the case. Local products and imported products are frequently handled differently, violating one of the basic tenets of the WTO TBT Agreement. The result is that Botswana products are rendered non-competitive.

At the international level, it has become the norm that regulatory authorities should not render conformity assessment services that provide the evidence that a product complies with technical regulation requirements. It is argued that this is a conflict of interest and such a mandate allows the regulatory authority to extract rent from suppliers that have to comply with technical regulation. In Botswana this is amongst others the case for BOBS, as it is responsible for the implementation of Compulsory Standards, yet it also provides conformity assessment services.

2.4.2 Technical regulation authorities in Botswana

Technical regulation authorities and their scope of operation are shown in the Table below.

Regulatory Authority	Regulated products and services
Botswana Bureau of Standards (BOBS)	Implementation of 45 prescribed Compulsory Standards for manufactured products, including some food items. Activities include market surveillance in Botswana and the inspection of imported products falling within the scope of Compulsory Standards.
Botswana Tourism Organization (Ministry of Environment, Wildlife and Tourism)	Tourism
Department of Energy Affairs	Energy and petroleum
Department of Fire	Firefighting equipment
Department of Radiation	Radioactive materials
Department of Transport and Road Safety	Automotive
Department of Waste Management and Pollution Control	Waste management and pollution
Department of Water Affairs	Water resources, e.g. waste water management
Ministry of Agriculture	Farming produce
Ministry of Environment, Wildlife and Tourism – Various Departments	Environmental controls
Ministry of Health	Food, drugs, tobacco and pharmaceuticals

Discussion: The list of regulatory agencies needs to be completed. It would also be extremely useful if the description of the regulated products or services (see for example the BOBS entry) can be detailed a bit more in order to provide useful background information.

3 POLICY ENVIRONMENT OF THE NQP

The National Quality Policy (NQP) does not exist on its own. It has to integrate seamlessly with a number of policies that provide for standards and product compliance, i.e. technical regulations, in some form or another. But, these provisions are largely fragmented when considering these policies as a group. The primary objective of the NQP in this respect is therefore to provide for overall coordination that would result in an efficient service delivery by the NQI, and the effective coordination between the various Ministries and their Agencies to ensure that the gaps and overlaps in their regulatory activities are minimised.

Botswana has to comply with a number of international and regional agreements and protocols, primarily those of the WTO and SADC. The NQP must therefore not only integrate with the domestic policies, but should also facilitate Botswana's compliance with these externalities, connecting the local policy environment with the country's external obligations in an effective manner.

3.1 The interface between the NQP and other domestic policies

The domestic policies with which the NQP needs to integrate seamlessly, such as those dealing with trade, industrial development, environment, health, etc., are quite numerous. The policies relating to trade and industrial development are of particular importance in this regard, and include those listed below.

3.1.1 Vision 2016 and the National Development Plan (NDP 10)

The NDP 10 follows the integrated planning approach which is anchored on the seven Pillars of Vision 2016, which include amongst others a prosperous and innovative nation. Vision 2016 anticipates that Botswana will have diversified its economy with mining, agriculture, industry, manufacturing, services and tourism all making substantial contributions to GDP by 2016. The diversification of the economy will only be successful if the NQI and the technical regulation regime are supportive of such developments; hence the NQP is supportive of the goals of Vision 2016 and the NDP 10.

3.1.2 Industrial Development Policy (2014)

The Industrial Development Policy (2014) has as its vision a Botswana that has developed diversified, sustainable and globally competitive industries. In order to become globally competitive, Botswana products have to demonstrably comply with continuously advancing quality requirements from both the market place and the authorities. To develop such products and

to provide the compliance evidence acceptable to the global markets, Botswana industries will need the support of an NQI that enjoys international recognition, and that delivers affordable standards, metrology, accreditation and conformity assessment services. This is exactly what the NQP endeavours to establish. A constructive NQP is therefore an essential precondition for the successful implementation of the Industrial Development Policy (2014).

3.1.3 National Trade Policy (2009)

The National Trade Policy (2009) has amongst its objectives the development of a viable and vibrant private sector, increasing and improving market access, international competitiveness of Botswana goods and services, and support for the carefully planned liberalization, restructuring and simplification of non-tariff barriers with a special emphasis on regional integration and compliance with WTO rules. All of these objectives will only be realized if Botswana has a NQI that enjoys international recognition for the services it provides thereby facilitating market access, and the re-engineering of the current fragmented, costly and in-effective technical regulation regime into a holistic, effective and efficient framework that is not an unnecessary impediment to trade. Both of these preconditions are core to the NQP, hence it is fully supportive of the National Trade Policy (2009).

3.1.4 Other important Policies

Although the policies dealing with industrial development and trade issues are in place, some important policies that would also deal with technical regulations and SPS measures are either missing or outdated. These include a Food Safety Policy and the Occupational Health and Safety Policy. On the other hand, the Ministry of Health is already in the process of developing all-encompassing food safety legislation. It would be very important to harmonize their development with the relevant elements of the National Quality Policy.

Discussion: Both the TBT and SPS domain require the services of a world-class quality infrastructure. Food safety is both a TBT and SPS issue, and manufactured product mostly a TBT issue. It is counterproductive and very expensive to develop food safety policy/legislation and technical regulation legislation in isolation. The two systems need to integrate seamlessly. Cooperation between the relevant Ministries in this regard is therefore of the utmost importance.

3.2 The external policy environment for the NQP

- 3.2.1 Botswana is a member of the WTO. Hence it has to fulfil the obligations of all the WTO Agreements, including the WTO TBT Agreement and the WTO SPS Agreement. Both of these Agreements deal with standards, conformity assessment in respect of legally binding technical requirements – the former for all products, and the latter for specific health and safety issues. The WTO TBT Agreement in particular is of great importance with respect to the NQP as it deals with standards, technical regulations and the compliance regimes for both. The NQP therefore has to be properly aligned with the requirements of these two WTO Agreements.

- 3.2.2 Botswana is also a member of SADC. Within the SADC Trade Protocol, Annexes have been promulgated that deal with the same issues as the WTO TBT and SPS Agreements. The SADC Trade Protocol TBT Annex, aligned with its international counterpart, determines in even more detail the harmonization of standards, technical regulations and the concomitant conformity assessment regimes within the region to facilitate trade amongst SADC Member States. Hence, the NQP has to be fully compliant with the requirements of the SADC Trade Protocol TBT Annex.

4 GUIDING PRINCIPLES FOR THE QUALITY POLICY

The National Quality Policy will have a profound effect on trade and the safety and health of the peoples and the health of the fauna, flora and the environment of Botswana. It is therefore important that it complies with the principles already outlined in the Botswana Trade Policy (2009), namely:

- a) **Export-led growth** to ensure that Botswana's export sector plays a key role in the growth and development of the country;
- b) **Economic diversification** to foster a diversified industrial base so that Botswana's industrial output is not dependent on one or two sectors that, if adversely influenced by the vagaries of the international markets, negatively impacts the country as a whole;
- c) **Free market economy** to uphold Botswana's free market policy in which both domestic and foreign firms operate under free market conditions, with transparent and consistent regulatory controls only where absolutely necessary;
- d) **Market access** to create favourable market access for Botswana firms through existing and future bilateral, regional and multilateral agreements;
- e) **Global competitiveness** to put in place strategies that will assist Botswana firms to penetrate world markets with products and services of high quality and in this manner place the country in the global economic arena as an equal trading partner and beneficiary;
- f) **Integration into the global economy** to ensure the active participation of the Botswana economy in the global economy through active participation in regional initiatives and multilateral commitments;
- g) **WTO compatibility** to ensure that all internal systems, trade negotiations and agreements are in line with WTO provisions and obligations, including those at the SADC level;
- h) **Private sector development** to strengthen the business community to be globally competitive by providing initiatives to build its capacity and enhance its participation in quality policy formulation and implementation as well as affording it to play a leading role in the economy;
- i) **Sustainable development** to protect and preserve the environment with a view to enabling it to successfully meet the needs of current and future generations;
- j) **Citizen economic empowerment** to ensure that citizens participate and benefit from all the activities and opportunities provided for in the development of the quality infrastructure and the technical regulation regime;
- k) **Social security** to ensure that citizens enjoy affordable and uninterrupted access to safe products and services to meet their needs at all times;

- l) **Poverty eradication** to ensure that the development of the quality infrastructure and the technical regulation regime facilitating trade and the safety and health of the peoples and the environment results in poverty reduction through citizen participation in activities as well as creation of employment for the poor.

5 OBJECTIVES OF THE NATIONAL QUALITY POLICY

Government recognizes that strategic policy considerations should successfully influence the minimization of non-tariff barriers and enhance the competitiveness of Botswana industry and their products and services, but this should come about without weakening (i) the safety and health of the peoples in public places, the workplace and at home, (ii) the health of the fauna, flora and the environment and (iii) the protection of the consumer. Botswana's National Quality Policy therefore has four objectives as described in detail below.

5.1 National Quality Infrastructure

The direct outcome of the implementation of the NQP will be the design and establishment (including promulgation of related legislation) of a metrology, standardization, accreditation, inspection, testing and certification infrastructure appropriate for the needs of Botswana, and to support the application of its techniques, practices and service provision to demonstrably comply with international and regional norms throughout. In this respect international and regional rule based requirements take precedence over past or current national customs and practices or those of immediate neighbours. The current quality infrastructure will be reviewed and re-engineered to meet this objective.

5.2 Technical Regulation Framework

In parallel to the establishment of the NQI, the technical regulation regime of Botswana (including related legislation) will be reviewed, re-organized and optimized in line with international good practices to consistently meet international requirements such as the WTO TBT and SPS Agreements and the SADC Trade Protocol TBT and SPS Annexes. The end-result of this process will be the promulgation and implementation of a national Technical Regulation Framework at both the national and local levels, including the establishment of effective cooperation amongst the NQI institutions and the national as well as the local regulatory authorities, and with their international counterparts.

5.3 Skilled workforce

The service delivery of the NQI and the integrity of the Technical Regulation Framework are totally dependent on a trained and skilled workforce. Hence, developing the human resources necessary to support the various standardization, quality and technical regulation programmes is a central theme throughout the NQP.

5.4 Quality consciousness

The implementation of the NQP should raise the quality consciousness amongst both the suppliers and the consumers, and it is an undertaking by the Government to foster a quality culture in public life and throughout society.

6 STRATEGIC POLICY MEASURES

The Government recognizes that the strategic policy measures should successfully bring about the realization of the key policy objectives, namely the establishment of an internationally recognized National Quality Infrastructure and an effective and efficient Technical Regulation Framework to be followed by all Ministries and their Agencies thereby minimizing unnecessary trade restrictions and enhancing Botswana industries' competitive position in the global market. The strategic policy measures are described in more detail below.

6.1 The overall responsibility of Government

- 6.1.1 The Government has an enabling, coordination and educational role in the implementation of the NQP. Hence, the Government will outline the objectives, propagate the policy, and manage the general framework that will govern the place and activities of the parties concerned.
- 6.1.2 The Government is committed to carry out the necessary restructuring of both the quality infrastructure and the technical regulation regime, and where necessary create new structures as well as a full review of relevant legislation, in order to align them both with international and regional obligations and international good practices.
- 6.1.3 The Government takes responsibility to maintain the basic elements of the NQI (i.e. metrology, standards and accreditation) and for the creation of regulatory mechanisms to allow for the protection of the consumer on the one hand, and for full private sector participation on the other.
- 6.1.4 The Government will review and consolidate legislation that defines the responsibilities of producers and suppliers to ensure that their goods and services meet legal provisions to encourage fair and effective competition, to provide consumers with the greatest range of products and services, and to ensure that both the public and private sectors have an equal chance with regard to providing conformity assessment services.
- 6.1.5 The Government will ensure that the appropriate regulatory authorities with the capacity to conduct the relevant market surveillance for the implementation of technical regulations are established at the national level where appropriate, and that their capacity is maintained in the long term. The Government will furthermore prevail on the local authorities to do the same within the scope of their responsibilities.

- 6.1.6 To help create a quality culture in Botswana, the Government will promote quality awareness campaigns in general, provide for the integrated approach to quality management in the public sector and promote and support the creation of mechanisms or institutions that contribute to awareness raising and knowledge dissemination regarding quality within all the segments of society.

6.2 National Quality Infrastructure

The National Quality Infrastructure (NQI) consists of a number of organizations that provide the fundamentals namely metrology, standards and accreditation services, which support conformity assessment services, namely inspection, testing and certification. The Government accepts it has a major responsibility to establish and maintain the fundamental services, and it will provide the policy environment enabling private sector advancement in providing conformity assessment services as detailed below.

6.2.1 Scientific Metrology

- a) BOBS will continue to act as the National Metrology Institute (NMI) of Botswana and retain responsibility for national measurement standards as one of the fundamental building blocks of the quality infrastructure. The Government will continue to facilitate the development of the capacity within BOBS to realize national measuring standards of the appropriate accuracy levels as required by authorities and industry.
- b) The Government, if expedient, may extend the scientific metrology system to other national Designated Institutes technically competent in specialized fields of measurements (e.g. chemistry, radiation, virology, etc.) so as to maintain national measurement standards capable of providing a reliable and accurate measurement service across all relevant disciplines within Botswana.
- c) The process of establishing Designated Institutes is subject to a consensus agreement between the Ministry of Trade and Industry, BOBS and the Designated Institute and their line Ministry. In order to ensure appropriate coordination amongst the metrology institutions, no institution purporting to be a Designated Institute may be established without such a consensus. In agreement with BIPM good practices, BOBS has the overall responsibility to ensure that itself and all Designated Institutes implement and maintain quality management systems that comply with the Comité International des Poids et Mesures (CIPM) Multilateral Recognition Arrangement requirements.
- d) BOBS and all Designated Institutes will, mindful of the demonstrated needs of trade, industry sectors and the authorities, and within their capabilities, link up with the international metrology system. This linkage will be demonstrated through entries of their Calibration and Measurement Capabilities (CMCs) in the international recognition system (i.e. Key Comparison Data Base – KCDB) maintained by the Bureau Internationale de Poids et Mesures (BIPM).

6.2.2 Industrial Metrology

- a) Calibration services can be provided by the BOBS, legal metrology departments and other public or private calibration laboratories provided that their calibration equipment is traceably calibrated to the national measurement standards kept by the NMI in BOBS, Designated Institutes or a national metrology laboratory abroad with known and recognized measurement capability.
- b) The NMI in BOBS will actively support calibration services throughout the country to traceably link the national measurement standards into industry, authorities and society so as to ensure that measurements emanating from Botswana are acceptable in trade and law enforcement.
- c) All calibration laboratories should be accredited against ISO/IEC 17025 to ensure their technical competency.

6.2.3 Legal Metrology

- a) The Government will ensure that measurements used in trade, law enforcement, health services and in environmental management lead to an equitable situation regarding traders and consumers, and correctness of measurements in law enforcement, health services and environmental protection, i.e. the current weights and measures system with limited scope will be progressed to a legal metrology system.
- b) The regulations for measuring equipment and pre-packaging will be based as far as is possible on the Recommendations of the Organisation Internationale de Métrologie Légale (OIML), regional standards of the SADC Cooperation in Legal Metrology (SADCMEL) and international standards published by the International Organization for Standardization (ISO) or the International Electrotechnical Commission (IEC).
- c) The type approval of measuring equipment falling within the scope of legal metrology regulations will be the responsibility by the NMI within BOBS. The type approval of such measuring equipment will be based on valid OIML Basic Certificates of Conformity and associated OIML Type Evaluation Reports issued by Authorities appointed by OIML Member States, or in the absence thereof, tests the NMI in BOBS conducts in its own laboratories or subcontracts to an accredited laboratory.
- d) Where deemed appropriate for effective and efficient service delivery, the Government may move the legal metrology activities, other than the type approval of measuring equipment of the NMI in BOBS, to another regulatory authority or even separate and establish it as an independent legal metrology authority.
- e) For improved enforcement of Legal Metrology, the Government will provide legal metrology divisions with the necessary resources (i.e. funding, accommodation, vehicles, test equipment and trained personnel) to render an effective service, and they shall be accredited to ISO/IEC 17020 to ensure their technical competency.

6.2.4 Standards

- a) With regard to national standards, the Government in cooperation with BOBS, will see to it that the national standards development process is a voluntary activity that depends on achieving consensus amongst stakeholders (i.e. public and private sector and civil society), and which takes place within a participatory and transparent system, i.e. fully compliant with Annex 3 of the WTO TBT Agreement. The development of national standards will furthermore be based on the actual needs of the authorities, private sector and civil society.
- b) BOBS will establish and maintain the framework to develop and publish national standards and other normative documents, and BOBS has the responsibility to publish all National Standards irrespective of their origin. BOBS will see to it that published national standards are regularly reviewed and updated to ensure continuous alignment with technological developments, market trends and international or regional requirements.
- c) BOBS may develop national standards within its own technical committee structures, or register Standards Development Organizations to do so. BOBS or any Standards Development Organization it registers will comply with international requirements and good practices as defined in the WTO TBT Agreement and ISO/IEC Directives. Standards Development Organizations not registered by the BOBS will not be eligible to develop national standards.
- d) BOBS has the responsibility to guide national standards development into the adoption of relevant international and regional standards with minimum deviations so as not to create unnecessary barriers to trade. Any deviations from international or regional standards should be based on demonstrated and scientifically proven reasons, other than the protection of local industry. Standards particular to Botswana should only be developed if relevant international or regional standards are not available.
- e) BOBS will actively participate in the process of developing international and regional standards where this is of strategic importance for Botswana, and will coordinate this involvement with the relevant local bodies.
- f) Private standards, i.e. standards developed outside the national standards development process, are becoming ever more important in international trade as they are utilised extensively by the major retail organizations in developed countries. BOBS will engage with the organizations developing such private standards as relevant to ensure that Botswana industry and producers are not disadvantaged in their application.

6.2.5 Accreditation

Option 1	Option 2
<p>a) The Government and local authorities will utilise accreditation to its fullest extent in determining the technical competency of regulatory agencies and conformity assessment service providers that are working in implementing technical regulations, compulsory standards and legal metrology.</p> <p>b) To facilitate the independent attestation of the technical capabilities of the conformity assessment service providers to the satisfaction of the local and foreign markets and authorities, the Government accepts the SADC Accreditation Service (SADCAS) as its <i>de facto</i> national accreditation body for all domains within the scope of ILAC and IAF multilateral recognition agreements or arrangements.</p> <p>c) The Government will support SADCAS with resources as agreed to in the multilateral SADC/SADCAS Memorandum of Understanding. Alternatively, if expedient, the Government will enter into a bilateral Memorandum of Understanding with SADCAS that may also provide for the representation of the Botswana Government in the governance structures of SADCAS.</p> <p>d) In the event of SADCAS being unable to provide internationally recognized accreditation services for a specific domain, the Government may require or accept the services of another internationally recognized national accreditation organization.</p> <p>e) Ministries shall not establish assessment or registration structures for conformity assessment service providers that can be construed as accreditation within the scope of IALC and IAF multilateral recognition agreements or arrangements, whatever they are called.</p>	<p>f) The Government and local authorities will utilise accreditation to its fullest extent in determining the technical competency of regulatory agencies and conformity assessment service providers that are working in implementing technical regulations, compulsory standards and legal metrology.</p> <p>g) To facilitate the independent attestation of the technical capabilities of the conformity assessment service providers to the satisfaction of the local and foreign markets and authorities, the Government will establish the Botswana National Accreditation Service (BNAS) as an independent entity under the Ministry of Trade and Industry. No other national accreditation body shall be established in the country for the domains within the scope of ILAC and IAF multilateral recognition agreements or arrangements.</p> <p>h) BNAS will ensure that it works in accordance with international standards, pursues and retains international recognition and pursues mutual recognition arrangements on behalf of Botswana with relevant international accreditation organizations.</p> <p>i) The Government will provide the required resources and actively support BNAS in its endeavours to become a signatory of the mutual recognition arrangement of the African Accreditation Cooperation (AFRAC), thereby facilitating becoming a signatory of the International Laboratory Accreditation Cooperation (ILAC) and the International Accreditation Forum (IAF).</p> <p>j) BNAS will provide accreditation services across all relevant international standards including but not limited to ISO/IEC 17020, ISO/IEC 17021, ISO/IEC 17025, ISO/IEC 17043, ISO/IEC 17065 and ISO 15189.</p>

	<p>k) In order to satisfy the needs of both the authorities and the private sector, BNAS will establish the relevant technical committees involving all relevant Ministries and local departments, their technical agencies and other stakeholders to handle all required sectors to be accredited.</p>
<p><u>Discussion:</u> This is the current situation, but it has to be enhanced by additional policy measures as listed above. SADCAS is providing accreditation services to Botswana in place of the South African Accreditation Services (SANAS) that has done so in the years past. SANAS is progressively withdrawing from accreditation activities outside South Africa in terms of an agreement between the two. However, SADCAS is not yet internationally recognized but is working towards it - it should achieve international recognition by the end of 2015. Botswana does have one advantage <i>viz. a viz.</i> SADCAS, it is incorporated in Botswana with its head office in Gaborone.</p>	<p><u>Discussion:</u> To establish an independent national accreditation body will take massive resources, and it is only really worth it from a financial perspective if more than 200 laboratories and conformity assessment service providers can potentially be accredited in the country. This may not be so difficult to achieve, if all medical laboratories also require accreditation (as they should), and not only testing and calibration laboratories. Otherwise the government will have to subsidize it for a very long time. Another major challenge would be gaining international recognition without which its services are not worth much on the international markets. International experience suggests that it takes between seven and eight years to gain international recognition.</p>

6.2.6 Conformity assessment

- a) Inspection and testing services and the certification of products or management systems for the implementation of technical regulations may be provided by inspection bodies, laboratories and certification organizations in both the private and public sector that demonstrably fulfil the requirements of the relevant international standards and are accredited as such by an internationally recognized accreditation body.
- b) In implementing the accreditation requirement for conformity assessment service providers, government will be mindful of the time required to obtain accreditation, and will support programmes to develop the required capacity in such service providers within the specified time.
- c) In order to provide conformity assessment services required by both authorities and the private sector, i.e. especially the SMME sector, the government will establish, maintain and continuously improve the capacity and technical competency of conformity assessment service providers in the public domain. These would include inspection agencies, testing laboratories and certification bodies, and all of them should in principle be accredited.
- d) Whilst enhancing the capacity of the public institutions, the Government will create a policy environment that will not hinder, but facilitate the development of private conformity assessment service providers, and the government and local authorities will utilise their services in public procurement and technical regulation provided that they can demonstrate their technical capability through relevant accreditation.
- e) The provision of financial incentives by the government for the SMME industries to support them in meeting international requirements, i.e. testing and certification, will be part of the overall approach, but it will be in the form of rebate payments to SMMEs after testing and certification, and not through the fixing of below cost prices for the services of public service providers that will only lead to their financial unsustainability in the long term.
- f) As a measure to ensure that the state is provided with quality products and services, the government and local authorities will utilise Botswana National Standards (BOS) to the fullest extent possible in state purchases, and will demand independent proof of compliance of delivered products and services with such standards through an appropriate mix of inspection, testing and certification. Establishing an incentive, i.e. preferential treatment, for enterprises that distinguish themselves in the process of quality improvement through product and/or system certification will be part of the overall approach.

6.3 Technical Regulation

The government will ensure that technical regulations are developed only for legitimate reasons as defined in the WTO TBT Agreement, namely the safety and health of the population,

health of plants and animals, protection of the consumer against deceptive practices, and the protection of the environment. In addition, the government will ensure that technical regulations do not constitute unnecessary barriers to trade, it will take care that products imported from any trading partner are accorded treatment no less favourable than products of national origin, and that products from all trading partners will be dealt with in equal manner. In order to ensure that technical regulations meet all these requirements of the WTO TBT Agreement and those of the SADC Trade Protocol TBT Annex, the Government will embark on a regulatory reform programme as detailed below.

6.3.1 Technical Regulation Framework

- a) The Government will cause the development and promulgation of a national Technical Regulation Framework that will provide guidance to all ministries, departments and their agencies at the national and local level in respect of the development and implementation of technical regulations. The Technical Regulation Framework will be fully compliant with the WTO TBT Agreement and the SADC Trade Protocol TBT Annex.
- b) The Technical Regulation Framework will deal with the necessity to utilise impact assessments before technical regulations are promulgated, define the use of standards, set the norms for the competency of conformity assessment service providers, designate the responsibilities of regulatory authorities and describe the imposition of sanctions, i.e. it will elucidate the generic building blocks of technical regulation as described in 2.2 above specifically for Botswana.
- c) In order to facilitate its rapid implementation by all ministries, departments and their agencies, and to facilitate notification of the compliance measures the Government takes to ensure the implementation of the WTO TBT Agreement in the country (i.e. Article 15.3 of the WTO TBT Agreement), the Technical Regulation Framework will be given legal certainty in an Act of Parliament.

6.3.2 Technical requirements

The technical requirements of the technical regulations will be based on international and regional standards adopted and published as national standards, where such standards are available and suitable. Requirements unique to Botswana will be avoided as far as possible in order not to establish unnecessary barriers to trade. The technical requirements will be referenced in such a way that technological developments at the international and regional level are incorporated as early as possible

6.3.3 Market surveillance

- a) Regulatory authorities will require approval of products prior to marketing only in cases where the risks are high; otherwise they will not require it. In all cases, regulatory authorities will be responsible for market surveillance and the imposition of sanctions where necessary.

- b) Market surveillance will be conducted on products that fall within the scope of technical regulation at the moment of being placed on the market and may include visits to commercial, industrial and storage premises, work places and other premises where products are put into service or on the market. Market surveillance will be conducted following the principles of proportionality, i.e. the taken action will be in accordance with the level of risk or nonconformity, and the influence upon the economic entity will not be more than necessary for performing the task of market surveillance

6.3.4 Sanctions

Sanctions are necessary to ensure that suppliers continuously meet the requirements of the promulgated technical regulations. Regulatory agencies will be empowered to impose administrative sanctions that allow suppliers to rectify non-conforming products and services or remove the same from the market place without further penalties. In the case of the failure of suppliers to heed administrative sanctions, provision will be made for legal action, i.e. to take them to court. Regulatory agencies will not be given the power to impose financial sanctions directly on suppliers.

6.3.5 Regulatory authorities

<u>Option 1: Multiple regulatory authorities</u>	<u>Option 2: Limited number of regulatory authorities</u>	<u>Option 3: Single regulatory authority</u>
<p>a) Ministries may establish regulatory authorities, either as a department within the Ministry or as independent agencies that have the responsibility to administer the technical regulations promulgated by the Ministry.</p> <p>b) In establishing regulatory authorities, Ministries shall be mindful of the resource intensive nature of such authorities and shall establish them only where necessary.</p> <p>c) Regulatory authorities shall not have the mandate to promulgate technical regulations; this shall remain the responsibility of the Ministries and the legislator.</p> <p>d) Regulatory authorities, in line with international best practices, should not manage their own laboratories or certification bodies, but should rather utilise the services of technically competent and independent conformity assessment service providers, such as BOBS, the National Food Control Laboratory, the National Veterinary Laboratory and others able to demonstrate their technical competency.</p> <p>e) The Ministry of Trade and Industry, in line with international good practices, will separate</p>	<p>a) In order to enhance the efficacy of the technical regulation regime of Botswana, the Government will establish four technical regulation authorities to implement and maintain technical regulations falling within the scope of the WTO TBT Agreement and the SADC Trade Protocol TBT Annex.</p> <p>b) All the regulatory authorities dealing with technical regulations already established in various Ministries will be merged into these four regulatory authorities. The line Ministries of the four regulatory authorities shall be as agreed to at Government level.</p> <p>Discussion: The optimum number of regulatory authorities would probably be between three and six depending on Botswana realities and needs. If the number gets any larger, Option 1 may be a better approach.</p> <p>c) In determining the division of labour amongst the regulatory authorities, the coordination between food safety and manufactured products will be given special attention, as will the sectors identified for development in the Industrial Development Policy (2014).</p>	<p>a) In order to enhance the efficacy of the technical regulation regime of Botswana, the Government will establish a single, cross-cutting regulatory agency with the responsibility to administer all technical regulations in Botswana. All the regulatory authorities dealing with technical regulations already established in various Ministries will be merged into this single regulatory authority.</p> <p>b) The single technical regulation authority will be organized in divisions that have a sectoral dimension in order to facilitate a “Single Window” concept for the market surveillance activities including importers, factories, producers and warehouses.</p> <p>c) If expedient, necessary or demanded by international or regional requirements, the Government may separate a specific division of the single regulation authority and establish it as an independent regulatory authority.</p> <p>d) The coordination between the divisions responsible for food safety and manufactured products will be given special attention, as will the sectors identified for development in the Industrial Development Policy (2014).</p>

the regulatory functions from BOBS and will establish an independent regulatory authority to deal with the administration of compulsory standards currently under BOBS.	d) Ministries retain the responsibility to develop and promulgate technical regulations within their sphere of responsibility, but will do so in cooperation with the relevant regulatory authority that will become responsible for its implementation.	e) Ministries retain the responsibility to develop and promulgate technical regulations within their sphere of responsibility, but will do so in cooperation with the regulatory authority.
<p><u>Discussion:</u> Option 1 is the current situation, but which still needs optimization and coordination. The other two options would be quite workable in the case of Botswana and will certainly be much more cost effective than the current regime. Option 1 is the most difficult to get proper coordination established amongst the regulatory authorities, and then a Technical Regulation Office as provided for in 6.3.6 is indispensable. In Option 3 coordinating will be realized internally in the regulatory authority and a Technical Regulation Office will not be required. In Option 2, a Technical Regulation Office can still play a role, but this will not be as forceful as in Option 1.</p>		

6.3.6 Coordination of technical regulation activities

In order to oversee the implementation of the Technical Regulation Framework, the Government of Botswana will establish a Technical Regulation Coordination Office in the National Strategy Office with the following responsibilities:

- a) Coordination of activities related to technical regulation development and implementation amongst the regulatory authorities and the NQI;
- b) Ensuring that the regulatory authorities follow the defined Technical Regulation Framework in developing and implementing technical regulation;
- c) Ensuring that all the regulatory authorities consistently meet the requirements of the WTO TBT Agreement and the SADC Trade Protocol TBT Annex; and
- d) Overseeing the review of technical regulation already on the statute books by the regulatory authorities, in order to revise, confirm or withdraw such regulation and to make sure that they comply with the Technical Regulation Framework.

Discussion: The actual name of the Technical Regulation Coordination Office may have to change to reflect Botswana custom and practice. If Option 3: Single regulatory authority is chosen in section 5.3.5, then a Technical Regulation Coordination Office may not be required, as its responsibilities can then be handled internally in the regulatory authority. See also the discussion at the end of 5.3.5.

The text indicates that the Technical Regulation Coordination Office is to be placed within the National Strategy Office, but other candidates would be the Ministry of Trade and Industry (as the Ministry responsible for the implementation of the WTO TBT Agreement in the country), or the Prime Minister's Office (to strengthen its powers to "regulate" Ministries and their Agencies). A decision will have to be made regarding its optimum placement once it is decided that it must be established.

6.3.7 Coordination between TBT and SPS measures

Although Sanitary and Phyto-sanitary (SPS) measures (i.e. specific food safety related issues) are closely related to technical regulations and share many services dealt with in this policy such as standards, metrology, accreditation, testing and certification, SPS measures in Botswana are dealt with in policies and legislation other than covered by this policy. The Government will however, ensure that –

- a) the interfaces between technical regulations and SPS measures are identified and properly defined so as to minimize any overlaps and gaps,
- b) any uncertainties regarding regulatory authorities are set aside (see also 6.3.5 and 6.3.6), and
- c) the NQI provides appropriate support services to both.

Discussion: Many developing countries are considering the establishment of a national food safety authority to coordinate the many organizations and authorities involved in the complexities of ensuring food safety and security in the country. Contrary to popular perceptions, food safety and security is not only an SPS measure, but most food items fall within the scope of both TBT and SPS measures, hence also within the scope of this NQP. In many countries this has led to much unhappiness and serious confrontations between authorities responsible for compulsory standards and food safety stand-

ards. Botswana is in the process of considering the establishment of a national food safety authority. It is therefore extremely important that the interface between this policy, its outcomes and those of the draft Food Safety Bill are carefully aligned and clarified to minimize overlaps, gaps and subsequent energy sapping confrontations.

6.4 Education and training

The availability of a properly trained and skilled workforce is essential in the increasingly complex systems regarding manufacturing and service delivery. Government cannot provide for this on their own, this needs to be a cooperative endeavour between government, the private sector and civil society, namely:

- a) Government and private academic institutions will take the necessary steps to ensure that various stakeholders have the opportunity to obtain the knowledge and the skills they need to cope with the economy triggered by globalization challenges. Moreover, they should establish appropriate programmes on different education levels including specialised adult training programmes, with the aim to improve the quality culture, and to develop the specialized knowledge and expertise required for implementing the NQP.
- b) The government will implement measures to facilitate the establishment of training and registration schemes for quality professionals such as assessors/auditors and consultants in quality and environmental management systems, health and safety in the workplace, and other relevant certification activities as defined in international requirements.
- c) The Botswana Qualifications Authority (BQA) will play an important role in assessing the training establishments to ensure an appropriate level of competency in the training curricula, and BQA will also support the establishment of a registering authority for quality management system assessors/auditors in order to fulfil international requirements.

6.5 Information and awareness

Information is key to the success of any modern economy, as is the general awareness regarding quality. Specific policy measures to enhance both the information systems and the quality awareness in the public and private sectors and civil society are listed below.

6.5.1 National TBT Enquiry Point

The creation of an adequate information network that involves all the various quality infrastructure institutions is decisive in guaranteeing the success of quality related activities. This information network will be spearheaded by BOBS as the appointed national WTO TBT Enquiry Point, but which must be extended to include all the relevant stakeholders. The Government is committed to provide the necessary resources to enable BOBS to play its allocated role in:

- a) Providing information on standards, technical regulations and the concomitant conformity assessment and administrative provisions as required by the WTO TBT Agreement and the SADC Trade Protocol TBT Annex;

- b) Reviewing technical regulation notifications of all WTO member countries to the WTO on a continuous basis so as to inform public and private sector stakeholders in Botswana on trends that will impact on their business and on Botswana as a country; and
- c) Compiling relevant information to be utilised by the government representatives in the relevant WTO and SADC structures to protect the interests of Botswana regarding standards, technical regulations and conformity assessment.

6.5.2 Trade Promotion Organization

- a) The Botswana Investment and Trade Centre (BITC) is charged with the responsibility to attract and promote investment, and to develop and promote exports, i.e. the promotion of locally manufactured goods to regional and international markets. Hence, BITC collects and disseminates trade information of use to exporters in order to increase awareness of product requirements relating to the access of foreign markets. In this respect BITC will enhance their data collection to also include the market requirements regarding compliance with standards as well as technical regulation in target markets.
- b) BITC and BOBS will establish and maintain coordination of their information regarding product and service requirements in such a way that suppliers and exporters are properly informed as to the market requirements in export markets. BITC and BOBS will enter into a formal agreement in this respect, which will see the sharing of relevant information and facilitate support for each other in the collection of the same. BITC and BOBS will also ensure that suppliers and exporters can access the information portals of the one through the other.
- c) BITC will seek the establishment of relevant consultancies to exporters, especially to the SMME sector, in respect of product design, packaging design, and other product or service characteristics relevant to export markets.

6.5.3 Awareness

- a) The government will further strengthen awareness programmes that are aimed at changing practices of the productive work force in respect of day-to-day quality issues such as a positive attitude towards work, orderliness, cleanliness, hygiene, punctuality and timeliness of service, amongst others. It will furthermore encourage the establishment, and support existing activities of associations of industry personnel and other professionals working on the promotion and application of quality.
- b) The government will consistently lobby for the allocation of adequate media time and space in the electronic and the printed media for effective dissemination of concepts, principles, practices and developments of quality, in order to inculcate and reinforce a national quality culture. It will foster the publication of general quality news and bulletins to educate the general public on quality issues and consumer rights.
- c) BOBS and other relevant NQI institutions will take the lead in celebrating international standards, metrology and accreditation days and in this way promote a better understand-

ing in the public and private sectors and in civil society regarding the general and specific concepts of quality and the role that the fundamentals of the NQI play in this regard.

Discussion: The proposed text deals with general awareness regarding quality issues. A specific element that could be included here would be the establishment of national quality award for deserving manufacturers or services. There are a number of such awards in various countries that could be considered as role models also for Botswana.

6.6 The role of other stakeholders

The development and implementation of the National Quality Policy is by no means only a government responsibility. The private sector has a major responsibility as has civil society. These are elucidated in the sections below.

6.6.1 The private sector

The private sector has a very important role in the implementation of the Quality Policy, and its participation in the management of the public NQI is absolutely essential, as is the establishment of private sector conformity assessment service providers. In order to achieve the maximum benefit from the Quality Infrastructure, the private sector spearheaded by the Botswana Confederation of Commerce Industry and Manpower (BOCCIM) and the Botswana Exporters and Manufacturers Association (BEMA), individual companies as well as its organized structures should -

- a) Improve the quality of its products and services, hasten the introduction of international good practices in the field of quality and so contribute to the competitiveness of Botswana products and services;
- b) Participate actively in the governance, representative structures and technical committees of the public NQI organizations dealing with standardization, accreditation and metrology;
- c) Invest in the development of quality infrastructure such as inspection bodies, test and calibration laboratories and certification organizations thereby benefiting from the improved market opportunities that result from the implementation of the Quality Policy;
- d) Demand accreditation as the prime indicator of technical competence from all its conformity assessment service providers, whether in the public or private sector;
- e) Develop human resources, training the people needed for implementing quality management systems and for improving and maintaining the quality of products and services;
- f) Participate in and promote national quality events, including national quality awards and the like;
- g) Sponsor, participate in and promote quality dissemination activities, such as congresses, seminars and publication of information in journals, magazines and other suitable means for communication; and
- h) Participate in financing activities that support quality.

6.6.2 Non-Governmental Organizations (NGOs)

- a) The successful implementation of the Quality Policy will require the active involvement of all of society, in particular associations for the promotion of quality and excellence, chambers of industry, trade and commerce, and the media in order to realize proclaimed objectives. The same applies to civil society.
- b) Therefore, within the implementation process of the NQP, NGOs are encouraged to take the following initiatives in coordination with relevant partners:
 - Promote and participate in the education and training activities of quality system professionals;
 - Participate in the dissemination of quality related information;
 - Implement activities that promote the improvement of quality;
 - Promote the representation of relevant bodies in the technical committees in the field of standardization, metrology, accreditation and quality; and
 - Propose suggestions on quality policy improvement and better ways to implement the Quality Policy.
- c) The media is encouraged to become actively involved in the dissemination of information related to standardization and quality and the improvement of productivity, thereby contributing to the multiplication effect and national impact.

6.6.3 International Development Partners

A number of international development partners are active in Botswana. A Ministry or Botswana based organization is the designated counterpart for each of their development programmes. All these recipient organizations or counterparts in Botswana of the international development partners should ensure that development and capacity building programmes related to the NQI and Technical Regulation Framework –

- a) Support the implementation of the NQP;
- b) Coordinate support of other partners for the execution of priority programmes;
- c) Support the transfer of quality related technology to the country;
- d) Support the transfer of knowledge and information which allow for the development of adequate quality and technology infrastructure;
- e) Support Botswana's participation in relevant international and regional organizations; and
- f) Provide training for national specialists and technicians necessary to support the implementation of the NQP.

Discussion: Many countries that are the recipients of development programmes experience costly overlaps in the execution of such development programmes, i.e. a number of microbiology laboratories are established whereas one would be much better, more than one accreditation body is established under various Ministries, etc. Hence, the long term financial sustainability of such services is seriously compromised. It would be much more useful for the country if such development programmes can be coordinated from a higher level.

6.7 International liaison

- 6.7.1 Standards, metrology, accreditation and conformity assessment develop at a rapid pace at the international level and even at the regional level. It is therefore especially important that the NQI institutions of Botswana are actively involved in the appropriate international forums, so that Botswana authorities and industry remain firmly in touch with developments at the international level.
- 6.7.2 All the stakeholders will cooperate to create conditions favourable for active participation in international organizations related to the various functions of the NQI. These would include ISO, IEC, OIML, BIPM, CAC, ITU, IPPC, OIE, IAF, ILAC, amongst others. The same applies to the seven regional SADC organizations namely SADCA, SADCMEL, SADCMET, SADCSTAN, TBTEG, SADCTBTSC, and SADCTRLC in which Botswana must participate as a SADC Member State. Others further afield that may become important from time to time include COMESA and the quality infrastructure organizations at the African level such as AFRAC, AFRIMETS and ARSO.
- 6.7.3 The Government is committed to strengthen the affiliation of the national institutions with these international and regional organizations and support the participation of representatives of Botswana public and private sectors in the general assemblies and especially technical committees where it is of relevance to Botswana. The national institutions will develop and pursue a strategy for such involvement that takes into consideration the needs of the country as a whole.
- 6.7.4 All the stakeholders shall cooperate to create conditions conducive for an effective understanding and participation in the implementation of the WTO TBT Agreement and the SADC Trade Protocol TBT Annex requirements, thereby individually and collectively fulfil Botswana's obligations in international and regional matters related to the NQI and Technical Regulation Framework.

7 FINANCING THE NQI AND TECHNICAL REGULATION FRAMEWORK

It is of vital importance to make the public and private financial resources available for the implementation of the NQP. The Government will be responsible for financing the development, upgrading and restructuring of the existing NQI institutions within the public sector. The financing of private sector institutions and organizations remains the responsibility of the private sector, as is their involvement in technical committees and similar structures at the national, regional and international level.

7.1 Government Direct Investment

The Government will assume responsibility for financing those NQI activities for which a specific beneficiary cannot be identified, but where the country as a whole benefits. This does

not mean that the private sector is prohibited from sharing the financial burden, and in many cases a useful public-private partnership can be pursued. The Government will in particular, have the main responsibility for financing –

- 7.1.1 The development and publication of national standards by BOBS as well as the maintenance of their standards information centre and WTO TBT Enquiry Point.
- 7.1.2 The establishment and maintenance of the national measurement standards by the NMI in BOBS, determination of their Calibration and Measurement Capabilities for inclusion in the BIPM key comparison database and support to them to enhance the calibration infrastructure in the country.
- 7.1.3 The legal metrology services in so far as they cannot be funded through the fees and levies paid by the users of measuring equipment falling within the scope of legal metrology regulations.
- 7.1.4 Establishing and maintaining membership of BOBS and other relevant institutions in international organizations such as ISO, IEC, BIPM, OIML, CAC, IAF, ILAC, etc., the SADC regional organizations SADCA, SADC MEL, SADC MET, SADC STAN, TBTEG, and SADCTRLC, and quality infrastructure organizations at the African level namely AFRAC, AFRIMETS and ARSO relevant to the proper functioning of the NQI activities.
- 7.1.5 The establishment and maintenance of testing and calibration capacity in support of the authorities and private sector, with the proviso that these services will be commercialized as soon as possible in order not to compete with the private industry on an unequal basis. Strategically important testing capacity that can never be successfully commercialised will continue to receive the appropriate funding until such time as it is no longer a strategic necessity.
- 7.1.6 The establishment of proper market surveillance operations (including audit sample testing) to ensure that technical regulations are complied with. The funding for the on-going testing and certification of products falling within the scope of technical regulations will be the responsibility of the suppliers.

7.2 Financial sustainability

- 7.2.1 In order not to distort the market, and to provide for a steady self-earned income of the NQI institutions in the public domain, the private industry, and also government institutions that make use of the conformity assessment services, shall pay for such services.
- 7.2.2 The pricing levels set by the public NQI institutions shall cover costs as well as provide for future expansion, yet at the same time take into consideration the capacity of the SMME sector to pay for such services.
- 7.2.3 Any governmental financial support for the SMME sector will not be demanded as a reduction of prices of the NQI institutions as this will negatively impact their long term financial sus-

tainability, but will be channelled to the SMMEs in another way. The NQI institutions will work closely with the relevant government departments in this respect.

- 7.2.4 A Quality Fund to support Botswana's international and regional liaison work will be established with annual contributions from both the government and the private sector. This fund will be managed by the Ministry of Finance.

Discussion: The practice of the government setting price levels for services rendered severely limits the long term financial sustainability of any NQI institution. A far better strategy would be for the NQI institution to set the prices in accordance with market realities within a policy framework that has been approved by its Council or Board. The practice of demanding free services for government organizations because the government pays for everything anyway is even worse, and should be strongly discouraged.

The establishment of the Quality Fund would be a useful public/private partnership to finance Botswana institutions to engage actively in international and regional standardization, metrology and accreditation organizations. The benefit for Botswana would be that its interests can be safeguarded, and it can serve as an early warning system for changes that would have an impact on the Botswana manufacturing and export sector activities.

8 LEGAL FRAMEWORK

The business environment is affected amongst others by the legal and regulatory framework related to the quality infrastructure and technical regulation. Similarly, the NQI institutions, especially in the public domain, are bound by legislation that governs their objectives, authorities, governance, finances, processes and operations. To facilitate the implementation of this NQP, the Government is therefore committed to review the existing legal framework as a priority measure, to benchmark it against international good practices, and to ensure that it complies with the international and regional obligations of Botswana. Specific measures that will be actioned include the following -

8.1 Review of current legislation

Current legislation that will be reviewed and revised as appropriate shall include, but not limited to, the following:

- a) Standards Act (1995) providing for the establishment of the Botswana Bureau of Standards (BOBS), containing definitive requirements for the development and publication of Botswana National Standards, promoting the use of standards in the public and private sector, as well as providing for BOBS to render conformity assessment services.
- b) Weights and Measures Act (2006) elevating it to a Legal Metrology Act dealing with the control of measuring equipment in trade, health, law enforcement and environmental control. The revised Act will be an enabling Act covering type approvals of measuring equipment, use of such measuring equipment, pre-packaging requirements and the establishment and mandate of legal metrology offices. The technical details for measuring equipment and pre-packaging will be dealt with in Regulations framed under this Act.

- c) All legislation providing for the establishment and mandates of regulatory authorities in whatever Ministry to ensure that it complies with the Technical Regulation Framework Act, once that has been promulgated.

8.2 Developing new legislation

New legislation that will be developed as appropriate shall include legislation for, but not limited to, the following:

- a) Technical Regulation Framework Act that will provide guidance on the development and implementation of technical regulations across all Ministries and local authorities. It will provide guidance on the utilization of standards in technical regulations, the provision of conformity assessment services, the utilization of accreditation as the measure for technical competency, the responsibilities of regulatory authorities and the imposition of sanctions.
- b) Scientific metrology and the establishment of the National Measurement Institution within BOBS. This Act will designate the SI System of Units as the national measurement system, establish national measurement standards and assign responsibility for their realization and maintenance. The few related measures contained within the current Weights and Measures Act (2006) will be removed from that Act.
- c) The establishment of the Technical Regulation Coordination Office in the National Strategy Office with the mandate to ensure compliance of Ministries and local authorities with the Technical Regulation Framework, and to facilitate proper coordination amongst the regulatory authorities and the NQI institutions.

Discussion: The Technical Regulation Coordination Office legislation could also be included in the Technical Regulation Framework legislation depending on custom and practice in Botswana.

The Technical Regulation Framework legislation could contain a sunset clause which addresses the issue of other legislation with mandates for a variety of authorities to develop and implement technical regulations that do not comply with the envisaged Technical Regulation Framework, and renders such legislation ineffective after a period of time if it has not been revised in the meantime. See also 8.1(c) above.

9 IMPLEMENTATION

Without a proper Implementation Plan, the NQP will not be realized. The development and oversight of the Implementation Plan will need to incorporate all stakeholders, as it will be cross-cutting in nature within the public service and the private sector.

9.1 Lead Ministry and Reference Group

- 9.1.1 The Ministry of Trade and Industry is given oversight responsibility for the implementation of this NQP. The Ministry will establish a Reference Group representing the Ministries involved

in the development and implementation of technical regulations, the Ministry responsible for education, the pinnacle NQI institutions as well as organized business and industry. Relevant development partners may be invited as observers. The Permanent Secretary of Trade and Industry, or his/her representative will be the designated Chairperson. The Ministry may expand the Inter-Ministerial Coordination Group membership as and when necessary.

- 9.1.2 The Reference Group is established with the main objective of leading the institutional and legal modernisation of the NQI in order that the concerned institutions provide competent and essential support and services to industries, the government of Botswana and all other stakeholders in line with the international good practices and norms. The same applies to the Technical Regulation Framework until the envisaged Technical Regulation Coordination Office can take over this function. In discharging its functions, the Reference Group will:
- a) Commission studies, request information from concerned institutions and conduct research to obtain information and data;
 - b) Review and adopt findings of investigations on the current status of the national quality infrastructure;
 - c) Develop and endorse recommendations with regard to establishing policies, functions and roles of the institutions concerned and in relation to developing or revising the enabling legislation for the national quality infrastructure;
 - d) Adopt plans for the modernization of the national quality infrastructure and assign implementation to specific agencies or persons;
 - e) Progress the decisions and recommendations made to the highest level of the government for modernizing the legislation, rules and procedures for the concerned departments as provided for in procedures and practices established by the Government; and
 - f) Monitor and oversee implementation plans on a regular basis until successful implementation.

Discussion: The Reference Group is a very important construct to gain buy-in from all the relevant Ministries and their Agencies. It would therefore be important that the representatives are senior staff members of the same.

9.2 Implementation Plan

- 9.2.1 In establishing the Quality Infrastructure as envisaged in this policy, the current institutions have to be reviewed, new structures have to be established and responsibilities have to be clarified and allocated to ensure that the quality infrastructure environment is conducive to delivering the services required to support Botswana's Vision 2016 and others that will follow. An integrated approach is required to ensure that there are no oversights, overlaps, duplication and conflicts of interest amongst the various institutions that constitute the NQI and the regulatory authorities in Botswana.
- 9.2.2 The Ministry of Trade and Industry in cooperation with the Reference Group will develop an Implementation Plan within three months of the promulgation of the NQP that will be followed by all relevant stakeholders, especially all the Ministries, their agencies and local government authorities, in implementing this NQP.

- 9.2.3 Any changes in the national legislation and infrastructure will be realised on the recognition of the need for modernisation by policy and decision makers. In this regard, the Ministry of Trade and Industry will initiate further consultation, discussion and coordination between all relevant stakeholders for reaching consensus on changes in the infrastructural and institutional arrangements and the associated enabling legislative framework.
- 9.2.4 The Reference Group will review the National Quality Policy from time to time taking international trends and changing national priorities into consideration, and advise the Government accordingly as regards any changes that have to be made to the National Quality Policy or its Implementation Plan.

9.3 Implementation responsibilities

- 9.3.1 Each Ministry, their agencies and local authorities are charged with the implementation of their identified parts of the NQP and the Implementation Plan. The Ministries, their agencies and local authorities will liaise closely with the Reference Group in this regard.
- 9.3.2 The relevant Ministries are charged with the responsibility to ensure that the implementation of the NQP interfaces seamlessly with the implementation of their own policies wherever these impact on each other.
- 9.3.3 The Reference Group is charged with the responsibility to review implementation progress of the Implementation Plan at least every six months and to report progress or the lack thereof to the Ministry of Trade and Industries in this regard. The Ministry of Trade and Industry has the responsibility to initiate corrective action. The Ministry will likewise report to Cabinet in intervals not exceeding six months, particularly for corrective action that needs to be introduced by Cabinet.

Discussion: The NQP and its Implementation Plan is of a cross-cutting nature. Hence MTI needs the full support of other Ministries in its successful implementation. The Reference Group is representative of all the main Ministries involved in the NQI and technical regulation regime, hence a useful mechanism to monitor progress.

9.4 Implementation period

The Government is committed to implement the provisions of this NQP within a period of five years from the date of its approval.

Discussion: Five years seems a short time, but on the other hand time is not on the side of Botswana if it wishes to gain the maximum advantage from an ever increasing global trade. Every year it takes longer for the NQI and technical regulation regime to be upgraded to international good practice levels, the more difficult it becomes to do so.

10 DEFINITIONS

Unless the context dictates otherwise, the following definitions apply to the National Quality Policy:

- Accreditation is the procedure by which an authoritative body gives formal recognition that a body or person is competent to carry out specific tasks.
- Calibration is the set of operations that establish, under specified conditions, the relationship between values of quantities indicated by a measuring instrument or measuring system, or values represented by a material measure or a reference material and the corresponding values realized by standards.
- Certification is the procedure by which a third party provides written attestation that a product, process or service meets specified requirements.
- Conformity assessment means the demonstration that specified requirements relating to a product, process, system, person or body are fulfilled.
- Inspection means the examination of a product design, product, process or installation and determination of its conformity with specific requirements or, on the basis of professional judgement, with general requirements.
- Measurement standard means a material measure, measuring instrument, reference material or measuring system intended to define, realize, conserve or reproduce a unit, or one or more values of a quantity, to serve as a reference.
- National Quality Infrastructure means the totality of the institutional framework (public or private) required to establish and implement standardization, metrology (scientific, industrial and legal), accreditation and conformity assessment services (inspection, testing and product- and system certification) necessary to provide acceptable evidence that products and services meet defined requirements, be it demanded by authorities (technical regulation) or the market place (contractually or inferred).
- Quality management means the coordinated activities to direct and control an organization with regard to quality.
- Standard means a document, established by consensus and approved by a recognized body, that provides, for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context.
- Technical regulation means a document which lays down product characteristics or their related processes and production methods, including the applicable administrative provisions, with which compliance is mandatory. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method.
- Testing means the determination of one or more characteristics of an object of conformity assessment in accordance with a specified method.

<p><u>Discussion:</u> The definitions have been taken from various international documents such as the WTO TBT Agreement and ISO and IEC international standards. More definitions can be added if need be.</p>

The end.