

TECHNICAL REGULATORY REFORM IN AFRICA: A CONDITION FOR A COMPETITIVE REGIONAL ECONOMY

S. Nsingo

*School of Public Administration and Management
University of Pretoria*

E.J. Steyn

Department of Trade and Industry

ABSTRACT

Technical regulations are critical for competitive regional and national economies. This stems from the fact that an undirected and uncontrollable world trade regime can be chaotic and irresponsible thereby undermining the quality and safety of products and consequently endanger the lives of the consumer. Various regions have both embarked on technical regulatory reforms to eliminate these problems and to realign their technical regulations with the requirements of the World Trade Organisation (WTO) specifications. These reforms are also expected to assist member countries to have a competitive edge on trade relations and ensure the accrual of gains from trade liberation initiatives. African countries seem to be lagging behind, both as individual states or regional groupings such as the Southern African Development Community (SADC) and the Economic Community of West African States (ECOWAS). The current technical regulatory systems in Africa are still fragmented, inefficient and ineffective to position African countries for world trade competitiveness. It is with this in mind that this article is written explore the technical regulatory framework in African countries against the background of reforms in Asia and Europe with a view to provide recommendations for an effective and efficient technical regulatory regime that would expedite investment and economic recovery for the continent.

INTRODUCTION

Technical regulations are critical for competitive regional and national economies. This stems from the fact that an undirected and uncontrollable world trade regime can be chaotic and irresponsible thereby undermining the quality and safety of products and

consequently endanger the lives of the consumer. The Asian Pacific Community (APEC) and the Organisation for Economic Cooperation and Development (OECD) have both embarked on technical regulatory reforms to eliminate these problems and to realign their technical regulations with the requirements of the World Trade Organisation (WTO) specifications. These reforms are also expected to assist member countries to have a competitive edge on trade relations and ensure the accrual of gains from trade liberalisation initiatives.

Although such reforms have taken place in Asia and Europe, African countries seem to be lagging behind in trade reforms, both as individual states or regional groupings such as the Southern African Development Community (SADC) and the Economic Community of West African States (ECOWAS). The current technical regulatory systems in Africa are still fragmented, inefficient and ineffective to position African countries for world trade competitiveness. It is with this in mind that this article is written to provide an argument for the need for a technical regulatory framework for Africa against the background of reforms in Asia and Europe and to provide recommendations for an effective and efficient technical regulatory regime that would expedite investment and economic recovery for the continent.

TECHNICAL REGULATIONS

It is widely recognised that the global economy of today is the result of rapid changes in world trade that took place in the 1980s and 1990s as barriers to the free flow of goods, services and capital were reduced. These changes led to an escalation of non-tariff barriers such as subsidies, quotas, regulations (also technical regulations) and anti-dumping policies (Mills 2000:20). Regulations refer to a set of instruments that is used by governments to establish requirements on enterprises and entrepreneurs. Technical regulations lay down compulsory requirements for product or service characteristics or the related processes that they should undergo and the production methods that should be used. Technical regulations also have specific administrative provisions and conformity assessment requirements where compliance is mandatory with regard to safety, health and environmental issues.

Some authors are of the opinion that these compulsory requirements are sometimes used in excessively stringent or discriminating ways to restrict and protect trade. Cateora and Graham are also of the opinion that the sheer volumes of these technical regulations are becoming a problem in itself (Cateora and Graham 2002:42). Hill (2002:538) supports this view and argues that global markets may still be a long way off because of different national product standards, which seems to be inconsistent with the regulatory regime required by the WTO. Cateora and Graham (2002:454), recognise that technical regulations and standards are legitimate and necessary to protect the consumers. The argument however is that countries that are not interested in using technical regulations and standards as trade barriers should look for ways to minimise restrictive requirements through technical regulatory reform efforts.

Technical regulatory reform is 'the junction where the research and judgments of physical and natural scientists intersect with risk/return calculus of economists, the

intricacies of the law and jurisprudence, the methods of public administration, and, to an ever increasing extent, the force of public opinion O'Brien (2003:8). In light of the above it is recognised that identifying international best practice is difficult because of different views, different approaches and even gaps in terms of knowledge (OECD, 2003: 11). There are however core best practice trends informed by international information and guidance that can be used to develop flexible regional approaches to technical regulatory reform.

Best practice should be understood as a flexible and not a one-size fits all concept that can be used by specific countries to suit their specific technical regulatory needs, challenges and objectives. In the context of this article best practice means identifying patterns in technical regulatory approaches by various regions and countries as well as emerging areas for improvement.

The World Trade Organization (WTO) has a special Technical Barriers to Trade (TBT) Agreement that was negotiated during the WTO 1986-1994 Uruguay Round of Multilateral Trade Negotiations (WTO, 2006). This agreement is administered by a Committee known as the TBT Committee. As part of its responsibilities, the TBT Committee is tasked with harmonizing the way in which member states formulate and administer technical regulations. The TBT Committee is critical in that it provides advice and ensures that countries improve the quality and cost effectiveness of national technical regulations. As indicated earlier the absence of standardised approaches to technical regulations could expose countries to unfair trade and economic inefficiency. However, the onus is on member states to pace the reform of their technical regulations and synchronise them with world trade standards. Such reforms could be informed by best practice principles of the WTO in agreement with the TBT committee. These principles include:

- *The non-discriminatory principle* of the most-favoured nation and national treatment provisions of the TBT agreement (Article 2.1) provide for the equal treatment of domestic and imported products in terms of technical regulations.
- *The necessity principle* provides for the use of discriminatory domestic technical regulations if they are considered necessary for the efficient attainment of legitimate domestic policy goals with regard to safety, health, environmental control and consumer protection (Article 2.2 of the TBT agreement).
- *The trade restrictiveness principle* requires that legislators choose technical regulations that cause the least distortion to trade. This will prevent them from becoming unnecessary technical barriers to international trade (Article 2.3 of the TBT agreement).
- *The proportionality principle* implies that the cost of technical regulations should be in proportion with the benefit that they are expected to bring. It also implies that domestic technical regulations should not be more onerous to foreign investors and exporters.
- *The use of harmonised measures principle* encourages the use of international harmonised technical regulations to improve production efficiency, facilitate free trade and minimize any negative effects of domestic technical regulations on trade (Article 2.4 and 2.5 of the TBT agreement).
- *The mutual recognition of equivalence of regulatory measures principle* recognises that regulatory objectives of trading partners are often equivalent although their technical

regulations may differ and trade opportunities can be expanded through mutual recognition of the equivalence of each other's technical requirements for products or services and of each other's conformity assessment procedures. (Article 2.7 of the TBT agreement).

- *The transparency principle* requires that countries should publish technical regulations prior to their entry into force and that a reasonable time should be allowed for comment and for consideration of those comments prior to the adoption of a final technical regulation. This will also make it possible for competitors to adapt their products and methods of production as per the technical regulation (Article 2.9 and 2.12 of the TBT agreement).

REGIONAL TECHNICAL REGULATORY REFORM

In recent years a growing number of regions have embarked on ambitious programmes to improve the quality and cost effectiveness of national regulations. This is in recognition of the fact that regulations can create unnecessary barriers to trade, economic efficiency and investment. In terms of international trade the quality of technical regulatory decisions in one government impacts on trade with other cross-border countries. It also impacts on agreements between countries for technical regulatory harmonisation, mutual recognition, or coordination (OECD, 1995:12). Regions also initiated cooperation initiatives because of the increasing recognition of the benefits that can be realised from technical regulatory cooperation between governments. Of concern here are the Asian and European countries. Both the Asian Pacific Economic Community (APEC) and the Organisation for Economic Cooperation and Development's (OECD) embarked on regulatory reform processes because they are of the view that regulatory requirements may actually impede gains from trade liberalisation and that technical regulatory reform can generate gains in terms of trade facilitation (APEC, 2000:1).

OECD countries

In 1995 a network of regulatory policy officials from OECD countries developed an *international standard on regulatory quality*. The officials also developed a guiding checklist called the *OECD Reference Checklist for Regulatory Decision-making*. Table 1 below provides a summary of the checklist and the ten questions about regulatory decisions that can be applied at all levels of decision and policymaking.

The questions in table 1 reflect principles of good decision making that OECD countries agreed to use in their reform efforts to improve the quality of government regulation in terms of their effectiveness and efficiency to maintain and improve the quality of life of the public. (OECD: 2005:5). These OECD officials however highlight the important fact that the checklist should be applied within a broader technical regulatory management system because technical regulatory systems are often complex and multifaceted. Technical regulatory systems also reflect governing responses to the diverse interests and values of society. It is therefore significant to realise that regulatory principles

Table 1: OECD Checklist

Question No. 1: Is the problem correctly defined?

The problem to be solved should be precisely stated, giving clear evidence of its nature and magnitude, and explaining why it has arisen (identifying the incentives of affected entities).

Question No. 2: Is government action justified?

Government intervention should be based on clear evidence that government action is justified, given the nature of the problem, the likely benefits and costs of action (based on a realistic assessment of government effectiveness), and alternative mechanisms for addressing the problem.

Question No. 3: Is regulation the best form of government action?

Regulators should carry out, early in the regulatory process, an informed comparison of a variety of regulatory and non-regulatory policy instruments, considering relevant issues such as costs, benefits, distributional effects, and administrative requirements.

Question No. 4: Is there a legal basis for regulation?

Regulatory processes should be structured so that all regulatory decisions rigorously respect the "rule of law"; that is, responsibility should be explicit for ensuring that all regulations are authorised by higher level regulations and consistent with treaty obligations, and comply with relevant legal principles such as certainty, proportionality, and applicable procedural requirements.

Question No. 5: What is the appropriate level (or levels) of government for this action?

Regulators should choose the most appropriate level of government to take action, or, if multiple levels are involved, should design effective systems of coordination between levels of government.

Question No. 6: Do the benefits of regulation justify the costs?

Regulators should estimate the total expected costs and benefits of each regulatory proposal and of feasible alternatives, and should make the estimates available in accessible format to decision-makers. The costs of government action should be justified by its benefits before action is taken.

Question No. 7: Is the distribution of effects across society transparent?

To the extent that distributive and equity values are affected by government intervention, regulators should make transparent the distribution of regulatory costs and benefits across social groups.

Question No. 8: Is the regulation clear, consistent, comprehensible, and accessible to users?

Regulators should assess whether rules will be understood by likely users, and to that end should take steps to ensure that the text and structure of rules are as clear as possible.

Question No. 9: Have all interested parties had the opportunity to present their views?

Regulations should be developed in an open and transparent fashion, with appropriate procedures for effective and timely input from interested parties such as affected businesses and trade unions, other interest groups, or other levels of government.

Question No. 10: How will compliance be achieved?

Regulators should assess the incentives and institutions through which the regulation will take effect, and should design responsive implementation strategies that make the best use of them.

Source: OECD, 1995:9-10

of a technical regulatory system differ from country to country, since issues of concern will arise from specific economic, social, and political environments and values. Some countries may stress economic analysis and cost reduction through the use of impact and risk assessment tools, other may concentrate on due process to facilitate public and stakeholder participation while others may focus on quality issues such as simplicity, clearness, and the minimisation of formalities such as user-friendly and cost effective administrative process (OECD, 1995:13).

APEC countries

APEC officials are of the opinion that whilst technical regulations continue to be an important tool for preserving and protecting the health and safety of the public and the environment, it is recognised that technical regulations can become an barrier to achieving the economic and social security for which they are intended (APEC, 2002:8). Since 1997 APEC has taken significant steps in addressing standards and conformance related barriers to trade. These steps includes a “Guide for Alignment of APEC Member Economies’ Standards with International Standards”, “APEC Guidelines for the Preparation, Adoption and Review of Technical Regulations” and information notes providing member

Table 2 APEC Technical regulatory Checklist

1. Start with a clear definition of the problem. Problems described in the broad may lead to unnecessarily restrictive regulatory responses.
2. Assess the relative merits of a range of possible regulatory responses. The regulatory response chosen should be the one with the greatest net benefit and that is not more restrictive than necessary to fulfil the regulatory objective.
3. Prepare, adopt or apply technical regulations that will not create unnecessary barriers to trade. Member economies should therefore, consider:
 - the use of performance based regulations;
 - the appropriateness of referencing voluntary standards;
 - the use of international standards; and
 - the use of other member economies standards where international standards do not exist or are inappropriate.
4. Member economies should give consideration to recognising the results of conformity assessment activities undertaken by technically competent conformity assessment bodies.
5. Where member economies have chosen low interventionist conformity assessment regimes (eg. type approvals and suppliers declaration) post-market surveillance regimes may be necessary to ensure that products comply, or continue to comply, with the relevant technical regulations.
6. Where member economies have chosen low interventionist conformity assessment regimes (eg. type approvals and suppliers declaration) post-market surveillance regimes may be necessary to ensure that products comply, or continue to comply, with the relevant technical regulations.
7. The world is a dynamic environment and member economies should have in place formalised mechanisms for review of the chosen regulatory response and conformity assessment regime to ensure that they take into account technological and other changes.

Source: APEC, 1997:31

countries with reference material that can be used when preparing, adopting or reviewing technical regulation according to the principles and features of Good Practice for Technical Regulation that were developed by an APEC Sub-Committee on Standards and Conformance (SCSC). See the table 2 below for a summary of the APEC technical regulatory checklist.

The SCSC is of the opinion that the above mentioned guides and notes can assist member countries in the adoption of efficient technical regulatory arrangements, which should lead to reductions in regulatory barriers to trade (APEC, 1997:1). It should also assist member countries in meeting their international obligations under the WTO TBT Agreement. The APEC SCSC summarises its efforts in the following words “more harmonised standards and conformance will improve the efficiency of production and facilitate the conduct of international trade, resulting in more rapid trade flows, reduced costs and greater integration of production networks in the region” (APEC, 2006:2).

TECHNICAL REGULATORY REFORM IN AFRICA

African countries

African countries face critical challenges in terms of improving domestic capacity to meet quality standards, safety and environmental technical regulations that are required in global markets. Institutional reform and investment in human capital as well as infrastructure improvements in testing laboratories and certification facilities are necessary. Wilson and Abiola (2003:57, 136-137, 204, 290, 401-404) highlight the following common challenges facing African countries:

- African enterprises seeking to export, find the international requirements of developed countries too difficult to meet;
- The absence of effective technical regulatory agencies is putting pressure on local producers to substitute quality for price;
- African participation in the formulation of international standards and technical regulations is ineffective because of low political support and inadequate government participation;
- African enterprises are therefore standards takers and is always re-acting to ever-changing standards and technical regulations that do not accommodate unique African constraints;
- Government agencies and other organisations such as the standards bodies often lack human, financial and infrastructure to assist enterprises;
- There is a lack of understanding of technical regulations in policy-making;
- There is a proliferation of technical regulatory responsibilities and roles across national agencies;
- Local technical regulations are out of date and enforcement mechanisms are ineffective;
- Local testing bodies, certification facilities and inspection bodies are not internationally recognised: and

- Developed countries require compliance with more sophisticated best practice requirements. For example many farmers in Africa are required to invest in the Euro Retailers Produce Working Group Good Agricultural Practices (EUREGAP) principles and Hazard Analysis of Critical Control Point (HACCP) protocols that require *inter alia* better supply chain management for traceability, record keeping, detailed labelling and calibrated equipment. African countries find it difficult to comply with these requirements.

It is evident from the above findings that non compliance with international technical regulatory requirements is depressing Africa's access to key international markets and is preventing African countries from taking advantage of market opening initiatives such as the United States *Growth and Opportunity Act* and the European Union's *Everything but Arms initiative*. A focus on the Southern African Development Community (SADC) helps to illustrate this point.

Southern African Development Community (SADC)

Intra-SADC trade had been growing slowly but steadily over the past few years. Export however remains stagnant at about 20%. A 2004 on regional non-tariff barriers in the SADC found that most of the barriers to trade such as price control, state marketing, currency controls and export licensing have been eliminated as a result of the SADC Trade Protocol. What prevail are barriers to trade as a result of arbitrary actions and non-transparency by member countries and this impact negatively on intra-regional trade (SADC, 2004:5-8). In terms of technical barriers to trade the abovementioned report highlights the following problems:

- non acceptance of national standards;
- inability to do verification of compliance at national level;
- lack of regional accreditation process;
- temporary bans on selected products to protect local vested interest;
- protection of a small number off producers at the expense of the consumer;
- inadequate TBT and SPS inspections;
- poor administration capacity;
- unharmonised regional rules and procedures;
- misuse of food safety and technical regulations; and
- lack of capacity to meet international standards and regulations.

In an attempt to support efforts to facilitate trade and eliminate unnecessary barriers to trade the SADC's regional technical infrastructure consisting of the SADC Metrology (SADCMET), SADC Standardisation (SADCSTAN) and SADC Accreditation (SADCA) have agreed that it will be important to strengthen the current SADC Standards, Quality Assurance, Accreditation and Metrology Memorandum of Understanding (SADC SQAM MOU), which was signed by the SADC Ministers responsible for Trade and Industry in 2000. There is a need to therefore elevate the current SADC SQAM MOU to an Annex

to the Protocol and to extend the scope of the MOU to include technical regulations. The aim is to establish common principles for technical regulatory reform that can lead to deeper regional trade integration within the SADC region (SADC SQAM, 2006).

The proposed Annex to the Protocol, which should be finalised for implementation by 2008, comes up with the following provisions for SADC member states:

- The adoption of the WTO TBT principles;
- the implementation of a common technical regulation framework;
- the use of an outcome-based or performance-based approach rather than detailed design or descriptive product or service characteristics;
- ensuring that the intervention is based on clear evidence that action is justified given the nature of the problem;
- that alternatives for addressing the problem will be considered;
- that the costs of proposed actions and the risks associated with proposed actions will be considered;
- enhancing of transparency of the whole process;
- that member states ensure that technical regulations are based on the relevant international, regional or national standards or parts of a relevant standard;
- where a positive assurance of conformity with a technical regulation is required, members states, shall wherever practicable formulate and adopt international systems for conformity assessment and formulate conformity assessment requirement that is justified by the level of risk and
- develop measures to promote the acceptance of the conformity assessment results among countries.

South Africa

South Africa has recently finalised a strategy to ensure that South Africa's national technical regulatory framework complies with international requirements (THE DTI, 2006). This strategy was developed in view of the fact that the South African government was of the opinion that the absence of a central coordinating system for technical regulations is creating some technical regulatory gaps as well as areas of overlap between national departments in respect of coverage. In addition to the above, government found that the technical regulatory system is fragmented. Access to information on existing and proposed technical regulations are problematic and the system is unpredictable and unclear. There is also no consistent national approach to consultation. Further more variations exist between departments in terms of how they notify technical regulations to the WTO and in terms of how the departments publish technical regulations. (THE DTI, 2004:9).

Some of the strengths that were identified in the study of South Africa's approach to technical regulations included that the principle of using or referencing standards in technical regulations is well established in South Africa and that performance based technical regulations are generally preferred. In addition too the above the South African accreditation system has achieved a high level of international recognition.

The South African technical regulatory reform framework adopts the seven WTO TBT principles discussed earlier in this article. The South African model makes provision for the following:

- regular review, update and modification of technical regulations;
- the use of a consultation and participation approach to ensure transparency of the process, to facilitate input by all stakeholders, and to allow for the accuracy of assessment of the costs and benefits and to enhance awareness and thus encourage compliance;
- the use of impact and risk assessment and other analytical tools to inform decisions by policy-makers and regulators will be encouraged. The main aim is to enable policymakers to choose reasonable and practical technical regulations that are designed to impose the lowest costs and yield the greatest benefits;
- in order to minimise possible trade barriers technical regulations will be performance based rather than prescriptive in nature, except in cases where this is not possible due to the specific nature of the regulatory control required;
- applicable international standards or those parts that of the technical regulation will be reviewed for adoption; and
- appropriate conformity assessment requirements that reflect the risk will be required (THE DTI, 2006:8).

CONCLUSION

The current African technical regulatory system is in need of an extensive reform process because the current regional approach in terms of how the African states manage technical regulations is fragmented, inefficient and ineffective. A well-structured technical regulatory framework is of crucial importance to the development and competitiveness of the regional economy. The following can be used to develop a flexible African regional technical regulatory reform approach.

Transparency is one of the most important building blocks of a good technical regulatory system. A transparent system should make provision for effective access to existing technical regulations for all market participants and stakeholders, domestic and foreign. The system should also provide systematic information of technical regulations in the making. Predictability and clarity of the technical regulatory making process also provides for participation by stakeholders at appropriate times in the process.

Many countries rely on technical regulatory impact analysis to avoid unnecessary trade restrictiveness. Systematic assessment of the impacts of proposed technical regulations includes cost/benefit analyses, investigation of possible feasible alternatives to the proposed technical regulation and an analysis of the impact of such a regulation on trade and investment and small businesses.

The concept of internationally harmonised standards and technical regulations refers to the use of international standards as a basis for domestic regulations wherever it is feasible and appropriate. Active participation in the development of international standards and ongoing national commitment of resources or participation in international

standards setting is a good indicator of the will to use international harmonised standards as a basis for domestic regulations.

In terms of choosing between prescriptive technical regulations or performance based technical regulations, performance based technical regulations are generally preferred because they represent a more flexible approach and allow those that are regulated to devise the most efficient and effective method of compliance. Performance-based technical regulations provide flexibility while ensuring that the objective is achieved.

In addition to the above, the concept of internationally harmonised standards also cover the streamlining of the conformity assessment processes internationally to facilitate mutual recognition, mutual acceptance and acceptance of supplier's declarations of conformity. Best practice patterns are difficult to identify as a variety of approaches to streamline conformity assessment processes are in use.

RECOMMENDATION

Finally, the following policy recommendations are made to establish a Technical Regulatory Framework for Africa with a view to provide for an effective and efficient technical regulatory regime that would expedite investment and economic recovery for the continent:

- A Technical Regulatory Reform Strategy should be developed for the reform of primary and secondary technical regulatory legislation by an African Technical Regulatory Framework Committee;
- The African Technical Regulatory Framework should be built on the following principles: transparency, proportional, necessity, targeted principle, non-discriminatory principle and the use of appropriate internationally harmonised measures principles;
- The African Technical Regulatory Framework should consider inclusion of the abovementioned core trends in terms of transparency, avoiding unnecessary trade restrictiveness, use of international harmonised measures including accreditation to develop flexible regional approaches;
- The African Technical Regulatory Framework should provide for the development of a Technical Regulatory Checklist, Guidelines for Technical Regulatory Impact and Risk Assessment and Code of Practices for Consultation, the Technical Regulatory Process, enforcement and for the publication and notification of technical regulations; and
- The strategy should explore the institutional capacity that will be required to roll out the strategy.

BIBLIOGRAPHY

APEC. November 1997 *The Impact of Trade Liberalisation in APEC* www.apec.org.

APEC. September 2000. *Information Notes on Good Regulatory Practice for Technical Regulations* www.apec.org.

- APEC. 2006. APEC Sub-Committee on Standards and Conformance. Latest Developments. http://www.apec.org/apec_groups/committees/committee_on_trade/sub-committee_on_standards.html#Latest.
- Cateora, P.R. & Graham, J.L. 2002. *International Marketing*. 11th ed. New York: McGraw Hill.
- Hill, C.W.L. 2002. *International Business*. 3rd ed. New York: McGraw-Hill/Irwin.
- Mills, G. 2000. *The Wired Model: South Africa, Foreign Policy and Globalisation*. Cape Town: Tafelberg.
- O'Brien, P. 2003. *Technical regulations in SADC: Towards a realistic approach in a changing world*. Prepared by the Service Group TSG for USAID Regional Center for Southern Africa (RCSA).
- Wilson, J.S. & Abiola, V.O. 2003. Editors. *Standards and Global Trade. A Voice for Africa*. The World Bank.
- OECD. 1993. Occasional Papers in Public Management, Regulatory Management and Reform Series No. 4. <http://www.oecd.org/findDocument/>, 21 March 2006.
- OECD. 1995. *Recommendation of the Council of the OECD on Improving the Quality of Government Regulation*. [http://www.oecd.org/olis/1995doc.nsf/LinkTo/OCDE-GD\(95\)95](http://www.oecd.org/olis/1995doc.nsf/LinkTo/OCDE-GD(95)95), 21 March 2006.
- OECD. 1997. *Report on Regulatory Reform* <http://www.oecd.org/dataoecd/17/25/2391768.pdf>, 21 March 2006.
- OECD. 2002. OECD Reviews of Regulatory Reform. *Regulatory Reform in the United Kingdom*. <http://www.oecdbookshop.org/oecd/> 21 March 2006.
- OECD. 2003. *Integrating Market Openness into the Regulatory Process: Emerging Patterns in OECD Countries*.
- OECD. 2005. *OECD Guiding principles for Regulatory Quality and Performance*.
- SADCSQAM, 2006. *Information on the SADC Programme in Standardisation, Quality Assurance, Accreditation and Metrology (SQAM)*. <http://www.sadc-sqam.org/regionalsqam/sqaminfo.html> 17 July 2006.
- SADC, 2004. *Inventory of Regional Non Tariff barriers: Synthesis Report*. November 2004. Unpublished.
- THE DTI. Department of Trade and Industry. South Africa. 2004. *The dti Technical Regulatory Framework Study*. Unpublished.
- THE DTI. Department of Trade and Industry. South Africa. 2006. *Strategy Towards An Efficient National Technical Regulatory Framework for South Africa*. Prepared by the Department of Trade and Industry <http://www.thedti.gov.za/ntrf/ntrf.htm>, 1 November 2006.
- WTO. 2006. Legal text: Technical Barrier to Trade Agreement.