# CHAPTER 5

## An analysis of the case(s)

### 5.1 INTRODUCTION

It has already been noted that NEPAD is credited with having already made a significant contribution in raising the profile of African trade–related issues on the world stage. Two significant remaining controversies are the continuing reliance on primary resources by African states coupled with less than favourable terms of trade. Another important factor, in the African context, is the ever present reality of market failure. There is growing international recognition that the operation of efficient markets is a complex and difficult undertaking. A further complication is that a government working in isolation has little or no chance of duplicating the positive incentives that some markets provide for suppliers of goods and services. Incentives such as a larger potential customer base willing to pay to satisfy their needs, and wants, are continually promoted as a generic reality. Reliance on market forces alone however is not a sensible solution for Africa. As is increasingly evident, market forces do not automatically lead to an equitable distribution of economic and social benefits even within developed countries. There is mounting evidence of ever increasing imbalances in the global distribution of trade related benefits. The difference in accrued benefits due to trade related globalisation is even more marked in the context of Africa.

Sovereign states are identified in the existent literature as being largely responsible for the coordination and implementation of several important activities related to trade. These responsibilities include the need to organise national economic strategy and consider the need and actions to protect domestic strategic industry. Interestingly, in the context of the research, the role and responsibility of the state in creating and maintaining SQAM supportive technical infrastructure is rarely if ever mentioned, let alone universally understood.

Some responsibility therefore must be accepted by African states for formulating economic and trade related policy, appropriate supportive legislation and actionable, appropriately resourced plans. TBT and SPS issues are already proving to be problematic for the agricultural and the fledgling industrial output of African countries. Decisions by African countries concerning the provision of technically sophisticated conformity assessment services have substantial long term consequences. The creation of an appropriate enabling environment for the domestic provision of private and public funded conformity assessment activity has been identified as a fundamental enabling component. The availability of such entities could definitely assist in finding holistic solutions for addressing African TBT and SPS issues. In facing such challenges, there are several aspects. The chapter will therefore explore and analyse the various components and mutually supportive and interactive elements uncovered during the research in an attempt to identify relevant NEPAD issues in this regard.

## 5.2 AFRICAN STATE RESPONSIBILITIES REGARDING TECHNICAL INFRASTRUCTURE FOR TRADE

### 5.2.1 National trade strategy and policy

An important issue for African state cooperation is the implementation of global trade and associated technical agreements. The initial, and by far the most important, need is for appropriate knowledge and subsequent articulation by African countries of their own trade interests. Such insights and capability are foundational if African countries are to make positive contributions in global trade negotiations such as those conducted under the auspices of the WTO. Foreign government support that may be available to foreign based competitors is another issue highlighted by the research that needs a coordinated African strategy. Such assistance unfairly allows others to gain or protect market share in their own or their African country targets. There is overwhelming evidence that developed country subsidies, particularly in agriculture, continue to be a major obstacle preventing African countries accessing more developed markets.

Export success for African manufactured goods increasingly requires, as a minimum, that product quality can be reliably proven against specified requirements. The ability to demonstrably and continually meet agreed specifications can also significantly contribute to improved competitiveness. Success in both areas is dependent on having the appropriate domestic technical support infrastructure in place that can be appropriately maintained. Such an important issue is predicated on the need for suitable government policy or, perhaps more correctly, suitably aligned and mutually supportive national and regional policies. The unintended consequences of not having access to such infrastructure can constitute significant barriers to trade. Non availability imposes unnecessary costly and time consuming tests in the intended market in order to comply with their various and often varying technical requirements. Such a reality is fully appreciated by the originators of NEPAD. The need to create specialised and independent measurement institutes as well as testing laboratories and certification organisations is specifically identified. The former institutions are normally publicly funded bodies, albeit nominally in some cases. In the developed world, testing and certification activities are overwhelmingly left to the private sector. The NEPAD document is silent however on how such an important set of needs will be translated into sustainable reality. This is not altogether unexpected. Given the complexities already evident in establishing and maintaining such infrastructure in developing countries, a well coordinated and concerted effort by Africans will now be required.

In addressing the need for, and future role of, domestic regulations in trade policy, African countries have a delicate balancing act to perform. They must carefully balance the need to protecting their citizens against increasing demands to open their markets to trade. It is a delicate matter because of the potential for a multitude of unintended political consequences that may accrue from a technical and economic decision. Consideration, including that of the short, medium and longer term impacts and possible consequences, is therefore stated when domestic technical requirements are being formulated and implemented. The cost and effort required by organisations to comply with regulations versus the benefits obtained through their demonstrated

compliance need to be carefully weighed against one another. Facts gathered through such exercises can also provide a powerful input for appropriate future use by the political leadership as well as by national and regional trade negotiators. Proper engagement and ongoing communication between African states should also be continually and actively encouraged, in the same context, as part of ongoing trade negotiations and post negotiation alignment activities.

There are at least three sets of obstacles regarding standards and conformity assessment that have been identified. Such obstacles need to be seriously addressed in Africa if progress is to be made. The first difficulty concerns the existence of different standards in different markets for essentially the same item. African countries continually express concern that foreign regulatory programmes and associated conformity assessment activity fail to consider their conditions and related capacities. Barriers to entry and export are then automatically created. Such barriers may be the result of either commission or omission on the part of those who originally devised the requirements. Neither possibility however gives any comfort to those in Africa who are then tasked with overcoming such barriers.

The second hurdle relates to the technical problems that typically surface when undertaking conformity assessment procedures. The related costs and time that may be involved in solving such problems can become a substantive issue. A supportive domestic environment promoting an appropriate and sustainable mix of private and public conformity assessment activity is therefore important. The state should lead in the creation of appropriate and holistic solutions for addressing the issue of TBTs. In an African context, it should be remembered that additional costs are automatically included if the private sector is routinely contracted to deliver public sector benefits due to the lack of suitable skills in the public sector. An associated problem is the extensive use of foreign based conformity assessment providers by African states. Although this is an accepted and widely adopted strategy to quickly address import requirements for markets such as Europe, such a ‘quick fix’

solution offers no answers as far as local capacity building and associated knowledge transfer are concerned.

How should African governments address the issue of sustainable private sector conformity assessment service provision given the important differences in approach identified in the research between the public and private sectors? The private sector normally focuses on the needs of a self–selected group of specific customers. The public sector however must take the responsibility to address needs of a wider group of citizens. A profit driven, private sector supplier that needs to satisfy owner demands is therefore highly unlikely to share the same ethos and values that should motivate the public sector. Such a reality tends to caution against public institutions that are created to provide specialised technical supervision, while simultaneously delivering commercially competitive services. Owing to current uncertainty in the ongoing supply of public funds, the research has identified specific instances where this occurs in Africa. This outcome has appeared due to force of circumstance rather than as part of a well considered and holistic national strategy. The lack of a shared African public sector ethos, that suitably reflects their unique role as a vehicle for driving the developmental state agenda, is a major concern.

Orderly African country migration away from a culture of donor driven creation of public service capacity and delivery will not happen by default. African governments need considered and well executed strategies for the phased opening of their markets. As already intimated, a careful balance is required between opening their own markets while addressing export related TBT and SPS issues in a responsible and cost effective manner. Such strategies also need to allow for the simultaneous national provision of appropriate, publicly funded, technical infrastructure. Local and international experience has shown that private sector options still require a measure of government stewardship if the intended focus and quality of service is to be maintained. Adopting a ‘business’ approach to the provision of specialised technical support functions creates scenarios where only those services that would realise a profit in the short term are serviced by the private sector. Technical infrastructure

requirements identified as part of national strategic imperatives, but that are not profitable, are placed in jeopardy unless public capacity with appropriate ongoing funding is made available. The encouragement of a sustainable and mutually supportive mix of public and private institutional capacity will therefore require insight and appropriate incentives. A key government leadership imperative is to provide an appropriate and publicly funded technical infrastructure for domestic users while encouraging the private sector to take an active and increasing role in conformity assessment service delivery. The matter of appropriate contractual relationships is also important when government involves and remunerates private sector players. Contractual remedies within the African continent can be expected to vary given the various legal traditions involved.

Technical capacity creation or enhancement strategies targeting specific industrial sectors in Africa will require both highly skilled individuals and competent conformity assessment bodies. Issues that need to be addressed in more detail include, for instance, environmental aspects such as the measurement of organic contaminants in water, dioxins and furans in the air and also appropriate soil analysis. There are also food safety aspects. These include nutrient determination of plants, pesticide residue levels, food borne pathogens, regulation of Persistent Organic Pollutants (POPs) and Genetically Modified Organism (GMO) testing. An in–depth Afro–relevant scientific investigation is therefore required to identify the prioritised technical issues. Such an investigation is unlikely to be undertaken by the private sector unless there are substantial financial gains to be made or alternatively if it is tasked and funded to do so by either a donor or government. The South African dti has acknowledged the need to facilitate and encourage all stakeholders to cooperatively engage in a process of ongoing learning during the creation and implementation of policy. Insight from such a process could obviously be used to appropriately finesse areas of technical infrastructure weakness as well as to strengthen administration and implementation.

### 5.2.2 Enabling national legislation

The research has identified that the journey towards sustainable technical infrastructural development in Africa will entail several key interventions. Three are highlighted. The first is a suitably integrated industrial development and environmental policy framework for each state. Such frameworks should be based on a thorough, and integrated, evaluation of the potential of an industrial sector to make a positive contribution to socio–economic growth. This kind of evaluation should also ensure that potential positive benefits are suitably weighed against the negative environmental impacts. Each evaluation needs to be based on a deep understanding of what is practicable within the African context. Due consideration of the available resources and capacity is also vital. Another issue is the role and use of domestic technical legislation. Technical legislation can easily influence the ability of local and foreign companies to trade, either positively or negatively. While certain biases in domestic legislation can initially assist local companies, the outcome is to make them uncompetitive globally, especially if different norms or standards apply. Lenient trade, industrialisation and environmental policies and associated legislation could also easily be interpreted by others as “hidden” or “implicit” subsidies to locally based producers.

A second key intervention is the need for creating local and regional partnerships. These should be underpinned by appropriate domestic stakeholder participation in formulating and implementing integrated policy and associated capacitation strategies. Successful interventions require that all relevant stakeholders have a voice, and share ownership in the vision, strategy and subsequent capacitation activities. Civil society should be assisted to actively participate in trade–related policy issues at national, REC and continental level. In a similar way, representatives of African based private sector organisations must be actively encouraged to assist. Care must however be exercised to ensure that any private sector input accurately reflects African views rather than those of local lobbyists for foreign based multi nationals using the opportunity to promote self–serving foreign agendas.

The final key element is the creation of a strong and cohesive enabling environment for the effective and ongoing capacitation of domestic or regional regulatory, standards, metrology and accreditation infrastructure. Such activity would likewise utilise national, REC and continental resources as appropriate for a particular phase of the capacitation process. A leading role needs to be identified for African trade facilitating institutions. Their role is to set an appropriate stage for industry with the selective use of incentives and consequences to guide desired behaviour. The outputs from these technical support infrastructure institutions should not only positively contribute to improving the domestic and continental situation, but the experiences gained during implementation can also provide important data to assist African governments as they engage in future international negotiations in related areas.

### 5.2.3 National technical infrastructure planning and resourcing

Developed nations increasingly expect proven compliance of imported agricultural products and manufactured goods, against sophisticated, and increasingly harmonised, technical requirements, before allowing access to their markets. Inherent barriers and other difficulties are caused when each country defines its own regulatory requirements. There are increasing moves internationally towards referencing internationally harmonised standards in national regulations. The EU is arguably the most advanced region at present in this regard. Such a development has led to a demand for appropriate mechanisms that allow both for independent proof of the competence of both local conformity assessment bodies and the integrity of the associated national support infrastructure. African governments and their publicly administered infrastructures need to ensure that domestic manufacturers and agricultural produce suppliers have appropriate, affordable and timely access to appropriately sophisticated technical infrastructure. The aim of such infrastructure is to prove compliance to the increasingly stringent technical demands of developed country markets as already intimated.

If African governments are earnest about creating an enabling environment for export–led growth, it is obvious that well considered, appropriately timed and funded public administration led interventions are required. There are usually long lead times between the identification of a TBT– or SPS–related need and its ultimate and sustainable solution. Such complex and interlinking activities need to be managed whilst coping with increasing demands for the rationalisation of both the services that governments provide and the public officials required to execute such tasks. It is vital therefore that the NEPAD RECs proactively identify such needs as a matter of priority. They also need to commit adequate and ongoing resources to their resolution. The responsibility for any progress towards benefiting Africa must, based on past experience, fall squarely on the shoulders of African governments and their supporting public administration structures.

Donor funded activity focused on technical capacity building in Africa has historically been aimed at creating or expanding public infrastructure. Such efforts could be broadened with reference to self–created and managed domestic policies on trade and industrialisation, proper environmental protection and associated domestic implementation plans. As previously mentioned, the role of the private sector is recognised as being important in Africa but little is actually being done to actively create conditions for a more active role on their part. Given the present thrust by the WTO and others, donor–related activities in the area of technical capacity building will continue. Donor funded projects are normally written in accordance with strict and measurable objectives that need to be achieved within very tight time constraints. As noted at the outset of this study, extensive use is usually made of foreign based experts who are obviously keen to return home once the short term project is completed. The efforts of such foreign based experts are normally focused on project evaluation, training and implementation of the requirements of foreign markets such as the EU regulatory directives. The limited time available for project implementation, before funding expires, is also not eased by the inherent bureaucratic formalities that need to be complied with before such funds are dispersed. Complicated, and in some cases, ever changing compliance requirements are strictly enforced before

the promised funding is released and also as a project unfolds. Such a scenario does not easily lend itself to the enlightenment of local participants about even the foreign sourced scenarios and how they were arrived at. The creation of intelligent, locally relevant, alternatives is certainly not considered in such scenarios.

The technical project scenario in Africa involves a complex, often chaotic, mixture of local and foreign producers, suppliers, various experts and donors. These are all lobbying to contribute their particular insights and preferences in exchange for some of the donor funding. Infrastructural SQAM policy and associated technical capacitation initiatives, from the embryonic stage to maturation do not appear to have been addressed as part of any previous Structural Adjustment Programme initiative in Africa. Such a lack could, in part, be due to the time needed for the adoption of such an all encompassing approach. African states need therefore to begin to consider and then determine their own needs and priorities. The "garbage can" approaches to technical infrastructure policy, prevalent in most African states, is clearly not serving their best interests. As already asserted, different, and more positive, outcomes cannot be expected if the modus operandi does not also change. An immediate and cost effective role for NEPAD could be to identify the many activities in technical capacity building occurring in both individual African states and also across the different RECs. Such information would provide an excellent foundation to determine where cross REC fertilisation could yield faster results from national and REC SQAM related projects working towards continental outcomes.

Although South Africa can be justifiably proud of its world class SQAM and conformity assessment infrastructure, there is still work to be done, domestically, in support of SADC and the wider region. The current interactions between the national SQAM technical infrastructure bodies and their various African projects are reactive in nature, short term and ultimately unsustainable. What is now required is a comprehensive and holistic plan based on policies that address specific needs. Domestic public and private conformity assessment organisations need guidance in creating sustainable

infrastructure. The aim should be to support government policies for export led growth and also industry driven demand that requires local technical capacity building and strengthening. The plan should lead to Afro centric definitions for initial and ongoing public administration led contributions while identifying the necessary conditions for attracting, engaging and ultimately leading and cooperating with the private sector and other important stakeholders. The creation of suitable structures and processes to guide the work of such administrators is pivotal to success. If such effort is required of one state, South Africa, as a member of one of the RECs of NEPAD, SADC, should be encouraged to share experience and knowledge both within the REC and within the larger NEPAD group.

SQAM–related information and experience that is freely shared within NEPAD could also act as an important counter to foreign donor driven projects with inherent, unstated and often unrecognised policy methodologies. What is very clear is that more of the same is not good enough. Uncoordinated national and regional interventions that use various approaches to policy and decision–making, add further to the problem. African public administered technical structures need to work in ways that promote collaborative synergies rather than the present competitive malfunctions that are often caused by short term financial and other self–serving objectives.

### 5.2.4 Technical infrastructure administration and implementation

Lack of internationally recognised SQAM infrastructure and easy access to services to prove technical compliance are an important challenge in Africa. Many African countries are ill–equipped to implement the rules set by the multilateral trading system as codified in the WTO TBT and SPS agreements. Ostensibly created to open up markets, they allow member states to protect health, safety and the environment. Time has shown that these agreements are difficult for most African countries to implement. They create, instead, increasingly sophisticated technical barriers for market entry. Compliance, and appropriate proof of such compliance, must be ensured to prevent further

technical barriers being created. Technical infrastructure capacity building and strengthening projects are both difficult and resource dependent. They are also by no means short term in nature. At the very least, successful projects require resilient leadership, continuity of participants at all levels and large amounts of ongoing capital and operational expenditure.

A comprehensive review of the South African SQAM institutions and their ability to meet the needs of SA commerce, industry and government, has been completed. The consultants were asked to establish what financial, effectiveness and efficiency constraints hampered the development of the local SQAM infrastructure. A private, philosophical management approach was adopted by default and this is evident throughout this empirical study. The results were then used to advise business, labour and government on the formulation of a holistic national SQAM policy and the relevant roles of the respective groups in implementing such a policy. The recommendations from the review have now been largely implemented by the institutions concerned under the watchful eye of, and with funding from, the dti. The recent promulgation of the various SQAM–related acts in South Africa completes the proposed actions resulting from the study. The South African SQAM study is sound as far as specific technical issues are concerned. It fails however to address the deeper public administration aspects such as holistic policies, planning and subsequent collaborative governance required for sustainability. The need for a collective and harmonised strategy between the various public entities and government, to promote synergistic implementation and maintenance in achieving larger government objectives, is still not generally understood. It is suggested that a much deeper insight of both public and private management philosophy is required in allocating tasks such as the SQAM review. The same applies during the execution and subsequent implementation.

The area of TBTs, supportive national technical infrastructure, and addressing conformity assessment needs requires impartial and considered input on a continual basis. Government needs to allocate appropriate responsibility to ensure that the resultant implementation of policies in fact deliver the

expected results and associated benefits. Given the leading role in SQAM taken by South Africa in SADC, the lack of appropriate stewardship in this crucial area has serious consequences not only for South Africa but also in SADC and the rest of Africa.

There is a pressing need to create research driven methodologies that can assist in guiding and driving the future direction of the existing African SQAM institutions. Appropriate research on a fitting public versus private conformity assessment service provision mix is one important component. The need to measure performance against and learn from various national, sub–regional and continental SQAM supported initiatives is also emphasised. Such SQAM–related research, from a public administration perspective, has never been proactively addressed in either the African or global context. Even if such public administration related research data were to be available, it would need to be skilfully applied by the relevant public officials to gain the necessary benefits. This is especially true of the unintended consequences of domestic and SADC SQAM policy application. Such deep consideration is close to impossible if the public officials charged with such an important responsibility are continually changing, as is often the case in South and Southern Africa. Such staff churn often leads to more junior staff trying to cope with much larger responsibilities during the sometimes protracted, recruitment process for a replacement. Another key issue is the lack at times of a clear set of criteria for the quality and quantity of service that is required. Even if such criteria did exist, there are often no personal consequences for failure to reach the intended outcomes.

Careful consideration is required regarding the organisational positioning of highly trained, and sought after, regional SQAM officials. Such due positioning is required to appropriately temper their specialist–value–laden recommendations. There should be adequate recognition, in such a positioning exercise, of the tendency for such experts, when working in isolation, to exert incredible national influence that can be detrimental in the long term. Ensuring that SQAM experts work cooperatively with peers within

the larger region could go a long way to moderate any negative impacts from well intended advice based on a narrow technical focus.

### 5.2.5 The role of governance

The development of African economies can no longer occur in isolation. It is accepted that global integration and competitiveness is easier to achieve through regional consolidation and associated economies of scale. In the case of SADC, South Africa's market domination coupled with differences within the region concerning leadership style, history and language makes any regional initiative both complex and problematic. Conversely, these difficulties make this kind of initiative all the more necessary. The need for leadership in Africa while also demonstrating appropriate self–governance also creates further unique complexities. While Africa wrestles with such demands, it is clear that the global environment will not pause for her to catch up.

A new suite of South African bills covering four elements of the SQAM technical infrastructure creates new opportunities for these institutions to work even closer together. An important element, lacking in South African SQAM, is an overarching national strategy and mechanism to mitigate any self–serving “silo” effects that have historically been prevalent. The recent publication of a South African industrial policy provides one such instrument. The availability of an industrial policy allows a much wider perspective than was previously possible. The policy is unfortunately silent as to the collective role of the SQAM institutions in assisting SADC and NEPAD. There is no such document, as far as can be determined, for the rest of the region either. The challenge in this vacuum is to ensure that the choices made by individual SQAM institutional management, acting in isolation, support the wider public interest. Such choices should also ideally consider sub regional and even continental inputs.

Synergistic collaborations aimed at achieving improved support of national, SADC and NEPAD trade objectives should be a priority. All four South African

SQAM institutions either have or will soon have individual Boards of Directors. In terms of good corporate governance, each of these boards therefore has a delegated responsibility to direct operations for the ultimate benefit and sustainability of the specific entity. Healthy cooperation between the four new SQAM entities is unfortunately still left largely unsolved. As far as can be determined, there is no intention at present to request the boards to periodically meet with the minister so that the strategic direction of the various institutions can be harmonised, synchronised and focused. The mix of old and new public institutions in the South African SQAM environment has also led to very different interpretations as to what their local, regional and international role should be. To this end, periodic meetings between senior government and SQAM institutional staff to address SQAM specific issues are crucial. Although senior staff from government sit on some of the boards this cannot, and should not, replace appropriate SQAM inter–organisational dialogue. These interventions should aim at ensuring that local SQAM organisations continuously receive appropriate guidance from and give feedback to their principles in government. Given that SQAM organisations also interact with other national departments it should also allow appropriate assistance to be sought when necessary in this regard. If not addressed in a more holistic way, such a scenario will continue to exacerbate the unintended consequences that have already been identified.

Whatever governance model is ultimately adopted for a more comprehensive provision of conformity assessment in the future, there is some consensus in the literature about one, perhaps contentious, mechanism to provide the necessary feedback. Any method for obtaining feedback should, as a prerequisite, actively encourage wide public participation. One way of achieving immediate feedback is to link expenditure and revenue by raising the required revenue in part from the direct beneficiaries of the SQAM services. While there is overall consensus that clients should pay at least part of the cost, the SQAM review mentioned earlier was ultimately not able to determine what the market could bear or how much clients would or could afford to pay for SQAM related services.

## 5.3 CURRENT SADC ACTIVITY IN TECHNICAL INFRASTRUCTURE TO ASSIST AFRICAN INTER AND INTRA REGIONAL TRADE

### 5.3.1 Standards, NSBs and SADCSTAN

As already stated, African countries are normally standards takers not standards makers. The cost of overprinting and distributing a standard by an NSB, as an agent of ISO, is relatively small compared to its typical annual budget. The need for producing national standards, on the other hand, is a specialised, expensive and time consuming process. The counter argument is that, especially in African countries, many of the experts involved in the development of such standards, either locally or internationally, and their subsequent interpretation and assessment are specialist public officials, employed and trained by such bodies. This is an important argument especially in areas of high technical specialisation. In order to understand how much of a problem there is in reality, a deeper understanding of the existent and potential gaps in the market is necessary. A further complication is the difficulty of quantifying the significant, but often indirect, impact of the work done by NSBs in the economy – a fact which often leads to demands to reduce their financial allocations from the state fiscus.

There are still no commonly agreed prescriptions regarding the boundaries of administrative responsibility in general, let alone in such a specialised area of activity as SQAM. It has already been noted that developing country administrative capacity creation normally begins with conscious efforts to imitate modern Western bureaucracy rather than developing a more indigenous public administration knowledge base. African evidence to support the same thesis can be seen in the creation of NSBs in African states mimicking similar organisations in developed western states. The NSBs, acting collectively as a global elite, oversee a process of incrementally increasing the content and rigour of technical standards. Their collective wisdom is frequently questioned but never overruled. Neo–liberal based public policies in major European countries have in the meanwhile forced their NSBs to individually re–examine their roles and strategies. Such a re–

examination has yet to be done as a collective exercise under the international umbrella organisation, ISO. It has been left as a national responsibility rather than a strategic re–evaluation of the role of standards, standardisation and the future role of public funded standards organisations. Such a reluctance to collectively and fundamentally review their role could perhaps be ascribed to a resistance to change mindset inherent in such a diverse collective. The fragility of the confidence built upon international consensus could be another reason for maintaining the status quo.

All available research in the standards area managed by ISO appears to concentrate on the standards themselves such as the popular ISO 9000. The ISO 9000 series coincidently generates important business for the same NSB members of ISO. There has been a paucity of serious attempts to review the present methodology espoused to coordinate national and international input to, and subsequent harmonisation of, ISO standards. The potential for different ways to work created by developments in technology appear to have been ignored. African NSBs are left in an unsustainable time warp. African NSBs are locked into using outdated methodologies, such as expensive committee meetings in environments where travel is often difficult and time consuming. The availability of improved IT technology is little comfort. Its deployment in Africa is largely precluded by lack of funds, inadequate supportive national infrastructure or both. Future activity will need to recognise and mitigate the effects of such long cherished traditions in searching for new Afro centric alternatives for active and cost effective involvement in standards and standardisation. The future role of African NSBs and their individual and collective transformation to both reflect, and assist in, the African diaspora need urgent attention.

Many African states have been encouraged over a period of time, often with external donor support, to establish such an NSB. These then attempt to manage numerous standards and conformity assessment related activities. These activities can include the harmonisation of standards, the performance of a technical regulatory and inspectorate function on behalf of their government in terms of legislation, and also the provision of test and/or

inspection services to prove compliance with both national and, where appropriate, internationally harmonised standards. The subsequent activity to prove compliance to such standards, a potential source of revenue, unfortunately can easily create the potential for a conflict of interest for such an NSB. The conflict is particularly evident when additional revenue is required to supplement scarce and decreasing public funding, which is almost always the case for African NSBs. In order to ensure financial sustainability, most of these publicly funded organisations have been indirectly encouraged to further develop the services they offer. With the benefit of appropriate hindsight, it is recognised that some of these activities have not always been in the longer term interest of more holistic national objectives – a scenario that is especially true regarding the promotion of an appropriate private sector involvement in conformity assessment. Such activity is often seen by the NSB as their peculiar territory that needs careful protection. The preference for local adoption of internationally harmonised standards, which are ever increasingly available over the Internet, does place the future role and purpose of such bodies in question.

Given the inherent tensions already identified between the NSBs in Southern Africa, there has been relatively slow progress within the SADC REC organisation for standards, SADCSTAN. Current activity is focused on the relatively non–controversial issue of harmonising standards accepted by all SADCSTAN members as needing a regional priority. To date certain sector–related standards have been identified, prioritised and distributed amongst the NSB membership. Individual NSBs are then expected to manage the actions required to secure national adoption. An important milestone is that all of the standards required for accreditation have been adopted as SADC standards. This has removed an important potential impediment. There could have been great sensitivity for instance if a laboratory outside South Africa were to be accredited using the South African version of the relevant international standard. The availability of a SADC document removes a potential sensitivity and also makes such documents cheaper to purchase than the international version available directly from ISO in Geneva. In spite of the availability of such a group of standards, few if any are being used. The need is expected to

increase however once the regional accreditation body, SADCAS, is fully operational.

Research has shown that European supermarket chains are now cutting out large elements of the supply chain by dealing directly with African producers. These relationships are often based on the result of successful certification. The private sector standards used to support this activity and the accompanying certification are potentially problematic. African standards professionals currently have little or no input into such private standards or the accompanying contractual arrangements for foreign certification.

### 5.3.2 Metrology, SADCMET and SADCMEL

The need for and importance of proven traceability to international metrological standards for African measurement has been understood in SADC for a very long time. As a vehicle to promote confidence in trade, confidence in the weights used and other measurement is critical. Research for SADC in the area of metrological capacity was commissioned as far back as 1994. A local expert from the Tanzania Bureau of Standards was commissioned in that year to undertake a study on a metrology system for SADC. An impressive report offered a comprehensive programme of action. There were nonetheless no significant or sustainable outcomes, as far as can be determined, from the resultant recommendations.

A major objective of the SADC cooperation in scientific and industrial metrology, SADCMET, is to promote the equivalence of measuring standards within the region and thus reduce technical barriers associated with physical measurement. South Africa is the only SADC country that has signed the international convention for the metre. NMISA is also the only metrology laboratory in SADC and one of only two in Africa which actively participates and is recognised in terms of the global Mutual Recognition Arrangement (MRA) between the national metrology institute members of the CIPM. NMISA is actively pursuing the establishment of mutual recognition of measurement standards within the SADC region, with an ultimate objective of

obtaining international recognition for SADCMET. NMISA also has a major responsibility as an international recognised reference laboratory for SADCMET in the international comparisons undertaken by the CIPM to ensure integrity in the global metrological system. The recurring challenge is that the majority of the members of SADCMET come from National Standards Bodies.

Legal metrology organisations of the SADC member states cooperate under the umbrella of the SADC Cooperation in Legal Metrology (SADCMEL). SADCMEL is tasked to harmonise the legal metrology legislation amongst the member states. The group also aims to assist one another in developing the relevant laboratories and training of the associated technical staff. Given the diverse legal traditions within SADC, the harmonisation of legal metrology legislation is no trivial task. An inventory of the status of the structures in each country was undertaken as a project early in the life of SADCMEL in 2002. Unfortunately, little has changed since then, superficially due to a shortage of funding, but perhaps more so owing to a lack of a shared vision and reactive leadership.

### 5.3.3 Accreditation, SADCA and SADCAS

Conformity assessment services are provided by laboratories, inspection bodies and certification bodies. Independent accreditation of conformity assessment service providers recognises that such bodies normally operate in a fiercely competitive environment. One mechanism for achieving public service benefits from the private sector is to create and mandate an agency with specific tasks. One such task would to make them accountable to compare the performance of private companies across different activities. In order to ensure that these activities are performed by competent service providers, governments are increasingly creating National Accreditation Bodies (NABs). Accreditation assists local and international customers of conformity assessment by providing a level playing field where service providers compete for customers based on their ability to independently demonstrate their competence to perform specific technical tasks. National

accreditation bodies have been created and now operate in Egypt, Mauritius, Tunisia and South Africa. Two of these bodies, SANAS in South Africa and EGAC in Egypt, have already been internationally recognised by their global peers in ILAC and IAF, as already stated.

A major issue since the creation of the SADC coordination body for accreditation, SADCA, is its domination by NSBs. Twelve of the fourteen member state representatives on the SADCA committee are from the member state NSBs. The problem is that African NSBs, as suppliers of revenue generating certification services, need independent accreditation for market place credibility. Their domination of the structure created to operate a MRA between SADC based accreditation bodies is therefore contentious. The international accreditation fraternity has grave reservations if one particular interest dominates the governance structures of an accreditation activity. Such concerns are heightened if an unrepresentative group, dominated by direct beneficiaries of the service, dominate the next level in the accreditation hierarchy. The regionally managed accreditation MRAs under ILAC and IAF are required, through transparent and impartial processes, to give additional confidence to the accreditation decisions reached by the individual NAB members of the MRA. As the planned custodians of a SADC MRA for accreditation, SADCA cannot afford to create a mechanism that would be rejected internationally owing to problems, whether perceived or real, with impartiality. Doubts would certainly be raised on the integrity of a SADCA MRA if its governance structures were to be dominated by the same NSBs. The problem will need prudent management in the future.

Foreign based, and overseas accredited, multinational certification companies continue to compete for market share with SADC NSB certification services. Such a scenario has created an immediate SADC demand for accreditation of the local NSB services offered. A regional resource for accreditation, SADCAS, has recently been formally established. The creation of SADCAS is a global first. Such tremendous progress has not only attracted attention from other parts of the world but also unlocked significant amounts of Norwegian donor funding, as already noted. The funding has allowed SADCAS to

recently become operationalised and a CEO and technical manager together with administration support staff have now been appointed. Staff for SADCAS were sourced from ex NSB staff because of their availability and particular expertise in standards and conformity assessment. SADCAS has been created as a result of a demand for servicing the accreditation needs of those other SADC REC member states which do not intend to create national accreditation capacity. There are three major challenges as far as its sustained operation. These are the ability of the fees charged for its services to cover substantial amounts of its operational budget in the medium to long term. A second challenge is to convince SADC that sufficient and sustainable financial support is required for SADCAS to cover international representation activities on behalf of the member states that it serves. The last challenge is appropriate buy–in and utilisation of SADCAS accredited facilities by the various regulatory bodies within the SADC member states. The role of SADCAS in supporting technical regulations in the various SADC member states could become a considerable hurdle due to the varying legal systems within the region and possible reluctance of national regulators to make use of its services. The availability of foreign donor funding for the short to medium term does however give time for these difficulties to be addressed.

## 5.4 AREAS WHERE SADC TECHNICAL INFRASTRUCTURE ACTIVITY IS REQUIRED

### 5.4.1 Strategy and trade negotiations

The linkages between SQAM issues identified during trade negotiations and obtaining proactive input from the various SQAM institutions is an important aspect that has to date been largely neglected. Such important activity, if it occurs at all, is usually both reactive and tenuous. Certain officials within various ministries are aware of the role and functions of SQAM. Time has shown that such knowledge and the associated insights are normally lost when the official is promoted or redeployed. Unfortunately, there is no formalised interaction between the relevant parties in the various member states on SQAM trade negotiation issues and larger strategic objectives. The

confrontational environment in which trade negotiations normally take place is, by its nature, also problematic and is not conducive to seeking holistic regional solutions for technical capacity strengthening. Any overarching SQAM–related benefits that could potentially be obtained is thus lost. Another problem is that once such a negotiation has been concluded, some measure of risk moves across to the specialist national organisations that share collective responsibility for the implementation and maintenance of the SQAM–related aspects. The transfer of risk is especially acute in the area of technical regulations. Given the active role of the majority of African NSBs in regulation and conformity assessment, present tendencies are to build relationships between the NSBs rather than look at more holistic solutions designed to include other service providers.

### 5.4.2 Technical regulations

Intelligent regulatory interventions can both protect and promote consumer choice through establishing enabling mechanisms for appropriate competition. It is important to note that in Africa certain issues such as human and animal health and safety could require a different form of regulation. Such regulations may intentionally restrict consumer choice in order to provide a desired minimum standard. Regulatory differentiation is crucial when considering the implementation of high risk related standards and technical regulations that conformity assessment services might be required to monitor and protect. The protection of commonly agreed upon public values has inherent associated costs. The protection of public values normally requires intelligent trade–offs between such values and any gains that may be had from increases in efficiency.

Two important issues from the perspective of private companies are national regulatory differences and the time and cost involved to prove compliance. Differing national regulations within SADC limit the ability of a SADC based manufacturer to achieve the types of economies of scale that could be achieved with suitably harmonised requirements. Such national differences can also lead a company to decide against moving into certain markets even

if they are close geographically. Another issue is the potential time delays in proving regulatory compliance in another SADC member state. Inherent bureaucracies that appear to thrive in Africa coupled with language barriers are also not helpful. If these were not enough, delays caused by NSB revenue earning inspection procedures and difficulty in accessing or understanding the different member state standards are also relevant. The multiplicity of demands and remedies involved in addressing SADC market liberalisation, including the related conformity assessment requirements, obviously requires careful thought, intelligent policy creation and national and regional coordination. Once focused, properly coordinated implementation activities and appropriate governance mechanisms are added to the equation, the sophistication required of public officials even at member state level can be appreciated. The political will to conclude free trade agreements in SADC, with seemingly optimistic time frames, does not appear to be tempered at all by the technical realities and the distinct lack of tangible progress on the ground.

### 5.4.3 Conformity Assessment

In Africa, the issue of the domestic provision of technical infrastructure is increasing in importance. African governments, with the judicious use of the public sector, have a key role in creating initial domestic and regional technical capability and capacity. Small, Medium and Micro Enterprises (SMMEs) can be an important source in the provision of conformity assessment services. In holistic SQAM related interventions, the role of large public facilities also needs careful attention. Obtaining the initial and ongoing balance between the use of large public funded facilities versus encouraging private sector SMMEs to providing appropriate, affordable and sustainable conformity assessment, in the context of Africa, is the challenge that needs to be addressed.

African activity in the area of conformity assessment, South Africa aside, largely relies on strengthening the often under developed infrastructure of the various NSBs. The assessment of SQAM–related country needs is still also

largely left to the staff of these same entities. Requests to donors normally focus on reactive solutions to an impending export related crisis. Private sector development of conformity assessment bodies, if considered at all, is normally an unwelcome activity. Little if any effort is expended on encouraging sustainable private sector capacity. Such a situation normally leads to the creation of ever more specialised public capacity. Unfortunately, such a short term focus actively impedes future creation of similar capacity in the private sector. Although the current scenario is ostensibly driven by perceptions of potential market failure, the solutions are not sustainable in the longer term. Limited public funds and the portability of, and increasing demand for, the limited pool of SQAM technical expertise adds additional complexity to the problem.

NSBs in the region continue to use their considerable market advantage to offer associated commercial testing and inspection services against the same standards they assist in promoting. Although it is easy to frown on such behaviour, one must understand the underlying pressures and a lack of clear direction from government that has led to such unfortunate circumstances. The same pressures on the South African metrology organisation created similar tensions between themselves and the calibration fraternity that they are theoretically tasked to assist. The problem was only solved by a clear separation of functions and the provision of appropriate funding for strategic imperatives. The competitive nature of some of the services offered by the standards bodies referred to earlier is also an important point that needs further consideration in this regard.

## 5.5 CURRENT NEPAD MECHANISMS THAT ASSIST ITS REGIONAL ECONOMIC COMMUNITIES (RECS) IN SUSTAINABLE TECHNICAL INFRASTRUCTURE CAPACITY BUILDING

### 5.5.1 Standards and ARSO

African representatives need to continually raise the issues of differing standards and support offered to foreign based competition in appropriate

global, national government driven, forums like the WTO. African governments also have to ensure that they have appropriate domestic systems in place to back their international negotiating stances. To remain credible, they certainly cannot be seen to be asking others to do one thing while applying different norms domestically.

The African Regional Organisation for Standardisation (ARSO), an African intergovernmental body (as already stated), was established in 1977. Actively supported by the International Organization for Standardization (ISO), it is mandated to promote standardisation activities in Africa. As already mentioned, a Swedish International Development Co–operation Agency (SIDA) funded project aimed at establishing the value of ARSO was undertaken in 2003. Its members subsequently agreed that substantial change was required in order to realise the potential value of ARSO. The strategic planning workshop that followed also generated a mission and vision for ARSO. The vision was to be a representative and credible focal point for Standardisation, Conformity Assessment and Quality Promotion in Africa. The same workshop agreed that recognition of ARSO as a specialised agency of the AU should be pursued. The need to enhance the relevance of ARSO's services to the African market as part of gaining further support for ARSO in regional organisations such as COMESA, SADC, ECOW AS and UEMOA was also identified. Unfortunately the impact of the short term, donor funded, private sector management consultancy led project on the efficacy and acceptance of ARSO is still undetermined. Little tangible progress is now evident regarding the realisation of any of the objectives identified by the project.

### 5.5.2 Metrology and AFRIMETS

International and African metrology experts met in 2006, in a workshop hosted by the NEPAD secretariat, in order to discuss the metrology needs in Africa. The increasing important of metrology within Africa is attested by the fact that the workshop was attended by delegates from more than 25 African countries. The head of the bureau of the international treaty organisation for

scientific metrology, the BIPM, was a significant attendee. Representatives from each of the three other BIPM regional metrology cooperation's representing Europe, the Asia Pacific region and the Americas also attended. The workshop unanimously agreed that there was an urgent need to create a regional umbrella organisation, AFRIMETS, for scientific, industrial and legal metrology. The meeting also agreed that the main goal of AFRIMETS would be to harmonise accurate measurement in Africa, establish new measurement facilities and gain international acceptance for all measurements critical to export, environmental monitoring and sanitary and phyto–sanitary issues. The legal metrologists also identified the need to create and maintain a technical regulatory framework conforming to international best practice. This was required in order to ensure an effective trade measurement system.

The first General Assembly meeting of AFRIMETS, held in 2007 at the premises of the NEPAD, was also significant in that an MoU was signed by five African sub regional metrology organisations (SRMOs). These were SADCMET, EAMET, CAMET (later changed to CEMACMET), SOAMET and MAGMET. As previously mentioned, these regional organisations represent a total of 37 countries in Southern, Eastern, Central, Western and North Western Africa with Egypt and Ethiopia expected to sign In due course. It has been noted that the global MRA for scientific metrology, operated by the CIPM, relies heavily on its constituent regions to vet new entries for scientific vigour and integrity. Any decision to include results from African facilities into the CIPM MRA will therefore have to come through transparent and technically rigorous processes managed by AFRIMETS. Such an important role creates an important stimulus for its continuation and future expansion. There are encouraging signs that its development is being taken very seriously within Africa.

## 5.6 AREAS WHERE NEPAD MECHANISMS TO ASSIST ITS RECS ARE CURRENTLY LACKING

### 5.6.1 Policy and administration

The majority of countries in Africa have inherited the public administration systems created for them by their former colonial powers. These systems were not designed or implemented with industrial growth for the benefit of the specific country in mind but rather what could usefully be provided by the colony for the "mother country". One could conclude therefore that local trade, industrialisation and environmental issues were not that important for colonial legislators. The colonizing countries, in many cases, have also only relatively recently begun to gain much deeper understanding of some of the unintended consequences that previously unfettered industrialisation has produced.

The Structural Adjustment Programmes prescribed for Africa were based on two philosophical foundations, neo–liberalism and managerialism. The architects of such interventions simplistically believed that dramatic improvements could be realised if African states were encouraged to significantly reduce state involvement and associated controls. The free market would then step in and solve the majority of their problems. Such thinking is firmly rooted in western philosophies embracing capitalism and free markets. Obviously one can expect problems if the strategy on which an intervention is based does not reflect the belief system or understanding of those tasked in Africa with its implementation or maintenance. Subsequent realities show that such thinking was inherently flawed in the African context.

The research has highlighted the need for African countries to self–manage an appropriate reassessment of their trade and associated industrial and environmental strategies. The associated legislation and policies should also be included in such an exercise. These create a foundation for guiding future SQAM infrastructure needs. Such a platform needs to be based on solid data and appropriate cultural insights. The journey towards sustainable development in Africa for the same areas will entail difficult and costly

interventions. In order to utilise scarce resources to achieve the maximum possible benefits, appropriate and well executed policies backed by intelligent capacitation projects are critical to future success.

### 5.6.2 Technical regulations

A comprehensive review of existing, often colonially based, SQAM related regulations in Africa would create a unique opportunity for a compilation of best practice for the region. In order to ensure that the resultant recommendations for new regulation are appropriate and implementable, appropriate inputs should be sought both in the drafting and implementation process. It is suggested that NEPAD REC member governments take leadership responsibility for implementation. The African private sector will want a voice and also need to be appropriately involved.

The area of TBTs, associated technical infrastructure, and conformity assessment needs impartial and considered review under NEPAD. Appropriate use of the skills of specialised African public servants to assist in finding appropriate and sustainable public administration solutions also needs serious attention. These resources could be national, REC or NEPAD based and will need careful selection and appropriate deployment.

### 5.6.3 Private standards

Africa has already demonstrated the ability to deliver agricultural produce of internationally acceptable quality. Minimal time differences between Africa and Europe, coupled with advanced logistical arrangements, mean that nearly fifty per cent of imports presently sent by air into the United Kingdom already comes from Sub Saharan Africa. Strong demand and currencies in Europe and the need by African economies to generate foreign earnings creates even more opportunities for future expansion of such trade. The apparent opportunity has also heralded the entry into the standards arena of private concerns such as European supermarkets. The private standards they employ are already proving to be problematic. In a fiercely competitive

environment, the resultant trading arrangements are currently heavily skewed against African suppliers. A further problem is that the African state infrastructure created specifically to address standards issues have little input into such private contractual arrangements.

In addressing the adoption of private sector standards by African countries, there are several needs and expectations. These include simplification of requirements, flexibility in their adoption, mutual agreement on realistic time frames for implementation, the provision of appropriate technical and financial support to prove compliance and finally an ongoing review of purchasing practices. Encouragement for change will not come from the market alone. If voluntary initiatives fail, a redress of the situation may eventually need some sort of inter–governmental strategy and agreement. Such an agreement, if required, could detail criteria for the future relationships between developed country buyers and developing country sellers together with an appropriate monitoring strategy. Although such a proposed solution clearly interferes with the principles of the free market, sometimes principled interventions are unavoidable.

A recent development that has the potential to negatively impact on African exports of fresh produce is environmentally–driven trade. The concept internationally is still far from maturity. Such global fluidity in understanding and interpretation is creating a variety of technical prescriptions. A further complication is that the many environmental initiatives required of African countries, from different foreign agents, create competing operational activities. One example is integrated pest management that promotes pesticide utilisation in a particular way versus organic farming that prohibits such usage. A lack of harmonisation of requirements creates significant problems and unnecessarily difficult choices for those African countries that have a significant portion of their export trade based on agricultural produce. Creating technical infrastructure in conditions of such fluidity is sure to waste scarce resources. Higher level international solutions therefore need to be assertively pursued.

### 5.6.4 Accreditation

Many developing countries are becoming increasingly aware of the trade facilitation benefits of concluding international mutual recognition arrangements especially with respect to the harmonisation of standards and mutual recognition of the competence of testing, inspection and certification activity. International recognition of domestic competence in conformity assessment can have a very positive impact on the ability of domestic firms to conduct international trade. Part of the strategy to realise closer economic integration within Africa should therefore concentrate on the creation of an appropriate and supportive accreditation infrastructure. Such work would support the initiatives in standards and metrology already mentioned.

The members of ARSO have acknowledged that REC projects for accreditation are succeeding where their previously mooted regional strategy has failed. This success does not negate the need for the RECs to share information and collaborate to achieve further, mutually strengthening objectives. Information sharing from the experiences of RECs, which have already begun work on technical capacity building project components, would offer a dramatic opportunity for short term progress on several fronts. Such an aim has been mooted on several occasions by the various African member states involved in accreditation. Donor funding was sourced and made available for such an activity. Unfortunately as already mentioned, a lack of capacity at the NEPAD secretariat has so far frustrated further efforts. Limited cooperative activity amongst national experts continues in spite of the perceived lack of organisation support from NEPAD. This bottom–up methodology can only, by its very nature, produce very limited results.

### 5.6.5 Conformity assessment

NEPAD has identified some of the underlying issues at a broad philosophical level regarding the availability of conformity assessment services for African countries. There is still, however, no commonly agreed direction regarding public administration responsibility for the provision or sharing of conformity

assessment and related technical infrastructure. There is an urgent need therefore to provide such leadership and direction under NEPAD. Substantial capacity is required to address the pressing need to prove conformity to international standards. A supportive activity is the promotion of the sustainable creation and maintenance of appropriate SQAM supportive technical infrastructure. The type and role of monitoring and governance processes required within Africa to ensure effective and ongoing implementation at both levels of activity have not been addressed in any significant way. One significant issue is how African states should migrate from the present donor driven creation of public service capacity and delivery in the area of conformity assessment. The ultimate goal should be to encourage suitable mix of public and private institutional capacity. A related aspect is the promotion of sustainable African private sector conformity assessment service provision.

## 5.7 THE FUTURE ROLE OF THE NEPAD IN THE CREATION OF SUSTAINABLE PUBLIC AND PRIVATE TECHNICAL INFRASTRUCTURE FOR TRADE FACILITATION

### 5.7.1 African trade strategy and coordination

As noted at the beginning of this thesis, the global exploitation of Africa began during the years of colonialism. The main thrust was to gain maximum benefit for the least possible cost or ongoing investment. Political fragmentation in Africa, coupled with the negative legacies of colonialism, continue to exacerbate an already desperate situation. African states generally have adjusted to life after colonial dependence with great difficulty. The majority have used policies of creating large state owned enterprises and substituting imports with local production. Previous research has found three, public administration relevant, characteristics related to Africa. The first is that African governments have relied on a strong and increasingly interventionist role for the state in their industrialisation strategies. The second is a tendency to maintain the inherited colonial administrative structures. The existence of highly politicised, largely unrepresentative civil services in most post colonial

African states is the third characteristic. These elements are also prevalent in African SQAM. The situation therefore calls for intervention if any progress is to be made in rectifying the unsatisfactory situation that now exists.

South Africa, in line with many African countries, has targeted certain government–led interventions as part of a broad strategy to foster economic growth and reduce unemployment. In spite of years of individual SQAM organisational development, South Africa is still not fully aware of all of the complex public administration problems in synergistically developing holistic SQAM technical capability and capacity. Once such problems are clearly identified, and more fully understood, novel remedies will be necessary to minimize any potential disruption of current capacity. It is crucial that such a project must significantly embrace local insights and expertise from a much wider group of participants. State intervention has been a key factor in economic development in many, if not all, developed countries. Similar interventions by developed states are also evident in conformity assessment and related technical infrastructure requirements.

Harmonised technical requirements contained in voluntary standards at the international level have an historical tendency to escalate incrementally. Minimum technical requirements appear to rise as soon as the capability to test and measure are available from, normally, a developed country source. As such, standards development exhibits a complex mixture of both incremental and “garbage can” approaches. The resultant decrease in actual risk due to the newer, and almost always tighter, specifications is not always readily apparent. On such fragile assumptions the prevailing global trade and technical support environment has been crafted. The developed world has found that, in spite of evident shortcomings, it still substantially serves their interests. The remedies for appropriate redress for African states cannot therefore be expected to be either simple or short term. They certainly cannot be found or successfully supported by African countries working in isolation from one another.

### 5.7.2 The role of African public administration

In attempting to describe public administration many authors (Simon, Smithburg & Thompson, 1950:3; White, 1955:2; Gladden, 1966:11; Pfiffner & Presthus, 1967:7; Fesler, 1980:15; Robbins, 1980:69; Henry, 1986:47; Hanekom & Thornhill, 1993:57; Cloete, 1994:57; Pauw, 1999:22; Haruna, 2004:204; Pesch, 2005:178; Goodsell, 2006:633) note that the subject is broad and paradoxical in nature. Given its wide area of responsibility, public administration also strives to work across academic disciplines. Such inclusivity suggests that trade facilitation activities can safely be included within its mandate. Is there a role therefore for African public administration in support of the various national, sub regional and regional trade promoting policies and imperatives? It is normally the African public administrator who has to ensure that government commitments made at such bodies as the WTO are actually carried out. Another reason for including African trade related issues under the purview of public administration is that the subject and science aim at being practical. Public administration is also one of the few social sciences that explicitly tries to be prescriptive. Directivity in the area of African trade capacitation is urgently needed.

There is no doubt that economists have played an important role in assisting public administration. Their work is evidenced in efforts to quantify and predict external conditions by providing relevant forecasts. Their research also assists in the appropriate allocation of resources in support of a particular area of activity or policy. Research has identified that many economists have serious reservations regarding the ability of officials in developing countries to manage complex trade policies. Mutual support and encouragement are needed to unlock new areas for collaboration rather than competing for academic and professional supremacy. Africa certainly cannot afford the luxury of such competition. It is evident that, at the global level, the work of economists continues to play an important role in such organisations as the World Bank and the IMF. This has created universal expectations, identified in neo–liberal policy prescriptions for states to follow in pursuit of enhanced global relevance. The reduction of trade barriers, widespread

privatisation, and deregulation are common elements of such prescriptions. Without an apposite public administrative counterbalance based on appropriate theory, trade liberalisation and related donor activity will continue to rely solely on economics for direction. The “one size fits all” prescriptions inherent in previous SAPs are but an example. The need for specialist public officials who can transcend previous theoretical boundaries is evident. The need for a clearly identified public administrative methodology to address such a gap is also highlighted.

SQAM interventions in Africa are at present short term in focus and founded on market based solutions by default. History has shown that no–one else will easily step forward to assist Africa unless specifically tasked and funded to do so. The responsibility for any progress that is directed towards benefiting Africa must therefore fall squarely on the shoulders of the various African governments. The need for professional and academic public administration support is unfortunately not always obvious when trade facilitation needs are translated into programatic solutions. There is an urgent need therefore for NEPAD or its RECs to seek locally researched public administration solutions for the needs of African countries in the context of the present study.

### 5.7.3 An African approach to technical infrastructure capacity and capability

NEPAD presents a new opportunity for cooperative, continental activity aimed at addressing the SQAM technical infrastructure capability and capacity issues required to successfully overcome TBTs. It could also be used as a vehicle to identify appropriate roles in SQAM implementation and delivery by both the public and private sector. The insights of both public and private organisations involved in SQAM provision would also add a new richness to future strategies. These new insights would be invaluable in allocating tasks as part of future planning and implementation processes. Such understanding is important. Once an activity has begun under the management philosophy of either sector, it is normally difficult to move it to the other unless carefully considered from the outset. Whether this would only be an issue where an

activity is initiated in the public sector with the idea that it would eventually move to the private sector is difficult to predict. Transfers in the other direction are rare under the prevailing neo–liberal sentiments but have occurred in SQAM in Africa. A well considered process of transfer, rather than abdication, of roles and responsibility at a future point in time is what is ultimately required independent of the original source or intended recipient.

Given the enormity of building sustainable technical infrastructure to address the needs of the region, the use of the existing RECs is definitely more sensible. Such a strategy allows a network to be created that could then be coordinated at the NEPAD level. A better use, in the area of SQAM is for the structures of AU and NEPAD, initially at least, to formulate regional views on technical issues. NEPAD could also be used to coordinate activities among the various RECs in technical infrastructure capacity building to ensure that maximum use is made of the knowledge available. The many differences among the member states of NEPAD should be considered a strength. Potential technical remedies will have to stand the test of being effective in some, or preferably all, of the various environments that Africa represents.

### 5.7.4 A representative African voice for SQAM

The current rules of international engagement regarding trade have been created over a long period of time by very powerful, developed nations. These nations are naturally reluctant to change. Is there a role that NEPAD can play within the International Community on behalf of Africa? If so, what should that role be? A coordinated African voice would certainly unearth many, perhaps currently hidden, problems. It is recognised that developed countries give little to developing ones as far as tangible aid is concerned. What is even more alarming is their continuing discrimination against those industries, and notably agriculture, that offer the best chance for Africa to earn export income. With this in mind, might a better approach be to try to offer arguments in appropriate international organisations as part of a coordinated African voice? Difficulties obviously exist. It should be realised from the outset that solutions will need to be aggressively and continually sought.

Subjecting Afro centric policies to wider scrutiny on the journey to international SQAM related harmonisation can be expected to be problematic. Caution is required, especially if those tasked to seek appropriate accommodation, as is often the case in reaching consensus within supra–territorial organizations, are not well informed of the background of such policies. The need for insight into the potential impacts of the various options proffered during such negotiations is another problem. Unintended consequences that surface post agreement are an ever present possibility in such scenarios.

Moving to the need for international and cooperative interventions, the study has found that African countries have clear international responsibilities that can no longer just be ignored. As parties to international conventions and treaties, they need to intelligently participate in the creation and application of international trade and environment related, technical regulations and standards. Such participation should not be seen as a duty of membership but as part of a strategy to encourage appropriate global change. Active participation involves the strengthening of the various country missions at, for instance, the WTO in Geneva with suitable trade/environmental expertise. An initial and cost effective step could be to promote increased collaboration between the African missions and experts with the view to gaining appropriate synergies in future international interventions.

There needs therefore to be a coordinated and continuous African presence and voice where possible at organisations such as the WTO and the OECD that make such rules. Successful participation at organisations such as the WTO requires officials possessing a variety of specialised competencies interacting with a range of national and regional institutions. Similar representation at the technical global counterparts such as the International Organization for Standardization (ISO), the *Bureau International Poids et Measures* (BIPM), the International Organization of Legal Metrology (OIML), the International Laboratory Accreditation Cooperation (ILAC) and the International Accreditation Forum (IAF) are also essential if Africa is serious about actively contributing to the international evolution of SQAM rather than

remaining a victim of the various often uncoordinated outcomes of such deliberations.

Experience gained during the proposed knowledge building and sharing process led by NEPAD should lead to a larger international role. It would firmly establish NEPAD as a trusted voice for Africa in various multinational forums dealing with technical infrastructure related issues, all of which underpins the initial need for coordinating national industrial, agricultural, environmental and overarching trade strategies, policies and implementation activities in seeking a coherent and representative national viewpoint. The accumulated intelligence gathered in such an exercise should be used first in regional trade–enhancing interactions. The results of such interventions could then be appropriately used later in the various international trade related negotiations that shape the prevailing global landscape. Representation at the international level would have to be guided by any need to build ongoing and appropriate national and regional SQAM capacity. Capacity building would need at least two separate thrusts. The first thrust must focus on well informed, skilled and coordinated representation at the relevant international SQAM organisations. The second focus is the underpinning research and ongoing communication between African member states required to support such SQAM representation.

An interesting but critical by–product of the present day form of globalisation is the emergence of a private sector elite who are specifically tasked to influence public policy and administrative decisions. One important reason for the existence of such specialists is the worth to commercial organisations of getting a word change to, or exception inserted in to, regulations and standards. Another reason why large private sector MNCs, headquartered predominantly in developed countries, have identified the need for these specialists is that governments are increasingly guided at the national level by decisions made at the regional and international level. African states should seriously consider the need for similar expertise in order to better engage with sophisticated, predominantly developed market, technical requirements.

### 5.7.5 Partnerships with donors and sources of SQAM expertise

The sophisticated technical support infrastructure required to prove TBT and SPS compliance is present in most, if not all, developed countries. These are normally the destination for the bulk of African exports. African countries are, in the main, only now realising the need for such capacity and capability. A special clause has been introduced in both the TBT and SPS agreements to suggest that industrialised countries should provide standards and conformity assessment related technical assistance when requested to do so. The results of such assistance have so far been variable, providing little by way of best practices for future interventions. An indispensable factor for the success of NEPAD, that warrants reiteration, is the role and promotion of partnerships between Africa and the wealthy developed countries. Partnerships like these would obviously have to be based on a common understanding of the problems and a shared commitment to find solutions based on transparency and accountability. The creation of such an environment needs focused application. South Africa's previous antagonistic relationship with many African states, accruing from past nationalist agendas, still needs to be carefully managed and any residual suspicions sensitively resolved.

Specialised technical agencies in African states represent an indispensable repository of specific knowledge, experience, wisdom, and current consensus on where the public interest lies in their given domains. With regard to SQAM in Africa, the South African specialist agencies involved are no different. Only two African states (South Africa and to some extent Egypt) have fully separated the standards, metrology and accreditation functions as envisaged by the NEPAD strategy for SQAM. Such a separation, imitating European practice, is impossible to replicate in many African states. The regional provision of such capacity is mooted by NEPAD and a regional accreditation service for instance has recently been established in one of the NEPAD RECs, SADC. This initiative is currently funded by both South African and Norwegian funding until some measure of cost recovery has been achieved. The lessons learnt from the South African and SADC initiatives in the area of technical support structure capacitation need to be investigated at a far deeper level if guidance and pointers for future work are to be extracted.

There is a large amount of fragmented donor activity in Africa that focuses on technical infrastructural strengthening and capacity building. A sad fact is that donors probably know more about the area of SQAM in Africa than the African SQAM experts themselves. South Africa is the only country in Africa currently that has fully developed the sophisticated infrastructure required to prove equivalence of conformity assessment activities, and its experience could provide valuable lessons for others. It has been demonstrated repeatedly that technical infrastructure capacity building and strengthening projects are not short term remedies. They also require large amounts of ongoing capital and operational funding. Obviously the successful elements of the South African experience cannot just be transplanted “as is” into SADC, let alone into the rest of the continent. What works and what does not will be context–dependent. Such a contextual sensitisation will obviously take time, a commodity that is normally not in abundant supply. The opportunities for significant gains in effectiveness and efficiency in SQAM capacitation projects when coupled to such insight makes such an investment both important and urgent.

The conditions confronting the majority of, if not all, African states are similar. This commonality leads to the logical conclusion that technical trade supporting infrastructure issues should become a public administration led task under the auspices of NEPAD. Adopting a public goods approach in such an important underpinning activity for advancing trade facilitation may be one of the most effective ways to enhance African competitiveness in the developing world. Developing a deeper culture of African collaboration can assist in achieving dramatic improvements in current SQAM theory and practice while allowing the testing of new possibilities, all of which would promote a better understanding of both SQAM in Africa and the role of African public administration in its execution.

## 5.8 CHAPTER SUMMARY

Work in the context of African SQAM technical infrastructure cannot simply be focused on maintaining the present, mainly Western nation led, status quo. African states need strong leadership and funding support as they cooperatively investigate new SQAM related options for international participation. Finding such new options using appropriate regulation and market led initiatives and utilising the latest technology and logistic capabilities is required. The goal is to create more appropriate African SQAM alternatives which can be promoted as technically equivalent internationally. Such opportunities should be investigated at both regional and international level with the aim of modifying existent SQAM supportive rules in order to gain new advantages. If Africa is absent from such global debate and consensus building, it can only be to the detriment of the region.

Many African countries require national government SQAM interventions aimed at achieving the above outcomes. The need for appropriate, sustained and coordinated inter African governmental relations to achieve this important objective is self–evident. Owing to the enormity of the task, such SQAM related activity should take place at differing levels of intensity at both the REC and NEPAD / AU continental level. Appropriate funding, mandates and representation is vital if any significant improvement is to be made in the area of SQAM in Africa.

There is a phenomenon called market failure, which occurs when goods and services that are required by a community cannot be produced on an individual payment basis. This is the case as far as supportive technical infrastructure in almost all of Africa. Even South Africa, which is already well advanced even compared to developed countries, has significant problems in this regard. Outside South Africa, strengthening conformity assessment activity relies mainly on funding the normally under developed infrastructure of the various national bureaus of standards based on their identified country needs. Private sector development of conformity assessment bodies, if considered at all, is largely seen as unrelated and even unwelcome. This

leads to the creation of specialised public capacity that ultimately impedes the creation of a sustainable private sector in this area while also actively discouraging any chance of growth.

African countries cannot afford to just continue to argue about the fairness of the international trading system. Africa also has little choice but to develop and implement specific strategies including a functioning and appropriately harmonised regional technical regulatory framework, and to develop the institutional capacity in the technical regulatory, standards, metrology and accreditation domain to make it work. The voluntary domain will also benefit greatly from such a process. Both public and private purchasers of conformity assessment services would, consequently, be provided with a transparent mechanism for recognising the technical competence of service providers. Given the resultant increase in confidence, they could then be expected to make more use of these independently verified service providers.

# CHAPTER 6

## Research findings, recommendations and conclusion

### 6.1 INTRODUCTION

In order to address the many and varied problems that still face African economies it is now generally accepted that they need greater access to international markets. Such access, according to many, would allow them to grow their economies in a sustainable way through trade, with a resultant reduction in the prevailing dependence on aid. When reviewing the various development strategies previously used in Africa, it is important to note that these were generated within a specific context, based on certain underlying assumptions. Such contextual background would appear to have now been largely, and perhaps intentionally, ignored in the present global clamour to harmonise rules for lowering of tariffs and opening the African market.

It has been established that there is a growing international appreciation that the operation of efficient markets is much more complex than was originally envisaged. In the African context, market failures are also an ever present dilemma. There is little wonder therefore that countries in Africa no longer trust the strategy, promulgated by others, to open their markets and let free market principles teach them how to compete globally. It is therefore essential that the areas where Africa is strong and can compete internationally are identified. If African governments are sincere about creating an enabling environment for export led growth, it is obvious that well considered, appropriately timed and funded public administration led interventions are now required. African states would need to make appropriately focused, substantial and ongoing investments in their SQAM related public infrastructure, that in some cases already partially exists, in order to substantively address growing domestic and foreign quality assurance requirements. Increasingly direct foreign and local investment in technical manufacturing capacity is predicated for instance on issues such as the availability of a sound conformity assessment infrastructure. To be globally

competitive, African based manufacturers and suppliers of fresh produce will increasingly need cost effective solutions to enable them to prove their compliance locally with stricter international technical requirements.

The majority of countries in Africa still operate under the public administration systems inherited from former colonial powers. These systems were never intended to encourage and underpin strategies aimed at promoting trade–related domestic growth. As previously mentioned, much of the colonial infrastructure was created to facilitate export of raw material as inputs to for further processing in the 'mother country'. It is certain that environmental issues and other such relatively recent sophistications were not considered during the formulation of any of the existing legislation currently used in the formal colonies in Africa. Complex and interlinking TBT, SPS and SQAM related activities need to be managed by African states alongside increasing global demands for the rationalisation of the public services they provide.

Individual African states have major, and often unfulfilled, responsibilities for the sustainable implementation of several important activities related to trade facilitation. These include the need to organise national economic strategy that considers the need for actions required to protect and grow strategic domestic industry. The multiplicity of demands and remedies involved in addressing market liberalisation, including the related conformity assessment needs, requires consideration, intelligent policy creation and strongly led national coordination and implementation. Such demands must obviously be addressed in appropriate detail in national and regional policy regarding technical support infrastructure. If governance mechanisms that are also increasingly required of Africa are added to properly coordinated and updated implementation activities, the sophistication required of public officials even at national level can be more fully appreciated. The specialisation and deployment of public officials for the ever sophisticated tasks they are called on to execute is also problematic.

A further problem is continuously changing technical requirements. These have steadily tightened as understanding and capability has grown in

developed countries. The minimum technical requirements rise incrementally as soon as the associated technical capability to test and measure are available. The intended decrease in actual health or safety risk due to the tighter specifications is however not always readily apparent. It is recognised that the prevailing global trade and technical support environment has been carefully crafted, over a time period, to substantially serve the purposes of developed countries. Current evidence suggests that ever increasing demands for improved conformity assessment by the global environment, and the associated upgrading of technical infrastructure, will surely follow technological advances. The expansion of African manufacturing and agro processing capacity will therefore require continual upgrading and appropriate expansion of the domestic SQAM related technical infrastructure to ensure that it remains relevant.

The slide into African marginalisation in SQAM can be prevented with decisive and well planned interventions based on a common approach to these pressingly difficult issues. A related activity is the need to determine a cost effective Afro centric solution in satisfying the different, apparently conflicting and intractable, philosophies that are applicable to the United States and European marketplaces. A logical supportive step is to investigate the type of interventions that are required to move such identified activity past mere compliance to foreign specifications towards appropriate global competitiveness. If individual African countries cannot afford to create and maintain appropriate national SQAM infrastructure, they need to find creative ways to investigate, fund and share such scarce technical resources for the benefit of the whole region.

Public administration, it has been noted, is still primarily a national undertaking. Public administration is also known for its propensity for prescription. As will be shown, in the recommendations that follow, such directivity in the area of African trade capacitation is both appropriate and urgently required. There is much therefore to commend the inclusion of African trade–related technical capacitation issues under the purview of public administration. In many important trade–related interventions, African public

administrators are already required by default to assume much of the responsibility. One of these responsibilities is to ensure that their government commitments, made at such bodies as the WTO, receive appropriate national attention. There is also an ongoing need to ensure that national positions on issues that are important for African trade are formulated, agreed and presented. Such positions could then be utilised in negotiations leading to regional and international trade–related agreements. An authoritative and cohesive African voice at organisations that make SQAM related rules is also required. Stable and ongoing representation is essential if Africans want to be taken seriously and actively contribute to the emerging processes of internationally acceptable SQAM.

This research has identified several areas of opportunity, that are identified in the recommendations that follow in the next section, where appropriate initiatives under NEPAD could identify areas requiring more collaborative public policy initiatives and joint stewardship of shared resources and also where skilled public administrators could provide the impartial leadership and sustained drive required to address this major shortcoming resulting in new and innovative solutions rather than more of the very limited and reactive results that are currently experienced.

## 6.2 RECOMMENDATIONS

The fourteen recommendations emanating from the research are now presented in a logical sequence. The first group of recommendations (1,2, 3, 4 and 5) cover the research, including the need to expand previous SQAM type interventions, and collaborative efforts required to obtain an in depth and suitably shared appreciation of the SQAM related challenges. Recommendations 6 and 7 address the need for and strategic use of harmonised public policy in driving industrialisation, agriculture and trade while protecting the environment and the need to enlist the combined strengths of African public administration academia and the region's public and private sector. The next group of recommendations (8, 9, 10, 11 and 12) cover SQAM infrastructure capacitation and sustainable implementation

activities. The last two recommendations, 13 and 14, concentrate on the need to facilitate common African SQAM tactics and opinions and ensure that these are used for Africa's benefit at the international SQAM level.

Recommendations 1 and 2 that follow, address the need to expedite a shared understanding between and across all levels of SQAM, at both national Government and REC level, of both the immediate technical challenges and the current state of play in addressing these. This would also facilitate the identification of areas of commonality and provide an initial and important baseline for determining future prioritization of NEPAD led strategy and REC related action.

**Recommendation 1:**

**It is recommended that NEPAD determines the common African state TBT, SPS and SQAM specific challenges created by their commitments as members of the World Trade Organization.** African countries have international responsibilities that require appropriate attention. They need to intelligently participate in the creation and application of international trade and associated environmental regulations and standards if they want to exert influence for Africa's benefit. The present rules for global engagement in trade have been created over a long period of time by powerful, developed nations. Africans need to be actively involved in reshaping global rules for their own benefit. Such involvement is predicated on a deep understanding of their own technical requirements together with the potential impacts of related demands coming from outside the continent. NEPAD could therefore play a leading role regarding the identification of commonly faced TBT, SPS and SQAM related matters. The results flowing from such interlinked interventions could be subsequently utilised in collaborative efforts at the various international negotiations that form the current global landscape. Once identified, a subsequent initiative under NEPAD could also address the need and focus for African countries to share the burden involved in creating and maintaining specialised SQAM capacity in all of its many facets which is discussed in the next recommendation.

**Recommendation 2:**

**It is recommended that NEPAD identifies and codifies the activities in SQAM–related technical capacity building that occurs in individual African states, as well as within and across the NEPAD RECs.** There is a noticeable increase and relatively recent focus on SQAM technical infrastructural strengthening and capacity building. Even though foreign donors often appear to know more about the SQAM creation and strengthening projects in Africa than Africans themselves, this does not prevent the continuation of fragmented and uncoordinated SQAM related activity. It is been highlighted that the few major donor funded projects in this area were written against strict and measurable objectives that needed to be achieved within very tight time constraints. The extensive use of foreign based experts was also noted. Their efforts were largely focused on training interventions that sought to explain the technical requirements of the foreign market involved. Such interventions do not create the environment required to encourage a deep assimilation of the inherent subtleties, or even what forces shaped the evolution, of the foreign SQAM scenario being addressed. The formulation of intelligent, affordable and locally relevant, SQAM alternatives has not yet been considered in any meaningful way. An immediate and cost effective role for NEPAD could therefore be to identify the many current activities in technical capacity building that are taking place in both African states and across its RECs. This would provide an excellent foundation to determine where cross REC fertilization could yield faster results accruing from the inherent synergies obtained from national and REC projects working towards and achieving continental outcomes.

Given the recent promulgation of new SQAM institutional legislation in South Africa, Recommendation 3 is formulated to add to the data collected under recommendations 1 and 2 by identifying the missing public administration related issues that would assist African SQAM, using the third generation public administration analytical research approach , as identified by Brynard on page 43.

**Recommendation 3:**

**It is recommended that a follow–up SQAM project be undertaken by South Africa, utilising experts in public administration, which focuses on the present outcomes and future direction of domestic SQAM policy and public interventions including an appropriate holistic governance methodology.** The research has found that extensive capacitation work has already been done in the South African SQAM environment. A comprehensive and holistic implementation plan focused on bringing the various elements together, as envisaged in present NEPAD documentation, is a logical next step. Such a plan should guide domestic public and private conformity assessment organisations in creating sustainable infrastructure in support of government objectives. These may initially focus on export led growth as well as industry driven demands for local technical capacity building and strengthening. The lessons learned during such an intervention could provide valuable information to the rest of the region given suitable mechanisms to facilitate such an information exchange. In the context of the subject under discussion, this would involve not only defining an initial and ongoing public administration contribution but also creating the necessary conditions for attracting, engaging and ultimately leading and cooperating with the private sector and other important stakeholders.

Regulatory harmonisation is identified by NEPAD as a strategic intervention. This research has identified the many and inherent foundational public administration related complexities involved in such a task in the African context. The prior work of Recommendation 4 is considered to be fundamental in motivating the scope and depth of such a NEPAD led project.

**Recommendation 4:**

**It is recommended that NEPAD initiates a project to investigate the trade benefits flowing from appropriate continental regulatory policy harmonisation in the areas of industrialisation, agriculture, trade and the environment together with associated SQAM–related technical**

**infrastructure needs.** This recommendation acknowledges the need for each African country to fundamentally reassess their trade supportive industrial, agricultural and environmental strategies together with associated legislation and policies. Together these strategies and policies create a vital foundation to guide wider African SQAM infrastructural needs. There is also a need to determine whether the ultimate objective is the protection of human and animal health and safety normally addressed by mandatory compliance with technical regulations or environmental concerns and/or trade–related issues that are usually addressed in voluntary standards. Such insights are required as any policy related foundation must be fit for the intended outcomes now envisaged under NEPAD. A NEPAD coordinated member state policy and legislative reassessment is also timely when one considers that much effort and donor funding, encouraged by the WTO, is currently focused on trying to create sustainable technical infrastructure, including SQAM, in African countries. Africa therefore has little choice but to investigate the development and associated implementation issues regarding the presence, or continued absence, of an overarching regional technical regulation framework. With the focus provided by the outcome of this recommendation, present and future SQAM related activity could be appropriately broadened to include self–generated and managed Afro centric trade facilitation policies that also address the vital elements of sustainability and environmental protection.

Recommendation 5 acknowledges the inherent differences that the research has identified in the often adversarial approaches used in trade negotiation and that although some inherent suspicions exist between African SQAM organizations, a more collegial environment in the more technical SQAM activities is the norm. Initiatives under NEPAD could assist in showing those involved in both areas that there is a much larger, more insidious threat from outside the region that needs their collaborative involvement as partners in the collective response.

**Recommendation 5:**

**It is recommended that NEPAD actively assists in the encouragement of closer collaboration between African national and REC based trade facilitation, trade negotiation and SQAM specialists in order to promote a climate of shared learning.** As is also the case elsewhere, public service reform is normally complicated by the fact that public service officials are involved both as the agents and objects of any change. In the specific area of technical infrastructure and public funded NSBs these complications are also present. The current levels of operational autonomy enjoyed, due to the technicality of the subject, by some public SQAM organisations in Africa has unfortunately led to some less than optimal, self–serving, outcomes. Having such experts working cooperatively could go a long way in identifying and even modifying such practices. The NEPAD vehicle presents a perfect opportunity for cooperative, continental activity aimed at addressing the human and technical infrastructure capability and capacity issues required to successfully overcome TBTs. The NEPAD framework could also be used to identify appropriate current and future roles in technical service implementation and delivery by both the public and private sector. It is therefore suggested that much closer cooperation between African SQAM professionals in each country, with designated responsibility in this area, should be actively encouraged.

The next recommendation addresses the fact that to date the highly technical subject of African SQAM has been left to experts that reside predominantly in the various African NSBs. Their impartiality is questioned by this research as is their understanding and insight of the holistic public administration related environment within which they need to operate if constructive change is to occur. This recommendation aims at bringing new and much needed perspectives to the area of SQAM in Africa.

**Recommendation 6:**

**It is recommended that NEPAD encourages the involvement of African public administration academics in the various trade related SQAM infrastructure initiatives under its purview.** This recommendation notes the predominant influence that economists exert on the work of global trade related organisations and is an extension of recommendation 3. Such work predicated the current global embrace of so–called neo–liberal policies that are almost compulsory for any state wanting external assistance, including SQAM, to remain globally pertinent. The research has identified that many economists have serious reservations regarding the ability of developing country officials in managing complex trade policies. Without an apposite public administrative counterbalance supported by underpinning public administration theory, trade liberalisation and related donor activity will continue to lean heavily on prevailing economic theory. The prescriptions inherent in previous SAPs are just one such example. There is a need therefore for NEPAD to actively include experts in African Public Administration as equal partners in finding appropriate and sustainable solutions to SQAM issues. Significant funding and focus is still required to address the pressing issue of proving conformity to international standards in Africa. The initial focus should concentrate on identifying what is appropriate and sustainable as far as SQAM–related technical infrastructure for Africa is concerned. An important issue is how African states plan a sustainable migration from extensive donor or public sector to private sector SQAM related service capacity and delivery. Market forces in Africa have proved to be incapable of encouraging an appropriate mix of public and private SQAM and related conformity assessment capacity on their own.

Another priority is the determination of more cost effective ways to cooperatively benefit from existing African public infrastructure, wherever located, to support African exporters. A major difficulty faced by all involved in such projects is that one cannot just stop or withdraw from existent realities to focus solely on the implementation of a more

appropriate alternative. Astute leadership is required to maintain the capabilities created by the current dispensation while simultaneously working towards achieving the benefits of the desired alternative. It is vital therefore that NEPAD REC member states cooperatively investigate inter and intra REC solutions for their technical infrastructure needs, especially in the area of conformity assessment.

The following recommendation is related to the previous one and together they are intended to bring new, much needed, perspectives to the current work in SQAM and its future. Recommendation 7 also recognizes the pre eminence of economic theory that is currently used to motivate the need for creating and maintaining African SQAM infrastructure. This coupled with the use of private sector and external technical expertise in SQAM wide consultancies is identified as problematic to any significant future solutions in African SQAM.

**Recommendation 7:**

**It is recommended that NEPAD encourages Afro centrist, public administration based research to address sustainable SQAM technical infrastructure issues.** Internationally managed SQAM capacitation interventions in Africa are short term in focus and are currently, by default, based on market based solutions. Complex public administration problems in developing an African technical capability and capacity will require new, extraordinary solutions. It is also crucial that SQAM related projects for Africa should significantly embrace local needs and expertise. Increased collaboration between the local academic community and public officials needs to be actively encouraged by NEPAD. It is suggested that there is an immediate requirement for a cadre of specialist African public officials whose knowledge and experience transcend the narrow academic specializations of economics and public administration. Such a reality in the African context should lead to mutual support and encouragement in unlocking new areas for collaboration between these two academic disciplines rather than competing for academic and professional supremacy. Africa certainly

cannot afford the luxury of such competition unless it rapidly leads to very different and implementable solutions in the short term. Developing a deeper culture of African collaboration can assist in making dramatic improvements to current theory and practice while allowing for the testing of new possibilities. This would promote a better understanding of both African SQAM and the role of African public administration in its execution. There is an urgent need therefore for NEPAD or its RECs to seek local, publicly led, research aimed at identifying the appropriate mix of public and private sector delivered SQAM solutions for the needs of African countries in the context of the present study.

Recommendations 8 and 9 are based on the requirement for care in the organisational positioning of the very few highly trained, and sought after, regional SQAM officials that already exist. The research has found that such care is required to appropriately temper, and remove inappropriate bias in, their specialist–value–laden recommendations. There should be adequate recognition, in such a positioning exercise, of the tendency for such experts, when working in isolation, to exert incredible national influence that the research has found to  detrimental in some instances in the longer term. The need to expand and maintain this group is also covered for completeness in recommendation 9.

**Recommendation 8:**

**It is recommended that NEPAD investigates the need for, and deployment of, a specialised cadre of African, SQAM knowledgeable, public servants.** A leading role for African public administrators has been identified by this research. They need to take the lead in the implementation of SQAM policy and appropriate technical infrastructural capacitation. This is a responsibility that includes the initiatives required to promote trade and trade–related industrialisation. An important initial task for such officials is appropriate self–capacitation. The need to gain deep insights into the many relevant disciplines that are involved, and how they synergistically interact and support one another, cannot be underestimated. Such specialists are needed to perform a leading role in

managing the implementation of vital and sustainable SQAM–related projects. Although such activity has historically begun at the national level, the need to support REC and NEPAD SQAM–related complexities cannot be overlooked. The insights provided by such individuals could then be used to ensure that the desired SQAM policies are translated into successful and sustainable interventions achieving the intended outcomes.

Another major problem in the prevailing, donor funded, African SQAM capacity context is that superficially changing procedures is much easier than substantive public organisational alterations. Sending inappropriate, often senior, public officials for expensive foreign technical training also occurs far too frequently.

**Recommendation 9:**

**It is recommended that NEPAD investigate the creation of suitable policies and mechanisms to aid the recruitment and retention of specialist SQAM–relevant technical staff at the national, REC and NEPAD level.** A critical issue in Africa management of technical capacitation projects is that the occur in an African public sector context characterised by high public sector staff churn. The propensity to compensate by utilising public funding to source services from the private sector, who use higher paid specialists, does nothing to alleviate the problem. Public funding, dispensed through prescriptive governance related policies, effectively results in higher salaries for specialised skills outside the public service. The short term, project related, need appears to then be effectively addressed. The longer term problem, that of retaining and rewarding specialists in the public service, however remains which may be to the detriment of pursuing long term, public sector led, SQAM solutions. The recruitment and appropriate tenure of suitably skilled and experienced senior public officials who are adequately remunerated is vital. These experts should be required to manage the training of and personally mentor other more junior public officials in order to create sustainable public human resources.

Recommendation 10 recognizes that an important element, lacking in South African SQAM, is an overarching national and or regional strategy and mechanism to mitigate any self–serving "silo" effects that have historically been prevalent at both the local NSB and to some extent the metrology institute. Their short term and self serving behaviours are unfortunately mirrored in many of the other NSBs in the region for similar reasons and will continue to stifle progress unless addressed.

**Recommendation 10:**

**It is recommended that NEPAD review the future role of African national standards bodies, especially as the de facto custodians of African SQAM technical infrastructure creation and maintenance.** The state's pivotal administrative role in creating and maintaining supportive technical infrastructure, as discussed in the current study, is still largely ignored in the literary sources consulted. It can be expected that, over time, some African technical support organisations may have unwittingly lost their claim for operating in the public interest. The role of publicly funded conformity assessment activities within Africa is particularly relevant. The negative impact of self–survival strategies by African public organisations offering competitive solutions therefore needs to be adequately addressed and suitably limited. The uncertainty of government support, compounded by private sector based management experiments in search of additional income, has already led to some unintended outcomes in the context of African SQAM. The majority of African states continue to rely on National Standards Bodies to address their technical infrastructure and trade–related conformity assessment needs and strategies. Such a gap needs to be urgently addressed as part of the need to determine if there is a better way to use public infrastructure to support African exporters. The competitive nature that has developed in some of the existing African NSBs is an important point that requires further consideration. Additional work would be also necessary to assess the need for complimentary institutional capacity in the technical regulatory, standards, metrology and accreditation domain.

Recommendation 11 emanates from the finding that the specialised SQAM related technical agencies in African states can provide an indispensable repository of specific knowledge, experience, wisdom in their given domains which can greatly expedite projects in their own countries or in neighbouring states if they are actively involved in the work rather than being used a limited source of information by others external to the region.

**Recommendation 11:**

**It is recommended that NEPAD encourages donors to fully utilise and strengthen African SQAM–related expertise and capacity as part of present and future technical capacitation interventions.** An indispensable factor for the success of NEPAD, according to this research, is the role and promotion of partnerships between Africa and the wealthy developed countries. Although sometimes considered a politically sensitive topic, it might also be useful to stress the need for appropriate utilisation of the specialised SQAM resources and knowledge available in South Africa. The SQAM specialist technical agencies in South Africa are the result of a substantial and long term government investment. South Africa is currently the only country in Africa that has fully developed the sophisticated SQAM infrastructure envisaged by the NEPAD strategy. South Africa is also alone in Africa in having obtained the necessary wide ranging international recognition required for full utilisation of the same infrastructure. South Africa's experience in domestic SQAM can therefore provide valuable insights. Such cooperation would obviously have to be based on a common understanding of the problems and a shared commitment to find outcome based solutions in an atmosphere of transparency and shared accountability. The creation of such an environment will need hard and continuous work given South Africa's sometimes difficult past relationship with many African states. Regional provision of such facilities is also mooted by NEPAD. The recent establishment of a regional accreditation service in SADC, funded and driven initially by South Africa, is also an exciting development that could and should provide valuable guidance for the rest of Africa.

The next recommendation emanates from the need identified by the research for suitable public sector and SQAM focused measurands to focus SQAM institutional capacity building efforts to service the more predictable and stable regulatory requirements while simultaneously addressing generic technical needs that can also underpin the more volatile voluntary sector.

**Recommendation 12:**

**It is recommended that NEPAD create a SQAM monitoring and reporting mechanism to ensure that appropriate momentum is being maintained at the REC level.** NEPAD led interventions should be designed to ensure that African experts in the SQAM organisations continuously receive guidance based on relevant political principles. Given that national SQAM organisations also frequently interact with other government departments on an individual basis, any intervention should also allow appropriate specialist technical assistance to be sought from these sources when necessary. The need for the creation and maintenance of a suitable cooperative and collaborative environment for shared learning in SQAM amongst public officials at both national and regional level has been noted previously. Suitable mechanisms need to be created that allow the individual elements of SQAM and the group has a whole to interact as necessary. The holistic NEPAD SQAM milestone outcomes from such an activity need to be recorded and monitored to ensure that appropriate progress is made in assisting technical regulatory initiatives but utilising synergies that would underpin the voluntary standards sector customers of African SQAM.

The final recommendations, 13 and 14, consider that an important global trend found by the research is that regional organisations for accreditation and metrology are now providing the necessary linkages and decision making input between emerging regional trade blocs and the relevant international SQAM bodies. Although REC based, SADCMET and SADCA already provide this role for the whole of Africa. This fact has expedited the creation of the NEPAD related metrology body, AFRIMETS. Interestingly this trend is not found in either of the two international standards bodies, ISO and IEC, where African NSBs are

individual members and the NEPAD standards coordinating vehicle, ARSO is still suffering from lack of direction in spite of its much longer existence in various forms.

**Recommendation 13:**

**It is recommended that NEPAD facilitates the creation of common African TBT, SPS and SQAM specific opinions for use in appropriate international organisations.** There is a need for African States, under the NEPAD umbrella, to coordinate intelligent and continuous participation in the creation and application of international, trade–related, technical regulations and standards. Such participation is an important component of any holistic domestic and regional strategy for trade facilitation and should not be seen as a duty of membership but as part of a strategy to force suitable, Afro friendly change. Experiences gained during the proposed NEPAD driven African knowledge building and sharing processes should lead to a larger international role for NEPAD as a trusted advocate for Africa. Active participation involves the strengthening of the various country missions at, for instance, the WTO in Geneva with suitable trade/environmental expertise. These findings highlight the immediate need for pre–meeting preparation and consultation prior to WTO meetings. Funding is not such an issue here but obviously there is a need for better coordination by NEPAD. Such activities need to occur both within country by suitable trained public officials, and through networking with their African peers in supporting agreed NEPAD objectives. An initial and cost–effective step could be to promote increased collaboration between the African foreign based missions tasked with representation at international organisations such as WTO, which should aim at establishing and maintaining appropriate SQAM synergies in future international interventions on behalf of NEPAD. The results of such interventions could then aptly be used in the other various international negotiations that shape the prevailing global SQAM landscape.

**Recommendation 14:**

**It is recommended that NEPAD initiates a suitable and sustainable mechanism for creating a representative voice for African SQAM–related issues at the international level.** Subjecting Afro centric, and Afro centrist, technical policies and standards with supportive arguments to wider scrutiny on the journey to international SQAM related harmonisation can be expected to be problematic. Caution is required, especially if those tasked to seek appropriate accommodation, as is often the case in reaching consensus within supra–territorial organizations, are not well informed of the background of such policies. The need for deeper insight into the various technically based alternatives, that can easily confront African trade representatives during international trade negotiations, is another problem.

A coordinated African voice, and appropriate ongoing presence, at organisations such as the WTO and OECD is obvious. Successful participation at organisations such as these requires a group of committed and stable officials who corporately possess a variety of specialised competencies. They also need to spend sufficient time interacting with a range of national and regional institutions. Similar representational activity at the SQAM global bodies, such as ISO, BIPM, OIML, ILAC and IAF is also vital. Such activities, if performed with the required tenacity, can be expected to be time and resource intensive. A strengthened African presence and voice at the international level is certain to unearth many other, and currently hidden, problems.

## 6.3 CONCLUSION

Sustainable economic growth, based on increased trade, is continually promoted as a solution to counter the current over dependence, in many African states, on aid. Increased access to global markets should theoretically allow African states the opportunity to develop strong economies. Another suggested thrust is the creation of private sector enterprises that could sustainable compete in world markets. The increase in trading activity is also promoted as an enabler to allow

more African citizens to enjoy a fuller share of the myriad benefits of globalisation. The expected greater participation in the global marketplace by Africa, is tempered by the demands of developed nations for greater access to African markets at organisations such as the World Trade Organization. Such demands are made while developed country markets simultaneously set ever more stringent technical requirements in both the public and private sector for granting similar access.

Should countries in Africa therefore just blindly follow current technical capacity building practice? There is more than sufficient evidence that unless African states begin to actively shape the international trade arena towards better serving their own interests, there will no fundamental changes in the global status quo. Experience has shown that Africa cannot rely on the good intentions of an unfettered private sector, especially when large foreign based MNCs are involved. Another problem is that legislation, policies and public infrastructure created under colonial rule for specific purposes such as facilitating export of primary resources will not assist African states to flourish in the new global paradigm.

African governments and related public administered infrastructures increasingly need to ensure that domestic industry and agriculture have appropriate and affordable access to ever more sophisticated technical support infrastructure. Such technical access requirements are increasingly part of the global and African trading landscape. Changes in technical requirements need to be continually addressed in Africa even to protect current export earnings. The current African approach to such, normally unexpected, technical challenges are mostly reactive, donor driven projects that are crisis managed. A specialised part of such domestic technical infrastructure is required for domestic suppliers and procurers to prove compliance against the increasingly stringent technical demands of developed country markets.

The need for individual African governments to take ownership in creating SQAM supportive infrastructure that addresses widely identified needs whilst simultaneously limiting self–survival strategies of existing public structures is identified as a critical intervention. Remedial projects need to assess the use

of existing technical support capacity, the appropriate strengthening of such, and the creation of new public or private capability where required. Each African government needs inputs from their private sectors and other relevant stakeholders as part of a shared responsibility to reach mutually beneficial solutions. It is certain that appropriate remedies for African states will be neither simple nor short term. They certainly cannot be found or successfully argued for by African countries working in isolation one another, underpinning the need for coordinating national strategies, policies and implementation with a national view that is used initially in African regional interactions.

What is very clear is that more of the same uncoordinated, often foreign donor led intervention such as now occurs is not good enough. The vehicle of NEPAD provides an important foundation on which solutions in such activity could be cooperatively sought and addressed by the various member states. This research has therefore attempted to determine the extent to which the New Partnership for Africa's Development (NEPAD) can assist in creating sustainable public and private standards and conformity assessment related infrastructure for African trade facilitation. Attention needs to be focused on identifying the technical support structures that should be addressed cooperatively by the African public sector and what could be used to stimulate a more active role by the African private sector. Specifically, aspects relating to proving compliance to the aforementioned agricultural, industrial and environmental policy need attention as these affect inter and intra African trade. A proactive and focused, public administration led approach, to building technical capacity for standards, metrology, accreditation and conformity assessment would then be possible. Such a strategic focus would allow maximum utilisation of the scarce capital and human skills capacity that currently exists. It would also provide much needed direction based on Africa's needs.

African states can play a much larger role in assisting their citizens to claim some of the many benefits of globalisation instead of continuing to be its victims. It is proposed that a comprehensive initiative under NEPAD (see recommendations) could offer the chance for African countries to share the burden involved in creating and maintaining specialised SQAM capacity in all

of its many facets. NEPAD should encourage and create new opportunities for Africans to tackle some of the past SQAM–related difficulties together and in new ways. The current focus of NEPAD predominantly revolves around the demonstration of appropriate governance. It is posited that in the area of SQAM capacitation for Africa, NEPAD can provide an important leadership role. The thrust of such leadership has two important components. One is to understand Africa's trade and SQAM–related needs so that they can be formalised and prioritised. The availability of such intelligence can then be used to deploy suitable parts of the public administration capacity of Africa in seeking regional solutions where it is expedient to do so. The creation of structures for appropriately guiding the behaviour and focus of the private sector in SQAM–related matters is also a key issue. The second thrust needs to concentrate on the formulation and implementation of the rules generated by the supra national trade and SQAM–related institutions at the international level. There is a pressing need to ensure that Africa's circumstances are properly considered when binding technical rules are negotiated and agreed to at the global level.

The journey towards sustainable African capacitation in SQAM will entail difficult and costly interventions. In order to utilise scarce resources to achieve the maximum possible benefits, appropriate and well executed policies backed by intelligent, focused and replicable projects are critical to future success. Three foundational interventions are highlighted within the pioneering and rich virgin territory of this study. The first is a suitably integrated industrial development and environmental policy and supportive SQAM strategy for each NEPAD REC member state that recognises the complex mixture of incrementalist and "garbage can" approaches prevalent at the international SQAM level. The second is the need for appropriate African cross border partnerships and ownership where joint capacitation projects for SQAM are identified, enthusiastically supported and appropriately funded. The last key element is the need for building sustainable SQAM capability and capacity that transcends existing national boundaries in searching for effective ongoing solutions. The common use and appropriate expansion of existing national and regional expertise and institutions for standards, metrology and accreditation should also be encouraged.

Instead of continuing to be the victims of globalisation, African states working cooperatively through NEPAD have a chance to redress some of their past difficulties. Complying with the various, technically challenging regulatory requirements of the EU cannot continue to be the sole thrust of Africa's trade facilitation efforts even with the present availability of EU donor funding. Other markets should also be considered together with their technical requirements. Partnerships based on reaching mutually beneficial and optimal solutions are preferable. Implementing foreign technical solutions, that make sense in a limited and different context, will not deliver large scale benefits for Africa. It is vital that a more appreciable role for African public administration be clearly enunciated by NEPAD. Such a role includes the creation of sound theoretical underpinning and successful operational facilitation for African governments working in concert on mutually beneficial technical SQAM support strategies.