Establishing a Regional Quality Infrastructure in the East African Community

Date of submission: January 2011
Region: East Africa
Countries: Burundi, Kenya, Rwanda, Tanzania, Uganda (East African Community)
Type: Project (regional), AFT category 1 (CRS Code 33130)
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CASE STORY II

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# Acronyms

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<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>AFRIMETS</td>
<td>Inter-Africa Metrology System</td>
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<tr>
<td>AfT</td>
<td>Aid for Trade</td>
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<tr>
<td>BMZ</td>
<td>German Federal Ministry for Economic Cooperation and Development</td>
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<td>COMESA</td>
<td>Common Market of Eastern and Southern Africa</td>
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<td>CRS</td>
<td>Creditor Reporting System (OECD)</td>
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<td>EAAB</td>
<td>East African Accreditation Board</td>
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<td>EAC</td>
<td>East African Community</td>
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<td>EAMET</td>
<td>East Africa Metrology Organisation</td>
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<td>EIF</td>
<td>Enhanced Integrated Framework</td>
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<td>EPA</td>
<td>Economic Partnership Agreement</td>
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<td>EU</td>
<td>European Union</td>
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<td>ISO</td>
<td>International Standard Organisation</td>
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<td>KENAS</td>
<td>Kenya National Accreditation Service</td>
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<td>LDC</td>
<td>Least Developed Country</td>
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<td>NTB</td>
<td>Non-Tariff Trade Barrier</td>
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<td>PT</td>
<td>Proficiency Testing</td>
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<td>PTB</td>
<td>Physikalisch-Technische Bundesanstalt (German Metrology Institute)</td>
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<td>QI</td>
<td>Quality Infrastructure</td>
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<td>SADC</td>
<td>Southern African Development Community</td>
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<tr>
<td>SQMT</td>
<td>Standards, Quality, Metrology, Testing</td>
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<tr>
<td>TBT</td>
<td>Technical barriers to trade</td>
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<tr>
<td>UNIDO</td>
<td>United Nations Industrial Development Organisation</td>
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<td>WTO</td>
<td>World Trade Organisation</td>
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Executive summary

The project “Establishment of a Regional Quality Infrastructure in the East African Community” is being implemented by the EAC Secretariat and German development cooperation. It is scheduled to run for a total of nine years (2004 – 2013) and addresses AfT category 1 (trade policy and regulations) by improving the regional QI system, which is a combination of standardization, quality assurance, accreditation and testing. A fully functional QI is essential for the free movement of goods within the region as well as for trade with international partners.

After the start of the project in 2004, the first activities focused on the establishment of a WTO-compatible legal framework for the regional QI. All national stakeholders and in particular the national quality infrastructure institutions have been involved in the process. The SQMT Act was enacted as EAC law in 2007 and makes provision for the harmonization of standards, the mutual acceptance of conformity assessments and quality marks, the establishment of competent testing and metrology laboratories, the coordination of accreditation activities and the implementation of technical regulations.

The project is building regional capacity to implement the provisions of the act, intervening at strategic and policy decision levels, and giving advice to the EAC Secretariat and the top management of QI institutions. Organizing short-term training courses and study visits, facilitating the exchange of know-how and experience in the region (south-south cooperation) and integrating regional QI institutions into supra-regional associations are the ways to facilitate the establishment of a trade-supportive QI.

Due to a high level of ownership by the EAC Secretariat, good working relationships between all involved parties, and cooperation with other development projects, the project has been able to achieve good results. The private sector is increasingly using QI services, border procedures have been streamlined within the EAC and intra-regional trade has increased.

Despite this success, limited awareness of the trade-related benefits that the regional QI can offer is a main challenge that is reflected in the still limited involvement of the private sector in QI shaping activities as well as in the slow implementation of regional decisions at the national level.
1. **Issues addressed**

Consistent growth in developing countries with a broad impact on poverty alleviation and ecological sustainability is not conceivable without access to the large and differentiated markets of the global economy. An important intermediate step towards integration into the global economy is participation in regional economic communities. This necessitates the intra-regional exchange of goods, especially semi-finished and finished products. Regional economic integration and trade-related cooperation is characterised by reducing unnecessary obstacles to trade. Whereas tariff-related barriers have become less important, non-tariff barriers (NTBs) to trade are playing an increasing role. Non-acceptance of products and difficult market access confirm that technical barriers to trade (TBT) still exist. A well-developed and regionally harmonized quality infrastructure is a core element when it comes to reducing these TBTs and strengthening the competitiveness of enterprises, socio-economic coherence and regional autonomy.

**Quality infrastructure for exporters**

How much *quality infrastructure* does, for example, a producer of fruit juice in East Africa need? To ensure that cartons contain the exact volume indicated, he has to have his filling machine calibrated regularly. He must also operate under conditions that are in conformity with international standards of food hygiene, which must be certified by an internationally accredited organisation. The producer must adhere to compulsory standards regulating pre-packed food: indicating contents, origin, shelf life, etc. A laboratory accredited for the necessary capabilities must test the juice regularly to confirm that the contents, ingredients and nutritional values are as labelled. The exporter’s supplies, such as packaging materials, must meet food safety standards, too; their quality must be assessed and certified. If all these requirements (and some more) are met, the producer is entitled to print a quality mark on his products. This quality mark allows him to freely access markets in other EAC countries and shows the consumer that the product is safe and of a certified quality.

Quality infrastructure relates to all fields of metrology, standardization and testing systems, quality management, and conformity assessment, including certification and accreditation. The concept of "quality" with all its implications still has to be established in many African countries to protect their citizens from fraudulent trade and to open up new market opportunities for the private sector. A good quality policy comprises legal and institutional framework conditions which assure compliance with and verification of internationally accepted standards and technical regulations in order to secure fair and safe trade.

All quality infrastructure issues are addressed within the ongoing project “Establishment of a Regional Quality Infrastructure in the East African Community (EAC)”, which is described in this case story. The project is classified under Aid for Trade (AfT) category 1 (trade policy and regulation) and includes the following activities:

- the establishment of a legal framework for a regional QI,
- the development and harmonization of standards,
- reciprocal recognition of quality assessments within the EAC,
- the establishment of internationally recognized accreditation systems and
2. Objective

The purpose of this case study is to learn more about activities of relevance to Aid for Trade, their outcomes and impact, and, in this particular instance, about establishing a regional quality infrastructure that facilitates intra-regional and international trade.

The overall objective of the project is to enhance EAC integration and to increase trade flows, thus contributing to economic growth and, ultimately, poverty reduction. The specific objective is to improve the shaping of the QI as an element of the regional integration process through the EAC Secretariat and QI institutions with participation by the private sector, and to align the QI system to a new regional legal framework. The provisions of the SQMT Act (Standardization, Quality Assurance, Metrology and Testing) need to be fully implemented in all EAC member countries.

Whereas the objective of the project remained the same in all three project phases, specific indicators were adopted at the beginning of each phase according to the progress achieved at the QI policy level. Please note that in the project itself, the indicators described below were assigned to concrete numbers. However, as these numbers changed during the different phases of the project, below we set the specific numbers aside and describe the indicators more broadly. The project indicators are formulated mostly at the outcome level: a) increased collaboration between QI institutions and improved technical capacities of these institutions, b) greater participation by the private sector in EAC standards elaboration, c) increased demand for quality management certification by the private sector, d) setting up a pool of regional assessors for accreditation purposes, and – on e) improvements in intra-regional trade flows. Achievement indicators also relate to improved QI service provision in the new EAC member states of Burundi and Rwanda, underlining the focus of capacity development towards narrowing the existing gaps between QI systems in the EAC.

Harmonized quality assurance procedures and increased cooperation between the pertinent QI institutions facilitate exports from one country to another and increase intra-EAC trade. Building regional technical capacity in terms of improved measurement and testing capabilities enables the private sector to access more accurate, internationally recognized calibration and testing services so as to improve the quality of products. A situation that leads to increased exports, both regionally and internationally.

3. Design and implementation

The three-phase project started in 2004 with an overall budget of 4.3 million euros for nine years (2004 – 2013). It was designed in partnership between the EAC Secretariat and German development cooperation, as well as in close consultation with national QI institutions of EAC member states. Project partners are the EAC Secretariat and the Physikalisch-Technische Bundesanstalt (PTB), the state-owned German metrology institute, acting on behalf of the Federal Ministry for Economic Cooperation and Development (BMZ).

During its first phase, ending in June 2007, the project focused on establishing the legal framework at the regional level (SQMT Act) and on capacity development for the EAC Secretariat and its Technical Committees. The second phase was characterized by the
implementation of the provisions of the SQMT Act, in particular mutual recognition of conformity assessment procedures (ensuring that testing in EAC countries follows the same procedures), development of the competence of metrological and testing services and increased cooperation with the regional private sector (fostering participation in standards setting committees and the use of the improved technical capabilities). The last phase, starting in 2011, will further support the strategic orientation of the EAC Secretariat and national QI institutions by continuing to implement the SQMT Act. Emphasis will be put on the consolidation of achievements and sustainability of results.

The project’s focus is on the transfer of knowledge and best practice of QI systems through short-term training, south-south cooperation, advisory assignments and study visits. It is facilitating the exchange of know-how and experience among QI institutions and stakeholders in the region, financing training and knowledge transfer from more developed national QI institutions in the EAC to their counterpart institutions and colleagues in Burundi and Rwanda, as well as supporting regional QI conferences through finance and advice. Raising the awareness of the private sector so that it plays a greater role in QI system development completes the picture. Support is delivered in the form of highly competent short-term expert assignments. The project has no permanent office in the region, but is coordinated from the PTB Head Office in Germany, while the EAC Secretariat in Arusha also participates in coordination.

The project intervenes at strategic and policy decision levels, giving advice to the EAC Secretariat and the top management of QI institutions, and balancing this with interventions at institutional levels, the aim of which is to create adequate technical and organizational capacities. The project follows the requirements of the Paris Declaration, enhancing ownership (intensive joint planning with partners and stakeholders, transferring knowledge for future-oriented topics such as WTO compatibility, sensitizing for greater private sector participation), intensively harmonizing its approaches with programmes supported by other development partner organizations and fostering transparency and accountability through a well-developed system of monitoring inputs, outputs and outcomes. The project complements a larger programme funded by the German government to support EAC integration.

4. Problems encountered

National industrial development priorities are at times in conflict with EAC integration principles. Despite the existence of regional legislation, member countries often delay or even reject the implementation of the SQMT Act at the national level, while the EAC Secretariat lacks a mechanism for sanctions. Integration is therefore a difficult and slow and sometimes even frustrating process for the EAC Secretariat. This is not a question of lack of political will towards EAC integration, but rather a matter of short-term priorities (also lobbied for by the national industrial sector) versus medium- and longer-term goals.

The EAC member states are in the process of concluding an EPA with the EU, which would in fact accelerate QI harmonization. There are, however, significant challenges in this regard. Contrary to WTO rules, some EAC member countries have established a large number of compulsory standards and the respective Standards Bureaus derive substantial income from the administration of such standards. Hence, the interest in reducing the number of national compulsory standards and implementing harmonized standards is rather low.
Problems encountered also relate to available administrative capacities. The EAC Secretariat is seeking to remain a lean organisation, but substantial additional staff are required to coordinate and support the implementation of the SQMT Act.

Private sector involvement is a pre-condition for an efficient QI. The SQMT Act provides for extensive participation not only in the development of East African standards but also in all other areas of QI and the respective decision-making bodies. However, the private sector is hesitant about taking the opportunity of influencing regional standards and the QI set-up in the region. It is not yet sufficiently aware of the impact and benefits QI has on business in terms of export opportunities and productivity.

Finally, changing well-entrenched national QI systems towards a harmonized, WTO-compatible regional QI system sometimes takes longer than had been anticipated when planning the project. To some extent the project has been able to react flexibly to accommodate such delays.

5. Factors for success

Important for the success of the project is the high level of ownership of the EAC Secretariat, which is demonstrated for example by the creation of a new “Principal Standards Officer” position at Secretariat level to coordinate activities between the stakeholders.

The good institutional and professional relationship that exists between the pertinent QI officers in the EAC Secretariat, QI institutions at country and regional level, and German development cooperation is also important. Due to its independence, expertise and neutrality, PTB is perceived as an honest broker and is accepted by all stakeholders. Equally important for the success of the project are the good working relationships among the QI institutions of the various EAC member states. They ensure that the transfer of knowledge works smoothly and is particularly efficient in strengthening capacities.

The whole project is embedded in a pan-African approach, integrating sub-regional quality organizations into intra-African associations to become an integral part of the international quality network. The East African QI organisations benefit enormously from their memberships in AFRIMETS, the Intra-Africa Metrology System, ARSO, the African Organization for Standardization and AFRAC, the African Accreditation Cooperation. Against the backdrop of globalized trade and globalized quality requirements, this international perspective is imperative for the sustainable success of the project.

The holistic approach of the project, working on the meso (institutional capacity building) and the macro level (policy reform) is also reflected in the close cooperation with other development partner organizations and can be regarded as another factor of success. The project is part of a larger effort by German and international development cooperation aimed at regional integration and trade development in the EAC. Coordination takes place both within the region as well as between the head offices of PTB and, for example, UNIDO. The cooperation is of mutual benefit for the development partner organizations and is welcomed by the project partners.

The project is providing support at a time when demand for QI services, in particular certifications according to ISO quality or environmental standards, is growing strongly in East Africa. Such growth in demand has apparently enhanced the status that QI institutions have in the eyes of EAC member governments and the private sector, which can be seen as
another factor of success.

6. Results achieved

Overall, the project has met its set objectives, which will be consolidated during the last phase of the project. The specific outcomes and impacts will be discussed below on the basis of the defined indicators (see chapter 2). Because the regional QI System had to be established almost from scratch, the project was highly dynamic and produced new intervention areas, for which indicators had to be defined during the implementation process. These developments will also be discussed in this chapter.

Policy Level: The SQMT Act has been developed in collaboration with the EAC Secretariat and partner states and is the foundation for any QI harmonization in the region. It entered into force in 2007 and provides for ensuring standardization, quality assurance, metrology, and testing of products produced or traded in the EAC. The Act still needs to be fully implemented in all EAC member countries, requiring that national QI systems adapt to it and that standards are harmonized. The substantial advice given in particular to the national QI institutions in Burundi and Rwanda has been well received and is reflected in the institutions’ organization and activities.

Standards Harmonization: During the course of the project, 1,100 standards were harmonized, although they have not yet been fully adopted at national levels. The standards cover a wide range of goods from food (e.g. sugar and salt) to construction materials. Harmonized standards reduce NTBs, because national standards can no longer be used for protective purposes (one EAC member banning products from another member on account of a national standard). The more standards are harmonized, the more products can be traded freely within the EAC. Participation by the private sector in standards harmonization meetings is increasing but is still relatively low.

Accreditation Services: A pool of trained assessors for the accreditation of medical, testing and calibration laboratories has been established. Furthermore, support and consultancy facilitated the establishment of the East African Accreditation Board (EAAB) in 2009. KENAS, the Kenyan National Accreditation Service, was institutionalized, and a system of establishing national Focal Points for Accreditation in the other EAC member countries was accepted in principle, although it has not yet been realized in each country. Once such Focal Points have been established in the other EAC member countries, KENAS will be able to accredit laboratories in all member countries in collaboration with these Focal Points. Regional industries and laboratories can realize significant savings (up to 50% due to lower travel and personnel costs) when an internationally approved regional body can competently carry out such accreditations.

Conformity Assessment: Capacities for the regional harmonization of inspection procedures and product certification schemes have been further developed in the individual countries in a significant way, as a recent mid-term evaluation has shown. National inspectors have been trained according to international inspection and certification standards and have conducted joint inspections at the ports of Mombassa and Dar Es Salaam. These activities

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2 A summary of the report can be downloaded here: http://www.ptb.de/de/org/q/q5/docs/Summary_Evaluation_EAC.pdf
have built confidence in the inspections and product certifications of other EAC countries. Reciprocal recognition of product certifications will spur intra-regional trade and lead to cost savings, as duplicate testing is avoided.

**Technical Capacity Building:** All metrology laboratories in the EAC have either achieved improvements in measurement certainty or increased the range of measurands for which they can offer calibration services. The private sector in Rwanda, for example, can now use local calibration services for electricity and pressure, rather than sending samples to Kenya. Annual regional Proficiency Testing (PT) rounds have been successfully implemented. The latter is important for analytical laboratories to build up international recognition and improve the quality of their test results.

**International Linkages:** The project supported the integration of the East African Metrology Structure (EAMET) into the Inter-African Metrology System (AFRIMETS), and of the East African Accreditation Board (EAAB) into the African Accreditation Cooperation (AFRAC). Liaison with regional and international standardization bodies (ARSO - African Organisation for Standard Organisation, ISO - International Standard Organisation) has been established. The advantages of such integration and linkages lie in reciprocal recognition of standards and procedures, which facilitates and enhances trade. In addition, these organizations give a voice to small African countries and can defend their interests in international fora.

**Ownership:** While the position of the Principle Standards Officer in the EAC Secretariat was initially financed by the project, the relevance of the project has apparently convinced the Secretariat to take over these costs, which underlines the level of ownership achieved.

**Confidence Building:** The project has supported confidence building in national authorities regarding regional integration processes and has led to more active collaboration and cooperation between national QI institutions. This has helped to reduce some mutual suspicion that existed between partner countries in respect of who benefits most from EAC free trade. The project has also increased professional confidence within and between national standards institutes. Closer cooperation among the institutions at staff level has contributed to the exchange of ideas on priorities and strategic direction, helping QI institutions to determine their future direction.

**Intra-regional Trade:** The records of QI institutions show that the private sector is increasingly using QI services; the national standards institutes of Rwanda and Burundi indicated a 30% growth in the sale of services. An impact study based on a private sector survey and in-depth case studies revealed that border procedures have been streamlined following interventions by the EAC Secretariat and QI institutions, and intra-regional trade has increased. The impact study plausibly confirmed that the project has contributed to these improvements, but also highlighted the need for further improvements with regard to the harmonization of QI.

7. Lessons learned

A number of lessons were learnt from this intervention. These relate to methodological matters, such as whether the right indicators were set and explanatory power but also to much broader issues.

3 The “Impact study of regional SQMT architecture in the East African Community” can be obtained from the authors of the case story.
Although the project indicators measure the envisaged impact quite well they could not reflect all aspects that emerged during the implementation period. The design of QI projects is always complex and that is especially true for this highly interconnected regional project. Therefore, it became necessary to adjust the original project design at intervals in collaboration with the project partner and to incorporate new intervention areas (like the integration of regional QI-Organisations into Pan-African QI Associations) which were not always measured by an indicator. Thus it is helpful if projects allow for such flexibility.

An intervention like the one described in this case story can be considered successful if it achieves a high degree of ownership, innovation, and networking among local stakeholders. This raises the likelihood to realize a sustainable increase in trade performance and thus poverty reduction (impact level). Consequently, indicators should be defined on the outcome level and concentrate on the measurement of "structural changes" (i.e. capacity) and other framework conditions, rather than sole export success or trade performance (i.e. medium- or long-term outcome or impacts) in order to prove if an intervention is sustainable. Still, changes in trade and economic performance should also be monitored and linked to the intervention.

It has become clear during project implementation that regional integration is not yet fully owned by the private sector. They still think nationally to some degree and are not sufficiently aware of the benefits of regional harmonization. The private sector will take time to recognize and appreciate a harmonized QI system.

Awareness among QI institutions of the close interrelationship between QI and trade also needs to be developed further. In a globalized economy, the role of national QI institutions changes from one of technical / supervisory bodies to one of trade facilitators. They need to recognize the importance of the impact of their services on the economy, meaning they have to strengthen their strategic orientation. The project has tried to rise to this challenge by facilitating an enhanced public-private dialogue and organizing a strategic retreat lasting several days for the senior management of QI institutions.

Although the project had a regional focus, the national context proved to be crucial. National concerns have to be considered seriously and cannot be disregarded as laws and decisions agreed at the regional level have to be implemented and enforced by national authorities. Thus awareness-building activities and the full transparency of decision-making processes are pivotal issues. Extensive stakeholder consultations may require a great deal of time and financial resources, but are essential for reaching a sustainable consensus. The project will focus on this issue during its forthcoming final phase.

The ownership of the project by the EAC Secretariat has been enhanced due to the absence of a separate project office and resident management structure. Furthermore the lean structure of management and coordination of the project has allowed savings to be made on administrative funds that could then be used for practical support measures.

8. Conclusions (applicability to other programmes)

The project, although small in volume, has been able to contribute to regional integration and to an understanding of the importance of QI for enhancing trade, both within national administrations and the private sector. The strong basis of the project is the partnership between institutions that are closely related in terms of their roles and their own professional understanding, thus facilitating knowledge transfer and capacity development. The strong
linkages of the East African QI system to supra-regional associations produce a win-win situation. The EAC economy profits from an Africa-wide alignment of regional approaches. At the same time, other Regional Economic Communities, which have not yet achieved such a degree of economic integration, can use the EAC QI system as a benchmark.

But when implementing a similar project care should be taken to ensure that the private sector is involved intensively from the beginning and that public-private dialogue plays a key role.

The East African economy benefits from the improvement and harmonization of the QI system in many ways. Due to recognized quality marks, streamlined inspection procedures and regional standards, cross-border trade becomes easier and products are able to comply with quality requirements in new export markets.

QI is an important foundation for trade, helping poor countries to find access to new markets and to increase trade flows within a region.