Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin
Nationales Metrologieinstitut

INTERNATIONALE ZUSAMMENARBEIT

EXTERNAL EVALUATION – SHORT REPORT

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Quality Assurcance of Agricultural Products through Improved Metrological and Testing Services

Country | Region:	Ghana
Project No.:	2012.2106.8 (PTB project number: 95076)
Period:	August 2012 – July 2016
Executing Agency:	Plant Protection & Regulatory Services Directorate (PPRSD), Ministry of Food and Agriculture (MOFA), Ghana
Implementing Partner:	Ghana Standards Authority (GSA)/ Ministry of Trade and Industry (MOTI); Food and Drugs Authority (FDA); Food Research Institute (FRI); Customs Laboratory
PTB | Working Group:	Q.55
PTB | Project Coordinator:	Carola Heider
Date :	18. May 2016

This evaluation is an independent assessment. The content represents the view of the reviewer and does not have to agree with the view of PTB

List of abbreviations

BNARI	Biotechnology and Nuclear Agricultural Research Institute
CSIR	Council for Scientific and Industrial Research
DIE-GDI	Deutsches Institut für Entwicklungspolitik/German Development Institute
ECOWAS	Economic Community of West African States
EU	European Union
FDA	Food and Drugs Authority
FRI	Food Research Institute
GGC	Ghana Grains Council
GIZ	Gesellschaft für Internationale Zusammenarbeit German Agency for Development Cooperation
GSA	Ghana Standards Authority
METASIP	Medium Term Agriculture Sector Investment Plan
MOFA	Ministry of Food and Agriculture
MOTI	Ministry of Trade and Industry
NQI	National Quality Infrastructure
OECD-DAC	Organisation for Economic Cooperation and Development Development Assistance Committee
PPRSD	Plant Protection & Regulatory Services Directorate (*under MOFA*)
PTB	Physikalisch-Technische Bundesanstal National Metrology Institute of Germany

QAPMTS	Quality Assurance of Agricultural Products through Improved Metrological and Testing Services
QI	Quality Infrastructure
QM	Quality Management
TCB	Trade Capacity Building (*programme of UNIDO*)
UN	United Nations
VC	Value chain

1. Project Description

After stable positive economic growth from the early 1990s to the early 2010s, Ghana has become a leading economy in West Africa with stable macro-economic and political framework conditions. Ghana even has been the first African country to have reached the Millennium Development Goal 1 of halving poverty and hunger. Nonetheless, still about one fourth of its population are living below the national poverty line. Many of Ghana's poor live in rural areas – especially in the Northern part of the country. Agriculture remains a major livelihood strategy and source of employment for many Ghanaians. Agricultural modernization is a major component of Ghana's poverty reduction strategy as the agricultural sector is still characterized by rather low productivity rates. In particular post-harvest losses remain very high.

A major problem is the weak competitiveness of agricultural producers and other actors in processing and trade in domestic and export markets. Smallholders often lack knowledge, skills and the necessary resources for integrating their production into national, regional and global value chains. To a large extent, this is owed to lacking quality assurance systems: Value chain actors fail to comply with standards and regulations and Ghana's laboratories cannot carry out the entire scope of analyses, which would be necessary to check conformity with export market access requirements. This has severe consequences: Ghana is the country with the highest number of interceptions of plant commodities at the borders of the European Union (EU) due to the presence of harmful organisms. But Ghana's laboratories and inspection bodies also lack capacities for outreach. Particularly, they do not implement broad-based check of conformity in the domestic market, which is characterised by fragmented smallholder production and largely informal processing and trade structures.

This was basically the starting point for the first project of the PTB called "Quality Assurance of Agricultural Products through improved Metrological and Testing Services" (QAPMTS). In this project (2007-2012), the project had the following main interventions (a) support to setting up a network of testing and metrology laboratories, (b) support to accreditation of testing laboratories and support to consolidating the quality infrastructure Ghana. In the follow-up project (2012-2016 - also called QAPMTS), which is the object of this evaluation, the following institutions were the project and implementation partners: Plant Protection and Regulatory Services Department of the Ministry of Food and Agriculture (MOFA-PPRSD) (political counterpart), Ghana Standards Authority (GSA), Ghana network of testing and calibration laboratories, which consists of calibration and testing laboratories from seven different institutions (GSA, Food and Drugs Authority (FDA), Biotechnology and Nuclear Agricultural Research Institute of the Ghana Atomic Energy Commission (BNARI), Food Research Institute (FRI) of the Council for Scientific and Industrial Research (CSIR), MOFA-PPRSD, the Ghana Police Forensic Laboratory and the Customs Laboratory of the Customs Division of the Ghana Revenue Authority) and Ghana Grains Council (GGC).

The target group of the project, which all in all has a budget of EUR 1.000.000, is agricultural producers, small- and medium scale entrepreneurs in processing, trade and services within

selected agricultural value chains. The module goal of the project was that the use of services of internationally recognized quality infrastructures in the agricultural and food processing sector has increased significantly. The project outputs were defined as follows: (a) Reduction of the quality related challenges within the maize value chain; (b) Institutional empowerment of the network of laboratories and expansion of services provided by its members; (c) Additional laboratories work with QM systems; (d) Active participation in the discussion on the reform of the national quality infrastructure. The main activities of the project comprise of: (a) Conduction of workshops using the CALIDENA method; (b) organisational development of the network of laboratories; (c) consultation of the network's laboratories; and (d) joint development of QI scenarios.

2. Assessment of the project

The OECD-DAC criteria (Relevance, Effectiveness, Efficiency, Impact and Sustainability) were used as basic criteria for evaluating the PTB project. Additionally, the evaluation used the five success factors from the "Capacity WORKS" model developed by GIZ, which consists of the elements strategy, cooperation, management structure, processes and innovation and learning, in order to improve the quality of the evaluation results and the depth of understanding and learning.
The members of the project evaluation team were Dr. Benjamin Schraven (Key evaluator; Deutsches Institut für Entwicklungspolitik/ German Development Institute (DIE-GDI)), Wondwosen Fisseha (Technical evaluator; National Metrology Institute of Ethiopia) and Carola Heider (Project coordinator, PTB). The evaluation took place between 08.-18. February 2016. It is mainly based on interviews with representatives of the project partners and other relevant persons.

2.1 Status of the change process

The detailed application guidelines for using the OECD-DAC indicators consistently in evaluations of German technical cooperation projects and financial cooperation projects have been documented in the "Evaluation criteria and performance measurement guidelines", which were applied by the evaluation team.

Relevance

The relevance of this project is very high. Despite the overall high significance of agriculture for the Ghanaian economy and its important meaning for rural livelihood strategies, Ghana is facing massive problems with regard to quality assurance in the agricultural sector both with regard to domestic as well as international markets. As a result, Ghana is not only the country with the highest number of interceptions of plant commodities at the EU borders, it is also facing huge problems with aflatoxin in groceries, which is an enormous health threat for the Ghanaian population. The need to address this quality challenge is also reflected in several policy processes like the Medium Term Agriculture Sector Investment Plan (METASIP). The choice of addressing the maize and rice value chains even increases the relevance of the project: maize and rice are massively cultivated and serve as important ingredients for many dishes and garnishes (overall rating: 1).

Effectiveness

As all the project goals were or are about to be achieved, the effectiveness of QAPMTS is high. In spite of some constraints and limiting factors, there are several factors that largely determine this high degree of effectiveness. For instance, there is a long cooperation history, especially between PTB and GSA and other project partners like FRI. This has certainly created a bond of trust, which supports cooperation. Furthermore, the “right” project partners were chosen to fulfil the aspired goals. Finally, there was also a lot of personal commitment of many of the individual persons being involved in the project’s activities (overall rating: 2).

Impact

Apart from the formal project goals, QAPMTS has had several other positive impacts. It has made a significant contribution to improve Ghana’s QI and it gave important impulses for quality awareness in the relevant agricultural value chains (VCs). In detail, GSA’s reputation as an essential player for standards and metrology in Ghana and within the Economic Community of West African States (ECOWAS) sub region has further risen. Although the awareness for quality issues among Ghanaian farmers and also other VC actors is still rather low, participants of the CALIDENA workshops state that the different activities of the process have clearly induced a slowly raising awareness for quality. Furthermore, the process also brought forward cooperation between actors (in particular GSA and GGC) that has not existed in that form before. That is also valid for the network: After initial scepticism, members of the network have started to share their knowledge and their resources (overall rating 2).

Efficiency

The efficiency of the invested project measures is high. First of all, PTB’s has no permanent staff in Ghana. This allows the project coordinators of PTB to manage several projects in several countries simultaneously. Moreover, the contracts for staff members of some project partner institutions, which were associated with rather low financial inputs, proved to be very efficient. Particularly, the funding of the position of a secretary of the laboratory network turned out to be a very efficient measure. Generally**,** due to good steering, communication and cooperation structures, the purchase of equipment and the organizing of trainings and workshops were very demand-oriented and well-invested. Last but not least, none of the other donor agencies being active in the area of QI in Ghana were mentioning problems of overlapping competencies or activities with regard to QAPMTS. They perceive the project rather as a complementary force (overall rating: 2).

Sustainability

The sustainability perspectives for the different project components are moderate. While the development and future perspectives of the GSA laboratories are positive, the future perspectives for the network of laboratories appear to be rather uncertain. Indeed, a WHO initiative led to the installation of a food safety commission that could host the network and open up the opportunity of funding it, but the network is still struggling with the process of formalization and revenue generation. Likewise, the question to what extent the CALIDENA

processes may continue very much depends on future donor involvement in the area of quality infrastructure (QI) and the further development of the National Quality Infrastructure (NQI) reform (overall rating: 3).

2.2 Success factors for the observed results and change processes

PTB also draws its evaluation on making use of the “Capacity WORKS” success factors. “Capacity WORKS” was developed by GIZ – GTZ until 2010 - and it is basically a management model for sustainable development. It is supposed to provide answers concerning whether a project of development cooperation is making an effective contribution towards capacity development and how it actually helps to structure the management and steering of projects and programs so that the results of capacity development are as effective and sustainable as possible. The structure of “Capacity WORKS” “translates” the corporate policy concept of sustainable development into practical questions. “Capacity WORKS” is based on the following five success factors: strategy, cooperation, steering structure, processes and learning and innovation. How effectively these success factors actually worked within QAPMTS and how these were respectively operationalized in this evaluation, is further elaborated in the following.

Strategy

All project partners were ever well informed about the project strategy, the progress of the project and adaptations concerning activities or outputs and indicators. The general strategic directions of the project also met the project partners’ individual strategic orientations. Finally, the project generally harmonizes very well with national policies and other donor activities in the area of QI (overall rating: 80%).

Cooperation

Despite some minor constraints, the cooperation among the project partners was generally trustful, open and efficient. Especially the development of cooperation within the laboratory network was very positive. Although the network met some scepticism concerning its purpose and future prospects by the member institutions, sharing of knowledge and resources soon became prevalent. A particularly important beneficial factor was the long cooperation history (overall rating: 70%).

Steering structure

The overall steering structures of QAPMTS worked quite well. A steering group as well as a local committee (formed by GGC, GSA, GIZ and MOFA-PPRSD) was formed and sat regularly. Planning and adjustment procedures as well as the review of on-going and past project activities were sufficient, in particular due to a good documentation practice. Merely the sub-steering structures could be improved (overall rating: 70%).

Processes

Due to the efficient cooperation and steering structures, PTB was generally well informed about internal processes of the project partners (and vice versa). Again, the creation and

financing of the network secretary position, the long cooperation history between several of the project partner institutions and the good documentation practice were very useful to facilitate a sound understanding of the key strategic processes among the project partners (overall rating: 80%).

Learning and innovation

Overall, the potential for knowledge management and lessons learned was not fully achieved in QAPMTS. For instance, the CALIDENA learning processes are not documented. Likewise, the documentation of best practices or knowledge management procedures in the other project components like the network of laboratories apparently did not always have top priority as was claimed in the interviews (overall rating: 60%).

3. Learning processes and learning experience

An important and 'generalizable' learning experience, which was made during the evaluation of this project, concerns the presence of the PTB project coordinator during the evaluation interviews. This presence is basically quite twofold: On the one hand, it might enable the evaluator to (indirectly) draw valuable conclusions concerning the cooperation between PTB and the respective other institution/organisation and how trustful, open or constructive it is. On the other hand, it could also influence the interview - and the conclusions that the evaluator can draw out of it - in a negative way, if the evaluator directly asks about the cooperation between himself/herself or his or her institution and PTB. In case the particular the cooperation was rather adversarial, the respective interview partner likely does not like to openly describe the cooperation in the presence of the PTB project coordinator. The answers in that case might at best be evasive.
Therefore, it is very recommendable to find a general agreement within the evaluation team concerning how to deal with this issue prior to the evaluation interviews. A good way forward might be to constantly ask the project coordinator to leave the room whenever the evaluation interview is focussing on the issues of cooperation between PTB and the interviewed individual or the institution/organisation he or she belongs to, respectively.

4. Recommendations

All in all, the following recommendations can be given for the project (implementation) partners and the cooperation between them and PTB:

- GSA: the cooperation basis between PTB and GSA should be widened further. GSA needs to invest more into outreach and marketing activities and it is supposed to accompany the further implementation of the NQI policy process.

- Network of laboratories: The network needs to address its formalization and further options for revenue generation. It needs to (further) strengthen the cooperation and management skills of its members and foster professional documentation and knowledge sharing practices. The organized trainings could be more specialized. Both, the network and GSA could systematically assess the national demand for

testing and calibration services.

- GGC: GGC would need to improve documentation of good practices and the dissemination of these good practices. Moreover, GGC would need to further increase the awareness among farmers about quality issues, the promotion of certified seeds, the promotion of traceability and product classes for agricultural products in Ghana. The cooperation between GGC and GSA should continue and even be deepened in the future. Finally, GGC has to raise its voice in political processes on behalf of the agricultural/VC actors it is representing.
- PTB would need to both further foster the documentation of best practices and lessons learned in future project activities and to strengthen its expertise and its focus in the area of smallholder farming and rural development as well as the actual constraints for quality assurance in this context

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