Dear Charlie,

Greetings from Addis!

The PACA Board meeting last week in Maputo went very well.

Thank you for your patience and understanding. As promised I am sending our comments on the study by Prof. Schweigert and team. Please find attached the document with track changes showing our comments and suggested edits with the aim of further improving the document. Also, below are additional comments.

We look forward to hearing from you and to working closely to finalize this valuable contribution as soon as possible

With many thanks and best regards

Amare

Conclusion: The study offers an excellent overview of rapid methods of mycotoxin analysis and fills in a major information gap in an otherwise “over-published’ field of mycotoxicology. It is well organized and the suggested reshuffling is for further clarity, to improve the flow of the different sections.

Cross-cutting comment regarding commercial systems reviewed in the document: What is the basis for selection of the test systems that are covered in the review? Is the basis for including commercial test systems in this review the GIPSA list (USDA)? It will be great to give some background on this at the beginning of the section on the commercially available rapid test systems. We understand it is not exhaustive and it can’t be. But we need to perhaps briefly outline the rationale for the selection of the companies whose products were described in this work. I am explaining this in detail because there could be complaints blaming PACA or the authors for being partial.

On a different note, we will certainly need to undertake copy-editing of the write up to correct typographical errors once Prof. Schweigert finalizes the work on his end. We trying editing towards the beginning of the work but more edits will be needed.

Let me know if you have any questions. I will also be happy to offer explanations to Prof. Schweigert as needed.

Please note that the Table/Figure Numbers are not sequential where we suggested reshuffling. We didn’t dare to edit that before our suggestion is considered by the authors. Ideally the authors would address those changes (numbering, etc.) if they agree with the suggestions.

General Comments mainly based on review by the PACA Technical Advisor, Martin Kimanya, who is copied in this email (the Section numbers below refer to the original document which is now reshuffled):

**1.         INTRODUCTION**

I reviewed the draft report on Mycotoxin Analytics based on the terms of reference (ToRs) for the contract. From the ToRs, I noticed that the Contractors (Christa Wolf & Florian J. Schweigert ) were assigned to prepare a publication which offers a comprehensive overview on methods for Aflatoxin analysis with a focus on rapid methods. Specifically, the contractors were assigned to produce a document covering excellent background information on mycotoxins and mycotoxin regulations, some information on mycotoxin control (the example of Aflasafe), general information on mycotoxin testing, and a summary of the principles of the major categories of testing methods. The document is also expected to cover as many companies as possible under a predetermined review of commercial products. The compilation would present summary tables that aim to be comprehensive, including the system requirements and even cost of equipment and cost per sample which many users would find useful.

The overall aim of the document is to give an overview of methodologies available for aflatoxin analysis as part of PACA’s knowledge management and information mandate.

In the subsequent sections, I present my preliminary comments for improving the document:

**2.         Section 1: Mycotoxins**

Authors may carefully introduce the aim of the publication as a way to make the reader understand the main focus of the document.

As an approach the authors may present the challenges of mycotoxins for the three sectors of health, agriculture and trade and finally give a brief account of available prevention and reduction technologies/options and the way those technologies rely on appropriate detection and quantification methods

**3.         Section 2: Mycotoxin analytics**

a)       First introduce the steps for mycotoxins analysis and then mention principles underlying each step. Thereafter mention the classic methods, rapid methods and emerging methods.

b)      *Figure 2*: I agree to the categorization of methods but instead of naming the first category “Reference methods“ I would name it, “Classical Methods“ and  third category   “research methods“ I would name it “Emerging methods“

c)       S*ubsection 2.3.1: Sampling and sample preparation*.  I suggest listing of existing sampling plans for certain maximum limits such as those prescribed by Codex Alimentarius Commission and European union.

d)      *Para 2 of subsection 2.4*. If possible, provide more explanation about this technique (use of Smart phone to quantify aflatoxins on the field) as is in line with the aim of the paper.

e)       *Subsection 2.5.4: Thin Layer Chromatography (TLC).* The subsection 2.5 is about rapid tests. I suggest TLC to be discussed under classical methods, instead.

**f)***Subsection 2.5.7: Specific Fluorescence methods*. The last sentence of the first para reads, “Commercial available test kits are from Diachemix and Aokin AG but only for a limited number of mycotoxins and high in price”. Indicate about suitability of the kits for aflatoxins.

g)       *Subsection 2.7.2: Beacon Analytical Systems Inc*. In Table 15, the range is indicated from “zero” for all the detection ranges. The use of “zero“ is a bit confusing because we normally start from detection limit

h)      *Subsection 2.8: Comparison between selected important methods.* Some of the parameters(eg time of analysis) shown in Table 38 do not appear under each subsection where the respective methods are described. It is good to include these parameters under each method in respective subsections.

i)        *Subsection 2.9: Legislation*. Legislation is a term that covers Policies, Laws and Regulations. I suggest the coverage of this document to be limited to standards (regulatory limits). Then, in addition to the EU and US standards, there is need to cover existing aflatoxin/mycotoxin standards in Africa and maximum limits for aflatoxins as set by the Codex Alimentarius Commission. It is also good for the standards section to precede the analysis section. This is because sampling protocols and analysis methods are geared to help implement the standards (limits).