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## MEMORANDUM

**To:** File  
**Cc:**  
**From:** Rachid Benjelloun  
**Date:** October 23, 2008  
**Subject:** Memo re Key Government Food Labs Report

The TAPRII local consultant, Dr. Ahmed Ayesh, researched and wrote a report in Arabic regarding key government food labs in Egypt. Attached is an English summary of the report.

## **Summary about the status of Food Safety Laboratories in Egypt**

The different activities of food safety labs are under the control of five different authorities. These are as follows:

### **Firstly: Ministry of Health and Population**

#### **1. The central labs**

These central labs include the main central lab in Cairo and their branches in 26 governorates. These labs mainly concerned with inspection of imported food samples and those locally produced for local consumption or for exportation. Also samples from other official control authorities, (industrial control authority, EOS, GOIEC) are sent to these labs for inspection.

These central labs include microbiological and chemical labs to perform the analysis of different foods according to Egyptian Standards. The labs equipped with different instrumentations (HPLC, GC, GC/MS, GC/MS/MS, PCR, ELISA, AAC, ...)

Qualified personnel belonging to these labs are involved in the performance of the analysis and interpretation of the results. The main central lab in Cairo is considered to be the reference lab for the other branches.

The main central labs in Cairo also include labs of mycotoxins and pesticides residues analysis are under qualification for the accreditation according to ISO/IEC 17025.

#### **2. The national institute of nutrition**

This institute is the second inspection sector which is mainly concerned with chemical and microbiological inspection of foods with special usage.

### **Secondly: Ministry of Agriculture and Land Reclamation**

This ministry includes specialized and accredited labs that inspect different food safety parameters which include:

#### **1. The Central Lab of Pesticides and Heavy Metals Residues**

##### **a. Pesticides and Heavy Metals Residues Lab:**

The lab detects more than 220 different pesticide compounds. The sampling flow is exceeding 30.000 samples per year for pesticide analysis and 5.000 samples per year for heavy metals detection. This lab equipped with different advanced instrumentation (HPLC, GC, GC/MS, GC/MS/MS, PCR, ELISA, AAC, ...)

Qualified personnel belonging to this lab are involved in the performance of the analysis and interpretation of the results.

##### **b. Mycotoxins Lab:**

This lab is mainly concerned with analysis of aflatoxins, ochratoxin and patulin with a sample flow reached more than 10.000 samples per year using HPLC analysis according to official methods.

##### **c. Persistent Organic Contaminant Lab.**

The main activity of this lab is concern with the analysis of Dioxin and other persistent organic contaminant in animal origin foods, with the sample flow of 1000 samples per year.

##### **d. Microbiology Lab.**

More than 16 microbiological tests is performed in this lab especially that concern with pathogenic microorganisms, with sample flow of 2000 samples per year.

#### **e. Miscellaneous Lab.**

The lab analyzes antibiotic and other veterinary drugs residues with sample flow of 5.000 samples per year.

### **2. The Central Labs for Food and Feeds**

These labs include 22 different specialized labs in the field of food and feed analysis. The activities concern food safety include the analysis of pathogenic microorganisms, as well as the detection and determination of mycotoxins, antibiotic and heavy metals residues. Different chromatographic instrumentations as well as ELISA and PCR techniques according to ISO/IEC 17025 are used in this lab. More than 400 qualified personnel belonging to these labs are involved in the performance of the analysis and interpretation of the results.

### **3. The Reference Lab of Animal Health Institute**

This lab include group of food safety analytical activities that deal with animal origin food such as, meat and meat products, dairy products, seafood and its products that are produced for local consumption and for exportation. Also imported animal origin foods are inspected for their safety in this lab. The qualification for ISO/IEC 17025 is under process for the central lab and its branches in Alex, Port-Said, Damietta and El-Arish Ports.

The lab is will equipped with advanced instrumentation for the analysis of pathogenic bacteria, mycotoxins and bacterial toxins as well as pesticides, heavy metals, veterinary drugs and antibiotic residues. The lab issued food safety certificates for animal origin food.

### **Thirdly: Ministry of Trade and Industry**

The different labs belonging to the ministry of trade and industry concern with food safety analysis are as follows:

#### **1. General organization of imports and exports control (GOIEC)**

GOIEC includes labs for food safety analysis in the port of EL-Dekhiella (Alex), Port-Said, Damietta, Suez, Aswan and Cairo air port. Some of these labs are accredited and the others are under accreditation process.

The food safety labs belonging to this organization includes microbiological, chemical and physical and residue analysis labs which analyze samples for heavy metals, mycotoxins, pathogenic microorganisms using advanced lab instrumentation. The labs of this organization include more than 200 qualified personnel are capable for using HPLC, GC, AAS, ...

#### **2. Egyptian Organization for Standardization and Quality (EOS)**

Their labs include both microbiological and chemical analysis; some of them are under accreditation process in some type of analysis.

Their labs have 37 qualified personnel specialized in the analysis of pathogenic microorganisms and some analysis for the detection and determination of chemicals in food samples such as preservatives and caffeine using advanced analysis instrumentation.

#### **3. Chemical Authority**

The activities of its labs include the analysis of some chemicals in food samples according to the Egyptian Standards.

Both labs of EOS and Chemical Authority are receiving samples for analysis through **Industrial Control Organization**.

**Fourthly: Ministry of Electricity  
Atomic Energy Authority**

The labs of this authority are mainly concern with the detection of radiating materials residues through branches in Cairo and different ports. This is the only authority responsible for such type of analysis.

**Fifthly: Other Private Food Safety Labs**

These labs are mainly belonging to the central labs in Universities and Research Centers as well as other private companies concern with quality training and environmental measurements (e.g. food development center in Kaha, SGS Company in Giza, Comibasal Center in Alex as well as other specialized lab in different food companies). These labs are performing the food safety analysis as a part of their activities in an occasional basis.

The identification and information collection to specify the qualification and lab facilities of these labs is under process by lab work group.