# Call for Applications

## COMPETENCY ENHANCEMENT INITIATIVE
### *Food Risk Assessment to Support Food Regulatory Measures*

The National Food Safety Authority of Egypt (NFSA) and the United States' Department of Agriculture (USDA) Transforming the Assessment and Inspection of Food Businesses in Egypt (TAIB) Project are seeking applications from qualified experts in food and agriculture science, food regulatory sciences, food risk analysis, or food analytical sciences to take part in a year-long capacity building and training program in food risk analysis, with a focus on risk assessment. Selected applicants will take part in an internationally benchmarked training program with the potential to contribute as experts supporting NFSA's future food risk assessment activities.

Applications must be submitted in accordance with the instructions provided in this document and received **before November 11, 2021.**

| Background |
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In accordance with the Law governing the creation of the National Food Safety Authority of Egypt and its Executive Regulations, NFSA is mandated to produce science-based risk assessments in an independent, impartial and transparent manner. The results of these risk assessments are to underpin NFSA's technical regulations and risk management decisions to protect consumers and ensure a fair environment for food trade.

Risk Assessment is the scientifically based process that characterizes the possible health implications of a given hazard in food, as a result of its consumption by humans. This scientific approach, when executed correctly and following sound methodologies, is the foundation and the pre-requisite for robust and consistent food safety regulatory decisions. The Codex Alimentarius Commission (CAC), as the international food safety standard setting body, has recommended that food safety regulatory decisions be based on a structured decision-making process, which encompasses a scientific risk assessment. Similarly, the Sanitary and Phytosanitary Agreement (SPS) of the World Trade Organization (WTO) recommends following a rigorous scientific assessment to justify national sanitary measures that may impact food trade in order to support fairness and prevent undue market access impediments for food and agri-food products.

NFSA, in collaboration with the USDA-supported TAIB Project is launching a multi-pronged and tailored training program to create **a pool of experts specialized in food safety risk assessments** who would be called upon by the NFSA to conduct food risk assessments in support of the development of food

regulatory decisions: standards, guidelines and other regulatory measures. It is envisaged that following the successful completion of the training program, the cohort will form the nucleus of NFSA's inaugural risk assessment team.

The Competency Enhancement Initiative will offer selected participants a practical, multi-disciplinary training program that combines theoretical knowledge with guided practices to enable the development of skills in the following areas:

- ➢ Risk Analysis and the positioning of risk assessment.
- ➢ Risk Assessment planning, scoping, data needs, procedures.
- ➢ Chemical risk assessment.
- ➢ Microbial risk assessment.
- ➢ Allergen Risk Assessment.
- ➢ Scientific evaluation of regulated products.
- ➢ Epidemiology of foodborne diseases.
- ➢ Communication with stakeholders.

## 1. Training Approach

The envisaged training will rely upon:

- ➢ The recruitment of experts from NFSA and from other Egyptian academic, scientific and research institutions.
- ➢ An on-line training program tailored to enhance the competencies of the recruited experts in targeted areas of risk assessment. The online program will be developed and implemented during a period of about 8 months and will be adapted to the applicants' professional conditions i.e., will be delivered as a professional development program for working individuals,
- ➢ Face-to-face intensive training sessions dedicated to practical training and problem resolution in the form of applied risk assessment applications to be developed by the trainees.

All training will be conducted in English and participants are expected to demonstrate fluency in written, spoken and reading of English.

The training program is expected to start in early 2022 and to be continued for about 8 months.

TAIB and NFSA may alter the training approach and program based on the number of qualified applications received.

## 2. Detailed Composition of the Training Program

This Competency Enhancement Initiative is meant to equip trainees selected amongst experts from NFSA and Egyptian Scientific, Research and Academic Institutions with state-of-the-art competencies

to operate in an environment where they could provide scientific and risk assessment advice to support the NFSA's food regulatory decisions, in alignment with the guidance of the Codex Alimentarius Commission (CAC) and its parent organizations.

This training will be carried out by experts in risk assessment, selected according to the initial competencies and criteria discussed in Section 3 of the present document and will encompass the following areas:

### 2.1. *Introduction of Risk Analysis and its components as a life cycle approach:*

- Introduction of risk assessment and its position in food regulatory decisions.

### 2.2. *Risk Assessment foundations*

- Risk assessment objectives and general approaches.
- Uncertainty and variability.
- Hazard identification: objective, approaches, data needs and analysis/synthesis.
- Hazard characterization including dose-response models and toxicological reference values: objective, approaches, data needs and analysis/synthesis.
- Exposure assessment: objective, approaches, data needs and analysis/synthesis.
- Risk characterization: objective, approaches and output summaries and visualizations.

### 2.3. *Food Chemicals and Risk Assessment*

- Introduction and general concepts of food chemical risk assessment.
- Introduction to toxicity and toxicology.
- Unwanted chemical substances in food – initial case studies.
- Food Chemicals and their toxicity, toxic effects data acquisition, toxicokinetics and toxicodynamics.
- Case study: fungicides in grains.
- Introduction to exposure assessment of chemicals in food.
- Effects of food production and processing.
- Managing regulated chemical substances in food.

### 2.4. *Exposure Assessment for Chemicals in Food and Use of Data to Derive Maximum Residue Levels*

- Importance of exposure assessment in food safety and risk management.
- Use of Data necessary for exposure assessment: food consumption data, occurrence data (or supervised residue trial study data), and any other relevant data, and how to obtain such data.
- Methodology of exposure assessment (contaminants and toxins; and residues of pesticides).
- Use of exposure estimates for risk estimates.

- Use of risk estimates in decision-making for risk management: determining Maximum Levels (MLs) of Contaminants, determining Maximum Residue Levels (MRLs) for pesticides.

## 2.5. *Food Microbiological Risk Assessment*

This course will review the various methods to assess microbiological risks in food. Applications related to the use of risk assessments in the context of food standard development, as well as in the context of food incident management with or without foodborne illness outbreaks will be reviewed. Case studies pertaining to the evaluation of risks associated with priority pathogens in food, will serve as the basis for this course.

## 2.6. *Applications of Food Microbiological Risk Assessment*

This course will rely upon demonstration of incident management situations associated with pathogens in food. The conditions of conduct of risk assessments pertaining to these incidents along with the application of the weight of evidence approach will be the focus of the course. Approaches for handling risk assessments involving data limitations will serve as areas of emphasis for the course. Small projects enabling the development of microbial risk assessments by small groups will be associated to the learning methodology.

## 2.7. *Food Allergen-related Risk Assessment*

This course introduces allergens and gluten sources as food safety hazards and efforts to control them as part of food regulatory measures. The difference of the nature of the hazard and the associated methodology requirements will be studied. Approaches leading to consider priority allergens, based on international guidance (JECFA guidance) will be reviewed. Methods of hazard characterization for allergens, aiming to derive possible threshold levels will be introduced and discussed. Case studies of risk assessment will be reviewed, in the context of managing food allergy incidents or to prevent such incidents from happening.

## 3. Target Audience and Recruitment of Prospective Trainees

The training is targeting experts with established educational credentials and experience, with a documented experience in food risk analysis, food science and agriculture science and/or food analytical sciences. The training is open to experts who possess:

- ➢ Current employment position within NFSA and / or recognized research, academic or scientific institution in Egypt. For Candidates from other institutions (other than NFSA), a written approval of the manager will be required to enroll in the training program.

- ➢ Educational credentials in areas related to food, veterinary science, agriculture science, food risk analysis, food analytical sciences and associated areas, holding a Master's of Science Degree or Ph.D. Degree from a recognized Egyptian or foreign institution. Candidates with a Bachelor of Science degree may apply with added demonstration of applied competency in areas related to food risk assessment.

- ➢ Demonstrated work experience in areas related to food risk assessment or food risk analysis, including data collection related to contaminants in food, hazard characterization, exposure assessment, and overall risk characterization. Demonstration of experience has to be

documented through the employment record of the candidate, the availability of reports and other publications that attest to such experience.

➢ Asset or Bonus qualification: Training received in disciplines related to food risk assessment or risk analysis in the past 10 years – with documented certificates of attendance or completion.

Submitted candidacies will be evaluated according to the following evaluation criteria:

➢ Employment credentials

➢ Educational Credentials: Areas related to food, agriculture and veterinary science

➢ Experience in areas related to food risk assessment and risk analysis

➢ Asset qualification

Shortlisted candidates will be interviewed. All interviews will be conducted in English and applicants will be requested to demonstrate the competencies included in their application.

All selected candidates must be approved by NFSA's management to be included in the training program.

Candidates applying from other institutions (other than NFSA), must submit, upon approval of their candidacy, written authorization of their manager to enroll in the training program.

## APPLICATION INSTRUCTIONS

Interested candidates should submit the following documents via email to aahassan@landolakes.org **before November 11, 2021**. Applicants should include "Name: Food Risk Assessment Application" in the Subject Line of the email.

- Recent Curriculum Vitae
- Completed Application Form
- Documented completion of training programs in food risk analysis or assessment in the last 10 years (if applicable).

## APPLICATION FORM
*Note that in order to insert a new line please hit "shift enter"*

### General Information

**Last Name**

**First Name**

**Email**

**Mobile number / Whatsapp**

### Current Employment Institution

**Current Role / Function:**

**Describe in a few lines your role and function as part of your employment:**

**Describe in a few lines the relationship your function involves food risk assessment or food risk analysis:**

## Educational Credentials*

*Attached Documents to attest to Academic Credentials*

**Latest degree:**

**Other degrees:**

### Professional Experience and Relationship with Food Risk Analysis and Risk Assessment

**Describe your experience in areas related to food risk assessment / food risk analysis:**

**List of Documents attached to attest to experience in food risk analysis and risk assessment (publications, reports and other documents):**

## Asset or Bonus Qualifications*

*Previous Training in areas related to food risk analysis and risk assessment during the last 10 years*

*Attached list of certificates / proof of attendance and completion*

**List of training sessions / programs followed:**