



## Strengthening food safety risk assessment

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The project aimed at enhancing Colombia's capacity to effectively manage food safety risks. This was achieved through strengthening the institutional, technical and scientific capacity of the Food Safety Risk Assessment Unit in Colombia ("UERIA").

### **STDF/PG/319**

#### **Status**

Completed

#### **Start Date**

01/02/2011

#### **End Date**

31/07/2013

#### **Project Value (US\$)**

\$1,023,620

#### **STDF Contribution (US\$)**

\$433,620

#### **Beneficiaries**

Colombia

#### **Implementing Entities**

Inter-American Institute for Cooperation on Agriculture (IICA)

#### **Partners**

Instituto Nacional de Salud (INS-Columbia)

#### **Background**

In 2005, the Government of Colombia approved a framework policy document encompassing broad strategic objectives, such as an improvement of agricultural health and food safety; strengthening of SPS institutions; enhancement of technical, operational and scientific capacity; and better management of market access issues. The policy urged national institutions to create services dedicated to risk analysis. As a result, the National Health Institute (INS) created the Food Safety Risk Assessment Unit (UERIA) in 2009. The INS sought assistance from the STDF to elaborate the functioning procedures of this unit and to establish its work programme as well as to create a network (roster) of risk assessors in Colombia to conduct future risk analyses. The project also sought to promote the integrated farm to fork approach by raising awareness on biological and chemical risks associated with food at all stages of the food production chain, thereby improving the safety of locally consumed as well as exported products. It included an awareness raising component and training workshops directed towards the private sector practitioners to enhance their knowledge of SPS challenges to access international markets.

## Results

### ***Strengthened human capital through scientific and technical capacity building***

The project contributed to the strengthening of the scientific and technical capacity of over 100 professional (evaluators and risk managers) from the institutions pertaining to the SPS system in Colombia. These professionals participated in the capacity building programmes aimed at improving their level of knowledge on risk analysis. Moreover, through the executive learning component of the project, 12 professionals from 7 governmental institutions obtained a postgraduate degree in Food Safety and Sanitary Programmes Management. Part of their education consisted in work aimed at identifying legal, administrative and methodological aspects, necessary for establishment of harmonised risk assessment policy in Colombia. UERIA also facilitated workshops involving other national SPS institutions that covered aspects of concepts, models and communication of risks, as well as aspects related to inter-institutional coordination in the risk analysis process.

### ***Network of experts in food safety chemical and biological risk assessment strengthened***

Through this project, the first network of experts specialised in food safety was created to support the development of food safety assessments, risk profiles and scientific opinions. Experienced professionals from different academic backgrounds were involved. Among the tasks of the network was the establishment of the procedures and instruments for identification, selection and evaluation of experts for future needs as well as consolidation of a database. During the case studies carried out within the project, the experts were trained by UERIA in the issuance of opinions based on scientific evidence under the methodology adopted by UERIA.

### ***Improved food safety risk assessment processes***

In 2009, there were no procedures established on risk assessment in food safety in Colombia that would comply with SPS Agreement. Through this project it was possible to develop, apply and standardise the methodology for the risk assessment procedures that were harmonised with the directives of Codex Alimentarius; train officials from the SPS-relevant entities as well as professionals who are part of the technical group of UERIA in the application of the methodology; develop semi-quantitative risk assessments (first documents that were developed were qualitative); implement risk prioritisation tools and deliver estimates for risk assessments.

This was achieved through exposure (participation in relevant Codex Sub-committees) and a learning-by-doing process. Three risk assessments (including: (i) Mercury in fish from Colombian continental waters; (ii) mycotoxins in cornmeal patties in Colombia; and (iii) *Listeria monocytogenes* in meat by-products), four risk profiles (including : (i) Arsenic in rice; (ii) *Campylobacter* spp. in chicken; (iii) *E. coli* in fresh cheese; and (iv) organochlorines in meat and milk), three scientific opinions (including : (i) scientific opinion on polyacrylamide in panela (sweetener); (ii) acrylamide in panela; and (iii) *Trichinella spiralis* in pork) and four narrative reviews (including (i) Analysis of health effects, research, and determination of cadmium levels in potatoes; (ii) Prevalence of aflatoxin B1 in maize; (iii) *Trichinella spiralis* in pork, methods for detecting the pathogen; and (iv) Analysis of sources of exposure, health effects and determination of nutrients associated with fluoridation.) were conducted mainly upon request from Colombia's risk managers (various relevant institutions).

## Recommendations

### ***Increase collaboration at international level and within the country, between governments, academia and industry***

Despite the difficulties in obtaining quality data or national information with high level of details in order to back the scientific documentation, it was possible to obtain semi-quantitative risk assessments through the relevant authorities, universities and research centres owing to the collaborative approach fostered by this project. It is therefore recommended that similar projects focus on promoting collaboration among the government agencies, academia and industry in order to generate sufficient data to perform quantitative analysis. In addition, information and experience sharing with institutions with established risk assessment capabilities at international level proved to be effective in upgrading UERIA's technical capacity. Therefore, it is recommended that international collaboration should be sought in any future similar initiatives.

### ***Continue strengthening network of experts***

It is important to continue the strengthening of the network of experts in the Food Safety of the UERIA. Through this network, it is possible to link with more professionals who will contribute their knowledge to documenting issues of national importance and thereby support scientifically SPS measures.

### ***Total Diet studies, a useful tool for food safety risk assessments***

Through UERIA's experience in risk assessment gained in this project, it was concluded that the determination of the population's current level of exposure to various chemical contaminants is a critical data gap. Future implementation of Total diet studies (TDS) is recommended to yield important information providing an overall picture of dietary exposure to chemicals in foods and could be used to monitor the impact of SPS measures over time.

***Continue capacity building among authorities, professionals and students***

One of the encountered problems during the project's implementation was the understanding the concept of risk analysis as a tool for consumers' protection. For this reason, it is recommended to continue building the capacity of all the authorities in the SPS participating institutions as well as professionals and students in relevant programmes. Introducing risk analysis concepts in specific university courses can assist in ensuring the long term sustainability of capacity building efforts.

***A clear regulatory framework is key to ensure adequate flow of information***

As a follow-up to UERIA's technical capacity building, it is recommended, to ensure sustainability, that the Government considers issuing a regulatory instrument establishing clear and precise rules governing the UERIA's functions, branches, responsibilities and relationships with all stakeholders in Colombia's SPS system. More broadly, to ensure a proper flow of information between risk assessors, risk managers and risk communicators, the roles and responsibilities of the various institutions involved have to be clearly defined.