



“Database Radionuclides Levels in Typical Latin American Foods”

ARCAL CXXIX – PROJECT RLA9/072

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Summary

- Introduction
- Objectives
- Methodology
- Results



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Introduction

There are several projects and research in the area of radionuclides in food.

Problems encountered:

- Large amount of information;
- Dispersed information;
- Disorganized information;
- Not always in a digital format;
- Is not accessible to everyone.

Introduction



Need to standardize, store and make available information of radionuclides in food in a database for Latin America.



How to make the project viable?



Cooperation agreement



Project ARCAL RLA0972



Introduction

Project ARCAL RLA 07/92

Regional Cooperation Agreement for the Promotion of Nuclear Science and Technology in Latin America and the Caribbean;

Funded: International Atomic Energy Agency - IAEA;

11 participating Countries: Brazil, Argentina, Costa Rica, Chile, Cuba, Ecuador, Mexico, Paraguay, Peru, Uruguay and Venezuela.

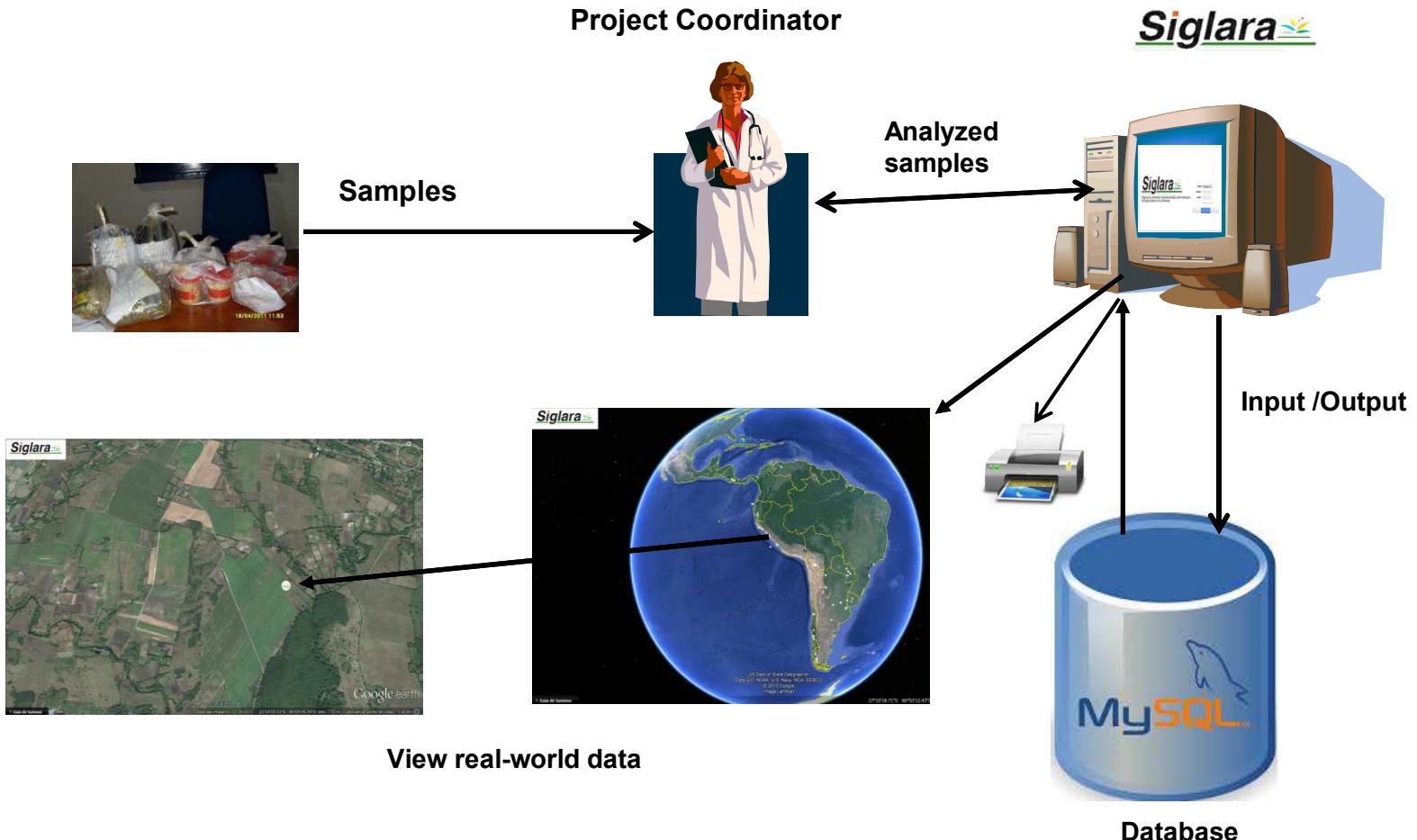
Period: January /2012 - July /2014

Chosen by the workgroup name to System: **SIGLARA**



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Methodology



Main Objective

Develop a database of geo-referenced data for incorporation of data in the information values of radionuclides in typical Latin American food system.

System developed in three languages (Portuguese / Spanish / English).



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Specific Objectives

- Typical food produced in each of the participating countries;
- Inventory of important radionuclides to be determined in foods identified;
- Standardize and store all available information on the values of the radionuclides analyzed in laboratories registered by the participating countries food;
- Modeling of the database;
- Geo-reference system and development;
- Information available to the scientific and public in general.



Methodology

- 1- Planning (during meetings);**
- 2- Survey of the different compartments for system development;**
- 3 - Development System;**
- 4 - Training the staff;**
- 5- Insert the data.**

Development System

- The Operating System : Linux
- Database: MySQL
- The development tool: Scriptcase
- View maps: Google Earth
- Defining the layout of the screens of the system was developed by the group
- The system is hosted IRD on page:

<http://siglara.ird.gov.br>



Results

- The System SIGLARA
 - Home screen;
 - Auxiliary tables;
 - Consultation;
 - Data of Sample;
 - System maintenance.





Results : I° SCREEN SYSTEM

Language

User *

Password *

[Sign up](#) [Lost Password](#)



Siglara 

Sistema de Información Georeferenciado Latino Americano
de Radionúclidos en los Alimentos

Results: Samples

The screenshot shows the Siglara system interface. At the top, there is a banner with the text "Sistema de Información Georeferenciado Latino Americano de Radionúclidos en los Alimentos" and the "Siglara" logo, which features a stylized green and yellow design. Below the banner is a navigation menu with links: Auxiliary Tables, Queries, Update Samples, Reports, Maintenance, and Exit. The main area is titled "Update Samples" and includes a toolbar with icons for adding (+), deleting (-), and updating (arrow). A tab bar at the top of the form includes "Sample Data", "Pre Treatment", "Analysis", "Radionuclides", "Coordinates", "Institution", "Ship datum", and "Bibliographics References". The "Sample Data" tab is selected. The form contains various input fields: "Sample" (with dropdowns for FAO Group, Type Food, Food, and Presentation), "Category" (dropdown), "Country" (dropdown set to BRASIL), "State Country" (dropdown), "City Name" (text input), "FAO Zone (only for fish)" (dropdown), "Who Sample" (dropdown), "Date Sampling" (date input), "Observation" (text input), "Sample Lab Code" (text input), "Status of Sample" (dropdown), "Date Insert" (date input set to 10/02/2014), "User" (text input set to lucia), "Lab that Sample" (dropdown), "Lab that Analyzed" (dropdown), "Google Maps" (button), and "Scientific Name" (text input). A note at the bottom left indicates that fields marked with an asterisk (*) are required.



Results: Coordinates

The screenshot shows the Siglara system interface. At the top, there is a banner with the text "Sistema de Información Georeferenciado Latino Americano de Radionúclidos en los Alimentos" and the "Siglara" logo, which features a stylized sunburst design over a background of various fruits and vegetables. Below the banner is a dark blue navigation bar with the following menu items: Auxiliary Tables, Queries, Update Samples, Reports, Maintenance, and Exit. The "Update Samples" tab is currently active, indicated by a blue background. To the right of the date "10/02/2014" is a search bar with a magnifying glass icon. Below the navigation bar is a toolbar with icons for adding (+), deleting (-), and updating (refresh). A horizontal menu bar below the toolbar includes tabs for Sample Data, Pre Treatment, Analysis, Radionuclides, Coordinates (which is highlighted in blue), Institution, Ship datum, and Bibliographics References. The main content area contains five input fields for coordinates: "Latitude (Grade)" (with an input field containing "1"), "Longitude (degree)" (with an input field containing "1"), "Latitude (minutes)" (empty), "Longitude (minutes)" (empty), "Latitude (seconds)" (empty), "Longitude (seconds)" (empty), "Sample Latitude" (empty), and "Sample Longitude" (empty). A red asterisk (*) followed by "Required field" is located at the bottom left of the coordinate input section.



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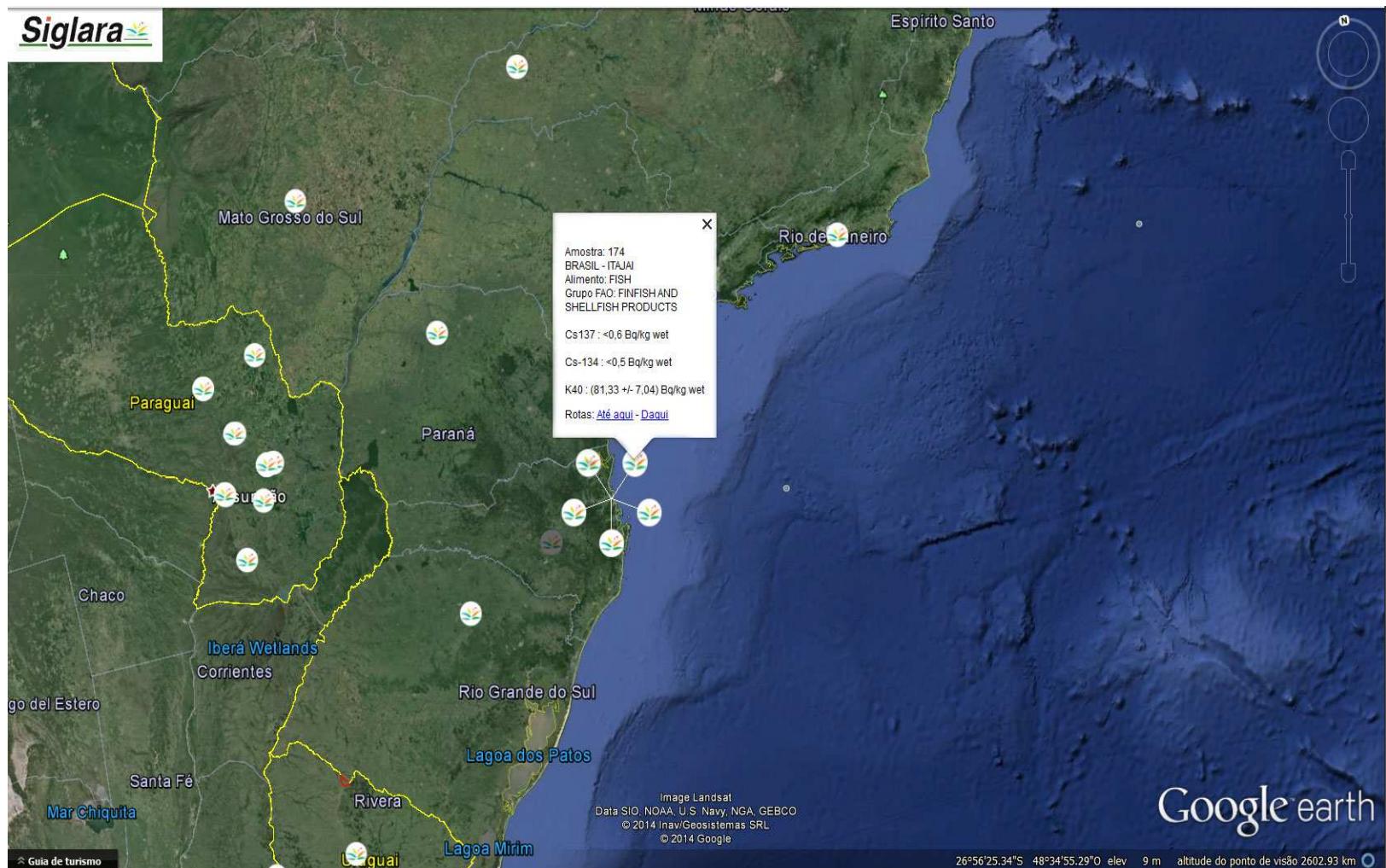
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Results: View Maps

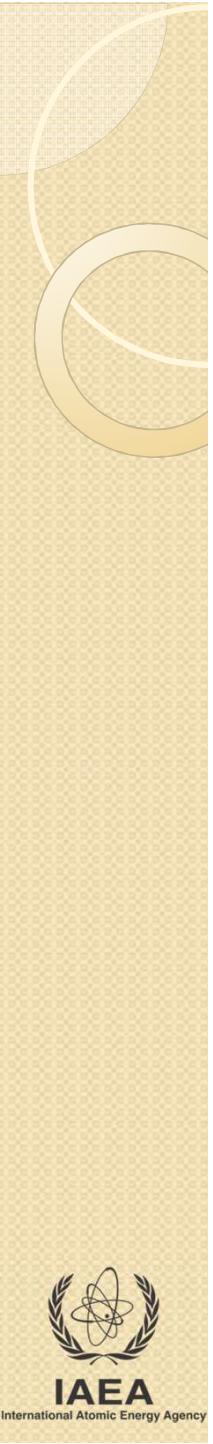


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Results: View Maps



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Conclusions

The system provides:

- Standardized data entry;
- Availability of values of radionuclides in typical Latin American food;
- Reporting and maps;
- Query of the background of the area;
- Continuous updating;
- Management of new users (different type of access);
- Anyone can have access, it allows the query in multiple languages.



Thank you

<http://siglara.ird.gov.br>