

**NARO – FAO/IAEA Technical Workshop on
Remediation of Radioactive Contamination in Agriculture**

**Control of Radionuclides
in Food and Agriculture**

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Joint FAO/IAEA Programme
of Nuclear Techniques in Food and Agriculture

Joint FAO/IAEA Division Mandate

Nuclear & Radiological Emergency Preparedness and Response (Food & Agriculture)

- Prepare for and respond to nuclear and radiological events affecting food and agriculture
- Help Member States to develop and implement agricultural countermeasures to minimize the impact of nuclear emergencies on food security
- Advise government on acceptable levels of radionuclides for agricultural products entering national and international trade

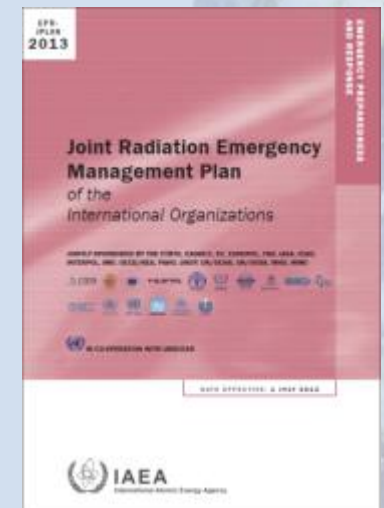


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The image shows the cover of a FEMA EMI publication titled "National Emergency Management Organizations". The cover is primarily red and white. At the top, the FEMA logo is visible. The title "National Emergency Management Organizations" is prominently displayed in white text on a red background. Below the title, there is a list of contributing organizations, including FEMA, DHS, HHS, and others. The cover also features the FEMA EMI logo and the text "FEDERAL EMERGENCY MANAGEMENT INSTITUTE".

Legal framework for intra- and interagency cooperation

- Convention on Early Notification of a Nuclear Accident
- Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency
- Joint Radiation Emergency Management Plan of the International Organizations (JPLAN)
- FAO/IAEA Cooperative Arrangements
- Inter-Agency Committee on Radiological and Nuclear Emergencies (IACRNE)
- International Exercises



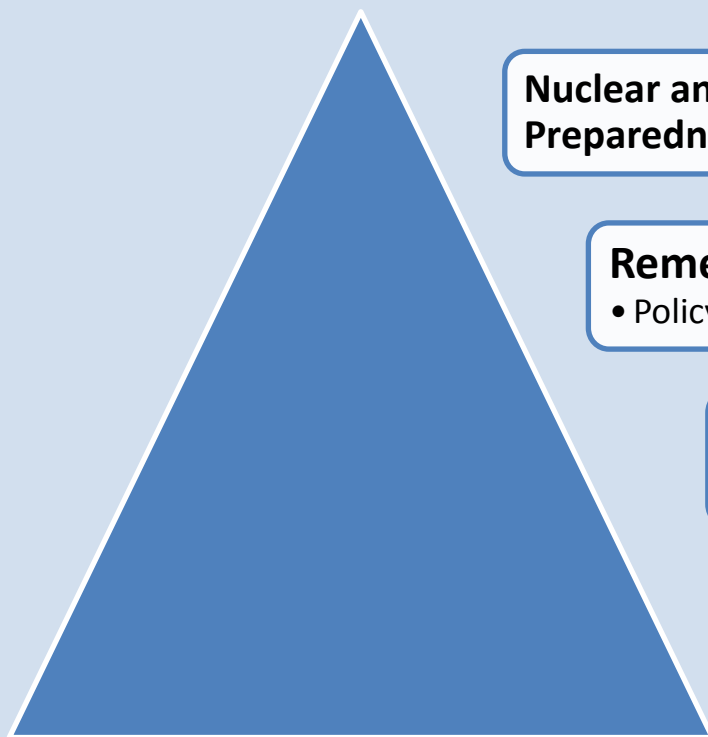
Joint Division's response and activities related to the Japan Nuclear Emergency

- As **FAO's focal point** cooperation with IAEA, WHO and other international organizations
- Joint **statement** on food safety issues
- Manning the **FAO Desk** in the IAEA/IEC in Vienna
- **Briefings** for Member States and press conferences
- Technical **assistance** and policy **advice**
- **Collection and analysis** of monitoring data
- Timely **knowledge and information** sharing
- Joint FAO/IAEA Food Safety Assessment **Mission**



Joint FAO/IAEA Supports

Major contamination event



**Nuclear and Radiological Emergency
Preparedness and Response**

Remediation

- Policy advice + Technical assistance

Strategic research and development

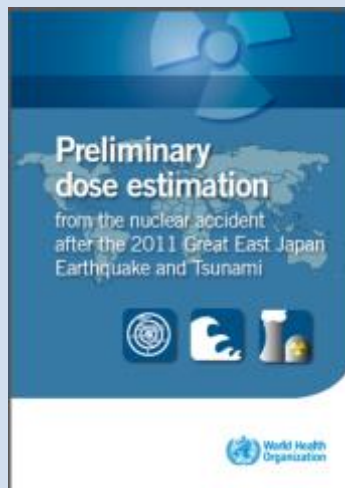
Transferring and implementing solutions

Need to regain agricultural productivity

Monitoring Data Compiled and Managed by Joint FAO/IAEA Division

Data set used in international assessments & reviews

- WHO – preliminary dose estimation
- UNSCEAR – major study / dose assessment
- IAEA Fukushima Report



Technical support – R&D

- Three International Group Expert Missions – Food Safety and Remediation of Large Contaminated Areas off-site F1 NPP (2011 and 2013)
- Revision of International Standards
 - International Working Group considering activity concentrations relating to food and water in the different international standards including the CODEX Guideline Levels.
- Technical meetings
- Coordinated Research Activities (2013 - onwards)



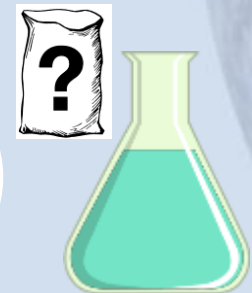
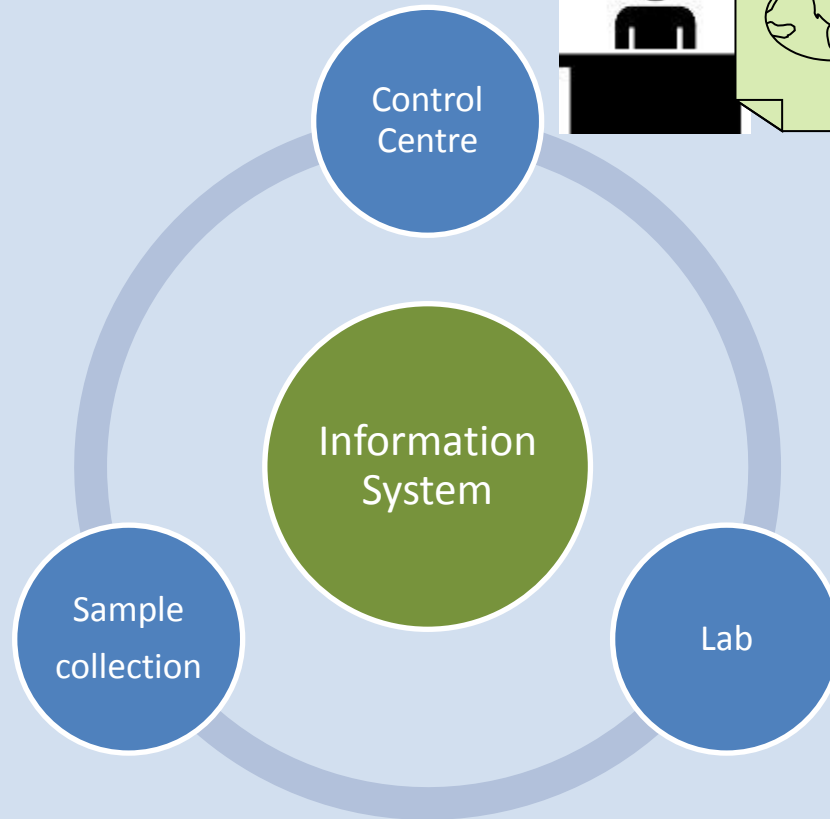
Response to Nuclear Emergencies Affecting Food and Agriculture

IAEA Coordinated Research Project (2013-2018)

Objectives

- Development of protocols for **sampling and analyzing food products**
- Development of an **Online Information System** for Optimizing Decision Making **in Food Safety** (Routine-Emergency monitoring)

Structure of online information system



Challenges of control of radionuclides in food and agriculture

➤ **Time and Location**

Food production is dynamic and variable (e.g. seasonal, spatial)

➤ **Variety** (100s of food types)

➤ **Consumers / Producers Want Immediacy**

Optimizing response time and effectiveness of decision making and communication on food safety

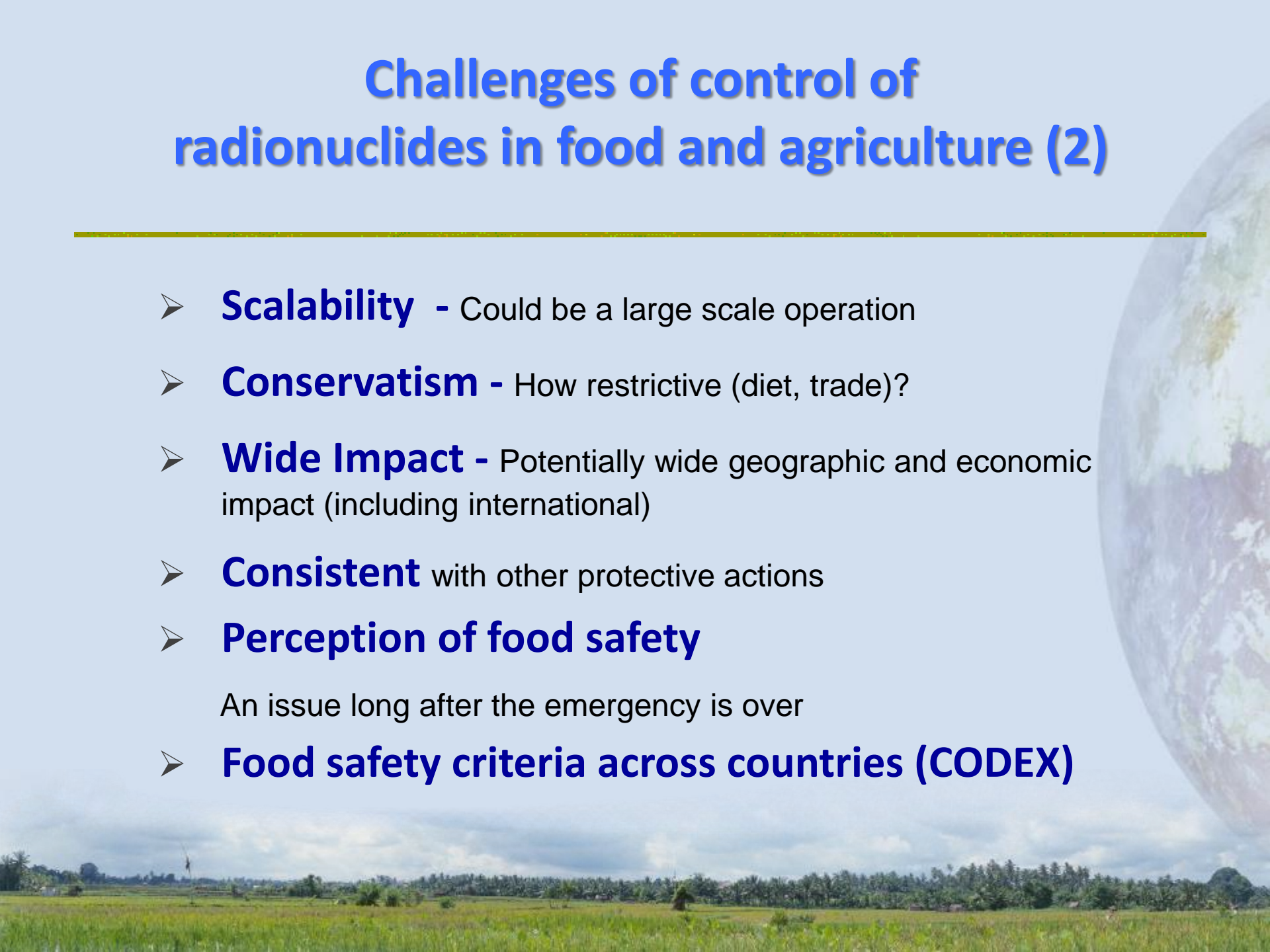
➤ **Multiple stakeholders and actors**

Ensuring integration of various levels of decision making and public stakeholders



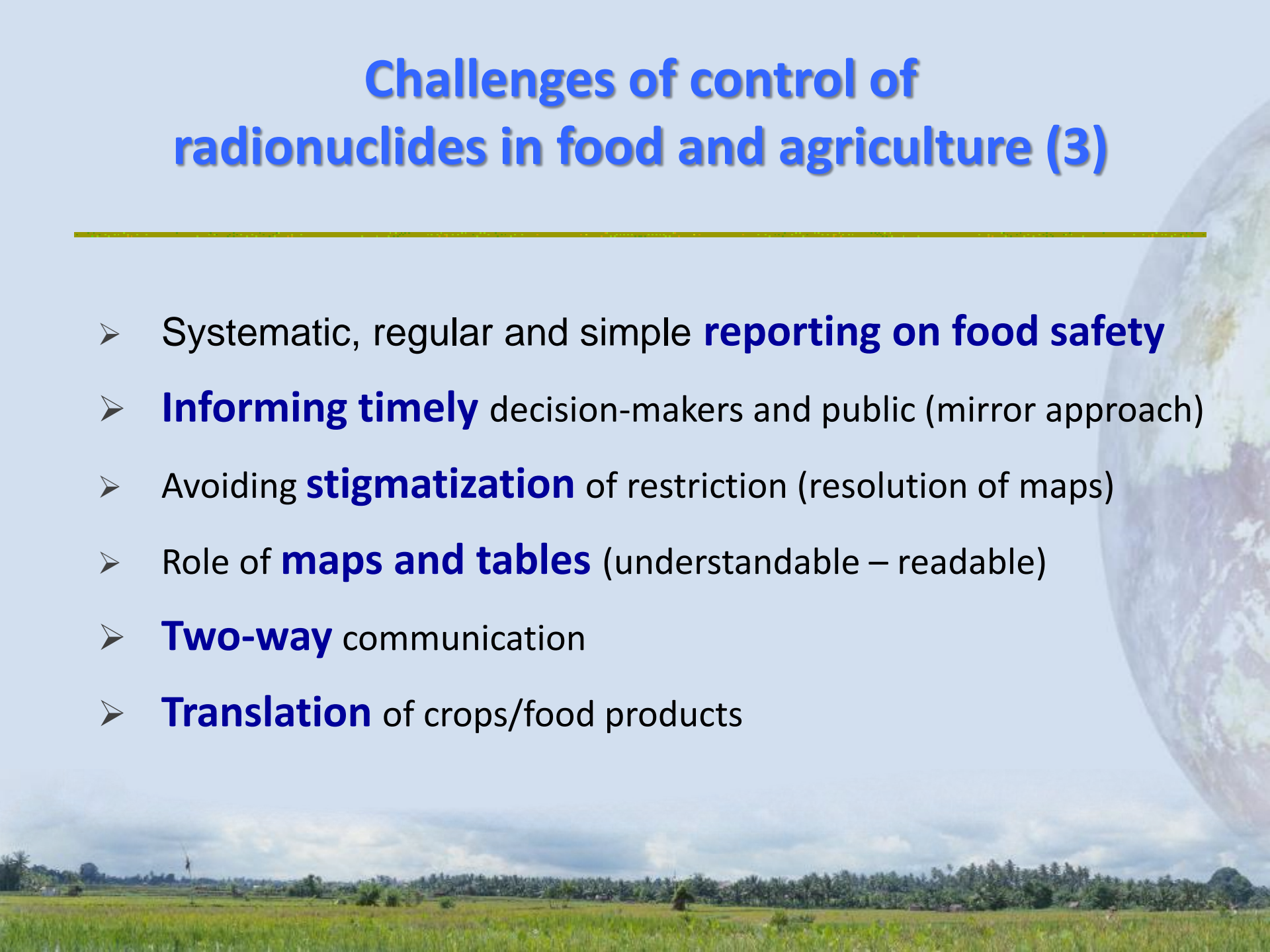
Challenges of control of radionuclides in food and agriculture (2)

- **Scalability** - Could be a large scale operation
- **Conservatism** - How restrictive (diet, trade)?
- **Wide Impact** - Potentially wide geographic and economic impact (including international)
- **Consistent** with other protective actions
- **Perception of food safety**
An issue long after the emergency is over
- **Food safety criteria across countries (CODEX)**



Challenges of control of radionuclides in food and agriculture (3)

- Systematic, regular and simple **reporting on food safety**
- **Informing timely** decision-makers and public (mirror approach)
- Avoiding **stigmatization** of restriction (resolution of maps)
- Role of **maps and tables** (understandable – readable)
- **Two-way** communication
- **Translation** of crops/food products





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Thank you

