Control of Radionuclides in Food and Agriculture

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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
Nuclear and Radiological Emergency Preparedness and Response

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

Need to regain agricultural productivity

- Nuclear and Radiological Emergency Preparedness and Response
- Remediation
  - Policy advice + Technical assistance
- Strategic research and development
- Transferring and implementing solutions
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
Thank you