



FOOD AND AGRICULTURE  
ORGANIZATION OF THE UNITED NATIONS

# **Ensuring Food Safety and Restoring a Agriculture Production Following a Nuclear or Radiological Incident**

# Radioactive Contamination of Agricultural Products

## 1. Air Contamination

- Surface contamination of plants and animals
- Inhalation by animals

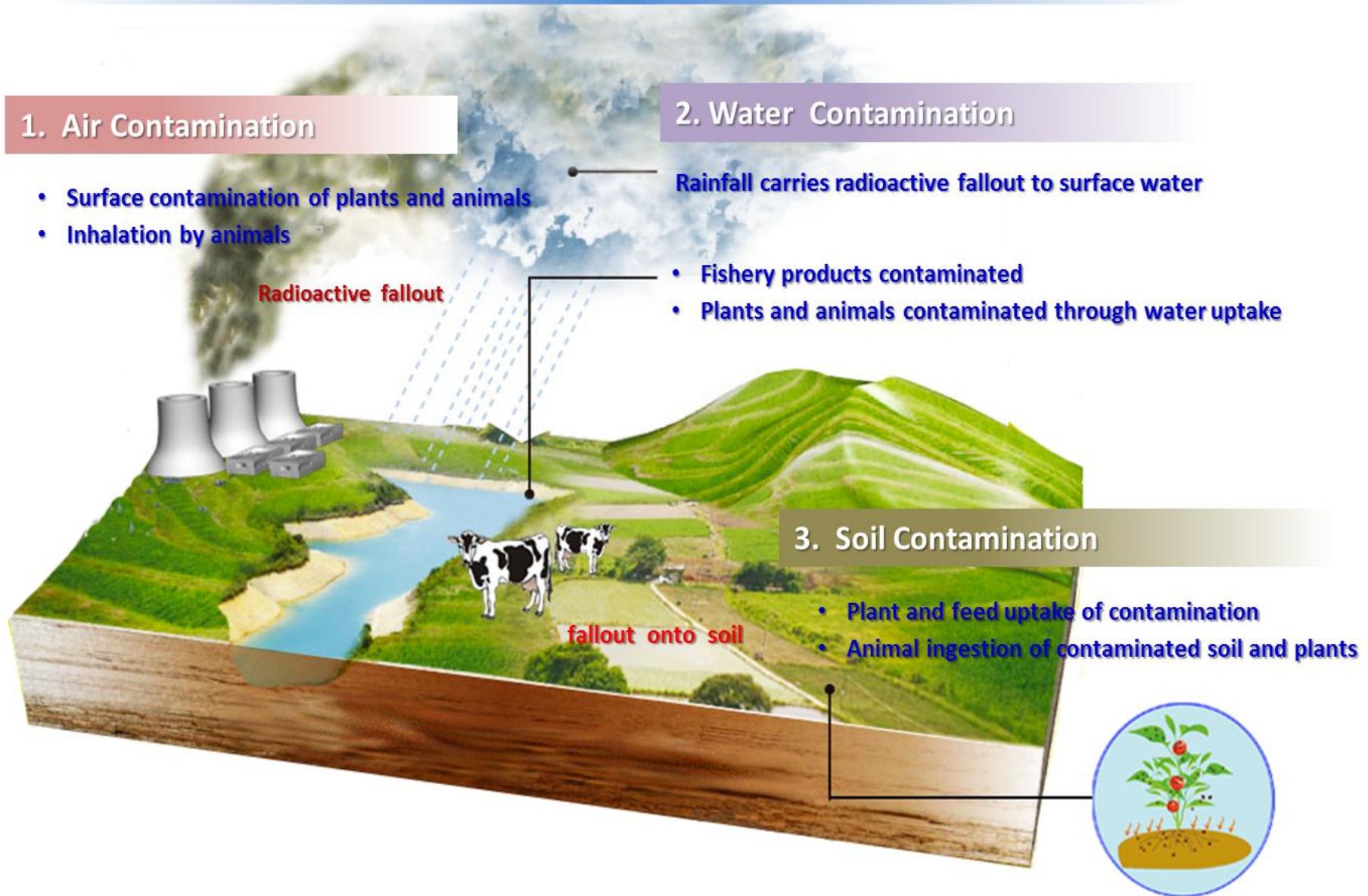
## 2. Water Contamination

Rainfall carries radioactive fallout to surface water

- Fishery products contaminated
- Plants and animals contaminated through water uptake

## 3. Soil Contamination

- Plant and feed uptake of contamination
- Animal ingestion of contaminated soil and plants





特集

# 食が危な

60% decline in  
fermented  
soybean  
production

25% of  
Japan's rice  
production is  
from 6  
prefectures in  
east Japan

60% of  
spinach in  
central market  
in Tokyo is  
subject  
enhanced food  
control  
measures

41% of the  
national share  
of mackerel  
pike are from  
affected areas

Production  
facilities in  
affected areas  
make up for  
60% of  
national share  
of processed  
fish

15% of milk for  
13 prefectures in  
east Japan  
come from  
Ibaraki and  
Fukushima

Egg prices  
increased by  
40%

80% of the  
national  
wakame share  
comes from  
Sanriku region  
(affected by  
tsunami)

香り立つ味噌汁をすすり。  
サンマの塩焼きを箸でほくほく、ご飯を口に運ぶ。  
3月11日以降、ありふれた食卓の光景が脅かされている。  
飽食の時代に突きつけられた「食の危機」。  
ニッポンの食を次世代につなぐために、残された時間は少ない。  
『安部 龍、小沢 和郎、池田 知一、山崎 幸司、佐藤 孝典、池田 信太郎、白壁 洋久、日野 ともみ』

# Framework for FAO's responsibility

- 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)
- Inter-Agency Committee on Radiological and Nuclear Emergencies (IACRNE)
- FAO/IAEA Cooperative Arrangements
- FAO Food Chain Crisis Management Framework (FCC)

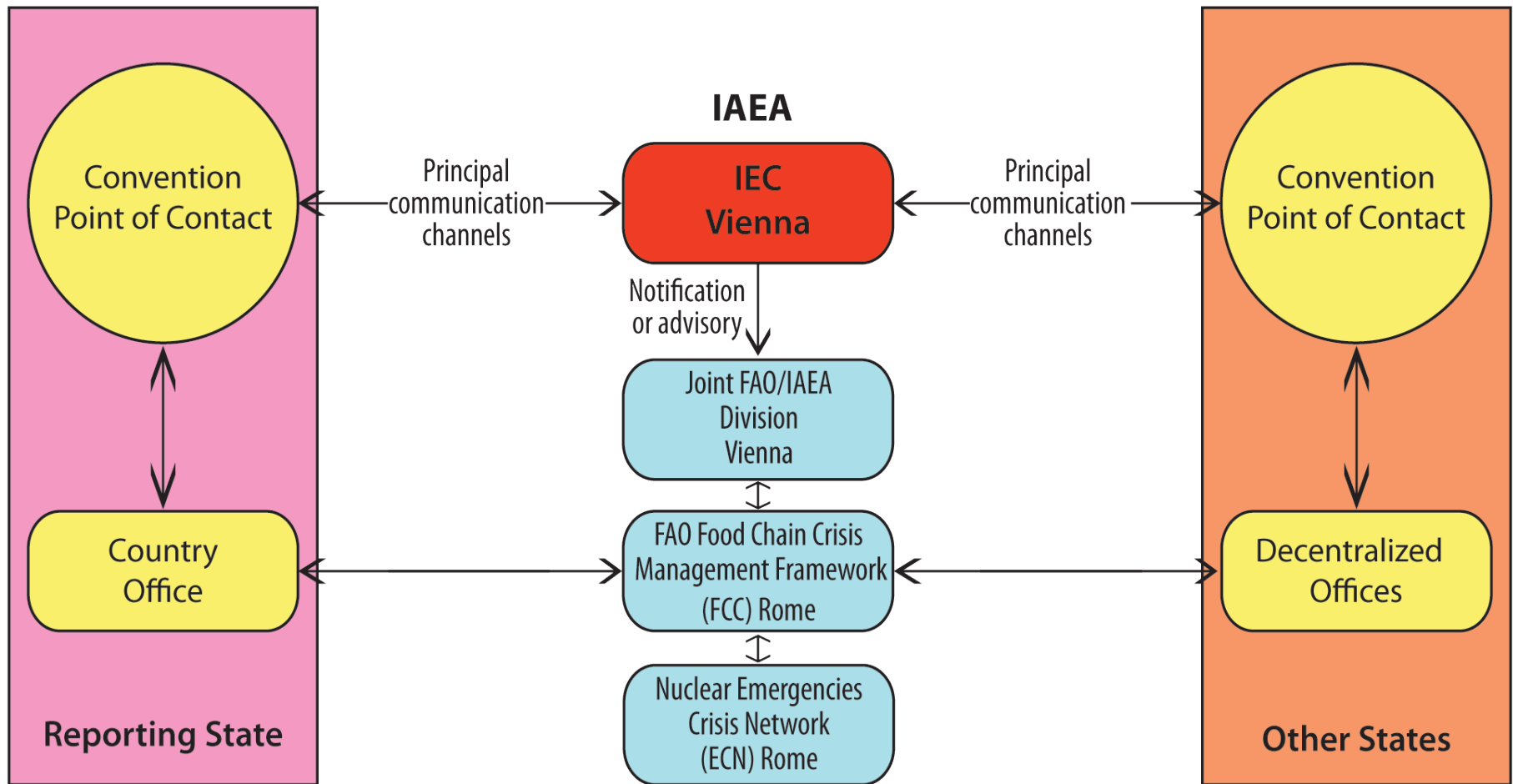


# **FAO mandate related to nuclear or radiological emergency**

## **Advise governments:**

- Acceptable levels of radionuclides for agricultural products entering national and international trade
- Measures to minimize the impact of radionuclides on food and agricultural production
- Development of procedures for alternative agricultural practices and for decontamination of agriculture, fisheries and forestry products, soil and water

# FAO/IAEA cooperation during a nuclear or radiological emergency



# **FAO activities related to nuclear or radiological emergency**

- Coordinated research projects
  - Focus on the development of agricultural countermeasures and remediation strategies
  - Assist capacity development in Member States
  - Provide guidelines and international standards
- Technical assistance and policy advice
- Intra- and inter-agency cooperation in emergency preparedness and response
- Dissemination of knowledge and increased public awareness



# **Improving response to nuclear or radiological emergency in food and agriculture (1)**

## **Early and immediate phase**

- Rapid monitoring techniques
- Sampling strategies and methodologies
- Safeguarding agricultural production
- Minimizing radioactive contamination
- Decontaminating techniques for agricultural commodities
- Disposal techniques for contaminated agricultural products
- Information sharing mechanisms
- Food restrictions and food trade



# **Improving response to nuclear or radiological emergency in food and agriculture (2)**

## **Short-term phase**

- Minimizing radionuclide transfer
- Implementation of monitoring strategies
- Decontamination / disposal procedures for affected agricultural products
- Remediation strategies and approaches
- Policy advice on national and international trade issues

# **Improving response to nuclear or radiological emergency in food and agriculture (3)**

## **Medium- and late-term phase**

- Decontamination procedures for affected soil and water
- Implementation of remediation strategies
- Strategies for modified or alternative land use
- Development and application of technologies for agricultural countermeasures
- Traceability mechanisms to help ensure food safety

# **Coordinated preparedness and response to nuclear or radiological emergency**

- Improve mechanisms of preparedness and response
- Provide technical assistance and policy advice
- Strengthen International and national capacity building
- Review and revise UN sponsored frameworks for inter-agency collaboration



FOOD AND AGRICULTURE  
ORGANIZATION OF THE UNITED NATIONS

