



# **Food Hygiene Health and Food Security**



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# Food Safety

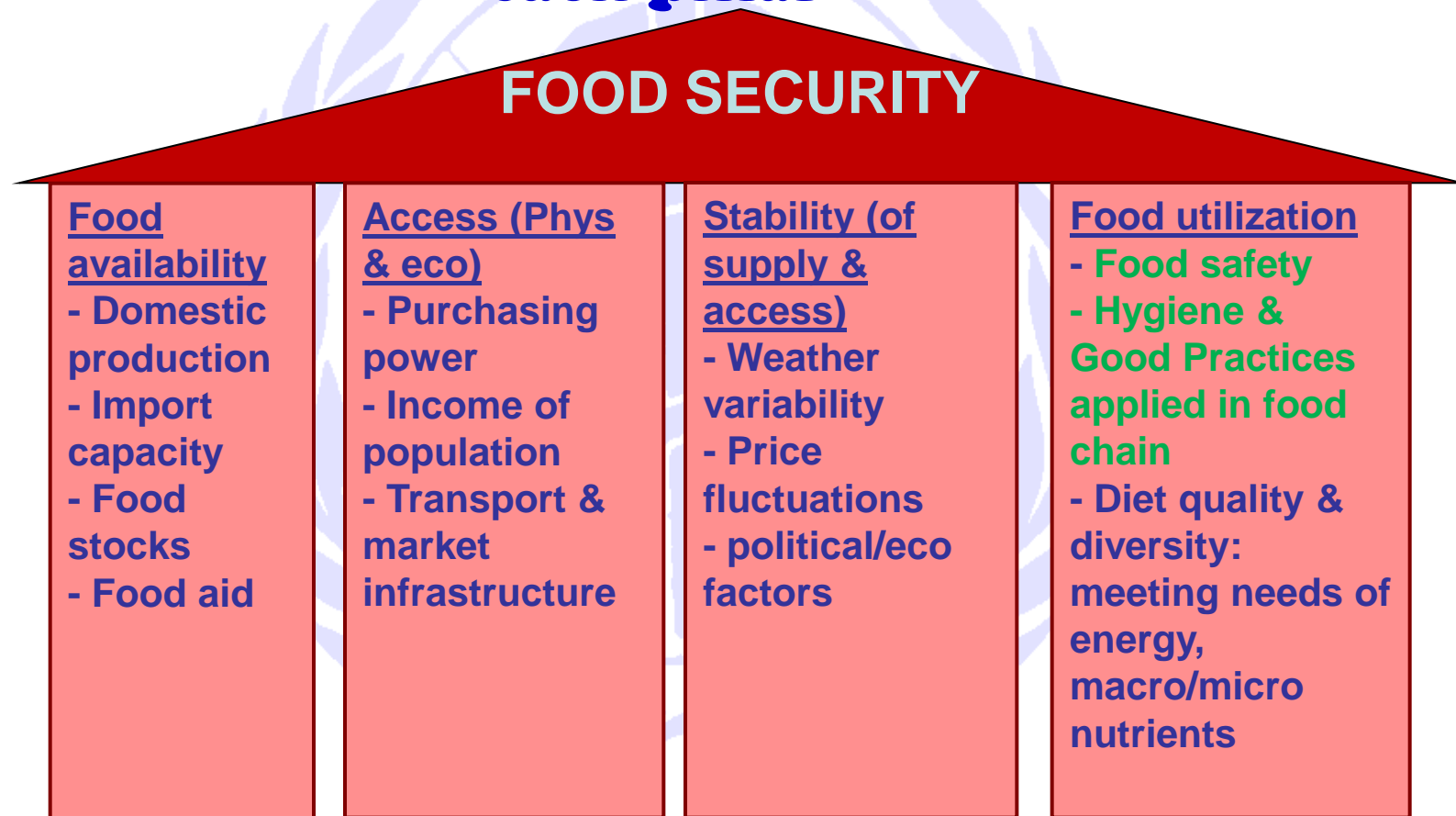


- ◆ **WHO Regional Food Safety Strategy,:**
  - ◆ **Food safety is defined protecting the food supply from microbial, chemical and physical hazards that may occur during all stages of food production, including growing, harvesting, processing, transporting, retailing, distributing, preparing, storing and consumption, in order to prevent foodborne illnesses.**



# Food Security and Food Safety

## Pillars of food security and determinant factors of each pillar



Source: adapted from presentation by Ms. Shashi Sareen, FAO





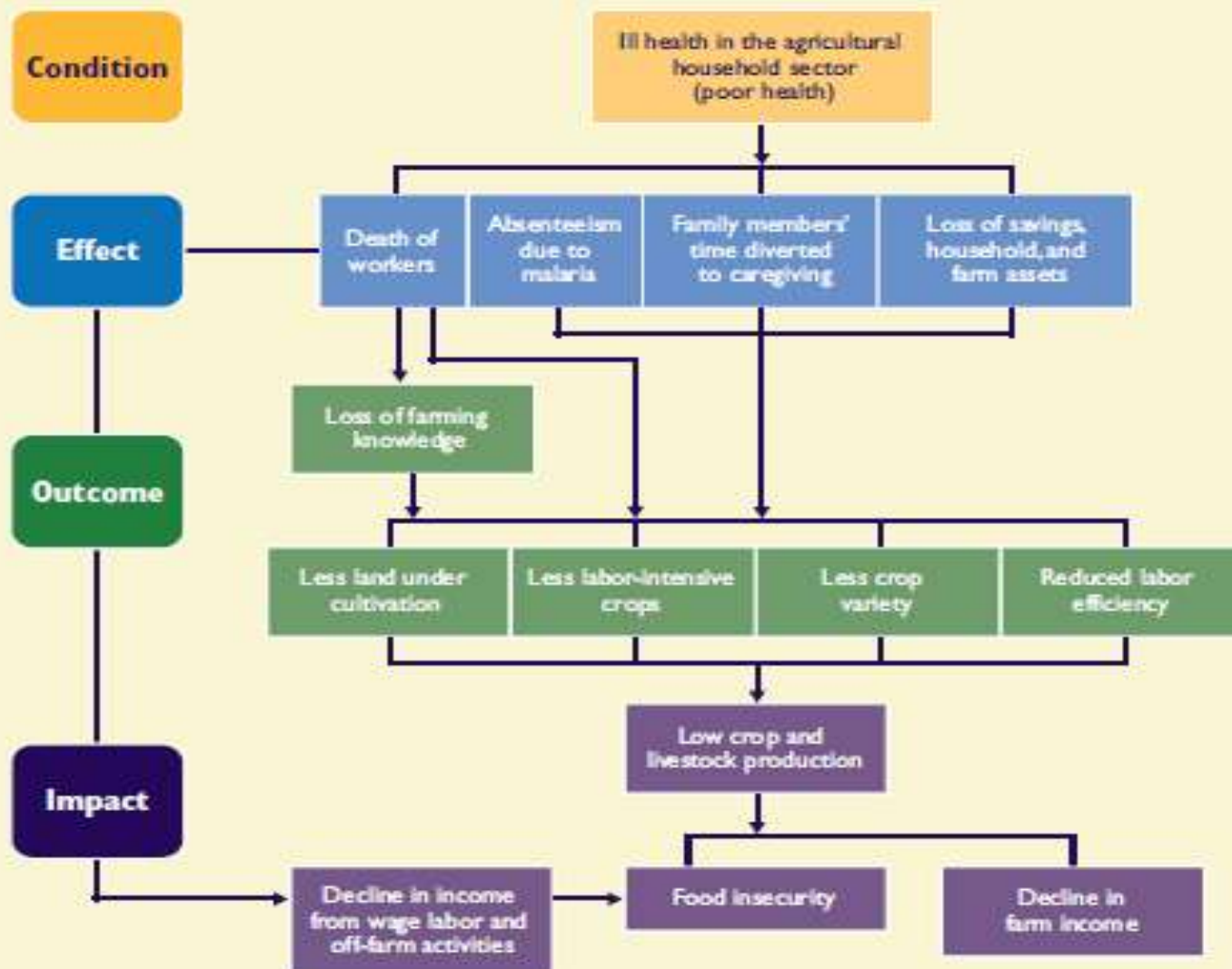
# Magnitude of Food Safety Problem in Africa



- ◆ 2008 and 2010, food-related diseases occurrences:
  - ◆ Anthrax; Typhoid Fever and Botulism; Chemical contamination of seed beans and maize (Zimbabwe; Uganda; Kenya; Nigeria);
  - ◆ Salmonellosis due to fish mouse (Mauritius).
  - ◆ Mushroom poisoning (Algeria); Bromide poisoning (Angola) and food poisoning (Madagascar, Angola, Kenya, Mauritius, and Botswana);
  - ◆ Outbreaks of diarrhoea (Congo, Kenya, Madagascar, Burundi, Comoros, Uganda, Kenya, Botswana and Mozambique);
  - ◆ Major outbreaks due to shigellosis (Malawi);
  - ◆ Acute aflatoxicosis in Kenya and Konzo in DRC and Angola (Mensah *et al.*, 2012). Aflatoxin-induced liver cancer, immunosuppression problematic in areas with high rates of infections (HBV, HIV, etc..)



Figure 2—Conceptual framework for the Impact of illness/disease on agriculture

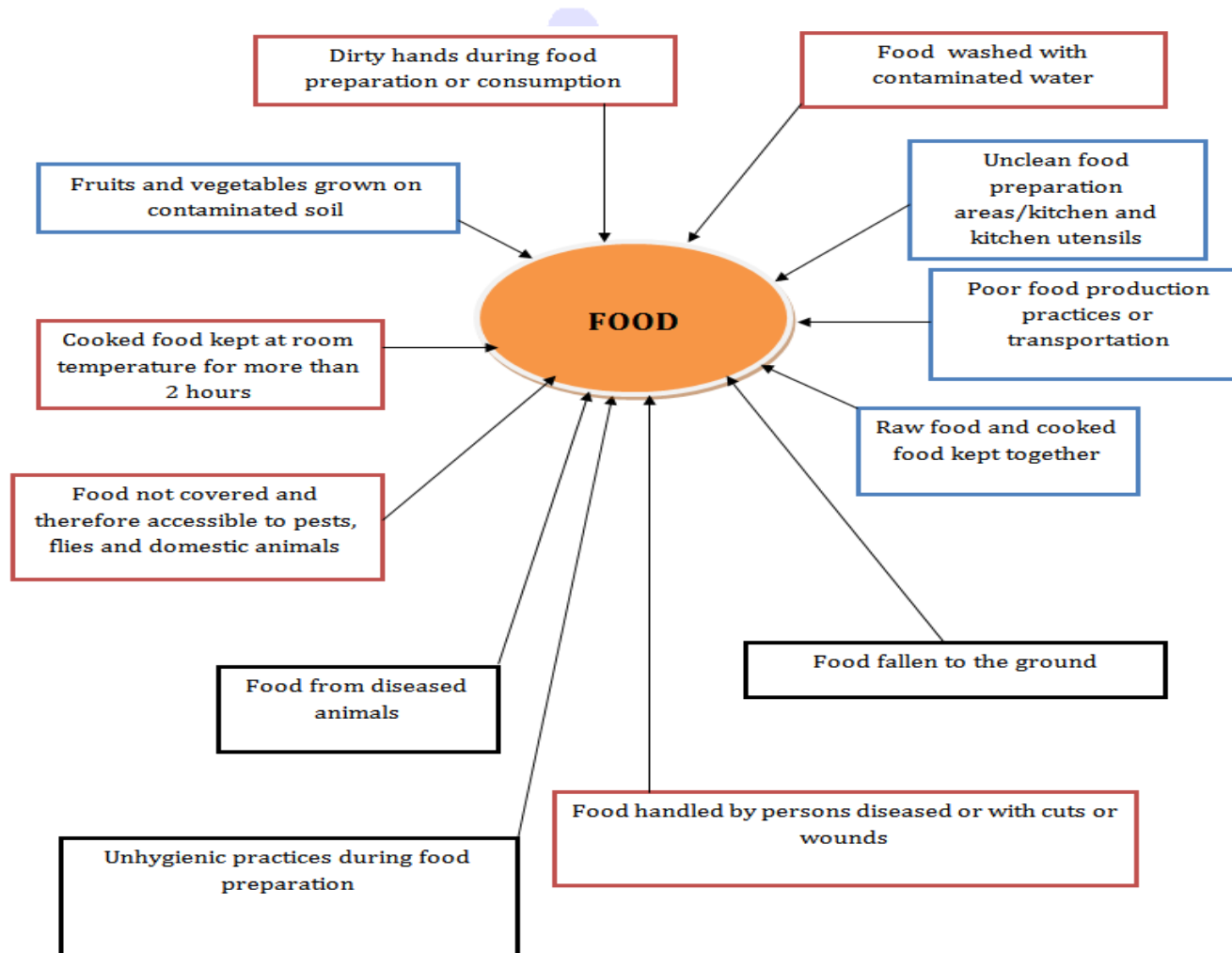




# Food Safety and Food Security

- ◆ In case of ill-health of the male, the household loses 42% of its nutritious diet and 34 % when it is the mother *(Donovan C, et al. Kigali, Food Security Support Project. 2003)*
- ◆ In Sub-Saharan African, the death of the male reduced the production of the cash crops and female death reduced grain necessary for the household survival
- ◆ Food safety requirements if not meet:
  - ◆ impede established export flows, the economic losses affect both the private and public sector with considerable impacts on communities [15].

# Sources of Food Contamination





# Illustration of chicken as a source of contamination

Courtesy: Dr. Henk van der Zee, Food Inspectorate, the Netherlands







# Five keys to safer food

## Keep clean



- ✓ Wash your hands before handling food and often during food preparation
- ✓ Wash your hands after going to the toilet
- ✓ Wash and sanitize all surfaces and equipment used for food preparation
- ✓ Protect kitchen areas and food from insects, pests and other animals

### Why?

Most foodborne microorganisms are killed by heat, but some microorganisms are highly resistant to heat, acids and alcohol. These microorganisms are carried on hands, wiping cloths and sponges, especially cutting boards and the slightest contact can transfer them to food and cause foodborne disease.

## Separate raw and cooked



- ✓ Separate raw meat, poultry and seafood from other foods
- ✓ Use separate equipment and utensils such as knives and cutting boards for handling raw foods
- ✓ Store food in containers to avoid contact between raw and prepared foods

### Why?

Raw food, especially meat, poultry and seafood, and their juices, can contain dangerous microorganisms which may be transferred onto other products if food preparation and storage.

## Cook thoroughly



- ✓ Cook food thoroughly, especially meat, poultry, eggs and seafood
- ✓ Bring food like soups and stews to boiling to make sure that they have reached 70°C. For meat and poultry, make sure that juices are clear, not pink. Ideally use a thermometer
- ✓ Reheat cooked food thoroughly

### Why?

Proper cooking kills almost all dangerous microorganisms. Foods that are not fully cooked or undercooked temperatures of 70°C can help ensure it is safe for consumption. Foods that require special attention include mince and ribs, ground beef, poultry and whole poultry.

## Keep food at safe temperatures



- ✓ Do not leave cooked food at room temperature for more than 2 hours
- ✓ Refrigerate promptly all cooked and perishable food (preferably below 5°C)
- ✓ Keep cooked food piping hot (more than 60°C) prior to serving
- ✓ Do not store food too long even in the refrigerator
- ✓ Do not thaw frozen food at room temperature

### Why?

Microorganisms can multiply very quickly if food is stored at room temperature. If holding at room temperature below 5°C or above 60°C, the growth of microorganisms is slowed down or stopped. Some dangerous microorganisms will grow below 5°C.

## Use safe water and raw materials



- ✓ Use safe water or treat it to make it safe
- ✓ Select fresh and wholesome foods
- ✓ Choose foods processed for safety such as pasteurized milk
- ✓ Wash fruits and vegetables, especially if eaten raw
- ✓ Do not use food beyond its expiry date

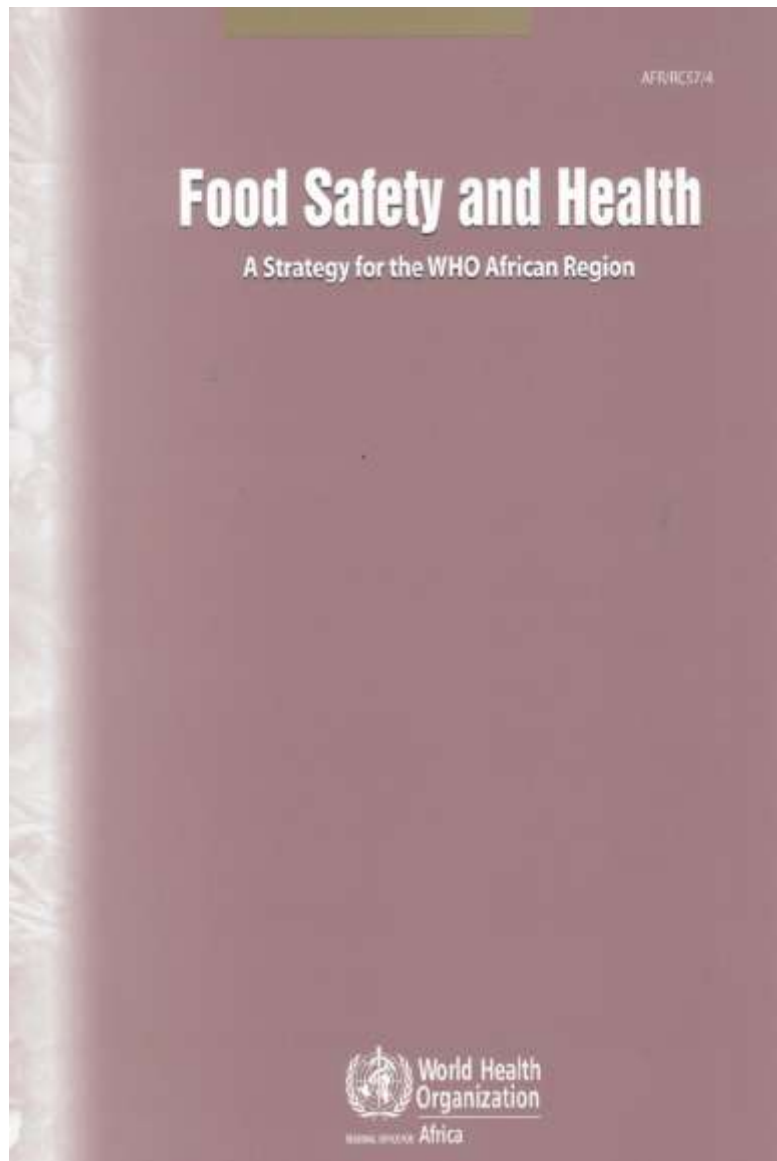
### Why?

Raw materials, including water and food, may be contaminated with harmful microorganisms and their cells. Treat the material as you buy to ensure it is safe and wholesome. Careful use of food, water, and other raw materials such as washing and peeling may reduce the risk.

Knowledge = Prevention



# WHO capacity building activities in collaboration with partners



- ◆ In collaboration with the FAO:
  - ◆ Capacity building; countries effective participation to CODEX; risk analysis
- ◆ In collaboration with the AU:
  - ◆ Establishment of a Food Safety Authority and Rapid Alert System for Food and Feed.
  - ◆ AU/EU programme on Better Training for Safer Food.
- ◆ **The Global foodborne Infections Network partners** (CDC, USA; National Food Institute, Denmark; Réseau International Des Instituts Pasteur, France; Public Health Agency of Canada; FDA, USA; Animal Sciences Group Lelystad, Netherlands; Enter-net, European Union; OzFoodNet, Australia )
  - ◆ Capacity building of microbiologists and epidemiologists to conduct integrated surveillance for foodborne and other enteric infections from the farm to the table and research



# Key Messages

- ◆ **A comprehensive, coherent and coordinated strategy is needed to make progress towards, food security, food safety, nutrition, and health which are crosscutting issues that permeate the entire life-course from conception to old age.**
- ◆ **Include food safety in Food and Nutrition policies and Strategies and plan of action and establish a diversity of approaches to enhance consumer awareness and participation in food safety activities including commitment to consumer education.**



# Assuring Food Security, Food Safety and Nutrition – A Shared Responsibility Let us Be Together

