Perspectives on Harmonisation of Food Legislation:

Importance and challenges

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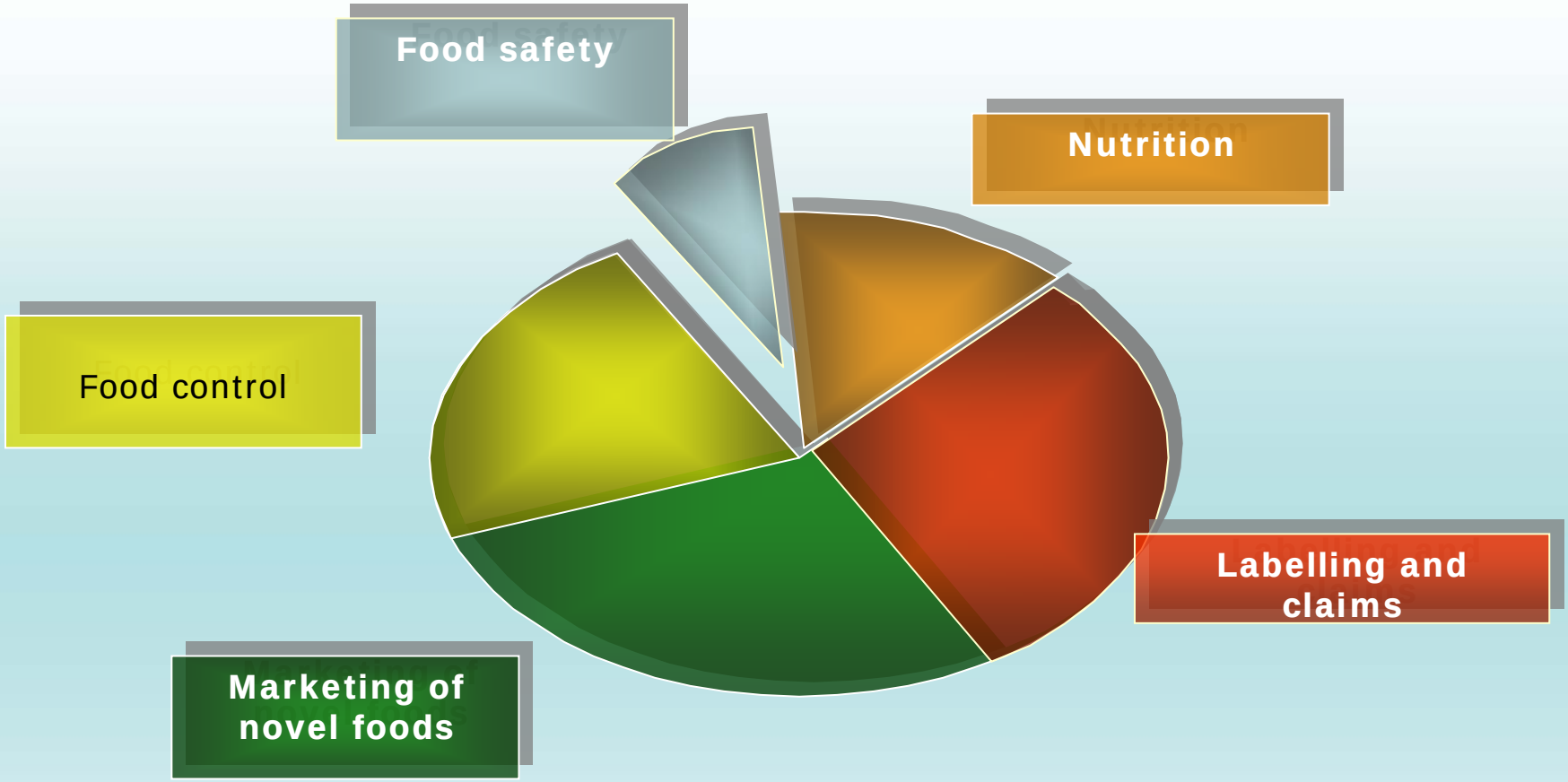
Importance of Food Legislation (1)

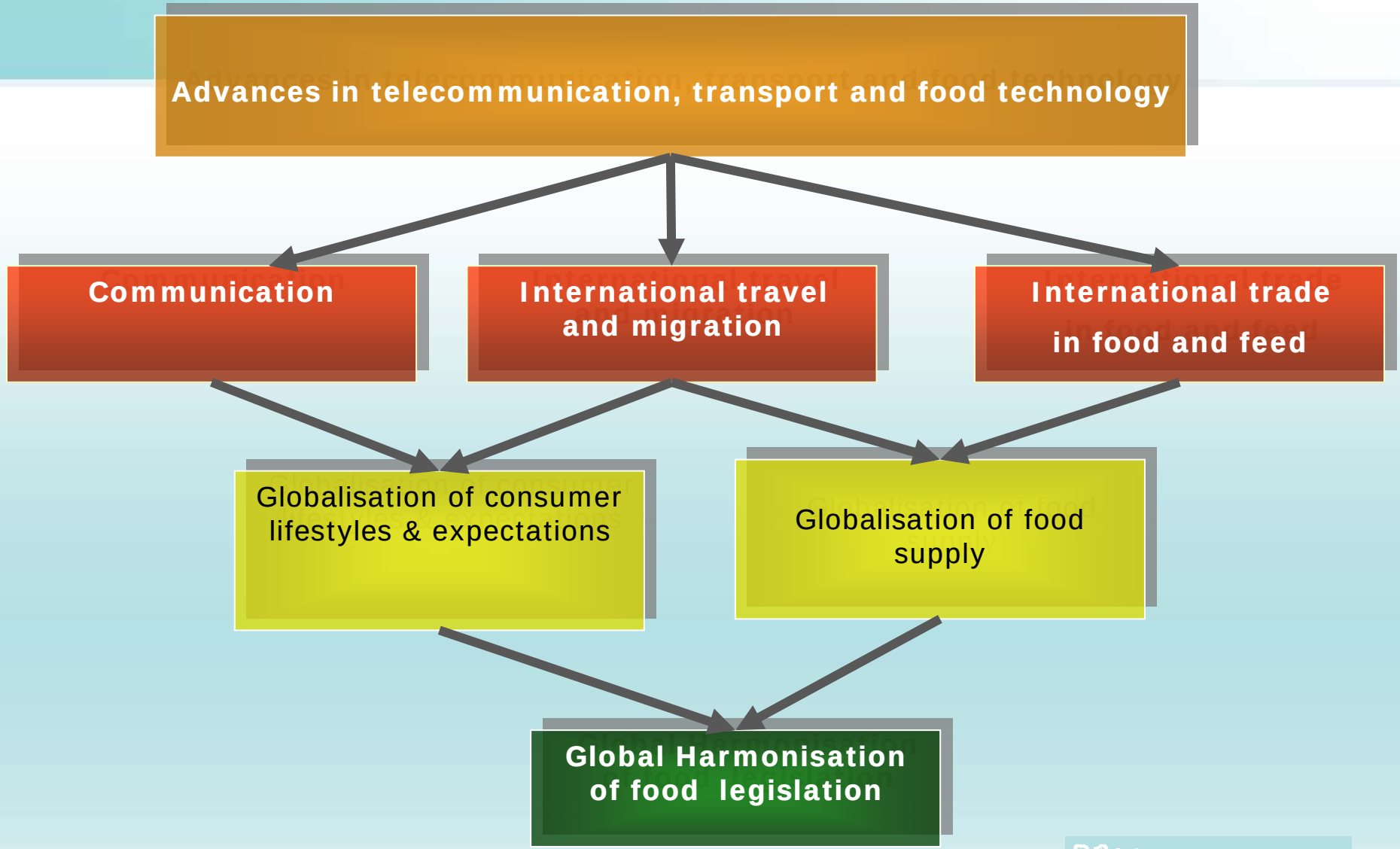
- Protecting public health
- Protecting consumers from products that are spoiled and fraudulent, or otherwise unfit for consumption
- Providing consumers with relevant and accurate information so that they can make an informed choice

Importance of Food Legislation (2)

- Facilitate **fair** trade by ensuring a consistent standard among competing businesses
- Ensure that all stakeholders of the food chain, i.e. both suppliers and customers, fulfill their role.
- Increase the confidence of consumers in the food supply
- Provide guidance on matters related to food safety, SLD Businesses
- Providing norms
  - in designing and validating their food safety assurance system, and
  - reassuring consumers that their products are safe and meet the nationally or internationally agreed safety and quality standards.

Focus of Global Harmonziation




Advances in telecommunication, transport and food technology
Communication
International travel and migration
International trade in food and feed
Globalisation of consumer lifestyles & expectations
Globalisation of food supply
Global Harmonisation of food legislation

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Global Harmonization of Food Legislation

HARMONIZATION OF FOOD LEGISLATION IS NOT

Harmonisation of food legislation is not a process of developing one law for all nations!

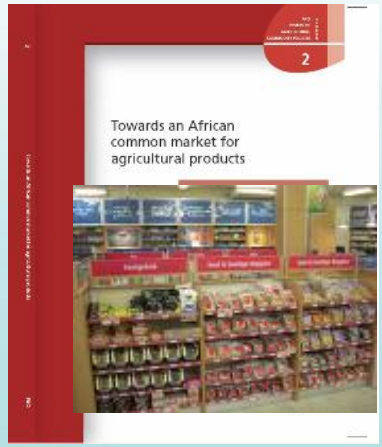
GLOBAL HARMONISATION OF FOOD LEGISLATION IS

Harmonisation of food legislation is a process by which national law is established and administered, in view of ensuring food quality and standards which protect the health of consumers;

but a the same time,

trade is facilitated at the domestic and international level, without applying arbitrary or unjustifiably discriminating requirements.

Harmonization of Food Legislation



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Importance of global harmonisation of food legislation

Universal Declaration of Human Right (1948)

Article 1

- **All human beings** are born free and **equal** in dignity. They are endowed with reason and conscience and should act towards one another in a spirit of brotherhood.

Article 25

- **Everyone has the right to a standard of living adequate** for the health and well-being of himself and of his family, including **food**, clothing, housing, medical care and necessary social services.

- *Access to nutritionally adequate safe food is the right of each individual*.

FAO/WHO International Conference on Nutrition (1993)

International trade and food export support Economic Development

- International trade and food export is a source of foreign exchange,
- Food exports boost local food industry
  - Providing job opportunities

    (in countries which provide statistics, 22 million people work in the food manufacturing industry alone)
  - Contribute to food security and access to food
  - Contribute to national growth and economic development

The food market is estimated to be $ 4.6 trillion, representing 10% of the world GDP

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Food export

Country	Food sector	Export	Importing countries
Bangladesh	Frozen shrimp and fish	7.3% of export market in 1997	EU 34-50% US 23-38% Japan 15-25%
Kenya	Fish (Nile perche)	Annually $ 50 million export earning	EU, Far east, Israel

Impact of regional standards

Compared to the standards of Codex Alimentarius Commission, it was found that the EU-harmonised standard resulted in a considerable loss of revenue from cereal, edible nuts and preserved fruits exports for African countries and decreased the African export revenue by **US $670 million**

Codex Standards for Aflatoxin would increase cereal and nut trade among countries by **US $ 6.1 billion** or by 51 % above the 1998 value of trade resulting from standards imposed individually by the importing countries.

Wilson and Otsuki, 2003

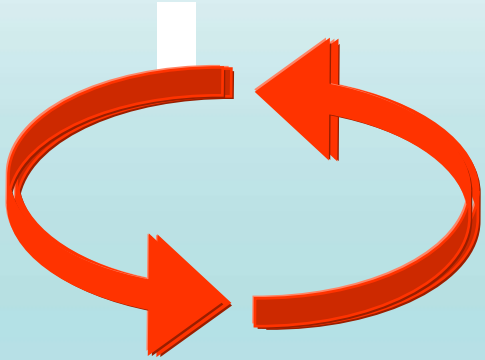

Diseases
Food contamination
Malpractices
Loss of food export
Poverty and underdevelopment

Impact of food safety risks on trade and economy

Year	Country	Food sector	Loss	Reason
1997 (Aug-Dec)	Bangladesh	Shrimp	US$15 million	Weaknesses in food safety assurance
1997	Kenya	Fish	Decline of 34% of fish export Decline of 13% of foreign exchange earnings	Export to Spain and Italy due Salmonella
1998	Kenya	Fish	66% decline in fish export to EU and 32 percent drop in foreign exchange earning	Following report of cholera
1999	Kenya	Fish	68% additional decline	Pesticides
2002	China	Honey	US $ 5 million for one multinational Company importing	Lack of infrastructure/capabilities for controlling chloramphenicol

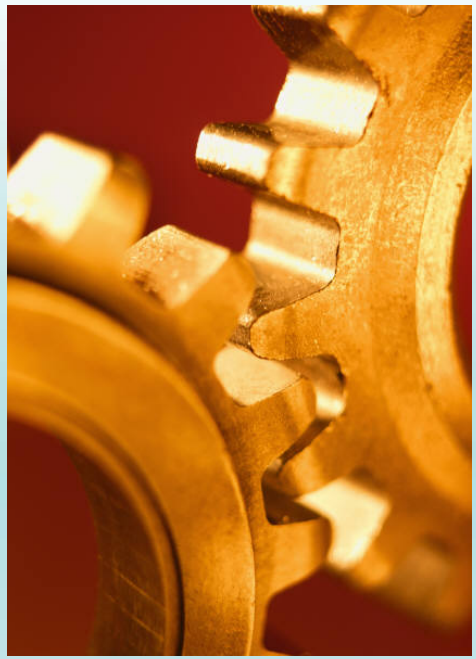
(International Food Policy Research Institute 2003)

Diseases, including foodborne diseases and associated malnutrition



Poverty & under-development

Health and welfare



Economic development

Importance of harmonisation for food industry and food safety

- For exporting food industries: reducing operational risk e.g. due to management of change

- Multi-national food industries have the ethical obligations to produce foods to the same standard of food safety

Ethical and moral obligation of multinational companies

Food and Agriculture Organization of the United Nations

World Health Organization

FAO/WHO Global Forum of Food Safety Regulators
Marrakesh, Morocco, 28 - 30 January 2002

Improving Efficiency and Transparency in Food Safety Systems
Sharing Experiences

Appendix VII

Multi-national companies to apply one single standard of food safety all over the world!

FOOD COMPANIES

Government food control services are increasingly adopting the approach of industry self-quality control measures. Official monitoring is carried by the concerned governmental authorities in order to insure that it is in compliance with regulations on the national level as well as across multiple countries. The share of multinational food companies in food consumption is increasing. Food companies are keen to keep their reputation through providing high quality safe food. Many of these companies established food processing factories in developing countries where food safety control measures may be less rigid than in developed countries and where the ability of the government to perform proper monitoring may be limited. Multinational companies should maintain the highest standard they adopt wherever their factories are.

Another concern is the patency issue. Under Trade Related aspects of Intellectual Property Rights agreement (TRIPS) most multinational companies hold patency rights on genetically engineered foods or plant varieties. Farmers in developing countries may have to pay fees to the concerned company before reusing their own harvested seeds, adding an economic burden on the farmers, which may be reflected on the national food safety system.

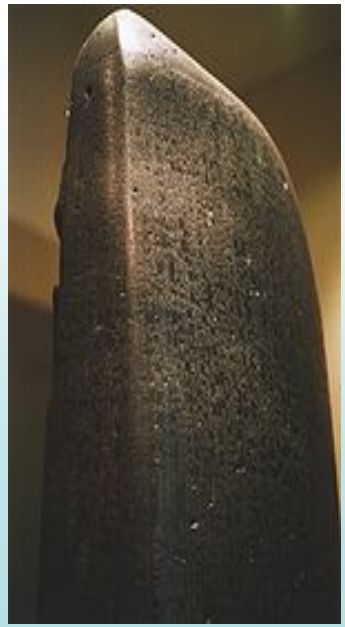
There is a need to strengthen the partnership between governments and the private sector along mutually agreed fair guidelines.

FUTURE TRENDS

Historical perspectives

Historical Development

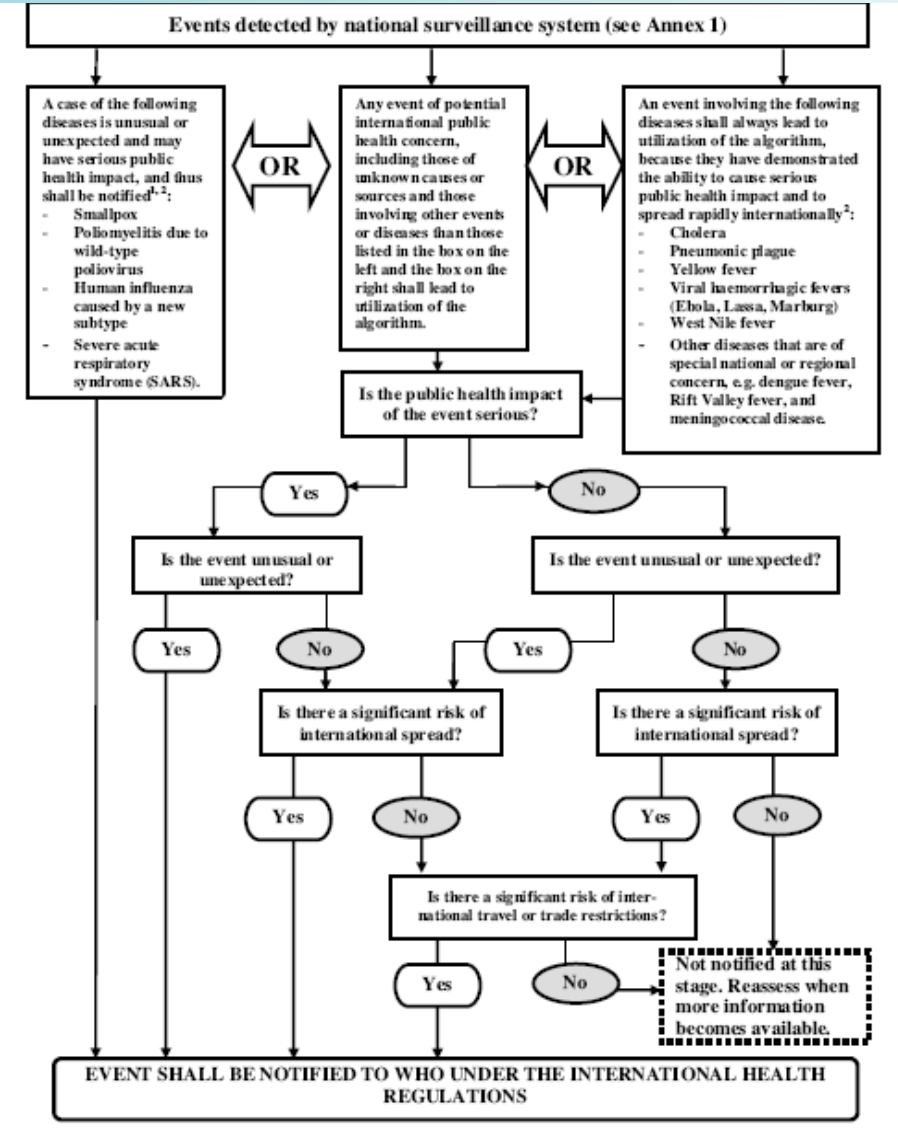
- Food codes started in the early period of civilisation
- Harmonisation started with the expansion of religion to new populations
- Focus on fraud and adulteration
- 1800 to present day: legislative period



Code of Hammurabi (1760 B.C.)

Main Milestones in Global Harmonisation of Food Legislation

International Health Regulations (IHR 2005)



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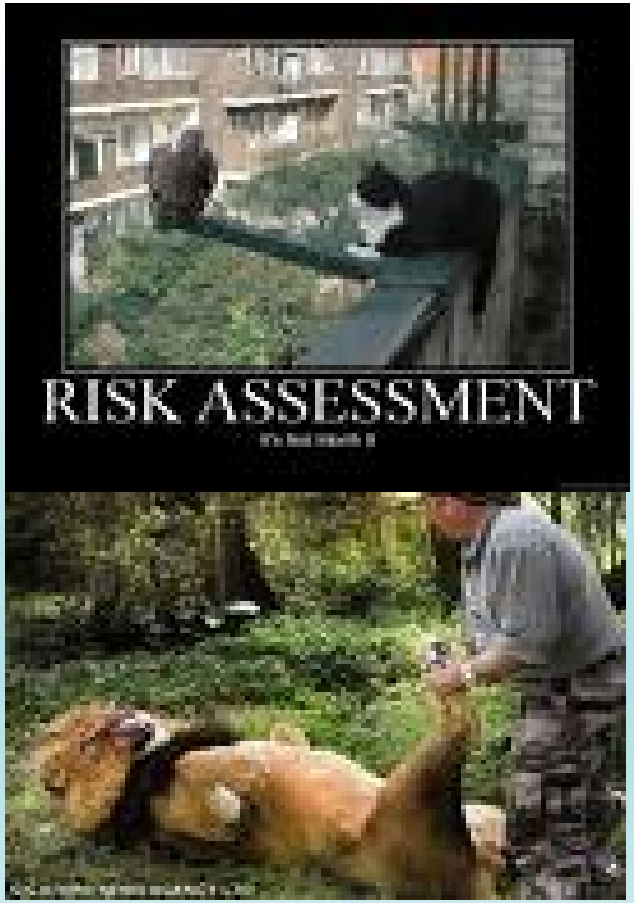
Challenges

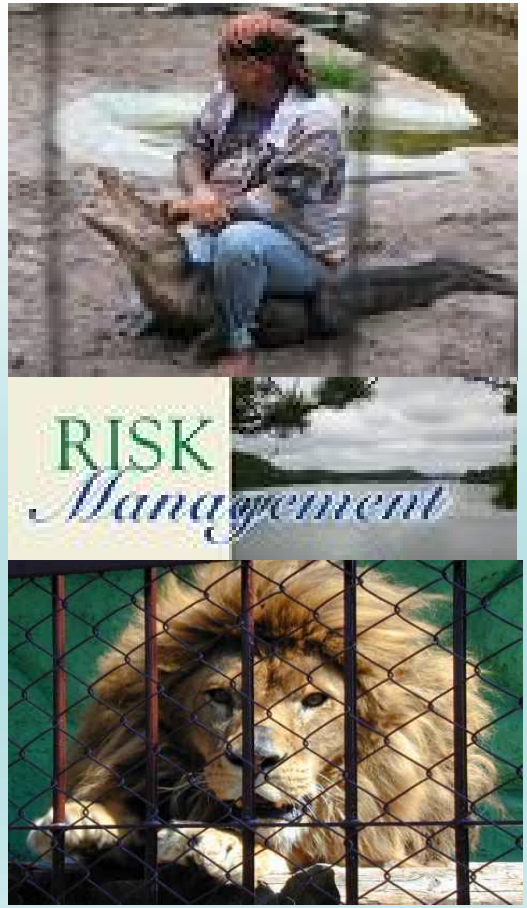
Challenges

- Scientific challenges: All tasks and efforts needed to collect the necessary scientific data for making appropriate and transparent decisions.

- Societal challenges: Efforts to ensure a fair society considering the rights and interests of different parties.

RISK ANALYSIS FRAMWORK





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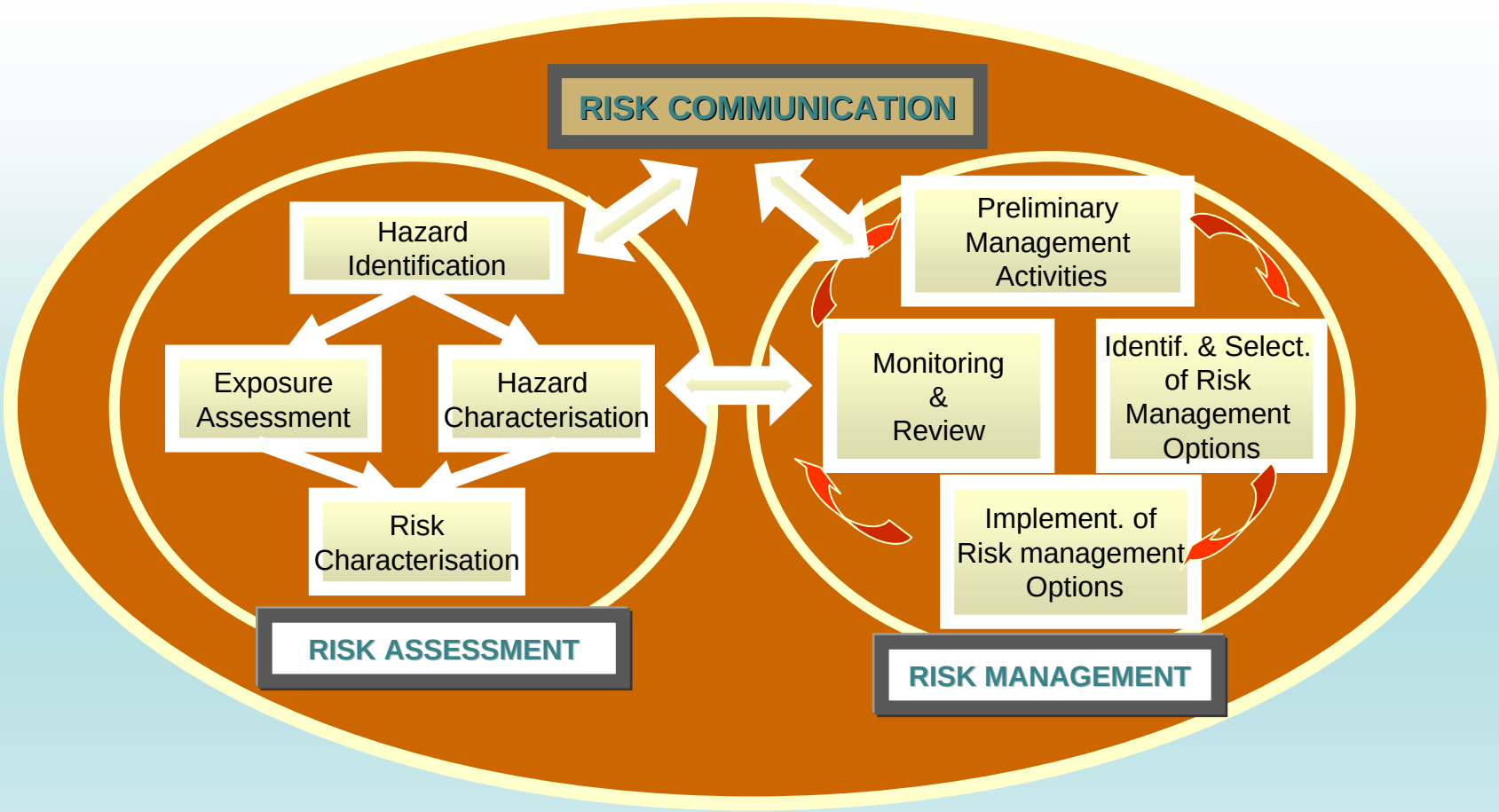
RISK ANALYSIS FRAMWORK



Challenges in risk management

- Defining the *Appropriate Level of Protection* (Acceptable Level of Risk) and corresponding legislation

- Different situation with regard to
  - chemicals and
  - microbiological hazards

Challenges in risk management: chemicals

- International consensus that the presence of chemicals should not present an *appreciable risk human health”
- Control of chemical hazards “relatively” easier, partly due to analytical methods
- Internationally agreed principles for the assessment of risk of chemical hazards
- Risk assessment of chemicals is frequently based on toxicological studies of animals

Risk management: microorganisms

- Appropriate level of health protection?
  - SPS: The level of protection deemed as appropriate by the member in establishing sanitary or phytosantary measure to protect human life
  - Highest acceptable number of foodborne illness per 100 000 population
- Difficulties
  - Reliable data on foodborne illnesses
  - Control of foodborne illnesses depend on the human and environmental and technological factors and means for controlling varies in the different part of the world.
  - Achieving the Appropriate Level of Protection is not merely a matter of establishing food safety legislation but also education of consumers and public

Challenges in risk management

- In principle “Appropriate Level of Health Protection” should be established from the human health perspective

However,

- Difference in countries in terms
  - Economical costs
  - Technical feasibility
  - Societal preferences/perceptions

Challenges in risk assessment

- Hazard identification: lack of data on foodborne hazards, in particular in the developing countries
- Hazard characterisation:
  - For microbiologcal hazards: dose-response data are limited or non-existent
  - For chemical hazards: impact of exposure to low doses or communicative effects of contaminants
- Exposure assessment.
  - Chemicals: Data on dietary intake limited
  - Microbilogical hazards: Difficulty in quantitative evaluation of the likely intake of pathogens as the bacterial population may increase or decrease during the preparation and/or storage of food
- Risk Characterisation:
  - Sum of all difficulties and the interpretation of the uncertainties.

Challenges in risk communication

Difference is the population in terms of:

- Perception
- Values
- Culture
- Lifestyle
- Economic power

Providing Safe and Nutritious Food for the Global Market Place

Small industries

Consumer concerns

Consumer health

Industrialized countries

New production method and innovation

International trade and promoting economic growth

Chemic hazard

Food security Nutrition

Food Safety

Microbiological hazards

Animal welfare and environmental considerations

Ensuring food safety and healthy diet

Developing countries

Industry

Advances in science and technology

Large food industries

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Conclusions

- Food legislation *per se* will not guarantee food safety
- Food legislation *per se* will not change practices
- Food Legislation is an enabling factor.
- To protect consumers, any legislation must be supported by:
  - an adequate enforcement infrastructure,
  - food industries that operate responsibly,
  - appropriate training and education
    - of operators,
    - food handlers (informal sector) and
    - consumer.

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FOOD CONTROL

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Future challenges in global harmonization of food safety legislation

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