FOOD SAFETY IN MAURITIUS: INSTITUTIONAL & REGULATORY FRAMEWORK

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MAURITIUS

- Uninhabited
- Dutch
- French
- British
- Slaves from Africa and Madagascar
- Indentured labourers from India
- Traders from China
- Independent in 1968

Size: 1864.8Km²

Popn: 1.33m

Tourist popn: 1 m
Small?

- Small land area of only 2,040 km²

An Exclusive Economic Zone > 2 million km², one of the largest in the world.
THE MOSAIC MAURITIAN POPULATION

different ethnic groups

Indo-Mauritian - 68%
Sino-Mauritian 3%
Creole- 27%
Franco-Mauritian 2%
MAIN PILLARS OF THE ECONOMY

Agriculture to GDP - 3.3%; Services 77%; Industrial 17%
FOOD TRADE

NET IMPORTER OF FOODS: cereal (staples), cereal based products, pulses, dairy products, fish and meat products, fresh fruits, canned vegetables, other foods

Member of different trading blocks SADC, COMESA, IOR

MAIN EXPORTS: sugar, fish products Fresh & Processed fruits and vegetables (niche markets)
Local Food Production

Mainly small planters, now big players on a larger scale; New dimension-bio/organic foods

Low food crop prod

Very low Livestock prod. except for chicken self-sufficient

Total fish prod 21.2% from 2012

Fresh coastal fish catch - from 2012)

Other catch (tuna, bank, ponds and barachois etc) - by 39.9% from 2,892 tonnes in 2012 to 4,046 tonnes in 2013
THE FOOD SECTOR IN MAURITIUS

GROWTH RATES

• Food manufacturing sector (local production)
  ↑ 1.2% (2000 to 2012)

• Food Exports
  ↑ 17.8% (2000) to 37.2% (2010)

• Food Imports
THE FOOD SECTOR IN MAURITIUS

IMPORT of foods

Local raw materials/ingredients

Imported raw materials & ingredients

Informal sector (family businesses, street foods)

Small/ Medium enterprises

Large enterprises

Local market

Tourist industry

Export market
Mainly fish; fruits, noodles
EVOLUTION OF THE FOOD SECTOR

From a low-income, agriculturally based economy

To an upper middle-income diversified economy with growing industrial, financial, and tourist sectors

- Increase in incomes
- More women at work
- Change in food habits
- Consumer lifestyles

MAJOR CHANGES in
- variety and quality of foods
- scale of production
- increase in the number of fast food outlets and street-vendors

New demands on the food industry
A SUPPLY SUFFICIENT SUPPLY OF WHOLESOME, SAFE AND HEALTHY FOODS

Fundamental to the health and welfare of human beings

Food itself can pose a threat to human health

351,000 People Die of Food Poisoning Globally Every Year (WHO, 2015)
OUTBREAKS OF FOODBORNE DISEASES

ADVERSE HEALTH CONSEQUENCES

MAJOR NEGATIVE EFFECTS ON THE ECONOMY

- Loss of trade (both national and international)
- Adverse effect on tourism
- Medical costs incurred by government
FOOD SAFETY CONCERNS

• **Pesticide residues** - cancers in Mauritius—possible link to use of pesticides; Reproductive disorders
• **Microbial contamination**
• **Adulteration of foods** (Melamine, sudan red dye)
• **Improper use of food additives**
• **Heavy metals** (mercury, lead)
• **Environmental contaminants**
• **GM Foods**
New paradigm shift-food for thought?

Are

- Excess saturated fats
- Excess salt
- Trans fat
- Food Allergy

Food safety issues?

Safe food  Will not cause harm
The under-reporting pyramid (Source: Forsythe, 2010)
STATISTICS 2014

• 20878 food premises were inspected
• 1964 improvement notices
• 82 prohibition orders
• 416 contraventions
• 2,153 samples taken (533 for chemical analysis & 1620 for microbiological examination)
• 488 pre-market approval permits
• 815,293 kg of food products were seized

Source: Director’s office, MOH&QL, 2014 in Salabee, 2015
ANALYSIS OF FP DATA 1990-2011(1)

- Very few deaths
- No incident implicating more than one death/death/incident
- Close to 40% of those incidents involved up to 5 victims
- Few were large-scale outbreaks implicating more than 50 victims

Source: Hitoe, 2011

IFS, UOM/SELMAT 2015
Food poisoning setting

31 % - at home;
19 % educational institutions
17 % street food vendors

Source: Hotee, 2011

Foods incriminated

Fried noodles/rice
Pastry
Foods with mayonnaise

LAMAT 2015
EFFECTIVE NATIONAL FOOD CONTROL SYSTEMS

• Are essential to protect the health and safety of domestic consumers

• Are also critical in enabling countries
  – to assure the safety and quality of their foods entering international trade and
  – to ensure that imported foods conform to national requirements
BUILDING BLOCKS OF A NATIONAL FOOD CONTROL SYSTEM
FAO, 2003
MODERN FOOD LAWS

• NOT ONLY contain the necessary legal powers and prescriptions to ensure food safety

• But also allow the competent authorities to build PREVENTIVE APPROACHES all along the food chain

• In addition to food laws and regulations, governments need updated food standards
## REGULATORY FRAMEWORK

**LAWS RELEVANT TO FOOD SAFETY**
scattered b/w different ministries

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<td>Dangerous Chemical Control Act of 2004</td>
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<td>Plant Protection Act of 2006</td>
<td>Ministry of Agro-industry and food security (MOAFS)</td>
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<td>Genetically Modified Organisms Act (2004)</td>
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<td>Import of fish Fish products (2012)</td>
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<td>Export of Fish and Fish products(2009 Amendments 2012)</td>
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<p>| MS30: Prepackaged foods regulations(2008) |                                                                               |</p>
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<td>(Drinking Water Standards) Regulations</td>
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INSTITUTIONAL FRAMEWORK FOR FOOD CONTROL

Ministry of Health and Quality of Life – Health inspectorate (local production, imports)

Ministry of Agro-industry and Food Security

National plant protection office - export of fresh agro products

Meat Authority - slaughtering

Ministry of Local Government - markets/fairs

Ministry of Environment - water quality

Ministry of Industry, Commerce and Consumer Protection - Some mandatory Standards

Ministry of Ocean Economy, Marine resources, Fisheries, Shipping and Outer Islands - Competent Authority for export of seafood products
MSB- Mauritius Standards Bureau

- operates a certification marking Scheme for products and a national management system certification scheme

- offers calibration services

National Codex Committee (MOAFS)

PRIVATE CERTIFICATION BODIES

MAURITAS-
Accreditation of labs; certifying bodies
SUPPORTING BODIES

Trade organisations-
Mexa, MCA, MCCI, SMEDA

Research and Training institutions
(University of Mauritius)

Consumer organisations

Research, support, Extension
-Food and Agric Research and Extension Institute

Codex/FAO
WHO
EU
SAFE FOOD – everyone’s responsibility ALONG THE FOOD CHAIN

“farm to fork” …..“sea to the plate”

**Farm**

**Processing**

**Transport**

**Distribution**

**Sale**

**Consumer**

**GAP**

**Food Act and other mandatory standards**

**Voluntary standards**

a few enterprises, hotels –HACCP, ISO 22000

EU/ Codex standards

**Reporting**

Market force

Information seekers

Safe practices (shopping, preparation, handling, storage of foods)
• No farm to fork approach to manage food safety (the primary production level not regulated)

• Fragmented approach to manage food

• The present legislation dealing with food is scattered in various statutes and codes
• Lack of communication & coordination, within and between ministries/institutions - limited data sharing - an important tool for policies, risk assessment

• Insufficient exchange of information, training and advice to stakeholders, consumers

• No risk assessment framework
• Inadequate involvement of expertise from academia, industry, research institutions in the food control decision making processes

• Inadequate inspection framework
WORKING TOWARDS AN INTEGRATED FOOD CONTROL SYSTEM

Single food control agency?

Multiple food control agency?
Single food control agency

Long term strategy

Step wise Implementation
Existing multiple agency is functional with some inadequacies

- Short term strategy
  - a proper definition of responsibilities
    - and a clear demarcation of activities/responsibilities
      - of the various institutions involved in food control

Amendments in legislation

SCOPE

FARM TO FORK
RECOMMENDATION 1

• Setting up of a proper functional coordination mechanism involving the ministries of Health, Agriculture, Commerce/Industry, Ocean Economy, local authorities, academia, industry and consumer organisations

• While this process is ongoing, the structure and legislative framework to develop the National Food Control Agency can be worked upon
• Development of a coherent **national food safety strategy** encompassing the whole food chain

• Clearly spelt out **role and responsibilities of** governmental agencies and the different actors of this sector
Review of the Legislation

• New legislations to address key issues of food safety, animal and plant health required under the SPS Agreement and ensure compliance with international standards and guidelines - Codex, World Animal Health Organization (OIE) and the International Plant Protection Convention (IPPC)
Development of a risk assessment framework and use of risk assessment in Food safety management

Capacity building in risk assessment (ongoing) through
- Training
- Improving analytical facilities
- Systematic data collection and sharing of information among laboratories, governmental institutions and research institutions
Thank You
REFERENCES


• FAO 2012. Synthesis report of sectorial studies on animal health, plant health and food control. Unpublished


• HOTEE, M F 2011 . A critical analysis of food poisoning in Mauritius, M Sc dissertation, University of Mauritius
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• SALABEE, B. 2015. Assessment of level of food hygiene and shelf life determination in small and medium food enterprises in Mauritius. Bsc dissertation. University of Mauritius
