



## Food Control System in Sri Lanka and Perception of Public Health Inspectors on Implementation of Control Measures

R.P.P. Karunapema<sup>1</sup>, S.M. Arnold<sup>2</sup>

<sup>1,2</sup>Ministry of Health, Sri Lanka

### ABSTRACT

**Background:** Many health problems encountered today arising from consumption of unsafe food. Contamination of food and feeds arising from naturally occurring toxicants, microbiological contaminants, chemical contaminants such as additives used above the permitted levels, pesticide and veterinary residues in food or as toxic components from food processing could have deleterious effects in humans and animals. Food control measures are critical in fostering food safety management of a nation.

**Methods:** In depth review of the existing legislation on food safety and hygiene and the food control system was done. International literature and reports were reviewed to compare the current global situation and the Sri Lankan situation. In depth interviews were conducted among the Public Health Inspectors who comprise the majority of authorized officers

**Results:** The food control legislation which was enacted in 1980 has been amended only twice in 1991 and 2011. There are over 50 Regulations brought in time to time under the Food Act of 1980. The food control system is mainly centralized and the implementation is done mainly at the level of the Medical Officer of Health (MOH). Many provisions of the legislation are outdated and need revisions. The perception of the Public Health Inspectors revealed that a vast majority are not satisfied with the current food control system and are of the opinion that the improvements should be made in all areas related to the food control system.

**Conclusion:** The food control system in Sri Lanka should be revisited and be improved and updated to be in line with the current global trends. The capacities of the analytical system as well as the authorized officers should be improved in order to ensure effective implementation of the food control system.

**KEY WORDS:** Authorized Officers, Food Control System, Food Safety and Hygiene.

### INTRODUCTION

National food control mechanisms are designed to address specific food safety priorities and critical issues of countries. They may differ from country to country but to be effective, the mechanisms contain key components such as policy, institutional frameworks, food legislation, regulations, food inspection and monitoring, food laboratory services, involvement of all stakeholders and dissemination of information to them.<sup>1,2,3</sup>

There are a key number of principles that underscore food control activities and these include:<sup>4</sup>

1. Food control is a widely shared responsibility and requires interaction between all stakeholders in the farm-to-table continuum,
2. A holistic, integrated and preventive approach to reduce risks of contamination all along the food chain which is the most effective way to produce safe food,
3. Evidence informed science-based control strategies,
4. Prioritizing interventions based on risk analysis and effectiveness of risk management strategies,
5. Emergency procedures for dealing with specific hazards or failures (e.g. product recalls) etc.

The roles of the private sector and consumers are very important therefore their views and capacity should be taken into account when developing policies and regulations. Effective Communication and collaboration between the public sector (government), private sector (industry) and consumers is also crucial to food control

Food safety and hygiene is of utmost importance for food industry, as it helps to protect the health of consumers from foodborne illnesses and food poisoning.<sup>5,6,7</sup> Food poisoning occurs when food becomes contaminated by bacteria, viruses and other germs, making those who consume the contaminated food have a significant disease morbidity and mortality which is often under reported. Each year globally, unsafe food causes 600 million cases of foodborne diseases and 420 000 deaths approximately and 30% of foodborne deaths occur among children under 5 years of age. WHO estimated that 33 million years of healthy lives are lost due to



eating unsafe food globally each year, and this number is likely an underestimation. Food-borne illnesses lead to reduced productivity, disability, early deaths, low incomes and hence low access to food and the problem becomes cyclic.<sup>8,9</sup> Illegal use of food additives, (E110, E102, E104, and E124) in local and imported foodstuff including infant foods, is an alarming case. Unless an approach that truly understands the specific challenges of developing economies are employed, the great food safety legislations may remain in books of codex without having a real life impact on food safety situation in the developing world.<sup>10,11,12</sup>

Once a food safety policy is established and institutionalized, this gives a solid foundation to develop accompanying legislation. The legislation must be updated regularly based on scientific evidence; spell out clearly the roles and obligations of each concerned organization, and above all be enforced effectively.<sup>13,14,15</sup> For many developing countries, the full enforcement is a missing ingredient. For food safety legislations to succeed, they must cover all components of the food supply chain. Often in developing countries, food safety legislations leave out the informal sector which is a major contributor to food value chain and hence any accompanying ills.

Food quality inspections demonstrate or validate the success or failure of food safety legislations.<sup>16,17</sup> Legislations that are not enforced are not beneficial at all. This is a major setback in all the aspects of the developing countries including Sri Lanka. Many factors contribute to this; including low status often awarded to food safety officers, inadequate logistical support, and cumulative tasks required of them hence intermittent attention to the task of inspection. Inadequate geographical coverage in all areas of the country by inspectors of food legislations and neglect of rural community means that their food safety concerns and issues often go unaddressed.<sup>18</sup>

## METHODS

This research contained review of the existing legislation, food control mechanism and assessment of the perception of Public Health Inspectors who are the authorized officers under the Food Act.

The review was done using extensive literature review from available documents and reports from related services. This method was applied to five key components of food control system: food legislation, food control policy, implementation and training.

The perception of Public Health Inspectors was assessed through in-depth interviews with fifty Public Health Inspectors randomly selected to represent districts of the country. The Public Health Inspectors were selected since they comprise the vast majority of authorized officers who are implementing the activities of the food control system at the ground level.

## RESULTS

### Food Legislation

In Sri Lanka the main law in Food Safety and Hygiene is the Food at No. 26 of 1980. This Act was amended in 1991 and 2011.<sup>19,20,21</sup> Under the food Act over 50 Regulations in different areas have been brought in. The Regulation are brought in by the Minister of Health under the powers given under the Section 32 of the Food Act 26 of 1980. These Regulations include,

- Food (Miscellaneous) Regulation 1984
- Food Act (Additional Approved Analyst) Regulation 1984
- Food Act (Warranty) Regulation 1984
- Food (Miscellaneous) Regulation 1986
- Gazette Notification No 458/43 – 19.06.1987
- Gazette Notification No 523/20 – 16.09.1988
- 1988 Food Regulation
- Food (Preservatives) Regulation
- Gazette Notification No 615/11 – 19.06.1990
- Food (Standards) Regulation 1987
- Food (Non-nutritive sweeteners in food) Regulation 1990
- Food (Standards) Regulation 1989 – No.637/18, 1990.11.22
- Gazette Notification No 675/20 – 15.08.1991
- Gazette Notification No 675/25 – 16.08.1991



- Food (Iodisation of Salt) Regulation 1993
- Food (Labelling and Miscellaneous) Regulation 1993
- Gazette Notification No 800/4 – 03.01.1994
- Gazette Notification No 800/9 – 03.01.1994
- Gazette Notification No 800/15 – 04.01.1994
- Gazette Notification No 811/8 – 22.03.1994
- Food (Preservatives in Milk) Regulation 1994
- Food (Standards) Regulations 1989
- Gazette Notification No 827/10 – 13.07.1994
- Food (Bread standards) Regulation 1994
- Gazette Notification No 910/19 – 16.02.1996
- Food (Sweeteners) Regulation 1998
- Gazette Notification No 1097/13 – 1999.09.17
- Food (Prohibition of Potassium Bromide in Flour) Regulation 2000
- Gazette Notification No 1178/17 – 06.04.2001
- Food (Genetically Modified Foods) Regulation 2001
- Genetically Modified Foods (provisional) Regulation No 1 of 2001
- Gazette Notification No 1199/23 – 30.08.2001
- Gazette Notification No 1231/28 – 09.04.2002
- Food (Sweeteners) Regulation 2003 – No. 1323/1, 2004.01.12
- Food (Labelling and Advertising) Regulation 2003
- Gazette Notification No 1335/7 – 06.04.2004
- Registration of Bottled Water Regulation
- Food (Labelling & Advertising) Regulation 2005
- (Gazette Notification No 1376/9 – 19.01.2005)
- Food (Salt Iodization) Regulation 2005 -(Gazette Notification No 1405/3 – 2005.08.11)
- Food (Bottled Water) Regulation 2005 -(Gazette Notification No 1420/4 – 2005.11.21)
- Food (Irradiation) Regulation 2005 -(Gazette Notification No 1420/5 – 2005.11.21)
- Food Importation & Labelling of Genetically Modified (GM) Food Regulations 2006
- Food (Additives - Colouring Substances) Regulations 2006 – No.1472/19, 2006.11.23
- Food Amendment -(Colouring Substances) Regulations – 2006, No. 1585/26, 2009.01.23
- Food (Vinegar Standards) Regulations 2007 – No. 1503/8, 2007.06.27
- Food (Adoption of Standards) Regulations 2008- No.1589/34, 2009.02.28
- Appointment of Additional Approved Analysis for Microbiological analysis - Colombo Municipal Council – 2009 No. 1604/23, 2009.06.03
- Food ( Antioxidants) Regulations – 2009- No.1617/16, 2009.09.01
- Food (Packaging Materials & Articles ) Regulations 2010 – No.1660/30, 2010.06.29
- Appointment of Additional Approved Analyst - North Western Province – 2010, No.1640/10, 2010.02.10
- Food (Formaldehyde in Fish ) Regulations – 2010, No.1646/19, 2010.03.24
- Food (Melamine in Milk & Milk Products) Regulations – 2010, No.1646/18, 2010.03.24
- Food(Shelf Life of Imported Food Items) Regulations – 2011, No.1674/5, 2011.02.23
- Food (Amendment-Colouring Substances Regulations-2006) – 2011, No.1688/28, 2011.01.14
- Food (Bread Standards Regulations -1994) Amendment – 2011, No.1733/47, 2011.11.25
- Food (Hygiene) Regulations – 2011, No.1742/26, 2012.01.26
- Food (Flavouring Substances and Flavour Enhancers) Regulations – 2013, No. 1795/51, 2013.02.01



- Food (Antioxidants) Regulations 2013 - 1809/4, 201.05.06
- Food (Sweeteners) Regulations 2014 - No.1905/36, 2015.03.13
- Food (Colour Coding for Sugar levels) Regulations – 2016, No.1965/18, 2016.05.03
- Food (Preservatives) Regulation, 2019, No. 2113/16 – 2019.03.05
- Food (Registration of Premises) Regulations– 2019, No.2128/4, 2019.06.17
- Food (Additives - General) Regulations -2019, No. 2131/2, 2019.07.08

## Food control policy

Effective food control systems require policy and operational coordination at the national level.. Sri Lankas Food Act has provision for the establishment of the Food Advisory Committee which assist the Minster of Heath regard to policies on Food Safety and Hygiene. The Food Advisory Committee comprises of the following members who represent the key stakeholders.

- Director General of Health Services – Chairman
- Director in charge of the Food Control Administration
- Two Deputy Directors General in charge of Public Health Services
- Two Assistant Directors in charge of Food Control Administration
- Government Analyst
- Director General of Customs
- Director General of the Consumer Affairs Authority
- Director General of Sri Lanka Standards Institute
- Director General of Department of Commerce
- Director General of the Department of Animal Production and Health
- Chief Medical Officer of Health
- City analyst of the Colombo Municipal Council
- Nutritionist from the MRI
- Legal Officer of the Ministry of Health
- Nominee from the Ministry of Local Government
- Food Technologist
- Food Microbiologist
- Member representing commercial interest relating to food
- Member representing industrial interest relating to food
- Two members to represent the interests of the consumers

## Implementation

Government agencies at central and provincial level are responsible for implementation of the food control system.<sup>22,23,24</sup> The Director General of Health Services is the Chief Food Authority and delegates the powers to the Authorized Officers. The Food Control Administration comes and the Deputy Director General (Environmental and Occupational Health). Under the DDG there is a Directorate of Environmental, Occupational Health and Food Safety. The Food Control Administration Unit which is the national level body on food safety is established under the directorate of Environment, Occupational Health and Food Safety. At the district level, the food safety activities are headed by the Regional Director of Health Services. Control activities are implemented at the Medical Officer of Health (MOH) level. The Medical Officers of Health and the Public Health Inspectors act as the Authorized Officers.

## Training

Food safety and Hygiene is one of the key duties of the Public Health Inspectors.<sup>25</sup> The curriculum of the Public Health Inspectors contains modules on food safety and hygiene which includes theory as well as field training. Food Inspectors wo are also Authorized Officers under the Food Act are appointed as a promotion from the Public Health Inspector post. Prior to appointment as Food Inspectors, the officers undergo a formal raining on food safety and hygiene. The Medical Officers of Health are also Authorized



Officers. They age given training on food safety during the undergraduate training as well as during the in service Medical Officers of Heath training conducted by the National Institute of Health Sciences.

**Perception of Authorized Officers**

The in-depth interview of Public Health Inspectors on Food Control activities revealed that a majority are not satisfied with the current system and expect a major policy change in the entire food control system.

**Table 1:** Perception of Public Health Inspectors on the food control system

	Description	Percentage
1.	The current legislation should be more strengthened	90.0%
2.	New Regulations under the Food Act should be brought in to be in par with new development in the food technology and trade	86.0%
3.	Analytical services specific for food is grossly inadequate and should be developed in the government sector	80.0%
4.	The private sector should be entrusted with providing analytical services in food with proper government regulatory mechanism	74.0%
5.	The current basic training in food safety is not enough to develop the competencies of the authorized officers	68.0%
6.	The in-service training is poorly organized and the authorized officers do not get adequate opportunity to be selected for the training programmes	78.0%
7.	The competencies of the authorized officers to handle court cases are very poor and this should be addressed at the policy level.	70.0%
8.	The public awareness on food safety is not satisfactory and the food control administration should take the lead role at the national level to address this problem	62.0%
9.	Due to other duty commitments the time that can be allocated for food safety activities are limited and to overcome this issue separate officers appointed for food control activities in the MOH Offices	58.0%
10.	The food control system with regard to importation of food is not satisfactory and should be stringently regulated	72.0%

**DISCUSSION**

This study offers insight into the overall food control system in Sri Lanka and the perception of Public Health Inspectors who comprise the majority of authorized officers on the food control system.

The study finding revealed that there is a Food Control System which is centered on the Ministry of Health. He Director General of Health Services act as the Chief food Authority and delegated the powers to the other authorities to implement the provisions of the Food Act. The Food Advisory Committee which is the policy level advisory body comprises of members representing all key stakeholders. However, when taking into the consideration of the current status of the food and safety in Sri Lanka it is questionable whether proper policy level decisions are taken and their implementation at the community level is ensured.

The initial enactment, Food Act No.26 of 1980 is an comparatively old legislation and with the rapid development of food technology as well as the food trade, it is high time the Ministry of Health take immediate action to bring in a new legislation to be in par with the current global food technology, international and national food trade and consumer patterns. If not errant traders will utilize his loopholes in the legislation as well as the low monetary value of the fines to thi advantage. This will ultimately affect the consumers in a negative way.

The study revealed that the perceptions of the Public Health Inspectors who are authorized officers under the Food Act was negative towards the present food control system as well as the training. The concerns raised by the Public Health Inspectors should be taken serious note of since they represent the majority of the authorized officers at the community level. The Ministry of Health should take steps to develop the food analytical service which are grossly inadequate at present. Capacity development of the human



resources is vital for development of knowledge and skills. It is very valid for food industry which is rapidly developing with new technologies and other global trade policies.

## CONCLUSION

The current Food Control system in Sri Lanka should be further developed with updating of the legislations to be in par with the global food trade. The policy makers should take necessary steps to rectify the gaps in analytical services and the training of authorized officers. This would ensure proper implementation as well as the Sri Lanka's Food Control System in par with the global standards.

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