

**Annual publication of Sri Lanka Accreditation Board for Conformity Assessment**



**World Accreditation Day 2020**

**Joint Statement**

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**Accreditation: Improving food safety**



**World Accreditation Day 2020 highlights the role of accreditation in improving food safety.**



**World Accreditation Day**

9 June 2020

**A**ccreditation has a crystal-clear objective: it aims to assure businesses, end users and regulators that a conformity assessment body (CAB), such as a certification or inspection body, testing, calibration or medical laboratory, has the required technical competence and operates impartially. This competence is assessed by accreditation bodies against international standards and requirements. Simply applied to food, accreditation helps improve food safety. Building on World Accreditation Day 2019 which highlighted the role of accreditation in adding value to supply chains, the 2020 World Accreditation Day spotlights

accreditation's role in improving food safety. It does this across the whole of the food supply chain from farm to fork, through food production, processing and packaging, storage and transportation, to retail and catering, helping build layers of assurance in the supply chain.

Accreditation bodies assess CABs in a variety of different key functions, assessing them against standards which have been developed by the global community through the International Organization for Standardization (ISO) and International Electrotechnical Commission (IEC). These standards cover functions such as inspection, certification and testing. With inspection bodies, certification bodies and laboratories accredited to these standards, they have been independently checked as being able to deliver competent and impartial inspection, certification and testing services in all parts of local, national and international food chains.

In April 2019, a Joint Statement issued by the Food and Agriculture Organization of the United Nations (FAO), the World Health Organization (WHO) and the World Trade Organization (WTO), highlighted the toll on humans of foodborne diseases. Accreditation aims to help support the reduction of these incidences through driving up the performance of organizations in the food supply chain. Accreditation is used across the globe to help meet this goal: from the use of accredited certification in Australia through the PrimeSafe scheme for meat and seafood supply; to the



European Union using the accreditation of laboratories to support food security in Europe; to accredited inspection to help commercial catering establishments deliver safer food in France.

World Accreditation Day 2020 with Accreditation Improving Food Safety, sets out to illustrate how in just the one area, food safety, accreditation contributes to the Sustainable Development Goals, in particular SDG 3 of Good Health and Well-Being. World Accreditation Day 2020 comes just two days after the second ever World Food Safety Day which aims to highlight the need for safe food. Through accreditation bodies and subsequently accredited

certification bodies, inspection bodies and laboratories, the conformity assessment community continuously strives to help deliver safer food. World Accreditation Day 2020 enables the International Accreditation Forum ([www.iaf.nu](http://www.iaf.nu)), the International Laboratory Accreditation Cooperation ([www.ilac.org](http://www.ilac.org)) and their members to highlight how accreditation is improving food safety. IAF and ILAC provide a range of information to explain accreditation's role in improving food safety, including further illustrations of its use <https://publicsectorassurance.org/topic-areas/food-safety-agriculture/>

### **Food Safety; Collective Responsibility of all Players Involved in the Food Value Chain and National Quality Infrastructure (NQI) Organizations; Challenges in the area of Conformity Assessment**

Ensuring Food safety is a national priority of a country. Food safety is critical to safeguard the consumer health through the production, processing, and supply of safe, non-hazardous food for human consumption. Globally, the incidence of food-borne diseases is increasing, and international food trade is hindered by trade disputes over food safety issues. Governments all over the world are taking stringent measures to improve food safety as it is increasingly becoming important in domestic as well as in international food trade.

This article highlights the responsibility of different players in the food value chain (crop and animal production in the farm, collection and transport, storage, processing, wholesale and retail market) in taking necessary steps to maintain food safety until food goes to the next higher level in the value chain. Further it briefly describes the intervention of regulators and contribution of Standards, Conformity Assessment activities (testing, inspection, certification) and Accreditation in promoting food safety and challenges Sri Lanka is facing in achieving food safety.

Food safety refers to the conditions and practices that preserve the quality of food to prevent contamination and food-borne illnesses.

#### **Food safety concerns along Food Value Chain**

Food safety issues have to be addressed throughout the supply chain and food safety cannot be achieved only paying attention to the later part of the value chain. Moreover, testing only the finished

products is not sufficient to achieve food safety. Therefore, each player along the value chain starting from the farm has a specific role in order to maintain the safety of food. The food value chain consists of all value generating activities required to produce and deliver food items until it reaches the final consumer. It consists of Production (Farm level), Collection and transport, Storage, Processing, Wholesale market, Retail market and consumer.

In farm level, safety of planting material, use of recommended level of pesticide, Good Agriculture Practices (GAP), safety of animal feed, safe use of antibiotics for farm animals are some vital factors to ensure safe crop and animal products at the farm gate. Compliance with food scheme requirements such as Organic food standards also needed to fulfil the current market demand for organic food products.

In collection and transport of food, recommended hygienic conditions and storage conditions need to be maintained.

In food processing need to comply with food hygiene regulations, regulations on food flavoring substances and flavor enhancers, food antioxidants, food coloring substances, food sweeteners food preservatives, food packaging materials and articles, food labelling and advertising regulations, food color coding for sugar, salt and fat levels, food irradiation, control of import, labelling, and sale of genetically modified foods & food shelf life monitoring regulations need to be complied to ensure food safety for the consumer.



In food handling and catering, it is necessary to maintain food handling and hygienic regulations and Good Manufacturing Practices (GMP) in order to ensure the safety of food goes to the consumer.



### **National Quality Infrastructure (NQI) Organizations**

The National Quality Infrastructure organizations are institutional network required to establish and implement standardization, metrology, accreditation and conformity assessment services (inspection, testing, calibration and product and system certification) necessary to provide acceptable evidence that products and services meet given requirements. These requirements may either be imposed by the regulatory authorities as technical regulations or defined by the market. In Sri Lanka, standardization, metrology and Accreditation services are provided by the government organizations while conformity assessment services are provided by both government as well as private sector organizations.

### **Regulatory Agencies engaged in Food Safety National Quality Infrastructure (NQI) Organizations**

The main ministries engaged in activities related to food safety currently include the Ministry of Agriculture (MoA), the Ministry of Health, Nutrition & Indigenous Medicine (MoHNIM), and the Ministry of Industry and Commerce and Resettlement of Protracted Displaced Person and Cooperative Development (MoIC). The main regulator in food safety is the Chief Food Authority of the Ministry of Health.

The other regulatory agencies working in food safety along the supply chain are Registrar of Pesticides, Department of Agriculture, National Fertilizer Secretariat, National Plant Quarantine Service, National Organic Control Unit of Export Development Board, Chief Food Authority, Food

Control Administration Unit, Ministry of Health, Provincial Directors of Health Services, Consumer Affairs Authority & Sri Lanka Atomic Energy Board. These regulatory agencies have issued directions and contribute to improve the food safety along with different segments.

### **The Contribution of Accreditation**

At present there are 35 food testing laboratories for chemical testing operate in the country which are accredited by Sri Lanka Accreditation Board (SLAB) for identified scopes of food testing. Out of these 19 laboratories 10 laboratories are operating under a government entity while 9 accredited food testing laboratories belong to the private sector. In the area of biological testing, there are 13 laboratories accredited for specified products, tests, and test methods. Out of these 13 laboratories 6 laboratories operate under a government entity and 7 biological laboratories operate in the private sector. These laboratories are accredited for ISO/IEC 17025 to carry out chemical and Microbiological testing to assure quality and safety of raw food, animal feed and pesticide residues.

Moreover, SLAB has granted accreditation for a certification body under ISO/IEC 17065 for organic Agriculture products based on SLS 1324.

SLAB has recently granted accreditation to one inspection body under ISO/IEC 17020 for carrying out food inspection.

Currently, SLAB has granted accreditation to three certification bodies for Food Safety Management Systems Certification against ISO 22000 and HACCP against SLS 1226:2011 for different scope sectors of food.

SLAB complies with international requirements and has guaranteed the credibility of domestic certificates and test reports in importing and exporting countries. These arrangements have paved the way for Sri Lankan products and services to enter freely into regional and international markets.

### **Key Challenges in the area of conformity assessment in achieving Food safety**

1. Currently, higher percentage of laboratory services are used to obtain test reports supporting end product testing for taking legal actions for violations. This approach needs to be changed and more farm level testing (soil testing, seed testing, testing of planting materials, Pesticide residue levels) should be encouraged in order to pay more



attention to ensure food safety at crop production and animal production in the farm level.

2. Due to resource constraints most laboratories cannot acquire the technical capacity to perform all tests related to food safety. Therefore, it is necessary to identify all the test parameters to be tested in each laboratory operating throughout the country. The competencies necessary to generate reliable data develops only through continuous analysis of a given parameter. Planned specialization in testing has to be identified.

3. Some laboratories used in food testing are not accredited to ISO/IEC 17025-General requirements for the competence of testing and calibration laboratories and therefore the results can be challenged. Special emphasis needs to be given to promote accreditation of government laboratory network used by the food regulatory agencies.

4. In order to improve the food control system and to utilize laboratory services in an effective manner it is necessary to develop a database on key food safety issues and available competencies of the laboratories. By collecting information on health issues caused by food safety hazards, and alerting the laboratories on specific requirements in food testing, the laboratory services can be used more effectively in planning and implementing necessary measures to improve the

effectiveness of food control management system.

5. Food testing laboratories operate under different ministries and there is no proper coordination among the laboratories. Sharing of resources and knowledge is not happening to an acceptable level.

6. High rate of staff turnover is another problem faced by the laboratories. They face difficulties in having full time qualified professionals who are competent in operating sophisticated equipment and knowledgeable on test methods.

7. One of the important aspects of food safety Management systems such as HACCP, FSMS 22000. FSSC 22000 is to move away from end product testing and move towards implementation of critical control point applications practice voluntarily by the food industry and to take preventive measures. Small and medium food industries face problems in obtaining relevant high-tech machinery and technical knowhow in implementing the above food safety management systems and therefore, there must be effective ways to support them in order to motivate to adopt these food safety systems.

#### **Ms. Chandrika Thilakaratne**

*Director/CEO  
Sri Lanka Accreditation Board for  
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### **Are our Food and Services Safe? Look for SLAB "Accreditation"**

This country, blessed with natural resources and resplendent beauty, occupied by smiling, friendly people has survived natural and forced calamities. It has experienced invasions by foreign forces from across the Indian Ocean for centuries. It survived. In recent times, a devastating tsunami, a natural disaster, took away many innocent lives and property. The country survived and rose from the rubble. We survived and successfully ended a 30-year terrorist war and another a few weeks ago. However, devastation brought about by natural forces and terrorists is not the only fear that our citizens encounter.

In our day-to-day life, we encounter other forms of fear, sometimes infringing on terror. Is the milk powder we use made of real milk or a mix of some artificial ingredients? Are the food labelled as "Organic" real organic products? How sure can we

be? Will the skin creams used by adults and children cause any health hazards? Are the Medical Test Reports produced by mushrooming testing laboratories reliable? Will they differ from lab to lab? When we get into a lift, is our safety assured? What about the buildings we live in, work in? Are we safe inside? What about the accuracy of the water meters, taxi meters? Are the infant milk bottles safe to use? And the children's toys? The list sees no end! How can we survive this type of fear? We can, through accreditation! Accreditation ensures/certifies that such food items, services etc. conform to national and/or international standards. Accreditation thus certifies/ensures safety.

Most products and laboratories show they are following national or international standards. You may see these symbols on the products and on



advertising boards. That's good but does that alone ensure safety? It only means that their products/services are based on a particular standard. Those who produce such items and who provide such services must have the capacity and the resources to follow the appropriate, latest standards and ensure safety for a given period of time. How can quality and safety be certified/ensured? It is the main objective/aim of the Sri Lanka Accreditation Board (SLAB). The SLAB can ensure safety by accreditation, which means that the products and services actually conform to national and/or international standards, by means of a series of assessments, monitoring, surveillance, etc. carried out by eminent, experienced, trained officials in conformity assessment bodies (Testing labs, Certification bodies and Inspection bodies). The public will then have no fear in using these products tested by accredited laboratories.

The accreditation scheme for Testing and Calibration laboratories is based on the standard ISO/IEC 17025. All types of laboratories covering chemical testing, biological testing, physical & mechanical testing and calibration laboratories are included under this scheme. Test reports issued by accredited laboratories are accepted in quality assurance activities in international and domestic trade.

Moreover, regulatory authorities could use the services of accredited laboratories in the implementation of various regulations.

The accreditation scheme for Medical/Clinical laboratories is based on the standard ISO 15189. The areas covered under this scheme include Clinical Pathology, Clinical Biochemistry, Haematology, Microbiology and Serology, Histopathology, Immunology, Molecular Biology, Pharmacology and Nuclear Medicine. Reliability and accuracy of test results issued by Medical/Clinical laboratories is a critical issue in the National Healthcare System. The reliability of test results is assured through the Accreditation of Medical laboratories based on ISO 15189.

Accreditation scheme for Inspection Bodies is based on the standard ISO/IEC 17020. This scheme provides a formal recognition to an inspection body for its services for integrity and reliability. Organizations required to conduct various types of inspections for regulatory purposes are accredited under this scheme. This mechanism has been adopted in Europe, North America and in many

other developed countries.

Accreditation scheme for Certification Bodies (CB's) cover Systems Certification and Product certification based on the standard ISO/IEC 17021-1 and ISO/IEC 17065. They include bodies providing audit and certification of management systems such as Environmental Management systems, Quality Management systems, Food Safety Management systems, Occupational Health & Safety Management Systems (OHSAS), Energy Management System, Information Technology Service Management System, and Information Security Management System etc. Accreditation of Certification Bodies assures the reliability and acceptance of certifications issued by these bodies in international trade and in domestic markets. Quality Certification by accredited CB's is a basic requirement in international trade.

Accreditation scheme for Green House Gas Validation and Verification Bodies (GHG V/V B's) covers GHG assertion of different technical sectors based on the standard ISO/IEC 14065. Accreditation of GHG validation or verification activities is to give confidence to all parties that they can rely upon a GHG assertion.

Accreditation also covers Production Certification, Personnel Certification Bodies and Good Laboratory Practices (GLP).

Accreditation is important because it helps determine if an institution (or a product) or body meets or exceeds and sustains minimum standards of quality and safety. Tested and certified products will be given preference not only in local markets but also international markets. With accreditation, we can attract more foreign buyers for our products. More foreign exchange! New areas for accreditation are arising globally such as for organic food and educational programs ranging from diplomas to undergraduate and postgraduate curricula.

With technology developing and spreading in leaps and bounds, we encounter new fears. Every technology, whilst providing enormous advantages to mankind, has also ended up in weapons to maim and kill people. A future Nuclear-Chemical-Biological hybrid weapon will tear this world, into smithereens! Our only home! We need to be careful. We need to be safe. We need to regulate and monitor the products of this modern world in a scientifically acceptable manner



with 'safety' being paramount.

The mission of SLAB (of the Ministry of Higher Education, Technology and Innovation) is to provide high quality and safe products and services to each and every citizen of Sri Lanka, so as to improve their quality of life significantly. In this meritorious endeavor, the Ministry will take the necessary steps to make accreditation mandatory.

In the few years of its existence, SLAB has already accredited 86 Testing Laboratories (based on ISO/IEC 17025 standard), 10 Calibration Laboratories (ISO/IEC 17025 standard), 17 Medical Laboratories (ISO 15189 standard), 10 Inspection

Bodies (ISO/IEC 17020 standard) and Certification Bodies and several others. Many applications are being processed currently.

Look for tested, inspected and certified products and services of accredited Testing labs, Certification bodies and Inspection bodies! Safety First!



The symbol of quality and safety!



**Prof. Athula Perera**  
Professor Emeritus

## Better Accreditation Facilities need to boost food exports and increase quality & safety of imported foods

When a Sri Lankan business firm conducts business with another business firm in another country, the foreign buyer and consumers of the imported good and/or service wishes to know about the information regarding the production process employed by the manufacturer, use of sustainably managed raw materials, compliance with labour regulations such as child labour, environmental pollution and GHG emissions, country of origin of raw materials, prevention from use of unauthorized materials for production etc as well as the product quality. In case of halal foods, whether the product has been manufactured as per halal requirements. The main question is who guaranteed the claims of manufactures or suppliers. If customers cannot differentiate between 'good' and 'bad' products, the good products will be driven out of the market as customers are not willing to pay more due to lack of information and lack of assurance on information on food safety available to importer, regulators in importing country and consumers.

One of the reasons for this issue may relate to labelling and communication of product quality and safety and it can be overcome labelling products as per buying country's requirements and produce evidence for compliance. In the world food trade scenario, border control agencies in any country in association with local regulatory bodies

have introduced food control mechanisms /frameworks to ensure imported and locally manufactured foods meet relevant specifications, nutritious and also safe for human consumption. The confidence of consumers in the quality including the safety of their food supply depends in part on their perception as to the effectiveness of food control measures implemented in any country. A substantial part of the worldwide trade in food depends upon the use of accredited inspection and certification systems implemented by regulatory bodies and voluntary schemes in exporting and importing countries.

Sri Lanka is exporting foods in different forms such as bulk or unprocessed, semi and fully processed, value added products manufactured or sourced totally from Sri Lanka as well as value added or processed products from imported raw materials. Food export and imports statistics of selected food products from 2015 to 2019 obtained from Sri Lanka Export Development Board is summarized below in order to understand current status. There is a negative balance of trade as most of them are imported for domestic consumption as well as in the form of raw materials for processing of other foods which supposed to be exported or consumed locally.

**Table 01 : Export value (USD) of selected products**

Year	USD Value of Processed Food, Food & Beverages	USD value of Other Products Total	Share of food products (%)
2015	161,171,526.32	9,879,445,793.96	1.63
2016	273,309,123.80	9,890,570,025.10	2.76
2017	221,609,157.28	10,933,686,091.44	2.03
2018	251,573,741.84	11,290,703,123.59	2.23
2019	246,336,661.84	11,399,356,387.22	2.16

Year	USD Value of Processed Food, Food & Beverages	USD value of Other Products Total	Share of food products (%)
2015	1,702,012,106.47	17,153,063,695.18	9.92
2016	1,549,276,844.42	17,629,193,926.38	8.79
2017	1,945,353,385.76	19,226,164,693.44	10.12
2018	1,716,469,162.48	20,215,769,110.98	8.49
2019	1,469,820,488.26	17,848,553,512.63	8.23

**Table 02: Import value (USD) of selected products**



**Selected products:** Coconut Kernel Products, Pepper, Cinnamon, Cloves, Nutmeg & Mace, Cardamoms, Essential Oils, Oleoresins, Ginger, Saffron, Turmeric (Curcuma), Vanilla, Condiments, Fruits, Nuts, Vegetables, Processed Vegetables, Fruits & Juices, Sugars, Sugar Confectionery & Bakery Products, Processed Food, Rice, Cereals, Oil Seed and its Products, Coffee & Beverages

In response to the current Covid -19 pandemic situation, the government encourages and introduces policies to increase domestic food production, increase exports and reduce nonessential imports including some foods. This approach leads to recover negative trade balance as we are reducing imports and increase exports. But it is not the one and only remedy to be taken as a country. As a result of Covid -19 pandemic, there is an explosion of innovative society in order to invent or re-engineering medical instruments, products and materials which directly or indirectly require to combat Covid-19. This is the high time for us to turn into a reduction of bulk exports and the introduction of innovations, R& D in order to develop value added food products as well as the imagination of import substitutes. Some of the food products (spices, tea) exports from Sri Lanka have invaluable medicinal value and the health impact of some of them has not been scientifically proved yet. Therefore, we have another avenue to value addition with scientific evidence and reach high end markets willing to pay more dollars.

In this journey, Sri Lankan products require to compete with other countries exporting same products to high end markets such as EU, USA, Japan where we have higher dollar income. Not only market competitiveness but also compliance with technical regulations imposed under TBT and SPS agreements and food control mechanisms adopted by individual countries referring to Codex requirements.

We all are aware of the trend that is growing

number and complexity of internationally accepted Codex standards and regulations. At the initial stage (in 1970), there were 15 Codex standards relating to food safety and approximately 200 Maximum Limits for pesticide residues, veterinary drugs, food additives and contaminants. Today, as per the Codex website, there are 333 standards and more than 4000 limits on various substances are in place and there is a trend to have more and more in the future.

United State Food & Drug Control Authority (USFDA), EU Food Safety Authority (EFSA), Food Safety & Standards Authority in India (FSSAI) are examples for controlling agencies of food imports to their countries. European Union has introduced a centralized management information system named as Rapid Alert System for Food and Feed (RASFF) to sharing information on control actions taken at one boarder with other member states. The RASFF is put in place in EU to provide food and feed control authorities with an effective tool to exchange information about measures taken responding to serious risks detected in relation to food or feed. This exchange of information helps the Member States to act more rapidly and in a coordinated manner in response to a health threat caused by food or feed. Its effectiveness is ensured by keeping its structure simple: it consists essentially of clearly identified contact points in the European Commission, the European Food Safety Authority (EFSA), the European Economic Area (EEA) and at the national level in member countries exchanging information in a clear and structured way by means of an online platform called iRASFF.

An analysis of alerts generated in relation to Sri Lankan exports is given below to provide evidence based understanding on current situation faced by Sri Lankan exporters and to identify opportunities and control measures to overcome the number of alerts generated against Sri Lankan exports.

(Source:<https://webgate.ec.europa.eu/rasff-window/portal/?event=searchResultList>).

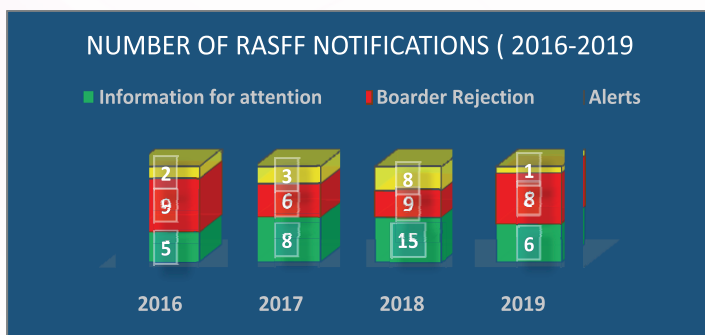


Figure 01: Number of RASFF Notifications, 2016-2019

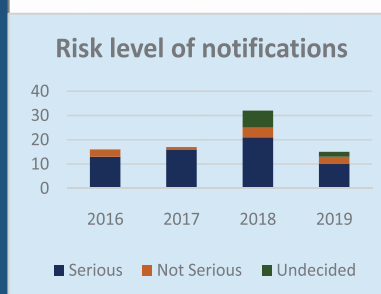


Figure 02: Risk levels of RASFF notifications

Nevertheless, the adoption control measures with standards and technical regulations to ensure the quality and safety of food products coming to their countries, we should think about how Sri Lankan exporters are facilitated to comply with requirements of importing countries and also the introduction of an effective food safety system that minimizes the compliance cost throughout the food chain while ensuring safe food for consumers. In this process, collective commitment is required from all relevant government institutions, exporters, manufactures and also consumers.

The overall picture of exports and imports and the involvement of Accreditation in the food chain from farm to fork is shown in Figure 03. Sri Lanka Accreditation Board (SLAB) as the National Accreditation Authority and facilitator for international trade has a vital role to play in order to boost food exports from Sri Lanka and increase the quality and safety of imported food products to Sri Lanka. This overall view of the global food supply chain is an input for the planning and establishment of an effective food control mechanism in Sri Lanka.

Reasons for notifications	Year			
	2016	2017	2018	2019
Detection of Aflatoxin	5	9	6	8
Histamine Content	-	-	6	-
Use of Unauthorized Colours	1	-	5	1
Detection of <i>E.coli</i>	-	1	-	1
Detection of Salmonella	2	-	2	1
High Heavy Metals	2	5	3	
Poor Maintenance of Temperature	-	-	2	1
Undeclared Sulphur Content	-	-	-	1
Presence of Ochratoxin A	-	2	2	-
High Sulphite Content	-	-	3	-
Presence <i>Listeria monocytogenes</i>	-	-	1	-
Carbon Monoxide Treatment	-	-	1	-
Presence of Aromatic Hydrocarbon	2	-	1	-
Absence of Health Certificate	3	-	-	-
Presence of <i>Bacillus cereus</i>	1	-	-	-

Table 03 : Reasons and numbers of RASFF notifications ( 2016-2019)

This primary data analysis shows important areas where we can improve our internal processes to reduce negative impact to Sri Lankan exports.

Effective process for issuing health certificates, increase capabilities of testing laboratories to detect residues at very lower levels & increase reliability of test reports, establishment of accredited reference laboratories for verification purposes, introduction of export inspection schemes to issue accredited inspection reports as well as to increase confidence/trust on certifications etc can be considered as main areas for improvement.

#### Improving primary production, agriculture and farming

The National Policy Framework Vistas of Prosperity and Splendour has identified many activities and policies to support development of agriculture sector. Out of all, we can see there are policies and activities directly and indirectly linked with exports as well as imports as summarized in below table. (Extracted from National Policy Framework Vistas of Prosperity and Splendour publicly available at <http://www.treasury.gov.lk>).

### Manufacturing and processing and involvement of Accreditation

Compliance with relevant specifications, standards and technical regulations is mandatory requirement for manufactures. There are regulatory bodies such as food control body in any country and implementation of monitoring activities are directly linked with conformity assessment procedures such as testing, inspection and certification. The competence of above conformity assessment bodies are assessed by accreditation bodies through an impartial and independent competent accreditation process.

All measurements related to final products and production process shall be accurate and traceable to SI as those products or parts are subjected to verify by importers or manufactures in other countries. In order to facilitate recognized measurement system in Sri Lanka, a network of

accredited calibration facilities is required to cover calibration and measurement requirements of industries.

In addition to the main product compliance, meeting requirements of interested parties, consumers as well as specific customer groups are also essential to penetrate specific export markets. For example, level of emissions, Carbon footprint, use of child labour, social responsibilities, use of sustainably managed raw materials, safety & occupational health level of workers, level of waste generated, reduction of GHG emissions, prevent from unethical harvesting have come with different international standards and order specification from buying countries include additional compliance requirements as it is preferred by their consumers. Ability to fulfil such specific requirements gives added value for our exports and can earn more foreign exchange. In



this context, claims of Sri Lankan manufactures and exporters are to be certified by an accredited certification body and include into the export documentation as well as labels.

In Sri Lanka, SLAB has introduced accreditation schemes for testing and calibration laboratories (ISO /IEC 17025) , system certification bodies as per ISO /IEC 17021-1( ISO 9001, ISO 14001, ISO 50001,ISO 22000, ISO 45001), product certification bodies as per ISO/IEC 17065 ( Organic, Global Gap, SLGAP, GMP, GHP), GHG validation/verification bodies (ISO 14065) and inspection bodies (ISO/IEC 17020). All SLAB accreditation schemes are internationally recognized and covered under mutual recognition arrangement (MRA) of International Laboratory Accreditation Cooperation (ILAC) and Multilateral Recognition

Arrangements (MLA) o f International Accreditation Forum. Accreditation Scheme for Good Laboratory Practice (GLP) is now implemented for R& D laboratories.

Placement of trade brands/logos such as “Made in Sri Lanka”, “Origin of Sri Lanka”, “Ceylon Tea” in the international markets are also create an avenue for Sri Lankan exporters to reach different market segments worldwide. In order to facilitate such brandings, local regulatory bodies, associations should come forward and introduce certification schemes which can be used by any accredited certification/inspection body. For an effective monitoring of use of brands/logos, Schemes owners can work very closely with Sri Lanka Accreditation Board as this is a National priority at present.

Strategies and areas	Activities	Relationship with accreditation
Increase Land Productivity	A methodology to bring lands to productive uses Introduction of an integrated soil fertility management system	Introduction of accredited Certification and Inspection Scheme for Good Agricultural Practices ( GAP)
Modernize Agriculture	Introduction of environmental friendly farming	Introduction of Accredited Certification Schemes such as FSC, Organic, GAP
A Revolution in the use of Fertilizer	Replace the existing fertilizer subsidy scheme with an alternative system Provide inorganic and organic fertilizer both free of charge to farmers. Convert traditional farming villages into users of only organic fertilizer. Develop 2 million home gardens using organic fertilizer Initiate a programme to produce all essential fertilizers domestically.	The policy on provision of fertilizer free of charge should be based on reliable soil fertility data which is supported by scientifically designed sampling techniques of different agricultural lands and type of crops obtained from accredited testing facilities. This will facilitate to avoid over usage of inorganic fertilizers which causes many environmental, health and safety and quality issues of crops as it creates compliance issues against permitted limits of importing countries.  In addition, informed decisions based on scientific data save foreign exchange reducing import of fertilizer unnecessarily and reducing rejection of exported consignment.  Certified organic/bio fertilizers should be available for farmers through reliable accredited certification schemes  The organic production process by small scale /large scale as well as home gardens should be well monitored and assured to build trust on claims of farmers/processors through accredited organic certification schemes which meet international and local organic farming requirements
Production of Seeds and	Introduce a „domestic seeds policy“ to produce quality seeds at international standard.  A standards certificate will be	Establishment of national accredited certification schemes for Seed certification and seed testing to ensure quality of planting materials produced on a large scale.

Planting Materials	made compulsory to import seeds Promote private sector to produce quality planting material on a large scale.	
Marketing and Transport	Introduce an internationally accepted organic product certification system Sri Lanka Standards Institute will be improved to securing necessary certification.	SLAB has already introduce accreditation scheme for organic certification with internal recognition. Therefore, it is now required to improve the control mechanism though National Organic Control Unit (NOCU) as competent authority.  Introduction of a national model which supported by accredited testing, inspection and certification facilities under a competent authority is required to cover all organic farmers regardless of scale of farming.
Research for Agricultural Innovation	Provide specific proportion of the annual allocation of the Agricultural Ministry to universities and relevant institutions to enhance research facilities Provide assistance to develop innovative bio-pesticides and low cost integrated pest management system. Establish a patent system so that the researchers could patent their innovations. Facilitate domestic institutions involved in agricultural research to collaborate with international research bodies.	At the point of obtaining approvals and demonstration of final products are fit for the purpose, availability of reliable and recognized data generated through accredited Research & Development Facilities is essential and it paves the way for convincing relevant stakeholders as well as users. Therefore, R& D institutions work in this field should introduce quality management systems to improve the quality of research and obtain accreditation under GLP accreditation scheme.  There are some Sri Lankan varieties with high quality nutritional and health impact which should be proved scientifically through recognized data. For this purpose, R& D institutions could follow internationally establish processes for mutual acceptance of R & D data generated from accredited GLP facilities.
Cinnamon	Expand the export of cinnamon Develop new technological methods for extraction and packaging of cinnamon and imports of such high technology equipment will be made free of import tariff.  Establish a technical training course at a suitable NVQ level Initiate assistance schemes to	Ceylon Cinnamon is unique to Sri Lanka and it should be protected through internationally accepted systems such as Geographical Indications supported by internal control system which includes accredited testing laboratories, inspection bodies and certification bodies, farmers, processors , exporters and competent authorities.  Production process should be monitored through a mechanism which covers GAP ( Good Agricultural Practice),GHP ( Good Hygiene



	support cinnamon related value added industries.	<p>Practice) and GMP( Good Manufacturing Practice).</p> <p>Attraction of younger generation for the industry is improved if there is recognition for people involved in the industry. Introduction of accredited NVQ certification scheme is important to provide the recognition and it will also provide added value for the Cinnamon products exported from Sri Lanka as well as create innovative mind set to develop value added cinnamon products and process improvement of production.</p> <p>Research and Development on health impact, value addition of Cinnamon, Pepper and other spices through accredited GLP facilities will be essential to obtain patents, approvals and registration of products.</p>
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Table 04 : Role of Accreditation- Development of Agriculture Sector as per The National Policy Framework Vistas of Prosperity and Splendour

## Research & Development

Mode of export	Year		
	2017	2018	Jan-Nov 2019
Bulk	125,629	122,428	112,211
Tea in Packets	134,509	131,256	128,389
Tea Bags	21,701	21,578	21,111
Instant Tea	2,122	2,481	2,840
Green Tea	5,023	4,620	4,370
Total	<b>288,984</b>	<b>282,363</b>	<b>268,921</b>

The Table 05 provides statistics on different modes of Tea Exports from Sri Lanka from 2017 to Nov 2019.

( Source: Sri Lanka Tea Exporters Association;  
<http://teasrilanka.org/statistics>)

This provides the current picture of Sri Lankan exports. Still we are exporting our food and beverages in bulk form without value addition.

Exports of spices also gives similar statistics while giving the highest percentage for bulk exports and minor percentage as value added exports. Introduction of cost-effective techniques for value addition and expansion of processing lines to meet requirements of the number of steps in the food processing chain of importers would create an avenue to reduce bulk exports at a low price and increase income than the bulk exports. On the other hand, we should be able to introduce import substitutes of food products from local raw materials or cost and health effective imported raw materials as it saves foreign exchange and ensures food safety.

In order to achieve this objective, Research & Development activities of Sri Lankan R&D Institutions should be focused on priority areas. As we are focusing on international markets, new products shall be supported with scientific evidence and data as evidence to prove the nutritional value and health impact. Once we prove the value and impact then investors can easily estimate economic value and then they will commercialize new developments and start the large-scale manufacturing for exports. In this scenario, the scientific evidence and data should be generated from a R & D laboratory where there is an accredited quality management system is implemented and maintained continuously.

## Export Control and Monitoring

At present, there are regulatory bodies in Sri Lanka has introduced export and import control mechanisms with limited internal accredited facilities and third-party accreditation facilities. For example, Sri Lanka Tea Board for exporting tea, Coconut Development Authority for exporting coconut and Department of fisheries for export of fish, Plant and Animal Quarantine department for animal and plant materials etc.

However, still there is a window for improvement of current systems while including all kinds of accredited conformity assessment activities from farm to the final product until shipment. The majority of foods are exported in agreement with buyers and providing evidence requested from them or regulators of importing countries, for example, health certificates. Most of such products are not subjected to well establish export inspection scheme. Therefore, number of tests, inspections at different ports have increased resulting in higher compliance cost and it cannot be borne by exporters. Therefore, exporters are discouraged and inhibit the exports from Sri Lanka.

Introduction of pre-export inspection scheme for prioritized food products is a timely requirement. However, the establishment of such

a scheme with different government bodies may not be practical as every institution has to think about competent manpower and other resources required and the cost of maintenance. As an alternative approach, like other countries, government institutions directly involved in exports such as EDB, Customs or others can introduce pre-export inspection schemes with the support of accredited testing, inspection and certification bodies. Monitoring of competence of such accredited facilities can be strengthened under memorandum of understanding (MoU) signed between SLAB and relevant regulatory body. This approach will minimize the cost for government and exporter as they do not need to pay more for many retesting, re-inspection and other compliance activities. Under MLA of IAF and MRA of ILAC arrangements, number of reworks have to be removed or reduced to a minimum. However, we should understand that the regulatory bodies in importing country has the right to increase or reduce number of samples to be tested or inspections based on the risk associated with products as well as long term experience with particular exporter and regulator regarding a particular product.

### Importing raw materials and other food items

The statistics on export and import given in table 01 and 02 show that Sri Lanka has a negative trade balance for food and related products as there are many food imports for direct local consumption or as raw materials of local food processing. There are limited imports for re-exports, value addition as well as raw materials for products exporting from Sri Lanka.

At present, Sri Lanka Food Act and its regulations enforced under the Ministry of Health and other institutions such as Animal and Plant Quarantine Departments and approved laboratories plays a vital role in the food control mechanism to ensure imported foods and food related raw materials are safe for local consumption. As other countries, Sri Lanka has referred to or adopted Codex requirements and levels for additives, residues for foods and related products. The publication of permitted levels shall be non-discriminatory and shall be based on scientific evidence. In order to provide scientific evidence, again we need to obtain reliable test results from accredited laboratories.

Risk assessment and risk management relevant to imported products as per guidelines of Codex Alimentarius and World Organizations for Animal and Plant Health and management of identified risk and communication of risks associated with imported food materials to the public have become more important as there are some emerging issues with respect to the use of additives, colours, preservatives as well as the composition of food products imported to Sri Lanka. Therefore, it is now required to have facilities for testing and inspection of imported foods at reliable testing facilities and drawing samples and inspection of imported products. If the authorities communicate associated risks to the public, they can make informed decisions.

In the world, the modern food control systems have shifted from removing unsafe food and punishing responsible parties after a specific case happened towards to a preventive approach. The industry and trade should develop and implement in-house control based on HACCP to the extent that capacity, experience and resource permit.

In this context, Food regulators in Sri Lanka require a voluntary certification schemes which is supported by a network of accredited conformity assessment services mainly testing, certification and inspection. Specially accredited laboratories strengthen decisions of food control authorities as analytical results are often used as

evidence in court law or in dispute with importing countries. Therefore, Sri Lanka food regulators should ensure that analysis is performed in an effective and efficient way to facilitate industry through recognition of SLAB accredited testing laboratories, inspection bodies and certification bodies. Furthermore, it is essential that effective communication be established between food testing laboratories, inspection bodies and certification bodies with food regulators in order to communicate adverse situations, noncompliance related food supply chain and food-borne diseases enabling availability of all information and monitoring data at one source.

### How International Cooperation and mutual recognition agreements support exports and imports

Supermarket chains and food retailers are increasingly demanding that their suppliers demonstrate that their products meet food and water safety standards by requiring accredited test reports, inspection reports and certifications. Compliance with food safety standards demonstrates that suppliers are meeting appropriate levels of safety, environmental performance, and animal welfare. Accreditation, and the use of accredited conformity assessment bodies, can also support business in the supply chain against potential liability claims. International accreditation agreements provide an infrastructure that allows accredited certificates to be accepted around the world. This reduces the risk of products being rejected by international trading partners, and for the need to have products re-evaluated on entry into each country.

The use of accredited services can also moderate the need for additional legislation, as well as reducing the risk of unintended consequences. International accreditation arrangements provide regulators with a robust and credible framework to accept accredited test results, inspection reports and certifications from overseas, with an equivalent level of confidence as if they were carried out in the local economy. Accreditation, therefore, provides a reliable monitoring tool to support the work of food safety regulatory agencies and boost exports and imports.

For consumers, confidence can be gained from goods or services that are accompanied by an accredited certificate of conformity. International accreditation agreements ensure that such goods and services placed on the market, from whichever country of origin, meet standards of quality and safety. These arrangements are managed by the ILAC, in the area of laboratory and inspection accreditation, and the IAF, in the fields of management systems, products, services, personnel accreditation. Both ILAC and IAF work together and coordinate their efforts to enhance accreditation and conformity assessment worldwide as Accreditation facilitates international trade. The theme of World Accreditation Day 2020 is also jointly published by both ILAC and IAF to communicate the importance of Accreditation in Food Safety.

Mr. L H D Bandusoma  
Deputy Director (Accreditation)  
Sri Lanka Accreditation Board for Conformity Assessment





## Current issues and future directions in Food Safety Management Systems (FSMS) in Sri Lanka.

For consumers around the world, access to safe and nutritious food is an essential requirement for maintaining their overall health and well-being. Assurance that food will not cause harm to the consumer when it is prepared and/or eaten according to its intended use" (Codex) is food safety.

"Food Safety" issues arise due to increasing trade in fresh and processed food. Food safety relies on all players involved in the supply of food, from farmers and producers to / caterers and to consumers.

Standards and accreditation are referenced in the WTO, TBT Agreement and play an important role in trade facilitation. Accredited certification bodies, who are providing Food Safety Management System Certification are available in Sri Lanka, however, these certification schemes are not much regulated or recognized by agencies and operating as voluntary schemes. Due to this situation, food safety issues exist in the country throughout the food chain such as unsafe/unhygienic food processing premises, food stalls, retailers, wholesalers, restaurants, etc. However, in some fields, Sri Lanka has implemented and well controlled Food Safety Management Systems.

By implementing system, independency and impartiality of the work and integrity of the system maintains. In the other hand can obtain the opportunity to minimal hazards/ hazard free environment, complying to the regulations, continuous training of staff, enhance the recognition nationally, internationally. Risk management to be applied in the food sector, this can be implemented through proper Food Safety Management Systems

As a solution for immerging issues in Fish industry, national and international buyers are involved, it can be improved and internationally recognize through the FSMS systems. As an Island, this is a mas scale possible growing industry. This industry has been developed, implemented effective quality control system and cope up the international market during last few years due to the demand from international market especially EU market and their requirement of consistence quality and safety of the product. This could be more strengthen by implementing the FSMS system in the fishery industry such as fish processing industries, packaging premises and

local fish stalls.

Via Food Act no. 26 of 1980 and amendments, several enforcements in safety precautions taken such as Good Manufacturing Practices (GMP) and Hazard Analysis Critical Control point (HACCP) for food stalls, which is the minimum requirement which could be used at least to cover critical control points in the process. Still, there are many areas to be improved, where those shall be enforced by the Act or any food regulations.

Food hygiene regulation (2011) covers identifying Critical Control Points (CCPs) in FSMS or HACCP system. Food items available in Sri Lankan local market higher level of residues of pesticide and heavy metals are found. Allergens, pesticide residues and level of allowable limit of heavy metals in raw materials and processed food to be more concerned about hazard identification process to reduce such allergy incidences and comply with international/local food regulations. If FSMS has been implemented, automatically these are well controlled.

As growth, an increasement of supermarket chain of the country FSMS to be implemented for those to establish reliable service and ensure Food safety. Immerging business trends, like online food delivery, Packaging, transportation, distribution sector in food safety management will be an immerging area for certification in the near future.

Sri Lanka is an agriculturally based country, in future most focus exports will be from agricultural products and to be self-sufficient in foods for local consumers. To get the most effective outcome out of the agricultural development, farm to folk management system to be implemented. The current situation, more than 30% of the harvest is lost due to post harvest losses. By implementing an effective Food Safety Management System this can be reduced and achieve the national economic goals. Different types of food processing practices can be used to prevent wastage by analyzing risks and hazards related to each step of the process and supply chain. By introducing FSMS certifications and providing accredited certification to the international buyers for the agricultural processes can easily go ahead with the global market.

As Sri Lanka's future focus on tourism, Food and Water safety is a crucial factor to enhance the

tourist attraction. By providing internationally recognized FSMS certification to the products/process, tourists are much more comfortable with the use of those products. Lesser number of food safety issues/ food born illnesses reported in the country will ensure the reliability on the products in local market. Complying with a national or international certification system for the food chain will provide better market approach.

Global trends in certification is FSSC rather than ISO 22000 which is recognized by GFSI (Global Food Safety Initiative), enabling a simplified “once certified, recognized everywhere” approach. Encouraging clients to implement these global trending certification schemes such as Integrated Farm Assurance (IFA), International Featured Standards (IFS), APEDA and FSSC 22000 will be benefitted by both certification bodies, accreditation bodies and the country. Enhance the awareness on these new FSMS to be done in future. To get maximum benefits of the certification schemes, enhancement of public awareness in related to Food Safety is to be done.



Since food safety hazards may be introduced at any stage of the process, every company in the food supply chain must exercise adequate hazard

controls. In fact, food safety can only be maintained through the combined efforts of all parties: governments, producers, retailers and end consumers.

In April 2019, a Joint Statement issued by the Food and Agriculture Organization of the United Nations (FAO), the World Health Organization (WHO) and the World Trade Organization (WTO) stated that: “Foodborne diseases have a significant impact on public health, food security, productivity and poverty. Nearly 600 million people fall sick and 420 000 die prematurely each year because of foodborne diseases, and 30% of foodborne deaths occur among children under five years of age.” In Sri Lankan context we are in satisfactory level compared to global status, however, room for improvements are available. For that, accredited conformity assessment activities contribute in different ways.

Due to COVID 19, GMP’s are not just the best practice, but they became law. It reflects safe food is a right of consumers and implementing Food Safety Management Systems to be regulated in all sectors and throughout the food supply chain. Safer Food, better business! Once accredited FSMS certification obtained to the business will recognize globally.

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## **Need of Empowering Food Regulations for the Betterment of Future Generation**

“FOOD” means any article manufactured, sold or represented for use as food or drink for human beings and includes any article which ordinarily enters into or is used in the composition or preparation of food.

Food Safety is a concept that food will not cause harm to the consumer when it is prepared and/or eaten according to its intended use.

Food safety is a major element of public health and any compromise results in a considerable burden of food borne diseases. Unsafe and unhealthy food causes a staggering range of diseases and illnesses. Foods containing harmful bacteria, viruses, parasites or chemicals are a major threat to public

health.

70% of the approximate 1.5 billion cases of diarrhea that occur globally each year are directly caused by chemical or biological contamination of food.

Food safety in Sri Lanka is ensured by the Food Act.No.26 of 1980.An Act. to control the manufacture, importation, sale and distribution of food.

The Minister in charge of the subject of Health is empowered under the Food Act. to publish regulations in consultation with the Food Advisory Committee (FAC). Food Advisory Committee comprises with 28 members of various disciplines. Director General of Health Services (DGHS) is the



Chairman of the Food Advisory Committee and the Chief Food Authority (CFA) of Sri Lanka. The CFA is empowered to issue directives and Authorized Officers in respect of carrying into execution of the provisions of the Food Act. or Regulations published therein.

Under section 32 of the Act. Regulations are made and published in the gazette.

A Food Advisory Technical Sub Committee (FASC) is established under the Food Act. The matters of technical nature that requires further study and recommendation are referred to this committee.

Since 1980 more than thirty regulations had been developed and published as government gazettes and some more regulations are being developed to address the emerging issues of food safety.

Ensure food safety from farm to table is a challenging job because of its complexity and involvement of many government and other organizations.

Ministry of Health has given all necessary powers under the Food Act. to ensure food safety.

Food safety is essential for increasing food security which exists when all people have physical and economic access to sufficient, safe and nutritious food to meet the dietary needs and food preferences for active and healthy living. Increasing the supply of safe and wholesome food reduces the impact of foodborne diseases that cause both human suffering and significant economic losses.

The establishment of an effective food safety system is pivotal to ensuring the safety of national food supplies as well as food products for regional and international trade.

Every nation needs an effective food control service to promote a safe and honestly presented food supply and to protect consumers against foods:

- Which are contaminated, decomposed or adulterated
- Which may be injurious to health
- Which are deceptively packaged or labeled with false or misleading statements or otherwise fraudulent

The administration is necessary to ensure effective supervision and control and follow-up action as may be required on the work of the field and laboratory.

Implementation of Food Act.

- Authorized officers (Public health Inspectors, Food and Drugs inspectors, Medical officer of Health) carry out sampling and

Inspection.

- Approved Analysts/Additional approved Analyst perform analysis and issue reports.
- Authorized officers take legal action based on reports.

Those who violate the Food Act. and Regulations will be punished by the court of Law.

Food (standards) Regulations:

- Limits of permitted food additives used in food.
- Poor quality Food.
- Adulterated food.
- Use of non-permitted chemicals in food.
- Unhygienic Restaurants, eating Houses, Mobile food venders, manufacturing establishments.

Chief Food Authority, Ministry of Health, strengthening the food laws or developing new regulations to make sure that the food supply remains safe.



### Eight consumer rights-UN

- Right to satisfaction of basic needs
- Right to safety
- Right to be informed
- Right to choose
- Right to be heard
- Right to redress
- Right to consumer education
- Right to Healthy and Sustainable environment

Food safety is a shared responsibility and it needs joint efforts of all stake holders;

Government, food business operators, consumers and academics across the food chain, to include the broader network beyond food and health and to engage the food security, nutrition, environmental and socioeconomic sectors for making food safety a long term investment to meet important Sustainable Development Goals (SDGs).



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## Food Safety during COVID 19 pandemic

COVID 19 is a new respiratory viral infection caused by a corona virus named SARS-CoV-2, which was first reported in China in late 2019. It has now spread in the world as a pandemic affecting more than 200 countries. Millions are infected throughout the world and the death toll has passed 300,000. This has led to countries taking drastic control measures such as shut down and curfew in most areas of the world.

As this is a respiratory virus the main mode of spread is directly by secretions from the respiratory tract of the infected person to another via droplet spread or through surfaces which are contaminated with the virus containing secretions. This virus can survive on different surfaces for many hours to days depending on the material and environmental conditions. Therefore, physical distancing, hand hygiene, avoiding touching the mouth, nose and eyes, regular cleaning of surfaces and wearing appropriate personal protective equipment correctly when needed are important measures to control the spread of this disease.

There is no evidence to date that viruses that cause respiratory illnesses are being transmitted via food or food packaging. Coronaviruses cannot multiply in food; they need an animal or human host to multiply. Since food is essential for the survival of humans the food industry has to continue even in lockdown or when the country is under curfew. When considering food safety, we need to consider different levels such as food production, food distribution as well as preparation, serving and the environment where you partake your food.

### Food industry:

The food industry should have Food Safety Management Systems (FSMS) based on the Hazard Analysis and Critical Control Point (HACCP) principles in place to manage food safety risks and prevent food contamination. FSSC 22000 and ISO 22000 are food safety management systems which can be applied to any organisation in the food chain. Accredited Certification Bodies provides certification services to the industry. A certificate holder develops and maintains its food safety assurance programme based on the internationally accepted principles of ISO 22000 and HACCP. HACCP is a system which provides the framework for monitoring the total food system, from harvesting to consumption, to reduce the risk of foodborne illness. The system is designed to identify and control potential problems before they occur. In its Model Food Code, the Food and Drug

Administration has recommended the HACCP system (1999 FDA Model Food Code). The application of HACCP is based on technical and scientific principles that assure safe food. Food industry FSMS has programmes to include good hygiene practices, cleaning and sanitation, zoning of processing areas, supplier control, storage, distribution and transport, personnel hygiene and fitness to work, i.e. all the basic conditions and activities necessary to maintain a hygienic food processing environment. The Codex General Principles of Food Hygiene lay down a firm foundation for implementing key hygiene controls at each stage of the food processing, manufacture, and marketing chain for the prevention of food contamination.

Every food business should have a person or a team appointed to look into food safety issues. This person should organise the activities liaising with the food safety authorities. It is very important that this person gets involved with relevant discussions and act in such a way to ensure that the food workers are protected from COVID 19 and prevent transmission of the disease and ensure that the food is safe and hygienic.

It is imperative for the food industry to reinforce personal hygiene measures and provide refresher training on food hygiene principles to eliminate or reduce the risk of food surfaces and food packaging materials becoming contaminated with the virus from food workers during this pandemic. Personal protective equipment (PPE), such as masks and gloves, can be effective in reducing the spread of the virus and disease within the food industry, but only if used properly. It is important to maintain a high level of hygienic practices such as not touching any unclean surface or the face, mouth, nose, eyes or any other body part when having the gloves on for handling food. It is important to remove the gloves and wash hands before and after touching doors, telephones, bins etc. Hand hygiene should be practiced before wearing and after removing gloves. Gloves wearing should not be used as a substitute for hand washing. Frequent changing of gloves and washing hands are important. Gloves may give a false sense of security and may lead to reduce frequency of handwashing. This should be avoided by proper education and providing adequate hand washing facilities. Soap and water can be used effectively for hand washing but hand sanitizers can be used as an additional measure but should not replace handwashing. Touching the face, mouth, nose or eyes while handling the food can contaminate the food and its packaging with the virus if



the person is infected.

In addition, the food industry is strongly advised to introduce physical distancing and stringent hygiene and sanitation measures and promote frequent and effective handwashing and sanitation at each stage of food processing, manufacture and marketing. Workers in the food industry should be advised to stay away from work when they get symptoms suggestive of COVID-19. A procedure should be in place with written instructions to carry out when they feel sick including how to report any sickness and what measures to take if a worker is infected with COVID-19. If a worker is infected with COVID-19, minimum 14 days of leave after the symptoms are cleared may be needed. Contacts of the person also should be traced and isolated. These measures will protect staff from spreading COVID-19 among workers, maintain a healthy workforce, and detect and exclude infected food handlers and their immediate contacts from the workplace.

Physical distancing is important to be maintained in the food industry. Food processing environment should be re-arranged to maintain the distance of 1 metre or more among workers. Practical measures such as staggering workstations on either side of processing lines so that food workers are not facing one another, providing PPE such as face masks, hair nets, disposable gloves, clean overalls, and slip reduction work shoes for staff, spacing out workstations, limiting the number of staff in a food preparation area at any one time, organising staff into working groups or teams to facilitate reduced interaction between groups are recommended. Cleaning the food preparation surfaces frequently is also important to prevent contamination of food.

Although COVID-19 genetic material (RNA) has been isolated from stool samples of infected patients, there are no reports or any evidence of faecal-oral transmission. Handwashing after using the toilet is always an essential practice, especially when working with food.

#### **Delivery of food items:**

Though there is no evidence that COVID 19 has been transmitted through food or its packaging, as corona viruses are known to be capable of being alive on surfaces such as cardboard and plastics for hours to days the possibility of transmission through contaminated food and packaging is considered as possible. The persons involved with food delivery should be educated on the important measures such as physical distancing, hand hygiene and respiratory etiquette. They should not

be working if they have symptoms of a respiratory illness suggestive of COVID 19 and should seek medical advice. If you have got food delivered to your house or have taken as take away best is to remove the outer package and transfer the food to a clean container without touching the food. Wash your hands for about 20 seconds with soap and water after handling the outer packing and before consuming the food.

The food items such as fruits and vegetables as well as yoghurts and ice cream purchased from supermarkets or grocery shops should always be washed before storing in the refrigerator.

#### **Restaurants and eating places:**

If you are eating in a restaurant it is very important to think of the seating arrangements, how congested the restaurant is, how the air flow in the restaurant is etc. Common utensils such as spoons used for serving and commonly handled areas such as doors, lift buttons etc are potential threats for transmitting the virus. Hand hygiene should be practiced immediately after touching those potentially contaminated surfaces. Eating in open areas will be preferred to having food in enclosed environments with many individuals. The physical distance between the chairs in different tables have to be more than 6 feet. Tables should only be shared by the immediate family if the distance between chairs is not maintained. The food should be served by the restaurant staff following hygienic measures rather than allowing the guests to serve the food for them, i.e. buffet serving should be discouraged as the utensils can get contaminated by shared use. Hand hygiene before consuming food is essential. Everyone has to be mindful not to touch the nose, mouth or eyes without practicing hand hygiene when in a common place such as a restaurant.



## Conclusions and recommendations:

Though there is no evidence that COVID-19 can spread through the food we consume, adhering to proper hygienic measures such as physical distancing, hand hygiene, cleaning and disinfection of surfaces, cough etiquette and wearing appropriate PPE properly can reduce the possibility of spread of the disease through the process of food production, delivery and consumption.

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## SLAB Accredited Conformity Assessment Bodies related to Food Supply Chain

### Testing Laboratories

SI	Name of the Conformity Assessment Body	Product Group Category
1	Labzone Testing Laboratory, Basilur Tea Exports (Pvt) Ltd, No. 143/6, Weediabandara Mawatha, Mulleriyawa North, Angoda.	Chemical and Biological testing of: Chemical Tea (Black, Green, Herbal and Flavored)
2	Nestle Lanka PLC-Kurunegala, No.01, Makandura, Gonawila.	Chemical testing of: Milk & Milk Powder, Powdered Beverages, Coconut Milk Powder, Culinary Products, Noodle, Ready to Drink products, Coconut Milk, Instant Coffee, Premixes Microbiological testing of: Ready to Drink products, Ready to Drink products, Coconut Milk Powder, Milk Powder, Culinary Product, Sweetened condensed milk
3	Industrial Technology Institute, No.210 / 4, Wijerama Mawatha, Colombo 07.	Chemical testing of: Cashew, Fish, Sea Food, Tea, Margarine, Cereal based food items, Water, Foods of animal origin, Fruits and vegetables, Spices, Coconut products, Meat Products, Milk Products, Wheat products, Carbonated and non-carbonated beverages
4	Palmyrah Research institute, Kandy Road, Kaithady, Jaffna.	Chemical testing of: Jaggery, Treacle, Palmyrah ready to serve fruit drink, Palmyrah fruit cordial and Palmyrah fruit pulp
5	Government Analyst's Department, No. 31, Isuru Mawatha, Pelawatta, Baththaramulla.	Chemical testing of: Black Tea, Water



6	Intertek Lanka (Pvt) Ltd, "Intertek House", No. 282, Kaduwela Road, Battaramulla.	Chemical testing of: Black Tea, Water, Fish  Microbiological testing of: Bakery & Confectionery Products, Beverages (Alcoholic & Non-Alcoholic), Canned & Processed Foods, Cereals, Pulses & Cereal Products, Tea, Coffee & Cocoa Products, Edible Oils & Fats, Eggs & Egg Products, Fish & Sea Foods, Fruit & Fruit Products, Herbs, Spices & Condiments, Jams, Juices, Sauces & Concentrates, Meat & Meat Products, Milk & Dairy Products, Margarine, Nuts & Nut Products, Oil Seeds & By Products, Poultry & Poultry Products, Starch & Starch Products, Sugar & Sugar Products, Tea, Vegetables & Vegetable Products, Gelatin and Other Gums, Nuts & Nut Products, Water
7	Bureau Veritas Consumer Products Services Lanka (Pvt) Ltd, No. 570, Galle Road, Katubedda.	Chemical & Microbiological testing of: Tea & Coffee, Milk & Dairy Products, Spices and Herbs, Meat & Meat products, Fish and Fishery Products, Poultry Products Eggs and Egg Products, Vegetables & Vegetable products, Fruits & fruit products, Chocolate confectioneries, Grains, breads & cereals
8	Analytical Laboratory Sri Lanka Tea Board, No.574, Galle Road, Colombo 03	Chemical & Biological testing of: Black Tea & Green tea
9	Jafferjee Brothers Tea Bags Department Laboratory, Jafferjee Brothers Group of Companies No.150, St. Joseph's Street, Colombo 14.	Chemical testing of: Black Tea & Green tea
10	Tea Quality Assurance Laboratory, Finlays Colombo Limited, No. 309/6, Negombo Road, Welisara	Chemical testing of: Tea
11	Laboratory Services Trade Solutions Lanka (Pvt)Ltd, 89/1A, Piyadasa Sirisena Mawatha, Colombo10.	Chemical testing of: Black Tea, Green tea and Herbal Tea
12	Fonterra Brands Lanka (Pvt) Ltd, No. 100, Delgoda Road, Biyagama.	Chemical testing of: Milk Powder Microbiological testing of: Milk and milk products
13	Food Safety and Quality Assurance Laboratory, Department of Veterinary Public Health and Pharmacology, Faculty of Veterinary Medicine and Animal Science, University of Peradeniya, Peradeniya	Chemical testing of: Shrimp, Poultry Meat, Fish, Fresh and powdered milk, Edible vegetable oil, Chicken meat
14	Bamber & Bruce (Pvt) Ltd, No. 29/1, Idama Road, Vijaya Kumaranatunga Mawatha, Colombo 05.	Chemical testing of: Tea, Water, Microbiological testing of: Bakery and confectionery products, Beverages , Cereals, pulses and cereal products, Coffee and Cocoa products, Fish, Sea Food & Fish Products, Herbs, spices and condiments, Jams, Jellies, Juices, Purees, Squashes and Concentrates, Nuts and Nut Products, Milk and Milk products, Meat and meat products, Coconut Products, Coconut Products, Preserves, Ready to eat foods

15	SGS Lanka (Pvt) Limited, No 141/7, Vauxhall Street, Colombo 02.	<p>Chemical testing of: Tea, Spices, Cinnamon, Fruit Juice and Concentrates, Fish and Fishery Products, Edible Salt, Food Grade Salt, Cereals, Black and White Pepper, Desiccated coconut, Edible Fats and Oils, Sugar, Soya Sauce, Biscuit, Dairy Fat Spread, Water, Prawns, Chicken, Sausages, Meatballs, Fish balls, Canned Fish, Dried Fish, Maldives Fish, Crabs, Cuttlefish, antibiotic residues</p> <p>Microbiological testing of: Milk &amp; Milk Products, Vegetables &amp; Vegetable Products, Meat &amp; Meat Products, Poultry &amp; Poultry Products, Fish, Crustaceans, Shell Fish, Cuttlefish &amp; Fish Products, Fruits &amp; Fruit Products, Beverages, tea, Herbs And Spices, Canned and bottled Products (fruits, vegetables, fish, meat, sauces, jam), Carbohydrates, Cocoa products, animal feed, water</p>
16	Gamma Spectrometry Laboratory, Nuclear Analytical Services, Life Science Division, Sri Lanka Atomic Energy Board, No. 60/460, Baseline Road, Orugodawatte, Wellampitiya	<p>Chemical testing of: Water, Milk Powder, Vegetative Samples (Tea, Coconut &amp; Plant Materials) and Other Matrices (Fish, Processed Food Items.</p>
17	Quality Control and Quality Assurance Division, Coconut Development Authority, No. 54, Nawala Road, Narahenpita, Colombo 05	<p>Microbiology testing of: Desiccated coconut, Coconut milk, Coconut water, Coir fibre pith substrate, Copra, Partially defatted desiccated coconut, Fresh Coconut kernel, Water</p>
18	Food Technology Division, MJF Holdings Limited, No. 111, Negombo Road, Peliyagoda	<p>Chemical testing of: Black and Green Tea</p> <p>Microbiology testing of: Tea, Herbs, Spices and Condiments, Water</p>
19	Sri Lanka Standards Institute, No.17, Victoria Place, Elvitigala Mawatha, Colombo 08.	<p>Chemical testing of: Carbonated Beverages, R.T.S Fruit drinks, Synthetic artificial cordials, Fruit Juice &amp; Nectars Meat, Fat</p> <p>Spreads, Ready to eat extruded snacks, Ice cream, Desiccated Coconut, Dried fish, Frozen confections and freeze drinks, Textured soya protein (Defatted), Processed cereal-based foods infants and young children, pepper, Biscuit, cheese, Coconut milk powder, Bacon Ham, Tea, Butter, Tomato Sauce/ Ketchup Jams, Jellies and Marmalades Mango chutney, Canned Fish, Milk &amp; Milk Products, Edible Oils &amp; Fat, Sugar &amp; Sugar Products, Tea, Water</p>
20	Food and Water Laboratory, Medical Research Institute, Colombo 08	<p>Microbiology testing of: Meat and meat products, Whole Pepper (black and white)</p>
21	Quality Control Laboratory (Microbiology Unit), National Aquatic Resources Research & Development Agency (NARA), Crow Island, Mattakkuliya Colombo 15.	<p>Chemical testing of: Fish (Fresh, Frozen, Chilled, Canned, Cured and Dried fish)</p>



22	Lindel Industrial Laboratories Limited, Pattiwila Road, Sapugaskanda, Makola.	Chemical testing of: Water
23	Regional Laboratory-Western Production (Ambatale), National Water Supply & Drainage Board, Udumulla Road, Mulleriyawa New Town	Chemical testing of: Water
24	Central Laboratory National Water Supply & Drainage Board Thelawala Road Ratmalana.	Chemical testing & Microbiological testing of: Water
25	Regional Laboratory- Vavuniya, National Water Supply and Drainage Board, A9 Road, Vavuniya.	Chemical testing of: Water
26	Regional Laboratory- Jaffna National Water Supply and Drainage Board, No.46, Sivan Pannai Road, Jaffna.	Chemical testing of: Water
27	S & D Chemicals (PVT) Ltd, Block A, Biyagama Export Processing Zone, Walgama, Malwana	Chemical testing of: Water
28	Analytical laboratory, Geological Survey & Mines Bureau, No. 569, Epitamulla Road, Pitakotte.	Chemical testing of: Water
29	SATREPS Chemical & Analytical Laboratory, Faculty of Engineering, University of Peradeniya, Peradeniya.	Chemical testing of: Water
30	Sri Lak Laboratory Services (Pvt) Ltd No. 265/01, St. Josheph Street, Negombo	Chemical testing of: Water
31	Water Quality Monitoring Laboratory, Central Environmental Authority, "Parisara Piyasa" , No 10, Densil Kobbekaduwa Mawatha, Baththaramulla.	Chemical testing of: Water
32	Environmental Laboratory Services, National Building Research Organisation, No: 99/1, Jawatta Road, Colombo 05	Chemical testing of: Water
33	Environmental Laboratory & Consultancy Services, 889 1/3, Maradana Road ,Punchi Borella, Colombo 10	Chemical testing of: Water
34	Chemical and Microbiological Laboratory, Water Resources Board 2A, Hector Kobbekaduwa Avenue, Colombo 07	Chemical testing of: Water
35	Censura Laboratory Services, MAS Fabric Park, Thulhiriya	Chemical testing of: Water

### Certification Bodies

SI	Name of the Conformity Assessment Body	Scope
<b>Product Certification</b>		
1	Sri Lanka Standards Institution, Product Certification Division No, 17, Victoria Place, Elvitigala Mawatha, Colombo 08	Certification of Farming, Harvesting and Manufacturing of Black Tea and Green Tea Certification of Blending and Packing of Black Tea, Green Tea and Rooibos tea
<b>System Certification (QMS)</b>		
1	Sri Lanka Standards Institution, No.17, Victoria Place, Elvitigala Mawatha, Colombo 08	Manufacture of Food products, Manufacture of Beverages
2	Control Union Inspections (Pvt) Ltd, No. 100/8, 3rd Floor, FPA Building, Narahenpita - Nawala Rd, Colombo 05	Manufacture of food products, Manufacture of beverages.
3	Ind-Expo Certification Ltd, No. 20, Galle Face Court 02, Colombo 03	Manufacture of food products, Manufacture of beverages
<b>HACCP against SLS 1266:2011</b>		
4	Ind-Expo Certification Ltd, No. 20, Galle Face Court 02, Colombo 03	Packaging Material manufacturing
<b>System Certification (EMS)</b>		
5	Sri Lanka Standards Institution, No.17, Victoria Place, Elvitigala Mawatha, Colombo 08	Manufacture of Food products, Manufacture of Beverages
6	Control Union Inspections (Pvt) Ltd, No. 100/8, 3rd Floor, FPA Building, Narahenpita - Nawala Rd, Colombo 05	Manufacture of food products, Manufacture of beverages.
<b>System Certification (FSMS)</b>		
7	Sri Lanka Standards Institution, No.17, Victoria Place Elvitigala Mawatha Colombo 08	Farming of animals, Food manufacturing, Animal feed production, Catering, Production of food packaging and packaging material, Distribution, Transport and Storage

8	Control Union Inspections (Pvt) Ltd, No. 100/8, 3rd Floor, FPA Building, Narahenpita - Nawala Rd, Colombo 05 System Certification (FSMS)/HACCP against SLS 1266: 2011	C-Food Manufacturing: -Processing of perishable animal products, Processing of perishable plant products, Processing of perishable animal and plant products (mixed products), Processing of ambient stable products, Production of food packing and packing material.
9	Ind-Expo Certification Ltd, No. 20, Galle Face Court 02, Colombo 03	Food Manufacturing, Catering, Packaging Material manufacturing

### Inspection Bodies

SI	Name of the Conformity Assessment Body	Product/Process/Item inspected
1	Inspection Unit. Processing Development Division. Coconut Development Authority. No. 11, Duke Street. Colombo 01	Food Inspection (Desiccated Coconut Manufacturing Mills and Production Process)

### Proficiency Testing Providers

SI	Name of the Proficiency Testing Provider	Product/Process/Item inspected
1	ITI PT Scheme Industrial Technology Institute, No 363, Bauddhaloka Mawatha, Colombo 07	Provision of Proficiency Testing in the fields of Microbiology (Food & Water)

Table 1: SLAB Accredited Conformity Assessment Bodies related to Food Supply Chain  
For the accredited test parameters or any other further details, you may visit [www.slab.lk](http://www.slab.lk).



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