

# **NATIONAL FOOD SAFETY POLICY (2017 - 2026)**

**Maldives Food and Drug Authority**  
Ministry of Health



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## LIST OF ACRONYMS

|         |   |
|---------|---|
| AMR     | Antimicrobial resistance                                |
| CAC     | Codex Alimentarius Commission                           |
| CTF     | Codex Trust Fund  |
| DHE     | Department of Higher Education                          |
| EPA     | Environment Protection Agency                           |
| EU      | European Union  |
| FAO     | Food and Agriculture Organization of the United Nations |
| GATT    | General Agreement on Trade and Tariff                   |
| GAP     | Good Agricultural Practice                              |
| HACCP   | Hazard Analysis and Critical Control Points             |
| HPA     | Health Protection Agency                                |
| HSD     | Regional and Atoll Health Services Department           |
| IGMH    | Indira Gandhi Memorial Hospital                         |
| IHR     | International Health Regulations                        |
| INFOSAN | International Network of Food Safety Authorities        |
| ISO     | International Organization for Standardization          |
| MCS     | Maldives Customs Service                                |
| MED     | Ministry of Economic Development                        |
| MEE     | Ministry of Environment and Energy                      |
| MOFA    | Ministry of Fisheries and Agriculture                   |
| MFDA    | Maldives Food and Drug Authority                        |
| MIA     | Ministry of Islamic Affairs                             |
| MHI     | Ministry of Housing and Infrastructures                 |
| MNCCI   | Maldives National Chamber of Commerce and Industry      |
| MNDF    | Maldives National Defense Force                         |
| MNU     | Maldives National University                            |
| MOE     | Ministry of Education                                   |
| MOH     | Ministry of Health                                      |
| MOT     | Ministry of Tourism                                     |
| MOU     | Memorandum of Understanding                             |
| MPL     | Maldives Port Limited                                   |
| MWSC    | Male' Water and Sewerage Company                        |
| NCIT    | National Centre for Information Technology              |
| NDMC    | National Disaster Management Centre                     |
| NHL     | National Health Laboratory                              |
| NGOs    | Non-Governmental Organizations                          |
| OIE     | World Organization for Animal Health                    |
| PPR     | Peste des Petits Ruminants                              |
| SAARC   | South Asian Association for Regional Cooperation        |
| SDGs    | Sustainable Development Goals                           |
| SPS     | Sanitary and Phytosanitary Measures                     |
| TBT     | Technical Barriers to Trade                             |
| TRIPS   | Trade Related Intellectual Property Rights              |
| UNIDO   | United Nations Industrial Development Organization      |
| US      | United States   |
| WHO     | World Health Organization                               |
| WTO     | World Trade Organization                                |

## **FOREWORD**

Food safety needs to be ensured by protecting the food supply from microbial, chemical and physical hazards that may occur during all stages of food production, including growing, harvesting, processing, transporting, retailing, distributing, preparing, storing and consumption. Well-developed food safety systems contribute to improved public health, increased access to food trade, increased food security and the protection of the environment.

The National Food Safety Policy 2017-2026 is the key document in strengthening the Food Safety Control system in the Maldives. Five components of Food Safety Control system are being managed by different stakeholders in a random manner. A country heavily depending on imported food with fast developing agriculture sector is greatly in need of a systematic approach to manage Food Safety Control.

The scope of this policy cover all aspects of national, regional, and international practices, principles, guidelines, standards and agreements governing food safety systems. The policy includes all public and private entities involved in the technical, operational and management aspects of food safety and control systems in the Maldives.

In order to achieve integrated food safety and control management, the policy is carefully formulated taking into account the five pillars of Food Safety control Management namely:, Food Law, Regulation and standards, Inspection Services, Laboratory services, Monitoring and Training.

This policy has been developed with collaboration and consultative effort by national stakeholders including governmental and non- governmental stakeholders.

The formulation of policy was generously funded by WHO, so I would like to take this opportunity to express my sincere gratitude to WHO Maldives for their continuous support. My appreciation also goes to all stakeholders for their contribution during consultative process.

I would like to highlight the key role and contributions by the staff of MFDA, for the successful completion.

This policy will enable the successful improvement and implementation of food safety related issues, including import, locally produced and export of food in the country.

Furthermore, I am confident that this policy and its implementation would improve the food safety, including local, import and export food which would contribute to the health and well-being of our people.

Abdulla Nazim Ibrahim

Minister of Health

## **EXECUTIVE SUMMARY**

The Maldives is a member of the World Trade Organization (WTO) and the Maldives joined standard setting organizations recognized by WTO namely Codex Alimentarius Commission (CAC), World Organization for Animal Health (OIE) and International Plant Protection Convention (IPPC).

Traditionally, fishing has been the main agriculture activity which is the main source of animal protein and major source of national income till eighties. There was a tendency to establish private commercial poultry and agriculture farms especially in uninhabited islands in the past one decade to meet growing demand of fruits, vegetables and poultry eggs. Maldives is a net importer of food and food products as 95% of food consumed in Maldives are imported. Tourism is the main source of national economy which contributes 32.7% of the gross domestic product (GDP). The need to promote economic diversification in the Maldives was realized in the aftermath of the Tsunami of December 2004 to lessen its vulnerability to external shocks from tourism and fisheries. The risk of entry, establishment and spread of exotic diseases and pests is also increasing in the context of globalization of agricultural and livestock trade.

Globalization and liberalization of markets have created greater food safety challenges. Governments are now required to comply with the sanitary and phyto-sanitary measures in order to satisfy trade requirements. There is currently inadequate capacity and capability to respond effectively to the globalization of food trade. The Sustainable Development Goals are charting a path towards meeting current needs without compromising the ability of future generations to meet their own needs. In addition to SDG 2 on 'End hunger, achieve food security and improved nutrition, and promote sustainable agriculture', several other SDGs that relate to food safety include health, poverty, gender equality, water and sanitation, responsible production and consumption, and climate change. As other small island countries, Maldives is vulnerable to the impact of climate change which may affect food security, food safety and nutrition. The Maldives is committed to achieve the SDGs by 2030.

Currently, there is no specific food safety policy in Maldives. The formulation of a food safety policy is important for policy direction and proper national regulatory framework. Meetings with relevant key stakeholders were conducted to assess the food safety scenario and identify the agencies involved in different components of the food control system. Emphases were made on roles and mandates of each agency, legal basis of their work, existing coordination mechanism, as well as areas of concern and how those could be addressed.

It was found that components in food safety that need to be strengthened include: legislation and enforcement; food control and inspection programmes of locally-produced and imported foods; foodborne diseases surveillance programme; and participation in food safety activities of consumer and stakeholders in food chain. Since food safety activities are fragmented in the Maldives, it is important to clearly define role and responsibility of each institution to avoid duplication of efforts and overlapping of functions. The post-marketing monitoring and surveillance programmes including traceability and recall systems, as well as training, education and research on food safety

are the lacking components that need to be established. Capacity building is needed both in terms of infrastructure, and number and skill of food safety personnel. There are some overlaps and gaps in the responsibility of agencies involved in food safety activities which needs to be sorted out. Coordination and information sharing among agencies involved in each activity thus should be strengthened.

Food Safety by its very nature must be considered one of shared responsibility – government, private sector and public. The establishment of a high level Inter-Ministerial Food Safety Committee and a functional National Codex Committee have been proposed for policy and technical guidance and better coordination and collaboration among major stakeholders.

The initial draft document was developed in 2015 under WHO technical assistance. The National Food Safety Policy of Maldives is based on multi-sectoral, integrated farm-to-fork approach, considering the culture/traditional/religious practices and country's context perspective. Four policy goals were proposed to address the needs to: (i) ensure safety, healthy and quality of food supply throughout the food chain; (ii) strengthen national food safety framework, implementation of food control activities, and coordination among responsible agencies; (iii) promote awareness and participation of consumer and stakeholders in the food chain; and (iv) build capacity and enhance capability of training, education and research on food safety. Objectives of each goal were identified. The strategic approaches of each objective were also specified along with the proposed agencies to be responsible for each approach. The plan of actions with specified timeframe and coordinating mechanisms for each strategic activity has been further developed through a consultative process. A stakeholder consultation workshop was conducted in October 2016 to obtain comments and concerns on the policy document, which has been incorporated.

The Policy is planned to be implemented within a 10 year period with sufficient budget, human and other resources made available and working with all stakeholders in a coordinated manner.

## **1 INTRODUCTION**

### **Geography, administration, and socio-economic aspects**

The Republic of Maldives is a sovereign island country represented as a chain of islands in the southern part of the Indian Ocean. It is located southwest of India and Sri Lanka in the Laccadive Sea, the country is comprised of 26 natural atolls spreading over 90,000 sq km with a total of 1,192 coral islands, of which 188 are inhabited. Maldives is a republic state, with the President as head of government and head of state. All islands are divided into 20 administrative atolls.

The total population is estimated to be 344,023 as of 2014 of which 44.6% residing in urban areas. Human population is scattered in islands and Male is the capital city with highest human population density. Almost 80% of inhabited islands have a population of less than 1,000. The population is young one, with 47% below 25 years of age and the average population growth rate is 3.4 per cent per annum. Life expectancy for men is 73.13 and that for women is 74.77. The literacy rate is estimated at 98%.

The Maldives has a faster economic growth rate with booming tourism industry which demands huge number of migrant workers and skilled expatriates. The Maldives is a popular destination for international travelers and a total of 1 million tourists visit Maldives annually. Tourism is the main source of national economy which contributes 25.4% of the gross domestic product (GDP). National GDP reached 6,665 US dollars in 2013.

The Maldives was a member of the General Agreement on Trade and Tariff (GATT) and therefore become automatically a member of the World Trade Organization (WTO) in 1995. The Maldives is now a member of Codex Alimentarius Commission (CAC), World Organization for Animal Health (OIE) and International Plant Protection Convention (IPPC) which are recognized by World Trade Organization as standard-setting organizations. Maldives became 172<sup>nd</sup> member in November 2007 and 176<sup>th</sup> of the Codex Alimentarius Commission in March 2008. The Maldives is still not a member of the International Organization for Standardization (ISO).

In recent years, the Maldives has gone through political instability, decentralization and dramatic policy changes in health sector which weakened the administrative and technical capacity for regulation of food safety standards.

### **Agriculture, food production and trade**

Traditionally, fishing has been the main agriculture activity which is the main source of animal protein and major source of national income till eighties. The contribution of fisheries in GDP has been declining to 6-7% in recent years. The fisheries products include pelagic fish namely skipjack tuna and yellow fin tuna. The total fish production was 95,000 tons in 2010 and all of which was from harvested from Indian Ocean. Export values of fishery products reached 71 million US dollars in 2010 with an import value of 11 million US dollars.

The Maldives has already experienced stringent measures taken for food safety and quality assurance by the European Commission so that tuna fish and its products have access to the European market. The European Union (EU) helped Maldives to establish an accredited laboratory for exportable fish and fish products.



The need to promote economic diversification in the Maldives was realized in the aftermath of the Tsunami of December 2004. There is a need to lessen its vulnerability to external shocks from tourism and fisheries, which together account for almost 40 percent of GDP. There was a tendency to establish private commercial poultry and agriculture farms especially in uninhabited islands in past one decade to meet growing demand of fruits, vegetables and poultry eggs. It has led to importation of cow dung, chemical fertilizer and pesticides. The pesticide import increased from 0.58 million US dollars in 2002 to 1.57 million in 2012. Value of total agricultural and food production in 2012 was US dollars 10 million. The top commodities production quantities are bananas and coconuts (**Table 1**).

**Table 1** Top ten commodities production quantity, 2012

| <b>Commodity</b>              | <b>Quantity (tons)</b> |
|-------------------------------|------------------------|
| 1 Banana                      | 7,500                  |
| 2 Coconuts                    | 4,106                  |
| 3 Vegetables                  | 2,500                  |
| 4 Fruit                       | 2,500                  |
| 5 Roots and tubers            | 2,350                  |
| 6 Nuts                        | 2,144                  |
| 7 Papayas                     | 1,100                  |
| 8 Meat                        | 840                    |
| 9 Chillies and peppers, green | 250                    |
| 10 Tomatoes                   | 155                    |

Source: FAO Statistics Division (<http://www.faostat.fao.org>)

The Maldives is a net importer of food and food products as 95% of food consumed in Maldives are imported, including sources of macronutrients, i.e., carbohydrates, protein and fat. Wheat flour, refined sugar, and non-alcoholic beverages are among top commodities import quantity (**Table 2**).

**Table 2** Top ten commodities import quantity, 2011

| <b>Commodity</b>          | <b>Quantity (tons)</b> |
|---------------------------|------------------------|
| 1 Wheat flour             | 19,077                 |
| 2 Sugar, refined          | 9,360                  |
| 3 Beverage, non-alcoholic | 9,249                  |
| 4 Onion, dry              | 6,956                  |
| 5 Chicken meat            | 6,847                  |
| 6 Vegetable oils          | 6,806                  |
| 7 Fruit juice             | 5,239                  |
| 8 Hen eggs, in shell      | 5,229                  |
| 9 Potatoes                | 4,692                  |
| 10 Food preparations      | 4,083                  |

Source: FAO Statistics Division (<http://www.faostat.fao.org>)

The risk of entry, establishment and spread of exotic diseases and pest is also increasing in the context of globalization of agricultural and livestock trade. The Maldives has imported citrus canker and rhinoceros beetle through importation of sapling and PPR (Goat plague) through importation of goats from enzootic countries. The custom and trader consider economic benefit without understanding potential threat of importing disease or pest. The authenticity of veterinary health

or plant health certificates cannot be verified but entry of disease or pest proves falsified nature of document.

### Food consumption pattern

The per capita food supply in 2011 was 2,722 kcal per capita per day, consisting 65 g protein and 110 g fat. The availability of commodities for consumption is presented in

**Table 3.**

**Table 3** Top ten commodities availability for consumption, 2011

| <b>Commodity</b>         | <b>Quantity (kcal/capita/day)</b> |
|--------------------------|-----------------------------------|
| 1 Wheat and products     | 562                               |
| 2 Rice, milled           | 499                               |
| 3 Sugar, raw             | 336                               |
| 4 Pelagic fish           | 259                               |
| 5 Milk, excluding butter | 186                               |
| 6 Nuts and products      | 89                                |
| 7 Coconut oil            | 83                                |
| 8 Marine fish, other     | 82                                |
| 9 Poultry meat           | 44                                |
| 10 Fruits, other         | 43                                |

Source: FAO Statistics Division (<http://www.faostat.fao.org>)

The food consumption pattern is greatly influenced by attractive advertisement of food traders and there is a growing trend of importing energy drinks and so called healthy drinks which lead to obesity. The popularity of junk food among children is another public health issue of concern. Fortunately importation of baby milk substitute is regulated in the Maldives.

### Health status

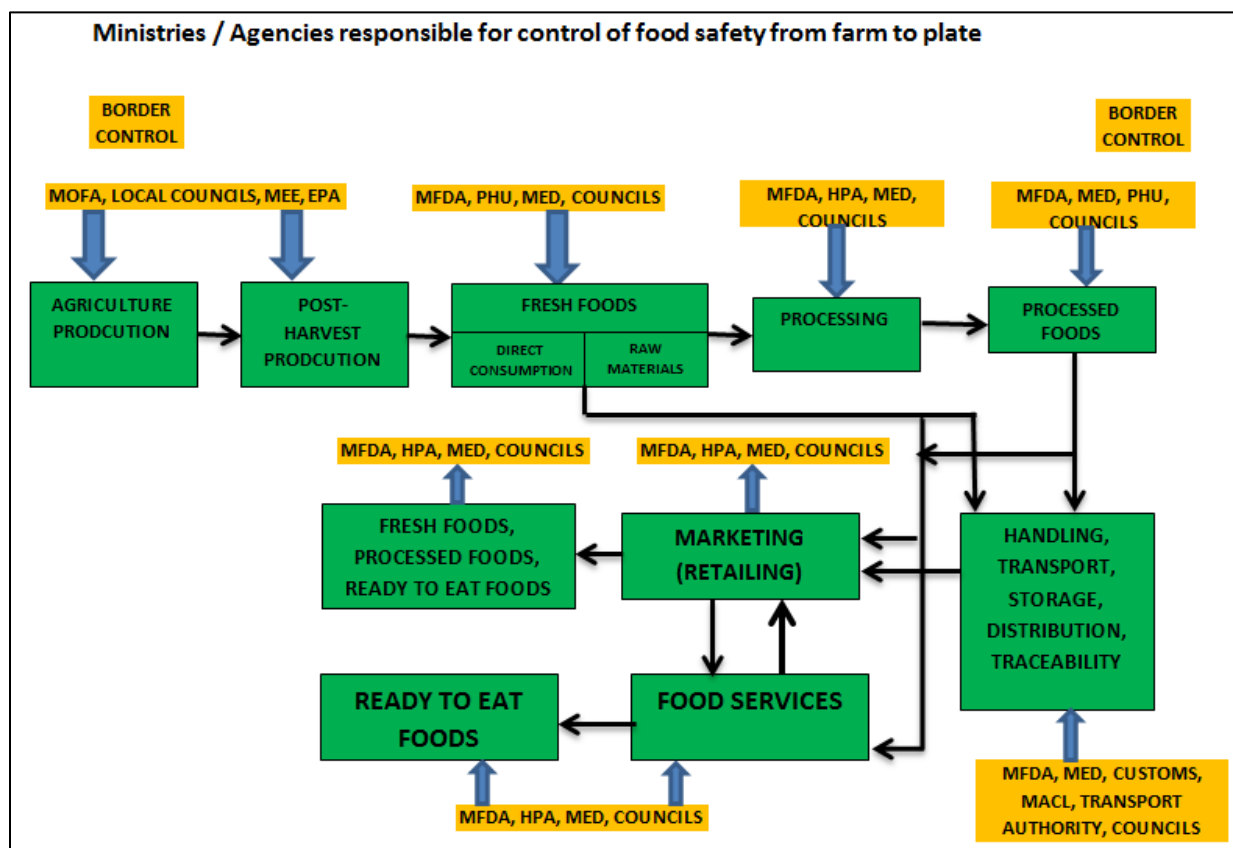
The Maldives is a country that has achieved the Millennium Development Goals in many aspects. The under-five mortality rate has decreased from 94 per 1,000 live births in 2000 to 10 in 2013. Maternal mortality ration drastically decreases from 430 per 100,000 live births at the baseline to 31 in 2013. Almost the entire population has been reported as using improved drinking water sources and sanitation facilities in 2013. The country's achievement in such indicators is better than any other country of the South-East Asia Region. In 2013, diarrhoea has been reported to cause 1% of deaths in children under-five. The stunting rate of children aged under-five decreased from 30% in 2000 to less than 20% in 2010. However, the country is facing obesity and the challenge lifestyle related diseases. As of 2008, 25% of adult aged over 25 has raised blood pressure. Around 6% of male and 26% of female aged over 20 are obese. Cardiovascular diseases, diabetes and cancers are among the top leading causes of death, accounting for about 40% of the total deaths in both male and female in 2012. Burden of cardiovascular diseases and diabetes; maternal, neonatal nutritional, and cancer are among the top in terms of disability-adjusted life years.

## 2 SITUATION ANALYSIS

### 2.1 INSTITUTIONAL FRAMEWORK FOR FOOD CONTROL

Food control and management is an integrated system in Maldives as many stakeholders are involved at each point along the food chain, as shown in Error! Reference source not found..

**Figure 1** Food control and management system, Maldives



Source: Maldives Food and Drug Authority

Leading ministry/department for each food control activity is listed in Appendix 1.

#### The Maldives Food and Drug Authority

The MFDA is responsible for issuing hygiene certificate for fishing vessel, which is conducted in accordance with the renewal of fishing license. The MFDA performs regular inspection of the factories and issuing the health certificate of the product for exporting to EU and other countries. The factories are audited routinely by the MFDA, i.e., every 6 months for those exporting to EU countries and once a year for the others. The MFDA conducts an assessment to quality controllers based on HACCP principles prior to their approval to work in fish processing facilities.

Recently, the MFDA has drafted, together with the Agriculture Division of MOFA, the Good Agriculture Practices (GAP) standard for fruits and vegetables, with the technical assistant from a

consultant under FAO support, by adopting that of SAARC-GAP as the voluntary standard for safe agricultural production. The draft is currently under revision according to the country's context by the technical committee which includes key stakeholders. GAP certification is also proposed to be the responsibility of the MFDA. The MFDA, as well as other MOH agencies, has delegated food safety related tasks to the public health units at atoll and island levels.

### **The Fisheries Division**

The Safety of fishery, agricultural production, livestock, and post-harvest production is controlled majorly by MOFA and MFDA. For fishery, Fisheries Division of MOFA is responsible for the registration, licensing, and monitoring of fishing vessels, which has to be renewed every year, as well as the issuance of catch certificates. The Fisheries Division also implements several national standards on fisheries, by adopting Codex standards on fisheries and fisheries products.

### **The Agriculture Division**

The Agriculture Division of MOFA is responsible for animal health, quarantine and sanitary and phytosanitary measures (SPS). They conduct farm registration and inspection, however on a voluntary basis. They also perform registration and licensing for the imports of agrochemicals, i.e., fertilizers and pesticides. However, the health clearance of imported agrochemicals is conducted by Medicine and Therapeutic Goods Division of MFDA. However, the issuance of import license falls under the authority of Maldives National Defense Force (MNDF). For the control at atoll level, the authority of MOFA is delegated to Local Councils. MOFA also provides technical guidance to farmers and extension on the production to increase productivity and on the implementation standards at farm level.

### **Ministries/ Departments involved in safety of fresh food**

The safety of fresh produces and products from primary processing is controlled by MFDA, HPA, MOFA, MCS, and MED. The safety of fresh food imported to Maldives at seaports and airport was controlled by International Border Health Unit of HPA and the inspection on imported food is under the responsibility of MFDA since November 2015. Inspection however based only on documents, e.g., Health Certificate, Veterinary Health Certificate, Halal Certificate, and Certificate of Origin, required for specific food items. Minimal physical inspection, e.g., temperature check and visual observation, has been performed. No sampling is conducted for laboratory analysis of fresh food, except in case of complaints. The International Border Health Unit is also responsible for monitoring of sanitation and temperature of the cold storage at the airport and sea cargoes according to the standards and guidelines for food storage condition and facilities mentioned in MFDA's Standards for Maintaining Food Safety and Quality of Products during Storage. MCS also conducts inspection as a part of the customs clearance procedure. MFDA works in coordination with MED on the regulation for food trade.

There is no existing standard and system for monitoring of locally-produced fresh food for local consumption. The pesticide residue monitoring programme is lacking as well as the capability of laboratory for analysing pesticide residue in agricultural produces. The NHL provides histamine analysis service for government and industry for exportable fish and fish products.

### **Ministries/ Departments involved in safety of processed food**

The safety of processed food is controlled and monitored primarily by MFDA and HPA. MFDA is responsible for the registration and licensing of food processing factories. Registration and license for manufacturers of food products for local consumption are mandatory but currently not regulated or systematized. The inspections are conducted by MFDA inspectors at central and delegated to public health units in other areas of the country. For pre-marketing evaluation of packaged food, there is National Standard for Labelling Prepackaged Food issued by MFDA, which adopts Codex standard. However, it has not been well implemented due to the lack of post-marketing surveillance system, and the fact that most of manufacturers of processed food for local consumption are not registered with MFDA.

For drinking water, company license and plant registration are issued by EPA, using its Guideline for Drinking Water adopting WHO Guideline for Drinking Water Quality which focuses on water quality and safety aspects, as a basis. However, the bottled water manufacturers also required to obtain registration and license from MFDA, of which the requirements emphasize mainly on process control for safety of the product.

Foods imported into the country are regularly inspected at seaports and airport by International Border Health Unit. MCS also involves for custom clearance procedures of food exportation and importation. Goods that are inspected mainly include fruits and vegetables, meat and meat products, and other high risk food and food products, e.g., milk products, cheese, etc. Inspection is performed for labelling, expiry date, and ingredients of packaged and processed food. Health certificate, veterinary health certificate, and certificate of origin are also required for meat and meat products, and egg and poultry products. Importation of breast milk substitutes is regulated by MFDA's Regulation of Import, Produce and Sale of Breast Milk Substitutes in the Maldives. The Regulation for Food Imports has been drafted by MFDA, in which the requirements on issues regarding food safety, i.e., food and nutrition labelling, risk-based inspection, sampling and testing as well as traceability.

It should be noted that although the Maldives highly depends on imported food, the regular inspection and monitoring programme of food in the market is missing. MED has its mandate to conduct post-marketing monitoring, which emphasizes only on labeling for consumer protection purposes. However, it is not conducted in a regular basis due to the limited number of inspector of MED. The post-marketing control is currently conducted on receiving consumer complaints by MFDA or MED rather than routine inspections. Supermarkets and other outlets selling food are also inspected on ad hoc basis. Such activities have been stated in the Draft Regulation for Food Imports, which has not been yet enacted. Therefore, the system at the points needs to be strengthened by adopting risk-based inspection systems as opposed to the current traditional end of product inspection practice

### **Ministries/ Departments involved in safety of ready-to-eat food (food establishments and services)**

The Public Health Inspectorate of HPA has the authority to perform food hygiene inspection and monitoring of ready-to-eat food at food establishments and services. Registration and licensing of food establishments are performed by HPA. Emphases are on the establishment, personal hygiene, preparation and cooking processes, and documentation records. The inspection is conducted routinely at various frequencies ranging from every 4 to 12 months, based on the central grading system. The inspection results are reported to MFDA. At atoll level, routine inspection is performed by public health units and the results are reported in a specific form to HPA on a monthly basis.

### **Ministries/ Departments involved in safety of food in fresh market**

The Fish Market is under the Male' City Council. There are two local markets in Male' which are under the Ministry of Housing and Infrastructure (MHI). Inspection of the market is under the responsibility of HPA. However, minimal activity has been undertaken.

### **Working relationship among major stakeholders**

The National Codex Committee is not functional as desired. It has been reflected in assessment of Codex activities in Maldives under Codex Trust fund application procedure.

### **Food industry and trade**

MFDA, MOH, MOFA, and MED works very closely with each other in assisting food producers to assure the safety of food, especially on issues relating to export of fishery products, TBT and SPS agreements, and establishing Codex standards. These government agencies work in association with MNCCI, Seafood Exporters Association, and Fishermen Association in the National Codex Committee. However, active participation from such bodies has been very limited. There is no association of food producers. Training programmes on HACCP and other food safety areas are occasionally organized for industry by MFDA under technical support from United Nations organizations, e.g., FAO and WHO.

### **Food service providers and retailers**

Food service providers are trained by HPA in food hygiene. Since food service establishments are regularly inspected, a close relationship is established between HPA and the food establishments and service outlets. Furthermore inspection findings and recommendations are discussed case-by-case with the service providers. However, activity with food retailers is minimal. There is no association of food traders at present. MFDA occasionally provides training regarding food hygiene and safety for the food handlers.

### **Consumers**

There is neither effective working relationship with consumers nor active consumer groups or associations in the Maldives. Therefore, there is no consumer participation on issues related to food safety.

## **Food control and inspection programmes**

The control and inspection of agricultural production, livestock and fisheries is conducted by MOFA. Safety of fresh food including products from primary processing and processed food are controlled by MFDA. Inspection and registration and licensing of food processing plants are performed by MFDA. The control of exporting food is conducted by MFDA. Hygiene and sanitation of food establishments and service are inspected and monitored by HPA.

The number of accredited inspectors is inadequate due to limited resources. The inspectors are not adequately trained even though there are training and guidelines of MFDA for the inspectors. Information regarding food inspection is shared among relating agencies, i.e., MFDA, HPA, and MOFA, by personal communication. The information management system/database has not been established.

## **Food safety analytical capability**

NHL has the mandate to conduct analysis of food and water to support the food control programme. The scope of work includes the examination of quality and safety of water and food, as well as supports the controls of food imports and exports, and hygiene of food establishments. As the only such reference laboratory in the country, it also offers analytical services to the industry and the public. The laboratory has been accredited for ISO 17025. A range of chemical and microbiological tests are available. However, it is still not adequate to fully support the food control programme, especially for chemical contaminants in food; and samples often need to be sent to laboratories abroad. An MOU with SGS Sri Lanka has been established for collaboration in analytical service but the activities undertaken has been minimal due to the difficulties in sample handling and transfer.

NHL is equipped with a number of major pieces of equipment such as high performance liquid chromatography, gas chromatography, atomic absorption spectrophotometer, Fourier transform infrared spectrometer, direct mercury analyzer, and polymerized chain reaction unit. NHL follows official and standard analytical methods of Codex as well as the published methods. However, currently some services are not provided due to the lack of chemicals and reagents, and broken equipment. The long procurement procedure for chemicals and unavailability of local maintenance and technical repairing services for equipment are the major concerns.

For drinking water analysis, laboratory of MWSC is accredited for water testing. It is accredited ISO 17025 for the analyses of chemical parameters while the microbiology tests are in the process of accreditation.

## **Risk analysis**

Risk analysis is a tool of generating evidence-based information to inform policy decision related to human health, animal health, plant health, food safety and international trade. Although the principles of risk analysis are the same, i.e. risk assessment, risk management and risk communication but it is known under different names and there is a slight variation in approaches and outcome. Government officials have been trained for following risk analysis process;

- HPA – Risk assessment (IHR)
- MFDA/HPA – Food safety risk analysis (Codex)
- MOFA (Plant health) – Pest risk assessment (IPPC)
- MOFA (Animal health) – Import risk analysis (OIE)
- MOFA – FAO Code of Conduct for Responsible Fisheries

Although training has been given by FAO or WHO but any of them rarely interact or discuss about risk analysis and all of them find difficulty for practical use of these tools under field conditions as required data and information are difficult to gather and analyze.

### **Foodborne disease surveillance programme**

HPA monitors foodborne disease situation in Maldives and other countries according to INFOSAN, of which MFDA is the focal point, and WHO's IHR network, of which HPA is the focal point. In case of an outbreak, coordination among agencies is conducted regarding the National Health Emergency Plan. Public health hospital, i.e., IGMH, and public health units inform HPA for investigation of suspected food poisoning through an official format of reporting. Further outbreak investigation is conducted by HPA or MFDA which includes inspection of establishments or factory and sampling the food samples for analysis by the NHL.

Foodborne disease surveillance programme is integrated in the public health surveillance programme of HPA. Diarrhoeal statistics are collected by HPA, together with other communicable diseases. However, specific data on foodborne and waterborne diseases are not available.

The Food Safety Emergency Response systems, including traceability and product recall systems are also absent.

### **Education and training**

Food and nutrition is one of the basic education components in Health and Physical Education subject of the National Curriculum Framework of the Ministry of Education, which has been implemented in the academic year 2015. However, the contents mostly relate to food hygiene for food preparation and nutrition education.

For higher education, the Faculty of Hospitality and Tourism Studies of The Maldives National University (MNU) offer training for hospitality industry which covers some food safety topics. Food hygiene is also a component of diploma courses in Hospitality, Hospitality Management, and Food and Drink Services. The Faculty of Health Science has food safety as a topic in one of the units in the diploma courses in Primary Health Care, and Nursing. The contents are of food hygiene, and some regulations, which however is not sufficient considering that the graduates will be working in Public Health Units and part of their work will include routine inspection of food facilities and outlets. Recently the Faculty of Science is formulating a course on food safety.

MFDA has been offering trainings on food establishment inspection for the health inspectors of HPA and the public health unit staffs of MOH. MFDA also organizes training programmes on HACCP and other food safety areas for the industry, particularly EU exporters.



There is no agency that performs education and training in food safety. Therefore, it is a challenge of MFDA to find trained food inspectors and other qualified staffs in food safety. Even though there is a reasonable number of inspectorate staff both in MFDA and HPA, the training is not sufficient.

**Research on food safety**

Research needs to be an integral part of the food safety system and should be undertaken in a systematic way. Unfortunately, there is no designated research institution for conducting food safety research and official research in food safety is almost non-existent.

## 2.2 LEGISLATIVE FRAMEWORK AND STANDARDS FOR FOOD SAFETY

The Maldives have The Consumer Protection Act (Act No. 1/96), and Public Health Protection Bill that provide the basis for food safety programme. Other relevant legislations addressing food safety are Food Establishment's Hygiene Act (27/78), Port Health Act (76/78), Import Products and Food Establishments Act (60/78), and Export Import Act (31/79).

A draft Food Act is now available and under modification process after being reviewed by the Parliament. Relevant regulations and standards have been developed under the Food Act. A Draft Standard Act has been prepared by MED with the technical support from UNIDO.

Regulations, guidelines, and standards currently applicable are:

- General Regulation for Food Establishments and Services (2007/182/FS1)
- Regulation of Import, Produce and Sale of Breast Milk Substitutes in the Maldives (MFDA-FS/R1:2008)
- Food Advertisement Regulation
- Draft Regulation for Food Imports
- Guideline for Drinking Water
- Standards for Maintaining Food Safety and Quality of Products during Storage (MFD-FS02:2006)
- National Standard for Labelling Prepackaged Food (MFDA-FCD STAN4-2014)
- Standards for Fishery
- Standards for Eggs and Spices
- Plant Protection Act 2011
- Draft Animal Health Bill
- Draft Pesticides Bill 2011
- Maldives Standard for Good Agriculture Practices (GAP): Fruits and Vegetables

Several regulatory standards are formulated by adopting Codex standards on related products. Preparation and setting as well as monitoring of the standard are the responsibilities of related ministry/department, e.g., MFDA and MOFA. There is no national standard agency. However, the Standard Act is being drafted by MED. Existing legislations have been revised and updated occasionally. Currently the Consumer Protection Act is being updated. Attempts have been made to harmonize legislation between trading countries by adopting several Codex standards. Halal certification for exporting food is conducted by Ministry of Islamic Affairs. The Halal-certified

factories are inspected and audited once a year by the Joint Halal Committee, consisting of members from MFDA, MOFA, and MED, for the renewal of certificate.

### 2.3 Participation in International Meetings and the Implementation of Agreements

Maldives has been actively engaged with UN organizations and international standard setting organizations such as CAC, OIE and IPPC. There are international agreements which are binding for state parties who ratified the agreement.

The International Health Regulations (2005) is one related to public health and Maldives is committed to develop core capacities required for implementation of IHR (2005). Food safety is one of the priority areas. There are several assessment tools that help Member countries to evaluate implementation status.

As a member of the WTO, Maldives is committed to implement following agreements related to food safety and biosecurity;

- Sanitary and Phytosanitary Measures (SPS)
- Technical Barriers to Trade (TBT)
- Trade Related Intellectual Property Rights (TRIPS)

There are 11 **International environmental agreements** to which the Maldives is Party to and the following agreements are related to food safety;

- Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal *Basel, 22 March 1989.*
- Cartagena Protocol on Biosafety to the Convention on Biological Diversity *Montreal, 29 January 2000.*
- Stockholm Convention on Persistent Organic Pollutants *Stockholm, 22 May 2001*
- Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, Rotterdam 10 Sep 1998

The Maldives has designated the following Contact Points to coordinate on food safety issues;

- National IHR Focal Point – HPA, MOH
- National Codex contact Point – MFDA/MOH
- OIE Delegate – Ministry of Fisheries and Agriculture
- IPPC Official Contact Point - Ministry of Fisheries and Agriculture

MFDA officials have been actively participating in Codex meetings and workshops which helped them to understand **food standards, guidelines and recommendations** which are applied in import and export of food and food products. FAO and WHO established Codex Trust Fund (CTF) which helped the Maldives to understand the importance of Codex standards and to develop national standards for protecting consumer interest. The CTF phase II is focused on supporting

national Codex activities and The Maldives is an eligible country. The Maldives is a member of the Codex Committee for Asia (CCASIA) which is setting standards of regional importance such as street-vended foods.

The Maldives has designated an INFOSAN Emergency Contact Point and WHO is facilitating information sharing of contaminated food and food products to Maldives through alert, identification and traceability mechanism.

### **3 RATIONALE FOR A FOOD SAFETY POLICY**

The Constitution of the Maldives states that the people of the Maldives have to be provided with safe food. The commercialization of agricultural production and marketing in Maldives in post-Tsunami era to meet growing domestic consumption of fresh fruits and vegetables demands adequate monitoring of residues and contaminants (biological, chemical and physical). The increasing import of pesticides may reflect extension or intensification of agricultural production in Maldives. A lack of residue monitoring system and inspection and testing of food and food products will impact negatively on food quality and safety. Unfortunately existing food inspection system with limited human, technical and financial resources will neither fulfill current requirement nor future demands.

Globalization and liberalization of markets have created greater food safety challenges. Governments are now required to comply with the sanitary and phyto-sanitary measures in order to satisfy trade requirements. There is currently inadequate capacity and capability to respond effectively to the globalization of food trade. The Sustainable Development Goals (SDGs) are charting a path towards meeting current needs without compromising the ability of future generations to meet their own needs. In addition to SDG 2 on 'End hunger, achieve food security and improved nutrition, and promote sustainable agriculture', several other SDGs relate to food safety as part of global food security. This includes the goals for health, poverty, gender equality, water and sanitation, responsible production and consumption, and climate change. As other small island countries, the Maldives is vulnerable to the impact of climate change which may affect food security, food safety and nutrition. The Maldives is committed to achieve SDGs by 2030.

Food safety is being kept as low priority due to the lack of proper regulatory framework and inadequate human, technical and financial resources. The national food control system is fragmented and roles and responsibilities of various stakeholders are not well defined or overlapping. Under such circumstances, the Maldives may become dumping site of sub-standard, low quality and contaminated food and food products which may have negative impact on tourism and health and well-being of people. The overall food safety situation, enforcement of regulations and national capacity to deal with emerging food safety issues can only be strengthened by a specific food safety policy and better coordination among major stakeholders. Currently there is no specific food safety policy in the country. Therefore, formulation of a food safety policy is important for policy direction, resource mobilization and better coordination among stakeholders.

## **4 THE POLICY**

### **4.1 SCOPE OF THE POLICY**

A food safety policy is important to the development of an improved food safety programme as it provides the overarching framework and principles that will guide the requisite interventions.

The policy will cover all aspects of national, regional, and international practices, principles, guidelines, standards and agreements governing food safety systems. The policy shall include all public and private entities involved in the technical, operational and management aspects of food safety and control systems in the country.

Since food safety activities are fragmented in the Maldives, it is important to clearly define role and responsibility of each institution to avoid duplication of efforts and overlapping of functions. The policy will identify gaps in technical and institutional capacity such as handling, transport, storage of food throughout the food chain and residue monitoring programme.

The core component of the policy will be driven by the promulgation and enforcement of appropriate legislation which will impact the following key areas:

- Public health;
- Plant health;
- Animal health;
- Food safety;
- Nutrition; and
- National and International trade.

### **4.2 POLICY VISION**

It is envisaged to advance the national food safety system based on national and international standards aimed at safeguarding human, animal and plant health and the facilitation of trade through the application of science based principles, enabled by an integrated institutional framework, effective interagency collaboration and appropriate legislation, as well as a strengthened public/private sector partnership.

### **4.3 GUIDING PRINCIPLES**

The National Food Safety Policy of Maldives will be guided by the following principles:

- Food safety has to be achieved in all dimensions to ensure availability, affordability and access to safe, nutritious/healthy, and quality food for all population.
- Food safety is the shared responsibility of the national Government, food industry and consumers.

- Food safety programme/activities should be implemented in multi-sectoral, integrated farm-to-fork approach that needs cooperation, collaboration and coordination among all Ministries/Departments involved, as well as awareness and active participation of stakeholders in the food chain.
- Food safety programme should be sensitive to culture/traditional/religious practices and country's context perspective while sustainable use of natural resources and environment impact are to be taken into account.
- Food safety programme should be aligned with the frameworks of the Maldives Health Master Plan, WHO Food Safety Strategy and food safety related SDGs.
- Food safety programme should be carried out through effective and efficient use of available resources and introduce cost-recovery mechanism for sustainability.
- Food safety activities have to be based on continuous research programme to enable the strengthened linkage between sustainable food production, nutrition, and health.
- The Government of Maldives shall ensure the compliance and implementation of international agreements relating to food safety to which it is a signatory.

#### **4.4 POLICY ISSUES TO BE ADDRESSED**

Any plan for implementing an effective food safety programme must take into consideration gaps, limitations and unnecessary duplications in the current system and aim to rationalize these agencies and activities. Key action points have been formulated to address policy gaps identified.

- National policy on food safety should be developed. The policy should be based on risk assessment and food chain approach; integrate food safety and quality, food security and nutrition; and include the strategic approach and harmonized plan of actions.
- The roles and responsibilities of stakeholders should be clearly defined as follows and details have been given in relevant sections;
  - **Lead agency for managing food safety control system** : MFDA
  - **Pre-harvest** (GAP, GFP, pesticide control) : MOFA
  - **Post-harvest and import/export control** (pre-marketing, marketing and post-marketing surveillance, food laboratory, residue monitoring programme, GAP/Export certification): MFDA
  - **Food and water processing industries** (Licensing, GMP, inspection): MFDA, MED, EPA(water)
  - **Supervision of mass catering establishments and foodborne disease surveillance**: HPA/MOH

- **Consumer awareness and education:** HPA, MFDA, MOFA, MNU
- **Food safety research and training:** MOE, MNU, MFDA

#### **4.4.1 Legislation and food standards**

- The Food Act should be implemented with regulations and standards as a unified regulatory basis for food safety control.
- Regulatory standards and regulations that conform to international requirements should be developed for some aspects.
- A national standard body should be established to coordinate the standard setting and formulating processes, as well as approval of standard.
- Coordination among stakeholders should be enhanced to minimize the overlap and gap in food safety activities as well as strengthen the implementation.
- Implementation and enforcement of legislation and regulation should be conducted and harmonized.
- Regulation addressing nutrition labeling of food products for local consumption should be established.

#### **4.4.2 Coordination of the Food Safety Function**

- A high level inter-ministerial food safety control committee should be established to make policy decision in order to facilitate implementation of national food safety policy.
- Overlapping mandates of various agencies related to food safety should be minimized. Clear roles of each agency should be clearly defined.
- Communication and coordination among stakeholders should be strengthened. Mechanism for information sharing should be established.
- Adequate resources (infrastructure and skilled personnel) for activities related to food safety should be made available.
- For the role distributed to Local Councils, information, practice, and enforcement mechanism on food safety control should be harmonized. Technical guidance/support, standard operating procedures and capacity building should be provided.

#### **High level Inter-Ministerial Food Safety Committee**

The high level Inter-Ministerial Food Safety Committee will comprise the Ministers of Health; Fisheries and Agriculture; Economic Development; Finance; Education and Tourism. The Committee will meet at least twice a year to:

- provide high level oversight, coordination and direction regarding food safety protection and control;
- review and approve work plans and budgets of the food safety agencies;
- review high level reports of performance;
- resolve policy and operational conflicts among agencies as necessary;
- take policy decisions and provide instructions to regulatory agencies as appropriate;
- discharge other high level functions as deemed appropriate.

In case of a food safety emergency, the high level Inter-Ministerial Food Safety Committee will meet more frequently as appropriate to take policy decisions, monitor agreed interventions and report to Cabinet as necessary. The Committee will be supported technically by the National Codex Committee and sub-committees and administratively by the MFDA as a Secretariat. Costs associated with convening meetings of the Committee will be included in the budget of the Secretariat.

The chairmanship of Committee shall be the Minister of Health given that Ministers mandate to ensure the health and well-being of the population.

#### **National Codex Committee (NCC)**

- The National Codex Committee and INFOSAN mechanisms should be strengthened through the legal framework.
- 
- The structure, mandate and Terms of Reference of NCC should be specified in the Food Act and it should function as a technical working group.
- National Codex Contact Point should be institutionalized and regular meeting should be organized to discuss Codex related standards and issues of national interest.
- National Focal Points of Codex, OIE, IPPC and WTO should communicate and share information in NCC meeting on a regular basis

#### **Food industry and trade**

- Active participation of food industry in food safety activities, standard setting, and Codex activities should be promoted.
- Orientation on import regulation, certification and risk-based inspection should be organized for food trader and importer to prevent risk of introducing pest and diseases and to avoid possible confiscation at the point of entry.



#### **Food service providers and retailers**

- Relationship and collaboration with food retailers should be established.
- Awareness of food handlers in food hygiene should be raised.

#### **Consumers**

- Consumer groups or associations should be established.
- Active participation of consumer association on issues related to food safety should be promoted.

#### **4.4.3 Risk Analysis**

- The Government of Maldives shall implement measures to strengthen formal risk analysis mechanisms to include capacity building in key agencies.
- The Government shall strengthen technical capabilities of its human resources and its infrastructure such as laboratories and research mechanisms.
- A group of risk assessment experts should be created to sustain practical use of risk assessment tool in various fields.

#### **4.4.4 Participation in International Meetings and the Implementation of Agreements**

- The MFDA should coordinate with major stakeholders to prioritize food commodities of national interest and develop national position on draft Codex standards through NCC
- The INFOSAN Emergency Contact Point and INFOSAN Focal Points should be designated and INFOSAN community website should be used to exchange information of national interest
- The Government shall ensure Maldives's participation in relevant meetings at the national, regional and international levels.
- Responsible Ministries/Agencies shall ensure that information gathered at international fora is disseminated among the relevant stakeholders.
- The Government of Maldives shall ensure the compliance and implementation of international agreements relating to food safety to which it is a signatory.

#### **4.4.5 Surveillance/Epidemiology**

- The existing foodborne disease surveillance and response should be assessed using self-administered questionnaire and validation workshop which should come up with action points for strengthening foodborne disease surveillance system
- Information sharing system on foodborne disease should be established.

#### **4.4.6 Laboratories for Food Safety Analysis**

- Resources and funding should be allocated for capacity building of infrastructure and staff, and to keep the equipment and analysis operate on a regular basis.
- Collaboration with accredited laboratories overseas should be practiced for certain analyses that are not feasible to perform.
- Analytical data should be disseminated and integrated to the risk management programme.

#### **4.4.7 Monitoring of Food Production and Distribution Systems**

- The number of accredited/skilled inspectors should be increased. Capacity building should be given to the inspectors.
- The management system/database of information regarding food inspection should be established, as well as the information sharing system among relating agencies.
- Control and inspection of high-risk locally-produced food products for domestic consumption should be implemented based on risk analysis approach.
- Overlaps in border controls as well as inspection and monitoring should be minimized.

#### **4.4.8 Safety of Imported Food for Consumption**

- Post-marketing monitoring and surveillance programmes for the safety and quality of food in the market should be implemented by adopting risk-based inspection systems, with all of food chain approach based on risk analysis concept.
- Monitoring programme for food contaminants on a regular basis, in particular pesticide residue, should be developed.

#### 4.4.9 National Food Safety Emergency Response Systems

- A National Food Safety Emergency Preparedness Plan should be developed and functional aspect of plan should be tested.
- Food Safety Emergency Response systems, including traceability and product recall systems should be established.

#### 4.4.10 Public Awareness and Education

- Public awareness, information, education, and communication on food safety should be promoted.
- Academic and non-academic education and training on food safety for personnel involved in food safety activities should be developed in collaboration with MNU.
- Food safety should be incorporated into curriculum of basic and higher educations. Examples of trainings that should be provided include, but not limited to:
  - *For inspectors.* inspection procedure; good practices in food production, processing, distribution, preparation, handling and storage; Training of Trainers for harmonized inspection at atoll level
  - *For laboratory scientists.* standard analytical methods; quality assurance and laboratory accreditation
  - *For food producers, processors, handlers, and traders.* food hygiene and good practices in food production, processing, distribution, preparation, handling and storage; quality control systems; regulations and standards of exporting countries
  - *For food safety officials, researchers:* risk analysis; exposure assessment; diet assessment; appropriate technology for production and quality control of safe food and drinking water

#### 4.4.11 Research

- Research in food safety should be encouraged and supported by giving priority to research which aims to provide the necessary data to better manage food safety. Examples of research area that should be conducted include, but not limited to:
  - Total diet study or food consumption survey
  - Pesticide residues in fruits and vegetables available in markets
  - Histamine content in fish and fish products for domestic consumption

- Chemical and microbiological contaminants in food and water
- Exposure assessment of contaminants and additives
- Appropriate technology in safe and nutritious food production and handling at small and medium scale industry

#### 4.5 POLICY GOALS AND OBJECTIVES

The policy goals and objectives are as follow:

| Policy goals   | Objectives   |
|--|--|
| 1. Ensure the supplied food are safe, nutritious, and quality by means of food production, processing, imports, retails, and services                      | 1.1 Enhance access to safe, healthy and quality food for domestic consumption<br>1.2 Enable increased level of safe, healthy and quality food imports<br>1.3 Increase efficiency in safe and nutritious food marketing, trade, distribution, handling and storage<br>1.4 Ensure availability of clean and safe drinking water                    |
| 2. Strengthen national food safety framework, and implementation and coordination of responsible agencies in food safety control and monitoring activities | 2.1 Develop and enforce legislations to promote food safety<br>2.2 Strengthen food safety and quality control and monitoring systems<br>2.3 Strengthen food safety emergency response system including traceability and recall systems<br>2.4 Strengthen coordination and information sharing among agencies involving in food safety activities |
| 3. Promote partnerships and networking for increased public awareness, and participation and contribution of stakeholders                                  | 3.1 Promote nutrition education and awareness on safe and healthy food habits<br>3.2 Strengthening partnerships and networking for increased participation and contribution of consumer and food business operators  |
| 4. Build capacity and enhance capability on training, education and research on food safety  | 4.1 Develop systematic and non-systematic education on food safety for personnel involved in food safety activities<br>4.2 Encourage and support research in food safety   |

**Goal 1: Ensure the supplied food are safe, nutritious, and quality by means of food production, processing, imports, retails, and services**

Objective 1.1: Enhance access to safe, nutritious and quality food for domestic consumption

| <b>Strategic approach</b>  | <b>Responsible agencies</b>          |
|--|--------------------------------------|
| 1.1.1 Encourage appropriate preventive approaches to improve food safety and quality through the application of good practices | MFDA, MoFA, HPA, Local Councils, PHU |
| 1.1.2 Coordinate and integrate the management of chemicals especially pesticide, fertilizers and other agrochemicals           | MOFA, MFDA, MCS, MNDF, MED, MoDNS    |
| 1.1.3 Enforce quality assurance measures for food products and drinking water  | MFDA, HPA, EPA, MoH, MoEE            |
| 1.1.4 Support production of safe agricultural products, livestock and fishery  | MOFA, Local Councils                 |
| 1.1.5 Encourage integrated pest management and safe use of pesticide and fertilizer  | MOFA, MFDA                           |
| 1.1.6 Promote environmentally sustainable agriculture and fishery  | MOFA, MEE, EPA                       |

Objective 1.2: Enable increased level of safe, healthy and quality food imports

| <b>Strategic approach</b>   | <b>Responsible agencies</b>     |
|---|---------------------------------|
| 1.2.1 Ensure conforming of imported food to national food regulation and standards as well as other related legislations and international agreements | MFDA, MED, MCS, HPA, MNCCI      |
| 1.2.2 Regulate food import to reduce availability of unsafe and unhealthy food products in market   | MFDA, HPA, MED, MCS, HSD, MNCCI |

**Goal 2: Strengthen national food safety framework, and implementation and coordination of responsible agencies in food safety control and monitoring activities**

Objective 2.1: Develop and enforce legislations to promote food safety

| <b>Strategic approach</b>   | <b>Responsible agencies</b> |
|---|-----------------------------|
| 2.1.1 Update, harmonized, and enact legislation regarding food safety | MFDA, MoH, MoFA, MED        |

|       |  |  |
|-------|--|--|
| 2.1.2 | Develop mechanisms to harmonize the implementation and enforcement of the legislations   | MFDA, MoH, MoFA, MCS, HSD, MOE, HPA, Local Councils, MNU |
| 2.1.3 | Establish national standard body to coordinate the standard setting and formulating processes, as well as approval of standard                             | MFDA, MED  |
| 2.1.4 | Develop and enforce national standards and regulations related to food safety, safe water, use of agrochemicals that conform to international requirements | MFDA, MoH, MoFA, MED, MDNS                               |

Objective 2.2: Strengthen food safety and quality control and monitoring systems

| <b>Strategic approach</b> |   | <b>Responsible agencies</b>     |
|---------------------------|---|---------------------------------|
| 2.2.1                     | Establish post-marketing monitoring and surveillance programmes for the safety and quality of food in the market based on risk analysis concept | MFDA, HSD, MoH, HPA, MED, MNCCI |
| 2.2.2                     | Strengthen analytical capability, infrastructure and personnel skill to analyse a wider range of contaminants                                   | MFDA, MoH, MNU                  |
| 2.2.3                     | Ensure maintenance of the equipment and effective procurement to keep the analyses operate on a regular basis                                   | MFDA, MoH, MOFA                 |
| 2.2.4                     | Increase number of accredited/skilled inspectors for promotion of food safety and enforcement of food safety regulations                        | MFDA, HPA, MoH, MNU             |
| 2.2.5                     | Establish management system/database of information regarding food inspection and monitoring  | MFDA, HPA, MoH, MCS             |
| 2.2.6                     | Develop monitoring programme for pesticide residue and contaminants on regular basis  | MOFA, MFDA, EPA                 |
| 2.2.7                     | Establish mechanism to share analytical data and integrate to the risk management programme   | MFDA, MoFA, HPA                 |
| 2.2.8                     | Increase the capacity and capability of food control at the borders   | MFDA, MCS, HPA                  |

Objective 2.3: Strengthen food safety emergency response system including traceability and recall systems

| <b>Strategic approach</b>   | <b>Responsible agencies</b> |
|---|-----------------------------|
| 2.3.1 Develop national food traceability and recall systems in line with the FAO/WHO guidelines   | MFDA, MoFA, MCS, HPA, MED   |
| 2.3.2 Integrate approaches to link monitoring and surveillance systems for human and animal health, and food contamination  | MOH, MoFA, HPA, MFDA        |
| 2.3.3 Establish integrated national health information system (disease reporting, surveillance, medical records) for foodborne disease surveillance linking different levels of the health system and private healthcare sector | MOH, HPA, IGMH, NCIT        |
| 2.3.4 Establish surveillance, alert and information sharing systems for foodborne disease outbreak and food contamination   | MOH, HPA, IGMH, MOT         |
| 2.3.5 Establish Food Safety Emergency Response systems  | MFDA, HPA, MoH              |
| 2.3.6 Integrate disaster management strategy for food safety in the national disaster management framework  | MFDA, HPA, MoH, NDMC, MNDF  |

**Goal 3: Promote partnerships and networking for increased public awareness, and participation and contribution of stakeholders**

Objective 3.1: Promote nutrition education and awareness on safe and healthy food habits

| <b>Strategic approach</b>  | <b>Responsible agencies</b> |
|--|-----------------------------|
| 3.1.1 Strengthen public awareness program to address importance of food safety and nutrition through health promotion, social marketing and media    | HPA, MFDA, , MOFA, MOE, MNU |
| 3.1.2 Promote safe and healthy food preparation and consumption practices to reduce foodborne- and non-communicable diseases, and food waste         | MoH, HPA, MOE, MFDA, MNU    |
| 3.1.3 Promote consumer education and community-based health program on food safety and nutrition   | MoH, MOE, HPA               |
| 3.1.4 Ensure food labeling systems comply with national requirements and enable consumer to make informed food choices based on labeling information | MFDA, HPA, MED, MNCCI       |



Objective 3.2: Strengthening partnerships and networking for increased participation and contribution of consumer and food business operators

| <b>Strategic approach</b>  | <b>Responsible agencies</b>     |
|--|---------------------------------|
| 3.2.1 Establish consumer groups or associations and promote consumer involvement and consumer health protection  | MED, MFDA, HPA, MNCCI           |
| 3.2.2 Promote public-private-professional partnership and consumer participation to support food safety activities   | MFDA, MED, MNCCI                |
| 3.2.3 Promote stakeholders participation and contribution at standards-setting meetings  | MFDA, MoFA, HPA, MED            |
| 3.2.4 Create an enabling environment for food businesses to align their operating activities and practices with existing legislation and international standards   | MFDA, MED, MoFA                 |
| 3.2.5 Encourage primary producers to improve the food safety and quality of their products, as well as the availability of such safe foods for consumers   | MFDA, HPA, MOFA, Local Councils |
| 3.2.6 Encourage commercial food producers to apply good manufacturing practices; adhere to the applicable Codex and related standards for ensuring safe foods; and practice responsible marketing of food products | MFDA, MOFA, Local Councils      |
| 3.2.7 Encourage food retailers to improve the availability and promotion of safe and nutritious products   | MFDA, MED                       |
| 3.2.8 Encourage food establishment and services to apply related good practices (good handling, restaurant, hygiene practices)   | HPA, MOT, MFDA                  |
| 3.2.9 Promote formation of farmers/ fishermen group and cooperatives for enhancing quality and safety  | MOFA, MED                       |

**Goal 4: Build capacity and enhance capability on training, education and research on food safety**

Objective 4.1: Develop systematic and non-systematic education on food safety for personnel involved in food safety activities

| <b>Strategic approach</b>   | <b>Responsible agencies</b> |
|---|-----------------------------|
| 4.1.1 Include food safety issues in the general education and curricula of relevant training programmes   | MOE, DHE, MNU               |
| 4.1.2 Develop and organise training and training-of-trainer programmes for all stakeholders, including primary producers, food processors, food handlers, food inspectors and analysts                | MFDA, MOFA, HPA, MOH, MNU   |
| 4.1.3 Develop and dissemination of required/essential tools to strengthen the competencies of all relevant personnel at various levels involved in all related sectors with the food safety programme | MFDA, HPA, MOFA, MNU        |

Objective 4.2: Encourage and support research in food safety

| <b>Strategic approach</b>   | <b>Responsible agencies</b> |
|---|-----------------------------|
| 4.2.1 Identify research priorities and manage research to meet information needed for programming and policy                    | MFDA, MOFA, MOH, MNU        |
| 4.2.2 Establish and develop laboratory for food safety research   | MNU                         |
| 4.2.3 Manage the output of the research to be incorporated as basis for evidence-based policy and legislation making            | MOH, MOFA, MNNU             |
| 4.2.4 Disseminate and share output for food safety research to public and stakeholders  | MNU                         |
| 4.2.5 Conduct risk assessment for microbiological and chemical contaminants in food   | MOH, MOFA, MFDA, HPA        |
| 4.2.6 Conduct total diet study to estimate dietary intake and exposure assessment of chemical contaminants in population groups | MOH, MNU, (HPA/MFDA)        |

Objective 2.4: Strengthen coordination and information sharing among agencies involving in food safety activities

| Strategic approach   | Responsible agencies                                      |
|--|---|
| 2.4.1 Define clear roles and responsibilities of various agencies related to food safety   | MOH   |
| 2.4.2 Enhance coordinated implementation of the programmes of all concerned ministries and agencies both at national and local levels  | MFDA, HPA, MOFA, MCS, MED, HSD, Local Councils            |
| 2.4.3 Harmonize the practice, implementation, enforcement mechanism, and information on food control conducted at atoll level by providing technical guidance/support, standard operating procedures and capacity building | MFDA, HPA, HSD, MOFA, Local Councils                      |
| 2.4.4 Establish information sharing system/ database on food safety activities among relating agencies   | MFDA, HPA, MOFA, MCS, HSD, Local Councils, NCIT, MED, MOH |
| 2.4.5 Collaboration and communication between countries in the Region network and support each other on food safety issues by sharing information, knowledge, expertise and experience                                     | MFDA, HPA, MOFA   |

## 5 IMPLEMENTATION

The Food Safety Policy will be implemented in a 10 year period with defined roles and responsibilities of various institutions as mentioned above. The high level Inter-Ministerial Food Safety Committee and National Codex Committee will have to play important role in policy and technical terms. Enactment of food safety related Acts and Regulations and its enforcement through development of adequate infrastructure and capacity building, better coordination and collaboration among major stakeholders and consumer awareness and education will be necessary for implementation of the national food safety policy.

The proposed plan of action and timeline for implementation has been presented in Appendix 3.

## **6 FINANCING**

Since the policy is designed to ensure public health security of Maldivian people and tourists coming to Maldives from food-related illnesses and to promote nutritional well-being of public, it is the responsibility of the national government to provide budgetary support for institutional and technical development in line with Codex standards and IHR core capacity requirements. In addition, this policy will also be financed by cost recovery mechanisms, public private partnership and relevant donor funding.

## **7 MONITORING AND EVALUATION**

Monitoring and evaluation of the implementation of the policy will be the responsibility of the policy division in the Ministry of Health and Family that will have overall responsibility for health policy. It is anticipated that this policy will require a full review in 3-5 years of its adoption to ensure progress with local and international developments. The policy document is dynamic in nature and it should address policy issues raised during IHR evaluation (self-administered as well as Joint External Evaluation), assessment of foodborne disease surveillance and response etc..

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**Appendix 1: Leading ministry/department for each food control activity in Maldives**

| <b>Food control activities</b>              | <b>Leading ministries/<br/>departments</b> |
|---|--|
| Fisheries production                        | MOFA, MFDA, Local Councils, HSD            |
| Agricultural production and harvest         | MOFA, Local Councils                       |
| Fresh food                                  | MFDA, HPA, MOFA                            |
| Food processing and marketing               | MFDA, HPA, MED, HSD, EPA                   |
| Licensing of processing plants              | MFDA, EPA                                  |
| Coordination of standard                    | MFDA, MOFA, MED                            |
| Pre-market food product evaluation          | MFDA, EPA                                  |
| Food labelling and advertising control      | MFDA, HPA, MED                             |
| Food safety and quality monitoring          | MFDA, HPA, HSD                             |
| Food production and distribution inspection | MFDA, HPA, HSD                             |
| Foodborne disease surveillance              | HPA, IGMH                                  |
| Risk communication and public awareness     | HPA, MFDA                                  |
| Food exports                                | MFDA, MCS, MED                             |
| Food imports                                | HPA, MCS, MED, MPL                         |
| Food retail                                 | HPA, MFDA, HSD, MED                        |
| Food service                                | HPA, MFDA, HSD, MED                        |
| Food complaints                             | MFDA, HPA                                  |
| Food safety education and training          | MOE, MFDA, MNU                             |
| Food safety research                        | MNU  |

## Appendix 2: Maldives Health Master Plan and Food safety

Availability, accessibility and affordability of safe, nutritious and quality food for all age group of people is a public health issue. There are emerging health issues such as non-communicable diseases (obesity, diabetes, cancer) and antimicrobial resistance (AMR) which are related to food safety. It is increasingly recognized that a holistic multidisciplinary approach is needed to make food safe, i.e. farm to fork approach. The Health Master Plans establish link to safe food and potable water.

Maldives Health Master Plan 2006–2015.

- **Policy goal 1:** To ensure people have appropriate knowledge and behaviours to protect and promote their health
  - Strategic approach 18: Develop and enforce legislations to protect and promote health (for tobacco control, breastfeeding, safe food, health and safety at work, access to essential medicine and contraceptives)
- **Policy goal 2:** To ensure safe and supportive environments are in place to promote and protect health and wellbeing of the people
  - **Strategic approach 4:** Advocate for and ensure access to safe water and sanitation for all
  - **Strategic approach 8:** Develop and enforce national standards and regulations/legislations related to public health protection, safe water including recreational water, food safety, indoor and outdoor sanitation waste management, occupational safety, building codes, use of chemicals, pesticides, insecticides, road and sea safety and mechanisms for enforcing these legislations
  - **Strategic approach 9:** Strengthen capacity to ensure quality control and adherence to the national standards and regulations by developing necessary skills and tools for monitoring enforcement
  - **Strategic approach 11:** Expand healthy settings initiatives for healthy island and other healthy settings such as hospitals, schools, food outlets, parks, etc.

The Draft Health Master Plan 2016–2025 also contains strategic inputs that are relevant to food safety as follow:

- **Strategic focus area 2:** Public health protection
  - **Strategic direction 2:** Reduce chronic diseases (especially diabetes, cardiovascular diseases and cancers) and improve mental and psychological health of the population
    - Empower young people and adults to adopt healthy choices regarding food, physical activity, tobacco use and prevent substance abuse through education and life skill development
    - Implement a national food and nutrition strategy targeting different age groups

**Appendix 3: Plan of Action with timelines**

| National Food Safety Policy of the Maldives: Plan of Action (2017-2026) |   |          |      |      |      |      |      |      |      |      |      |
|---|---|----------|------|------|------|------|------|------|------|------|------|
| S. No.  | Activities  | Timeline |      |      |      |      |      |      |      |      |      |
|   |   | 2017     | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 |
| 1   | Enact food safety related Acts and Regulations          |          |      |      |      |      |      |      |      |      |      |
| 2   | Establish high level Inter-Ministerial FOS Cmt & NCC    |          |      |      |      |      |      |      |      |      |      |
| 3   | Assess and validate FBD srv. and rsp.                   |          |      |      |      |      |      |      |      |      |      |
| 4   | Establish consumer groups or association                |          |      |      |      |      |      |      |      |      |      |
| 5   | Promote public-private-professional partnership (FOS)   |          |      |      |      |      |      |      |      |      |      |
| 6   | Strengthen laboratory capacity for FBD surveillance     |          |      |      |      |      |      |      |      |      |      |
| 7   | Dev. epid. surveillance of FBDs                         |          |      |      |      |      |      |      |      |      |      |
| 8   | INFOSAN networking and simulation exercise              |          |      |      |      |      |      |      |      |      |      |
| 9   | Review food safety policy implementation                |          |      |      |      |      |      |      |      |      |      |
| 10  | Promote GAP and certification system                    |          |      |      |      |      |      |      |      |      |      |
| 11  | Development of residue monitoring system                |          |      |      |      |      |      |      |      |      |      |
| 12  | Strengthen national food traceability and recall system |          |      |      |      |      |      |      |      |      |      |
| 13  | Integrate FOS in the national disaster mgmt frwk        |          |      |      |      |      |      |      |      |      |      |
| 14  | Establish info. sharing system/ database on FOS         |          |      |      |      |      |      |      |      |      |      |
| 15  | Strengthen FOS risk analysis                            |          |      |      |      |      |      |      |      |      |      |
| 16  | Strengthen lab. capacity for chemical analysis          |          |      |      |      |      |      |      |      |      |      |
| 17  | Ensure food labeling systems comply with ntl rqrmts     |          |      |      |      |      |      |      |      |      |      |
| 18  | Participate in relevant intl. Codex and FOS meetings    |          |      |      |      |      |      |      |      |      |      |
| 19  | Identify research priorities and manage research        |          |      |      |      |      |      |      |      |      |      |
| 20  | Dev. institutional and technical capacity for FOS rsrch |          |      |      |      |      |      |      |      |      |      |
| 21  | Develop food safety course and launching                |          |      |      |      |      |      |      |      |      |      |
| 22  | Public awareness and education                          |          |      |      |      |      |      |      |      |      |      |



**Endorsed by:**

**Mr. Abdulla Nazim Ibrahim**  
Minister of Health  
Ministry of Health

Signature:

Date: 06<sup>th</sup> April 2017



**Mr. Hussain Rasheed**  
State Minister  
Policy Planning and International Health Division  
Ministry of Health

Signature:

Date: 06<sup>th</sup> April 2017

