A REGULATORY FRAMEWORK FOR PUBLIC HEALTH FOOD SAFETY IN TRINIDAD AND TOBAGO- SOME KEY ELEMENTS

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Abstract- Each year, millions of persons fall sick from eating unsafe food. Researches conducted in Trinidad and Tobago (T & T) have revealed a wide range of food safety concerns. The purpose of this paper was to determine key elements and principles for a Regulatory Framework in Food Safety. This framework was evaluated against a Best Practice Model by analysis of the legislative and policy documents on food safety. There were critical deficiencies identified such as uncoordinated institutional approach to regulating food safety activities and inappropriate, fragmented or outdated legislation. There was little evidence of follow through on national and regional strategic food safety objectives. A National Food Safety Policy which incorporates the key elements of priority for policy makers is recommended. There is a critical requirement for an establishment of an agency which would be responsible for policy making, standard setting and the coordinating all food safety activities from farm to fork.

Keywords- Food safety, regulatory frameworks, food regulation

I. INTRODUCTION

Food safety refers to the control and elimination of all hazards, whether chronic or acute, that may make food injurious to the health of the consumer (FAO/WHO, 2003). Each year millions of people fall ill from eating unsafe food. The World Health Organization (WHO, 2015) has estimated that food and water borne diseases kill 2.2 million people each year with the majority of these cases being children. In a statement release by Margaret Chan in 2014, Director-General of WHO, identified the worldwide core problems in food safety as the fragmentation of food safety authorities, instability of budgets to deal with food safety concerns and the lack of convincing evidence on the effect on foodborne disease. The Director General also expressed concern that this significant problem only received collective support when some global crisis occurs. In response to these concerns, World Health Day 2015 was dedicated to food safety (WHO 2014).

Due to the number of food related deaths and illness worldwide in 2000, the WHO Member States adopted a resolution (WHO 2001) to recognize food safety as an essential public health function and committed to ensuring that food safety policies and actions need to 'cover the entire food chain, from production to consumption.' In 2012, the Caribbean Public Health Agency (CARPHA) reported 78,803 gastroenteritis cases among its 22 member countries in the Caribbean of which T&T reported 13,593 cases – 16% of the overall cases (Caribbean Public Health Agency 2012). The report noted that these figures may be underestimated due to significant underreporting of food and water borne diseases within countries as well as incomplete annual reports from member countries to CARPHA. In addition, within the last decade research has been conducted on targeted food safety concerns in T&T. These studies revealed a range of food safety concerns that included improper food handling practices at home (Boodhu, Badrie and Sookdhan 2008), excess pesticide residue on crops (Kalloo 2008 and Amsterdam 2004), low GAP (Good Agricultural Practices) compliance (Ganpat et al 2014), infectious levels of pathogens in pluck shops (Thomas, Lalloo and Badrie 2006), poor microbial quality of table eggs (Adesiyun et al. 2005), poor food handling practices by vendors (Benny-Olivierra and Badrie 2007); high levels of bacterial contamination in street foods (Badrie, Joseph and Chen 2004). The recommendations made included increased awareness and educational programs, improvement to regulating of the industry through inspections and improved compliance within existing regulations.

The FAO/WHO (2003) has provided guiding principles as a theoretical framework for strengthening national food control (safety) systems such as by (1) maximizing risk reduction by applying the principle of prevention as fully as possible throughout the food chain;(2) addressing the farm-to-table continuum;(3) establishing emergency procedures for dealing with particular hazards (e.g. recall of products); (4) developing science-based food control strategies; (5) establishing priorities based on risk analysis and efficacy in risk management;(6) establishing holistic, integrated initiatives which target risks and impact on economic well-being; and (7)recognizing that food control is a widely shared responsibility that requires positive interaction between all stakeholders

The Caribbean Community (CARICOM 2010) Regional Food and Nutrition Security Policy had advised member states to prepare National Food and Nutrition Security Policy and Strategy and to

establish an Inter-ministerial Food and Nutrition (Security) committee to coordinate, manage and oversee implementation of measures outlined in the national policy. Also, to establish various strategies such as the development of a traceability system, effective disaster preparedness plans, including the private sector in particular for research and harmonization of standards.

A review of the policy directives of International organizations such as WHO/FAO and along with CARICOM regional directive, it was clear that solutions to food safety problems involved the drafting of national food safety policies, establishment of agencies to coordinate food safety activities on a national level and laws that covered the entire food chain. It is not apparent that Trinidad and Tobago had acted on any of these suggestions and a close look at the regulatory framework for food safety is necessary to determine what shortcomings exist and what practical solutions can be implemented. Thus the resulting framework will be reflective of best practice approaches and international policy directives to elevate the status of food safety in Trinidad and Tobago. Hence the objectives of this paper were to determine the principles and key elements for a regulatory framework for food safety in Trinidad and Tobago and to determine the major shortcomings.

II. METHODOLOGY

Scope of Research

A Best Practice Model for a regulatory framework for food Safety was determined based on findings in the theoretical literature. The Trinidad and Tobago Framework will be assessed using various legislative, policy and organizational documents. The Trinidad and Tobago Regulatory Framework will be compared to the Best Practice Model and critical gaps was identified

Data

The following secondary qualitative data were collected: Theoretical (Academic) Literature on Regulatory Frameworks and Regulation within Food Safety; All Acts of Parliament of T&T Archival Data - Policy documents, strategic plans and organizational charts, overviews, mission statements of all organizations involved in Food Safety in Trinidad and Tobago along with Technical Reports on Food Safety in the Trinidad and Tobago (Caribbean)

RESULTS AND DISCUSSION

Organization of Regulatory Authorities

Table 1 summarizes a comparative look at the Trinidad and Tobago (T & T) Regulatory Framework based on the model regulatory framework for food safety proposed in the literature. The Government of T&T has primary responsibility for Food Safety.

Table 1 – Trinidad and Tobago Regulatory Framework - A Comparative Look

		Legal Framework
Single law that addresses farm to fork	No	Multiple Laws address multiple issues via multiple agencies
Are scientific principles and standards referenced?	Yes	Food and Drug Act -Food and Drug Regulations - First Schedule
Mandatory recall	No	Food and Drug Act - Food and Drug Regulations - Fish and Fishery Products - Recall Order No other reference to food recall
Traceability systems	No	Some reference in Food and Drug Act/ Country Market Act/ Animal Importation Act There is no specific prescription in the law or policy documents for traceability systems; not treated with within policy documents
Comprehensive labeling requirements	Yes	Food and Drug Act - Section 16 - correct name, contents, manufacturer information. directions for storage, use, cautions, declarations as directed, expiry date etc.
Proactive vs. reactive approach	yes	None of the systems (GAP, GMP etc) prescribed by law; NAMDEVCO treats with this via Quality Assurance Department
		Institutional Framework
Single Autonomous Agency	No	National Agricultural Health and Food Safety Agency was not instituted
Domestic Surveillance and Monitoring programs	No	Ministry of Health responsible for Monitoring and Surveillance but no specific reference to Food Illness monitoring in Corporate plan
Robust and cost effective border control	No	Inspectors under Food and Drug Act, Pesticides and Toxic Chemicals Act, Fertilisers and Feed Stuff etc have the ability to refuse imports, or refuse to issue a certificate for export. No harmonization of standards/ laws
Personnel training systems	Yes	NAMDEVCO and MOH have mandate for training; CFNI also train
Public awareness and public education programs	Yes	MOH has mandate for public awareness through Corporate Plan of 2006 to 2009

The two agencies that were primarily responsible for food safety activities and enforcement were the Ministry of Health (MOH) and Ministry of Food Production, Land and Fisheries (MFPLF). While the food industry and other areas of private sector represented on Boards and Committees such as

National Agricultural Marketing and Development Corporation (NAMDEVCO), Livestock and Livestock Products Board and the Food and Beverage Industry Development Committee, there was no evidence of self-regulation or co-regulation. A pilot co-regulation arrangement can be explored in areas that require significant financial burden on the State to ensure compliance. The pilot will determine whether co-regulation is feasible in the Trinidad and Tobago environment as well as what structure of co-regulation is suitable. This pilot be applied using an existing or proposed regulation or set of regulations

The food safety system was fragmented as a number of different organizations had responsibility for various stages of the food chain (farm to fork) and there was no evidence of a single agency that coordinates the efforts of all these ministries and technical institutions. For example, Ministry of Health (MOH) has responsibility for Public Health and makes use of Public Health Inspectors to enter and exercise authority in public establishments such as fresh markets, restaurants, street vendors etc. In addition MOH operates under the Food and Drug Act – this Act references mostly the second and final stage of the food chain with primary stage being referenced only in the Fishery and Fishery Products Regulations. The MOH however has responsibility for Pesticides under the Pesticides and Toxic Chemicals Act. This is of course a primary stage concern. The MFPLF Minister with responsibility for Agriculture sits on the Control Board for Pesticides and Toxic Chemicals showing some level of input from that ministry for the policies and activity of the Pesticides and Toxic Chemicals Inspectorate

Single Agency

There have been multiple agencies in T & T involved in food safety activities. The policy directive of CARICOM (2010) stated there was a need for a National Agricultural Health and Food Safety (NAHFSA) and Caribbean Agricultural Health and Food Safety Agency (CARPHA). CARPHA became operational according to the he Caribbean Public Health Agency single regional public health agency for the Caribbean. This agency was legally established in July 2011 by an Inter-Governmental Agreement signed by Caribbean Community Member States and began its operation in 2013 and is the Caribbean Region's collective response to strengthening and reorienting our health system approach so that we are equipped to address the changing nature of public health challenges. However, NAHFSA has not been established.

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National Food Safety Policy

The most critical and noticeable element in a scan of the Regulatory Framework for food safety is the lack of a National Food Safety Policy to guide the regulation of food safety in Trinidad and Tobago. Any Food Safety laws (mandatory regulations) should be drafted based on the directives of a comprehensive food safety policy. The WHO (2003) and CARICOM (2010) have mandated member states to prepare national food safety policies.

Single Law - farm to fork

As evidenced by the list of laws, it was clear that there was no one law which addressed all food safety issues arising from farm to fork. However, the Food and Drugs Act of Trinidad and Tobago have attempted to provide responses to food safety issues.

The regulations s relate specifically to processing, marketing and consumption and fish and fishery regulations. These laws were last updated in 2005. The Corporate Plan of the MOH stated that one of the objectives was to update The Food and Drug Act as well as the Public Health Ordinance (last updated in 1950). The other laws which dealt with food safety have not been updated between 20 to over 50 years ago.

Scientific Standards and Principles

Scientific standards have been prescribed in the Food and Drug Act. Changes to the Act are required to make the relevant regulations reflective of new scientific knowledge. Two options could be considered. The first option is to use the Codex Alimentarius as the standard for updating the food laws.

The second option was to introduce in law, that a single coordinating agency would be the body responsible for advising on scientific standards. The Precautionary Principle (PP) positions itself within risk analysis as a guideline to deal with situations of scientific uncertainty. The definition of the principle itself however is heavily debated on the international scene and for this reason, the Codex, for example has not adopted it within its risk analysis method (Szajkowska 2012). The Codex allows nations to use the principle ideas and take appropriate action in cases of scientific uncertainty. The PP operates on three basic criteria – there must be scientific uncertainty, the decision taken to ensure human health must be proportionate to the threat and there must be a review of the decision within a reasonable amount of time.

Traceability Systems and Mandatory Recall

The elements of traceability and mandatory recall were absent from the laws that govern food safety in T&T. This meant that when a food crisis occurred, there was no legal basis for the state to insist upon a recall, and to determine who was responsible and where along the food chain, the contamination occurred. Therefore, it is critical that serious consideration to incorporate traceability systems and mandatory recall elements into the Food Safety System of T&T.

Preventative vs Reactive

A preventative approach to food safety systems involves the implementation of systems and regulations that are aimed at preventing food safety issues rather than reacting to problems after they have occurred. Elements such as Hazard Analysis and Critical Control Points (HACCP), Good Agricultural Practices (GAPs), Good Manufacturing Practices (GMPs) and traceability systems can be incorporated for regulatory systems which are preventative rather than reactive.

From a legislative standpoint, the food laws of T&T are neither preventative nor does the language of the law promote preventative practices. This did not deny that some organizations such as NAMDEVCO have been implementing GAPs and HACCP systems in training and implementing agricultural systems.

Policy Directives

In addition to the laws that set out the responsibilities and areas of authority for ministries, individual ministries and organizations have strategic plans for the activities of the individual organization. It can be implied that the changes in government regimes over the past ten years have impacted both the development of these strategic plans as well as the follow through with these plans.

For example the MOH produced a Corporate Plan 2006 – 2009 that contained significant objectives that were reflective of international/regional objectives as set by the CARICOM and WHO. Annual Reports for 2008, 2009 and 2010 however show no follow through on any of these objectives. For example: updating of Public Health Ordinance and the Food and Drug Act. No Corporate/ Strategic/ Business plan has been released to the public by the MOH thereafter.

The MFPLF has significant responsibility in the area of food safety in the primary stage of food production. The strategic and action plans issuing out of MFP within the last 5 years use the term "food security" and therefore imply national responsibility for food security. In 1996 the World Food Summit defined food security as being inclusive of 'people … having access …. to sufficient, safe [and] nutritious food'.

The MFPLF policy speaks of sufficient and nutritious food and little or no mention of food safety. The fact remains that the MFPLF controls primary stage food chain activities such as vegetable farming and rearing and management of livestock. There is need to improve upon the coordination and networking of food safety activities between MFPLF and MOH for primary stage of the food chain.

Other Institutional Requirements

Surveillance and monitoring, border control, personnel training and public awareness and public education are all areas that need to be guided by an overarching food policy. In particular the surveillance and monitoring systems can provide important data that can be used to estimate the burden of food disease in T&T and offer economic evidence for the need to regulate or improve regulation in specific areas. The education of T &T citizens on food safety could empower them to demand high quality safe food and enhance the their ability to demonstrate safe food handling practices.

The National Food Safety (Security) Policy would require the integration of the key elements for a model regulatory framework with emphasis on coordination, cooperation and networking among food safety agencies.

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