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ASSESSMENT OF THE CURRENT FOOD SAFETY REGULATORY SYSTEM IN AFGHANISTAN AND ITS FUTURE WITH A NEW INDEPENDENT REGULATORY STRUCTURE

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ARTICLE INFO	ABSTRACT
	This paper examines the current National Food Safety System of Afghanistan in contrast to some countries in the developed world. The main organizational structure of Afghanistan, its legal framework, the competent authorities and division of their responsibilities are discussed. Particularly, I examine the roles and responsibilities of different agencies in order to identify possible similarities and differences with food control authorities operating in the developed world countries and determine which features are considered most successful. Afghanistan is one of the Asian countries that have not yet implemented institutional or organizational changes to establish a single Food Authority or a similar organization on the national level. The existing food safety system of country is characterized by an "off-hand" addition of structures and division of responsibilities among different government agencies that are accountable to different Ministries. Therefore, the efforts to effectively manage the existing and emerging food safety risks are impeded due to duplication and overlapping of responsibilities among different agencies. The purpose of the paper is to bring together the basic principles underlying the successful regulatory system of food safety. In the end the paper makes some suggestions to the government of Islamic Republic of Afghanistan on how to establish the independent regulatory system of food safety based on other countries experiences and good practices in an effort to improve the efficiency and effectiveness of the current system.

INTRODUCTION

Food is the first necessity for human's life and development, although its economic value is not high (Quraishi, Abdul Hafiz *et al*., 2012). Thus, food safety has recently attracted significant attention worldwide, from consumers, media, public administrators and politicians. Food safety pertains to the prevention, reduction or elimination of the risk of ill health, or death, as a result of the consumption of foods, whether fresh or processed, obtained through the domestic market, or by international trade. Food safety is directly related to people's lives, health and other human rights, therefore the management system of food safety is a major issue. But limited to such factors as technological progress, complexity of the food sales there is serious asymmetry on food safety between consumers and food producers. The activities of commerce fraud and safety incidents related to food are increasing sharply around the world, such as mad cow

disease (BSE), foot-and-mouth disease (FMD), dioxin (PCDD), diarrhea, hepatitis A, and avian flu which is due to contaminated food and unsafe water, and so on, which seriously damage the health of consumers. Recent trends in global food production, processing, distribution and preparation are generating an increasing demand for food safety studies and regulations in order to ensure a safer global food supply (Karki, 2002 and Li Yuhong *et al*., 2010). The citizens of Afghanistan may experience those problems on daily bases but there is no surveillance data. But still one indicator of foodborne disease is the fact that the average life expectancy is only 49 years for men 51 for women (CIA, 2014).

Afghanistan does not have a National Food Safety Authority (NFSA), but a multi-level, fragmented system with responsibilities divided among different ministries and governmental agencies, frequently impeding efforts to effectively manage food risks by duplication and overlapping of responsibilities. Public opinion in Afghanistan as well as public agencies and food businesses' representatives support the establishment of a single independent national food safety

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authority in Afghanistan which will divide the activities of risk. As a result, food safety has become a top priority (EHD/MoPH, 2012-2015; MoJ, 2006 and MoPH, 2011). In Afghanistan a law which will create the Afghan Food Safety Authority needs to be approved. The main objectives of this Authority are to promote the food safety to consumers and inform them of any changes or any development in the food and health sector.The paper reviews the general structure of the current food control system in Afghanistan and describes the mission of the responsibilities, finds overlapping responsibilitiesand the role of each organization. It also proposes some steps with new structure for the future in the form of Independent Food Safety Control Authority.

Analysis of independent regulation of food safety

The asymmetric information poses systemic risks in the food industry, so sub-optimal outcomes may occur (Hennessy, 1996). Consumers do not have adequate information on the safety attributes of the food that they purchase. A bulk of the literature has considered the causes and remedies of market failures caused by asymmetric information on product quality, game- theoretic approaches to address incomplete regulation and tracing food risks, and consequences of regulation policy on food safety and welfare. With this market failure at hand government intervention is justified in order to enhance social welfare. However, there are various policy options and alternative mechanisms of food safety. Independent Regulation of Food Safety is an issue greatly debated around the world (Li Yuhong *et al.*, 2010). Not all agencies are regulatory agencies, some have only executive tasks, and others are simple consultativeorganizations for policy makers. Not all agencies are formally independent; some are in subordinate relationshipswith public administration and ministries. A regulatory agency is a public authority or government agencyresponsible for exercising autonomous authority over some area of human activity in a regulatory or supervisorycapacity.

An independent regulatory agency is a regulatory agency that is independent from other branches or arms of thegovernment. The existence of independent regulatory agencies is justified by the complexity of certain regulatory and supervisory tasks that require expertise, the need for rapid implementation of public authority in certain sectors, and the drawbacks of political interference. In theory, independent regulatory agencies differ from other regulatory institutions with regard to their tasks, their basis of legitimacy, the way they are held accountable to the public and how their relations with both the regulated industry and government are organized. It is better fit to overcome the problems of asymmetric information between the regulator and the regulated industry than general regulators (Gonenc, Maher and Nicoletti, 2000). In 1997, the Organization for Economic Cooperation and Development has put forward six basic elements ofindependent regulation institution. Firstly, Ensure that the exercise of regulatory power is rule-based; Secondly, Regulated agencies have an effective means to defend themselves against unauthorized or arbitrary requirements or liabilities; Thirdly, regulator appointed by multiparty; Fourthly, regulator carrying out fixed term of office; Fifthly, establishing professional standards and attractive salary scales; Sixthly, setting up a stable source of

funding. These elements have become policy guidance for developed countries when they establish independent regulationinstitutions.

Independent Food Authority

Many nations have established or are in the process of creating independent regulatory agencies for such as their infrastructure sectors, food and drug safety. Examples of independent regulatory agencies are the Interstate Commerce Commission and U.S. Food and Drug Administration in the United States and Ofcom in the United Kingdom.

Over the past 20 years, independent food regulation has become the universal experience for developed countries,such as Canada, Denmark, Germany, Ireland, the Netherlands, Norway, New Zealand, and the United Kingdom, and so on. In the process of food safety regulation, these developed countries realized that from agricultural production to final consumption, regulation is an organic and continuous process. It means that regulation should include the whole process and reduce the regulation institutions as much as possible; Their approaches were similar in one respect of established a single agency to lead food safety management or enforcement of food safety legislation. In order to ensure the effectiveness of food safety regulation, it should be established the only one independent regulatory agency to control the whole country's food safety. Independent regulatory authorities of food safety are set up to improve economic efficiency in imperfect markets and protect consumers' interests, shield public intervention from short-term political and administrative influence, as well as help to avoid the risk of capture by specific interests (Li Yuhong *et al.*, 2010 and Ren *et al.*, 2010).

The Norwegian Food Safety Authority (NFSA) was established in 2004 as part of a new regulatory policy, by merging the Norwegian Animal Health Authority, one section of the Directorate of Fisheries, the Norwegian Food Control Authority, the Municipal Food Control Authorities and the Norwegian Agricultural Inspection Service. The main goals in establishing the NFSA are to ensure safe food, healthy plants, safe drinking water, and good animal health, improve cost efficiency, coordination, and a consistent regulatory approach (http://www.mattilsynet.no/ language/english/about_us/this_ is_the_norwegian_food_safety_authority.2208/BINARY/This %20is%20the%20Norwegian%20Food%20Safety%20Authori ty (Accessed April 24, 2014)).

Before 2002, New Zealand had two separate regimes for food safety. The Ministry of Health was responsible for the Food Act and the Ministry of Agriculture and Forestry was responsible for legislation concerning primary production, processing, and export of dairy, animal and meat products. It caused fragmented, inconsistent and duplicate effects. The New Zealand Food Safety Authority (NZFSA) was established in 2002 as a semi-autonomous body attached to the Ministry of Agriculture and Forestry, separated from it as Public Service Department in July 2007 because of accountability problems. It means that authority is transferred from the ministries to the NZFSA, which aims are to ensure safe food for consumers, increase coordination across the entire food

production chain, reduce fragmentation and make more consistent regulatory policies (http://maxa.maf.govt.nz/mafnet/profile/history/timeline.htm (Accessed April 24, 2014)).

Food regulatory situation in Afghanistan

The government of Afghanistan does not have a law that described food control activities and the responsible agencies and their terms of reference. Based on a memorandum of understanding between MAIL and MoPH, the Ministry of Public Health (MoPH) is responsible for the control of processed food and the Ministry of Agriculture Irrigation and Livestock (MAIL) is responsible for raw or unprocessed food (MAIL/MoPH, 2011). Essentially the market is unregulated and consumer has no assurance that the products they consume are safe or wholesome. Most of the products are not inspected at the present time. The environmental health officers of MoPH collects some samples from customs, retail market and processing companies. The tests conducted are for quality and the safety is compromised. The microbiological and chemical tests ability is limited. In MAIL the department of plant protection (DPP) and department of animal health (DAH) are responsible for plant pesticide control and animal products controls on market level respectively. The regulatory system is generally considered to be weak with most of the activities in the private sector and to some extent in public sector largely uncontrolled.

Quality control testing for processed food is the responsibility of the Food and Drug Quality Control Laboratory (FDQCL) within MoPH. Moreover, there are government labs in Herat, Mazar, Nangrahar and Kandahar which works in cooperation with the central lab.In MAIL a research lab for some of the cereal crops is functioning but its scope of work is inadequate. But the DAH lab has qualified staff and good infrastructure. In this lab animal disease and animal products are analyzed and tested. Apart from the structures within MoPH involved in regulatory activities, a National Medicine and Food Board (NMFB) was established as a highest decision making, coordinating and advisory board to the MoPH. The board has oversight of some regulatory functions for both food and medicine but there is no permanent structure that could in its current state effectively support all of the required regulatory functions for Afghanistan (Gleders *et al.*, 2010; Mwamakamba *et al.*, 2012 and NMFB, 2011).

The Afghan National Standard Authority (ANSA) is also part of the food safety system. This authority adopts Codex Alimentarius and other international standards for foods. Compliance with these standards is voluntary in the quality section but the food safety component cannot be negotiated for and the technical regulations by this authority are also mandatory. Ministry of Commerce and Industries (MoCI) and Export Promotion Agency of Afghanistan (EPPA) has the responsibility of testing fresh and dry fruits before exporting. The technical and infrastructural capacity of these authorities is not adequate and mostly relies on physical checks. In addition, a Commission is established in MoCI to control low quality foods in the market. Furthermore, the Municipalities and Provincial Health Directorate are also involved in work permit issuance, health certificate issuance and market inspection of food in Kabul and provinces. The involved

authorities in Afghanistan is primarily focusing on inspection and testing of the end products. Inspection of the physical establishments is also done by multiple departments and ministries only in Kabul and some centers of the provinces and the on the district level there is no food safety control. As for other components in food safety, such as food control management, product tracing, it is not known whether or not any government departments / agencies are involved in it. The matrix in table 1 shows the incapability of the authorities to control the food even though full responsibility of processed food control is given to MoPH through the cooperation agreement between MAIL and MoPH in 2012.

How to establish independent food authority?

In the guideline "Assuring Food Safety and Quality: Guidelines for Strengthening National Food Control Systems," co-published by the Food and Agriculture Organization (FAO)and the World Health Organization (WHO), food safety regulation, also known as "food control," is defined as "a mandatory regulatory activity of enforcement bynational or local authorities to provide consumer protection and ensure that all foods during production, handling, storage, processing, and distribution are safe, wholesome and fit for human consumption; conform to safety and quality requirements; and are honestly and accurately labeled as prescribed by law" (FAO/WHO, 2003). A single independent and functional food authority can be established when the components of food safety system are all covered and considered under one umbrella. The components are food law/regulations, availability of technical workforce, enough laboratory infrastructure and capacity, inspection services, information, public education and training (FAO, 2006; FAO/WHO, 2003 and MoPH, 2009). In Afghanistan most of the components are available in fragmented form within different ministries which need to be brought together to integrate the activities of food safety system.

Food Safety Policy and legislations

The development of relevant and enforceable food laws and regulations is one of the essential components of modern food control system. To the extent possible, modern food laws not only contain necessary powers and prescriptions to ensure food safety, but also allow the competent authorities to build preventive approaches at all stages of the food chain. In addition to food laws, Governments need to have updated food standards. They should take full advantage of Codex Alimentarius standards, guidelines and recommendations, as well as food safety experiences of other countries. They should tailor the information, concepts and requirements to the national context in order to develop a modern regulatory framework that will both satisfy national needs and meet international obligations and requirements of trading partners. Effectiveness of official controls and management activities carried out by business operators to ensure food safety depends upon the applicability of food law. In some of MoPH documents there is policy level commitment for food safety which aims protecting consumers but it is not clear to what extent those policies and strategies are implemented (EHD/MoPH, 2014; MAIL/MoPH, 2011; MoJ, 2006; MoPH, 2011 and MoPH, 2009). Currently there exists no food law in Afghanistan that describes the food control activities, the

Table 1. Summary of regulatory aspects of current situation and propositions

Stakeholders	Current roles/interests (What is their current mandate / role / interest in food legislation?)	Future needs/expectations (Proposed) (Whatwould they like to see included in food legislation and why?)
Government agencies (central, regional and local)	MoPH – to ensure public health Controls processed food MAIL – to ensure safety of raw food and unprocessed food ANSA develops food standards (34 standards developed up to now)	Food control activities are legalized based on food law. Single independent inclusive food control authority established on central and local levels All food safety control functions comes under one umbrella Specific budget allocated and capacities built to enforce the mandatory standards.
Food inspection services (independent or part of a government agency)	Food inspection conducted by MAIL, MoPH, Municipalities, MoCI for some food products Environmental health officers of MoPH and provincial health directorates conduct hygiene inspection Central quality control lab of MoPH conduct processed food quality tests and food safety tests are compromised	Inspection services made legalized Specialization of food inspection developed All foods covered rather only imported foods. Labs on zonal bases developed.
Food laboratories (central, regional and local; official food control laboratories or independent)	Chemical and microbiological tests not conducted in MoPH MAIL conducts food safety test especially on animal origin products and the central lab has been well equipped	Sampling process is decentralized. Food surveillance system developed. Databases developed and information shared on regular bases.
Food enterprises	Limited domestic production Import is dominant. No self-regulation	Increase and strengthen local production Culture of self-regulation developed.
Consumers	No consumer association available. Consumer's representatives are not consulted.	Consumer's food safety and quality association established. Asked for consultations on food safety and quality affairs.
Judicial system / courts	An enacted Food law doesn't exist to have penalties for food crimes. Business courts are available and criminal law enacted which might have some articles that may be inferred to food affairs.	Food law enactment and specification of trespasses and types of penalties.

Table 1. Coverage of food safety control management within MoPH

	Scope of foods that are controlled by MoPH departments														
	Dairy products	Fats and oils	Edible ices	Fruits and vegetables (including mushrooms)	Confectionary and honey	Cereals and cereal products	Bakery products	Meat (red and white)	Canned and frozen fish and sea food products	Egg and its products	Spices, soups, sauces, salad, protein products	Foodstuff for particular nutritional & health uses	Beverages, excluding dairy products	Ready-to-eat foods	Fortified food (any)
Technical support												PND			PND
Certification	EHD	EHD	EHD		PND/EHD							PND	EHD	EHD	PND
Production	EHD	EHD	EHD		PND/EHD		EHD					PND	EHD	EHD	PND
Transport															PND
Market	EHD	EHD	EHD		PND/EHD		EHD	EHD				PND	EHD		EHD/PND
Storage	EHD	EHD	EHD		PND/EHD			EHD				PND	EHD		EHD/PND
Labeling and Publicity												PND			EHD/PND
Testing	QC	QC	QC		QC			QC		QC		QC	QC		QC
Imports	EHD	EHD	EHD		EHD			EHD				EHD/PND	EHD		EHD/PND
Risk Analysis															

* Source: The Food Quality Control working group (WFP P4P, PND, QC lab, Food TA and EHD), 2014

Illustration: There are 16 categories of foods with ten technical areas that need to be considered for control. The blank cells are not controlled at all and the ones filled are fully or partially under control by MoPH relevant authorities

responsible agencies and their terms of reference, nor do the respective ministries have specific legislation in place for the control of food. However, the Food Safety Law is going to be drafted and once completed, it will help the government to solve most of its problems related to food. Ministry of Agriculture, Irrigation, and Livestock (MAIL) have draft legislation which is waiting to be formally enacted.

This legislation specifically covers Animal and Veterinary Public Health issues but does not currently encompass all the attributes of a Food Control System, particularly with regard to using preventative food safety approaches. The National Standard Law exempts food processing and meat processing establishments from regulatory oversight.

Technical workforce

The food control authority will need a force of well-trained food safety inspection who clearly understands the scientific basis for food safety requirements and how to apply the requirements in food establishments. Afghanistan will be moving from an end product testing-based food safety control method to a process based approach to assure food safety. This will require extensive training for inspection personal in short run but in long run the government needs to invest on food sciences, technologies and dietetics vocational and long terms education. In the food safety authority Food Technologist, Food Safety and Quality Specialists, Veterinarian, Agriculturists, Microbiologists, chemist and Public Health specialists can work.

Laboratories infrastructure and capacity

It is essential that effective linkages are established between laboratories and other elements of the national food control system. In this way information on foodborne diseases may be linked with food monitoring data, and lead to the development of appropriate risk-based food control strategy. In Afghanistan, the food labs are not very developed; technical capacity is very limited and of infrastructure is poor and not matching to international minimum requirements. For the government labs it is necessary to build the capacities intensively and provide the needed infrastructure. It is also proposed that the government needs to work with the private sector and allow it to establish private food analysis laboratory in the country.

Food inspection

While the responsibility for providing consumers with safe food rests with all parties engaged in producing, processing and trade at all stages of the food chain, official control services are responsible for enforcement of food safety law. Inspecting food, premises and processes, they prevent the sale of hazardous food. Currently the inspection is done by multiple agencies including MAIL, MoPH, Municipalities, MoCI and provincial health directorates. Since the system is very complicated, the first thing to happen is to distinguish between different authorities and define the scope of works for each one. The second thing is that the staff of the food authority will need to create a coordinated national inspection strategy and regulations that maximize the use of limited inspection resources. The following aspects for the regulatory system, needs to be urgently revised:

- The needed documents should be translated into local languages.
- Re-establish and review memorandum of understanding (MoU)between MoPH and MAIL;
- National policies should be established for the three food supply streams (domestic, export and import) using a "Risk Based" approach to tackling the issues;
- The current sampling programs used by the regulatory agencies need to be fully reviewed and project decisions made on risk based food inspection and sampling

programs, including imported food control.Imported food monitoring and risk analysis shall cover all relevant information depending on type of product, country of origin, number of consignments, previous history of testing results, history of importer, available resources;
- Establish proper food establishment licensing arrangements, which include pre-inspection of food premises

Information, public education and training

An increasingly important task for food control systems is the delivery of information and advice to stakeholders at all stages of the food chain –from farm to table. Afghanistan needs to conduct a public awareness program to educate food industry personal and consumers on the importance of implementing more rigorous sanitation and food safety practices. Further, training material need to be developed that can be used by government, industry and academia to teach food safety practices. Stakeholder workshops should be held to explain the benefits of food safety and to build support for implementation of any new requirements. Such activities may include:

- Provision of balanced factual information to consumers;
- Provision of information and educational programs to key officials and employees in the food industry;
- Development of train-the-trainer programs;
- Provision of reference literature to extension workers
- Establishment of food national safety information center

The role of the industry

The food industry shares responsibility with the governmental agencies in achieving the objectives of a national food control strategy. It is responsible for the implementation of codes of good agricultural practices (primary production) and good manufacturing practices (secondary production) and a food quality and safety system e.g. HACCP. The role of the industry can also include the education and training of all employees in the areas of food handling and a general food quality and safety system. The industry may also be involved in research into developing technologies for food control. It can also provide information to consumers through food labelling and advertising. Ensuring that the industry is included in national food control activities can be instrumental in overcoming potential problems.

The role of consumers

Consumers have rights and responsibilities; this means they also have a role in food control. While they have the right to high quality and safe food, they also need to understand there is no such thing as an absolutely safe food supply. They must understand how they can protect food in the household, during the handling, preparation and serving and storage of food and leftovers to prevent this food from becoming a health hazard. Consumers are also a valuable source of information but need a focal point in the food control system to let their dissatisfactions be known, to complain about product
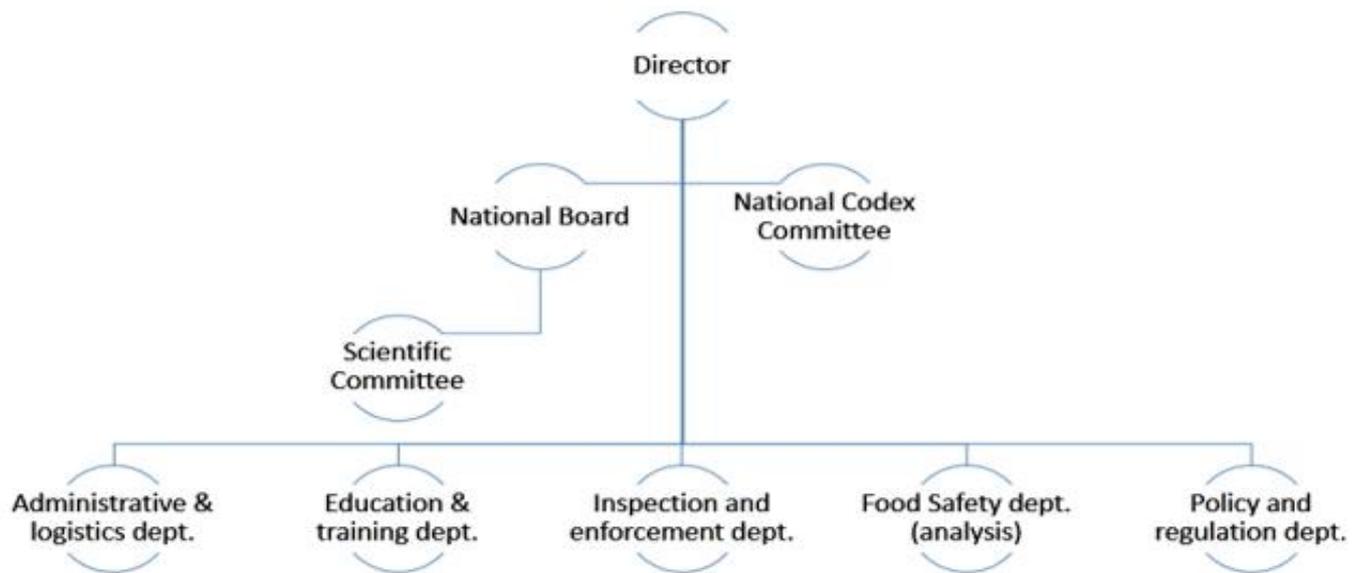
Figure 1. Organizational structure of the proposed food authority

deception and poor quality and to report injury and illness caused by food. Consumer organizations can play an important role in representing the consumer in the development of a national food control strategy and bringing the concerns of consumers to the attention of the policy makers and the industry.

Proposed structure for the food authority

As stated before the food authority must be independent and separate operating unit responsible directly to the council of ministers. Based on standard functions of food authority an organizational chart can be depicted as above in figure 1:

Problems of the current system

The food control authority will face several challenges during the first phases of its life. The problems may differ for each country but in Afghanistan's context the following can be very dominant:

1. Confusion between quality and safety
2. Lack of technical workforce and general low literacy level in Afghanistan
3. Resistance from some of the government authorities and their cynicism
4. Slow pace of work in developing and finalizing legal documents.
5. Over regulation in some areas and no regulation some other areas (Table 2)
6. Selective enforcement
7. Insecure budget mostly donor dependent
8. Integration of food laws and regulations in the overall legislative system
9. Multiplicity of responsible agencies
10. Mismatch between the different standards
11. Lack of cooperation, coordination and communication between stakeholders
12. Lack of science based approach

13. Lack of infrastructure
14. Inflexible system –Reviews
15. Weak import control systems

Conclusion

Food safety is an import symbol of economic development and people's living quality. Independence is an important guarantee for food safety. If the regulatory agency has no independence, its objectives will be aberrant.Setting up independent regulators is a dynamic process where institutional building takes into account countries specific legal and judicial frameworks and often crafting innovative solutions. The independence of food safety regulation has a strong neutral feature, which can reduce the impact of interest groups and government, minimize the external interference. The establishment of modern national food safety control systems that apply an integrated food chain approach requires the implementation of food safety policies; the enforcement of food legislation; the implementation of integrated surveillance systems; the establishment of food safety assurance systems, including consumer education programs; the implementation of inspection programs; and good coordination of all institutions involved in food control.The current food safety system in Afghanistan is not effective.

The food regulatory system is still fragmented and traditional food control infrastructures exist, which is unable to reduce the negative effect of foodborne diseases on public health as well as meet international sanitary and phyto-sanitary standards.The absence of enabling policies and standards, coupled with inadequate coordination of relevant institutions is among the challenges faced by food control system in country. Developing an effective program through national planning processes may be hindered unless food safety is recognized at the policy-making level as part of the national development planning agenda and National Health policy. The food control needs of Afghanistan is different from those of other countries and needs more attention. It require the development of food

safety system that respond to these needs in its own context, using best practice principles applied in other countries and regions. There is a need, therefore, for Afghanistan to conduct detailed evaluation(s) of the food control systems in order to identify gaps, mechanisms for improvement as well as identify technical assistance needs. Technical cooperation activities for strengthening national food safety systems would then be tailored on the specific needs of national priorities of the country. The public, in particular, consumer organizations could have key roles in the food control system. They could bring attention to deficiencies and at the same time constructively assist the functioning of national food quality systems.

Recommendations

1. Don't re-invent the wheel: The current multi agency system needs to be integrated under one umbrella rather than establishing a new authority from scratch.
2. Think global, Act local: The experience of other countries has to be considered but the new structure of food authority should be adopted with the availability of the current technical and financial resources.
3. Increase country participations in international negotiations on standards like Codex, WTO and SPS
4. Encourage self-regulation, wherever possible: The government needs to develop easy understandable guides on food safety, Good Manufacturing Practices and Good Hygiene Practices than developing fully government regulated laws.
5. Realistic and achievable standards: The standards should be developed based on priority needs of the country and at the same time enough budget has to be allocated by government for achieving its minimum goals.
6. Undertake capacity building exercises for all stakeholders: The government needs to strengthen and improve all the stakeholders of the food chain for developing good knowledge of food safety and self-regulation.
7. Prioritization approach: The government needs to prioritize the activities in food chain for example investments in vocational and professional education of food sciences and technology, sanitization, capacity building and etc.
8. Increased focus on enforcement not just making standards
9. Making consumers more aware of food safety risks: Public awareness on food safety and hygiene should be the prime policy of government to reach the basic concept of food safety in home.

Acknowledgement

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