

# Study on the Construction of Emergency Management System for Food Safety

Fengwei LIU

*School of Economics and Management, Zhengzhou University of Light Industry, Zhengzhou 450002, China,*

*Email: liufengwei@zzuli.edu.cn*

**Abstract:** This paper firstly analyzed the current challenges to food safety and the problems of emergency management system in China, then constructed the basic frame of emergency management system for food safety. At last, this paper put forward the guiding thoughts, principles, objectives and some main proposals of strengthening emergency management system for food safety.

**Keywords:** food safety; emergency management; system construction

## 1 Introduction

Food safety is an important issue for people's livelihood<sup>[1]</sup>. In recent years, the incidents of food safety occur frequently in China, which bring serious threats to people's health and safety, raise fears on food safety, also seriously affect the normal order of the national economy, or even bring about a integrative and crushing blow to a certain type of food industry, and have brought irreparable loss to the national image and business reputation internationally<sup>[2]</sup>. Based on the original food safety supervision, further strengthening the emergency management on the food safety incidents including early warning, monitoring, disposal and the management of scientific and technological support, and improving the construction of emergency management system for food safety have important significance.

## 2 Problems of Emergency Management System for Food Safety in China

At present, there exist many problems and weak links which can not meet the actual needs in China's food safety emergency management, and the main questions are as follows:

(1) The emergency management of major food safety incidents involves too many departments, and the efficient emergency handling operation mechanism is not sound<sup>[3]</sup>. The current food safety regulatory functions are undertaken by many government departments, such as agri-

culture, health, industry and commerce, quality supervision and others, so the resources of food safety supervision and emergency management are distributed, the management is out of touch, and the convergence of emergency response among departments, locality are lack of coordination. It is difficult for the personnel, information and resources to achieve fast integration and linkage when they collaboratively deal with food safety incidents.

(2) The monitoring and warning system and working platform for major food safety incidents have not been established, and the professional emergency services are also very weak. Due to the dispersed regulatory functions of food safety, the inspection monitoring networks of each department run independently, and have not formed a unified monitoring and warning system which covers the entire food chain. Coupled with the issues that some localities and departments are lack of monitoring capacity and too administrative, and the monitoring system responds insensitively, which make the existing monitoring and warning systems become a mere formality and some early-warning indicators even not exist.

(3) The disposal of food security incidents lack emergency rapid testing equipment and the ability to deploy emergency supplies needs to be improved. The mechanism which ensures the production, supply, expropriation, requisition, allocation and distribution of medical care equipments, treatment drugs, medical devices and other materials which are needed by the emergency disposal of major food safety incidents are inadequate; the material reserve system for food safety incidents has not been established. And the existing material storage

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Sponsored by Research Fund for the Doctoral Program of Zhengzhou University of Light Industry

facilities are insufficient, and their layout is also not quite reasonable. All the factors, such as the single reserve mode, relatively small number of materials, and the unsound policy for updates, rotation and compensation of emergency supplies, affect the dynamic adjustment; Resources required for emergency rescue, such as emergency supplies and vehicles for the emergency transport of personnel, are also insufficient, and the integrated coordination mechanism needs improvement.

(4) The emergency response measures for food safety including the sequestration, recall and timely release of information need to be further strengthened. In the case of highly developed information means in modern society, if the decisive and effective measures are not taken at the first time to deal with the food problems which affect the food safety, all kinds of rumors, gossip and other inaccurate information will be popular, which will make an originally simple food safety incident eventually become a comprehensive event which has a broad social impact.

(5) The foundation of scientific and technological support for major food safety emergency response system is weak, and the construction of information command system is seriously lagging behind. The construction of information command system platform for food safety in many provinces and cities has not yet started, so it is difficult to achieve information sharing, and the ability to obtain information is poor. The support system which includes emergency command platform, information management, resource management, equipment deployment, information promulgation and assessment feedback, needs perfection urgently.

### **3 Principles and Objectives to Strengthen the Construction of Food Safety Emergency Management System**

#### **3.1 Principles of Strengthening the Construction of Food Safety Emergency Management System**

Strengthening the construction of food safety emergency management system should always be around the theme that "To improve the capacity to cope with food safety incidents, protect the safety of people's lives and health, maintain the social order and economic stability, and

promote the comprehensive, coordinated and sustainable development of economy and society"<sup>[4]</sup>, and also should rely on science and technology, highlight the weak links and common problems in the food safety incidents, and ultimately form a comprehensive emergency management system for food safety. The main principles of its construction:

**The overall planning and rational distribution:** Develop the general planning of the construction of the emergency response system for the major food safety incidents firstly, and then all localities and departments develop appropriate emergency system construction planning contingency according to the practical situation, overall grasp the rational distribution of emergency resources required for food safety incidents, and strengthen the capacity-building of monitoring and warning, emergency treatment, emergency support and others.

**The integration of resources and priorities:** Make full use of existing resources, exploit potentialities and increase efficiency, achieve the organic integration of information, personnel, equipment, materials in various places and various departments, and improve overall emergency response capacity to avoid the fragmentation and repeated construction. Focus on strengthening the construction of weak links in emergency response system for food safety, and give priority to resolve the outstanding issues which restrict the emergency response aging to improve rapid response capability at the first time.

**The use of advanced and standard specification:** Make use of mature technologies at home and abroad and also consider the advancement and applicability to ensure the efficient and reliable operation of emergency response system. Establish and improve the emergency management standardization system to achieve the standardization of construction and operation of emergency response system.

**The hierarchical accountability and gradual implementation:** Divide the construction tasks of the government at all levels and the relevant departments reasonably, and each subject must assume their responsibilities. According to the actual needs and actual ability, governments at all levels should determine the building projects and implement them step by step, and carry out the construction of demonstration projects.

The government leadership and social participation: Give full play to the role of policy-oriented and government regulation and introduce the market mechanisms to mobilize the initiative of all aspects involved in the construction of emergency response system. Organically combine the government management and social participation to enhance the degree of socialization of emergency management work.

### 3.2 Objectives of Strengthening the Construction of Food Safety Emergency Management System

Through the construction of emergency management system for food safety, all level governments can initially form an emergency response system for food safety incident, which has the characteristics of unified command, reasonable structure, sensitive reaction, efficient operation and strong guarantees, so the comprehensive ability of emergency management has been significantly improved to meet the needs of food safety incidents in monitoring and warning, emergency disposal and emergency support. The keys are reflected in five areas: (1) The monitoring to food safety incidents and the accuracy and reliability of information get the fundamental guarantee, and the accuracy and periodicity for the early warning and forecasting have been greatly improved; (2) The direct reporting system for food safety emergencies has been fully implemented, and the response efficiency of emergency disposal and emergency support has been strengthened continually; (3) The ability of information promulgation of food safety and the emergency disposal of problematic foods get further enhanced; (4) The capacity of risk control in food safety incidents get significantly improved, and the casualties and economic losses have dropped significantly.

## 4 Basic Framework of Food Safety Emergency Management System

For the food safety incidents, there must have a systemic and scientific emergency management system. According to the general framework of emergency management system for incidents, and combined with the characteristics of food safety incidents and the requirements of emergency management, this study holds that: A com-

prehensive emergency management system for food safety should include the sections which can be seen in Figure 1.

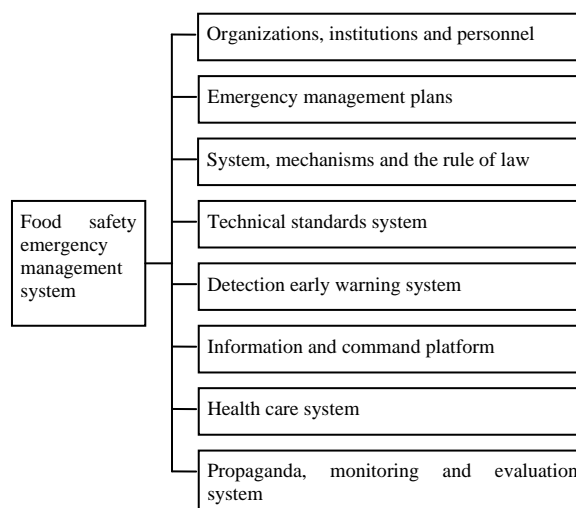


Figure 1. Food safety emergency management system

There are still many problems needed to be solved and improved in our country's food safety emergency management system. In the process of building and perfection, the following areas of work should be emphatically done well.

### 4.1 Improving the Leadership and Supervision System for Food Safety

Food security emergency supervision is an important working content in food safety. After the adjustment and merge of the functions of the State Council, all the current regulatory work belong to the food and drug supervision and management department, which is endowed with the functions that "The comprehensive supervision and organization coordination for food safety and investigation on major food safety accidents"<sup>[5]</sup>. Under the existing food safety supervision mechanism, one supervision department is responsible for one regulatory link, and the main means of monitoring is sub-regulation and the secondary supervision means is species-regulation. The agriculture, quality supervision, industry and commerce, health, business, education, food, entry-exit inspection and quarantine departments carry out food safety supervision in accordance with their responsibilities. Although a big contribution is made by this system on

the emergency supervision of food safety in ending multifarious administrations and implementing the vertical management below the provincial level, it remains to be improved and perfected in several areas: To further strengthen the unified leadership of emergency management for food safety, detail the functions of departments and establish a sound work responsibility and accountability system; To strengthen the enforcement of the emergency management of food safety to form a resultant force of food safety supervision on the whole process of production, storage, distribution, sale and use.

#### 4.2 Building Efficient Information and Command Platform

In the construction of emergency management information platform for food safety, the provincial emergency management information platform exists between that of the state and the cities, so it is the hub to connect the macro and micro, decision-making and implementation of food safety emergency system and it is particularly important and critical. The information and command platform for food safety emergency management includes two sub-systems, namely, food safety monitoring systems and food safety incidents emergency command system. The entire platform relies on food safety monitoring and warning system, based on the comprehensive monitoring analysis and evaluation of food safety information, it analyzes and evaluates food security situation, timely makes early warning to food security, and quickly starts emergency plans to deal with food safety emergencies.

#### 4.3 Strengthening the Laws and Regulations

The main works of strengthening the construction of

laws and regulations for food safety emergency management are as follows: Establish and perfect the laws and regulations system, such as the safety standards of market access for food which takes the “from farm to fork” of the food safety standards as the core; Complete the statutory duties and their mutual cooperation mechanism of relevant law enforcement departments in performing the food safety supervision and emergency management functions as soon as possible; Establish the mandatory or voluntary recall system for unsafe food or suspected unsafe food under the non-emergency state; Strengthen the disclosure and publication of food safety information to effectively protect the right to know of consumers; Establish and improve the emergency requisition and compensation mechanisms of social resources in dealing with food safety incidents; Strengthen the execution and supervision on the sequestration, recall, taking over and destruction system for problematic food; Extend the financial compensation and economic assistance mechanisms for victims in the process of afterward disposal of food safety emergency management.

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