

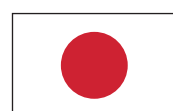


# Enhancing food safety by strengthening food inspection systems in ASEAN countries

(GCP/RAS/222/JPN)

## Case studies on inspection and certification

### Case study 1: Inspection and certification systems for Good Manufacturing Practices (GMP) for processed foods in Indonesia





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processed foods in Indonesia**

Prepared by

Ms Winiati P. Rahayu, Head of Drug and Food Research, National Agency for Drug  
and Food Control, Bogor, Indonesia, now at Department of Food Science and  
Technology, Bogor Agricultural University, Bogor, Indonesia

Edited by

Ms Shashi Sareen, Senior Food Safety and Nutrition Officer, FAO RAP, Bangkok  
and  
Dr Ramesh V. Bhat, Consultant, FAO RAP, Bangkok

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## Foreword


Food safety is of considerable significance from both the health and economic perspectives. Safe food is of importance in protecting the health of consumers by preventing both acute and chronic food borne diseases. With globalization and a greater movement of food across borders, quality and safety have become even more critical. Consumers are showing a preference for high quality and safe food while at the same time governments are laying down stringent requirements relating to pesticide residues, contaminants, microbiological parameters, pests and disease, as well as various aspects of hygiene controls so as to protect the health and safety of their populations.

The problems of quality and safety are complex and systemic, often extending from the production environment to the end consumer involving the entire food chain. There is also a shift from end product inspection and testing to a preventative systems approach based on risk. This necessitates not only implementing standards for the end product but also standards on good practices to include Good Agricultural Practices (GAP), Good Manufacturing Practices (GMP) and Hazard Analysis and Critical Control Point (HACCP) systems at various stages of the food chain consisting of the primary production sector, the processing sector, the distribution, retail and food service (including street foods) and the consumer sector. The role of food control, which is of paramount importance to assure food safety and quality, has also shifted from end product inspection and testing with corrective actions towards food safety concerns to preventive checks on the controls put in place in operations to address food borne risk factors all across the food chain. This approach necessitates not only a change in the mindset of inspectors – from regulators to food safety professionals – but also a need for additional and varied skills for the purpose.

ASEAN countries have made remarkable progress in improving food safety standards and increasing the competitiveness of their food and agricultural products to increase food exports. These achievements need to be strengthened and expanded to further improve food safety not only to protect the health of their own domestic consumers but also to promote regional trade opportunities, earn more foreign exchange and expand tourism by providing safe food to travellers. For this purpose, regional cooperation and exchange of information at all levels must be strengthened.

In order to address the various issues connected with this important activity of food control, under the regional project “Enhancing Food Safety by Strengthening Food Inspection Systems in ASEAN Countries”, funded by the Government of Japan, four case studies have been published on different dimensions of inspection and certification. The case studies were selected so as to provide an opportunity for the most successful practices developed in one country to be used as a model for other countries in the region. They were prepared by specialists within the country with expertise in the subject matter. These were subsequently discussed in a regional workshop attended by participants from ASEAN countries and based on the feedback, edited into a uniform format. I take this opportunity to convey FAO’s appreciation and gratitude to the Government of Japan for its liberal contribution towards this project.

This case study covers inspection and certification systems for Good Manufacturing Practices (GMP) for processed foods in Indonesia. It is hoped that the results of these efforts will be of immediate relevance to the countries of the ASEAN region in particular, and to developing countries in general, especially at this present juncture of increasing complexities of worldwide food production systems, and the growing potential for new hazards associated with changes in food production and consumption patterns.

  
Hiroyuki Konuma  
Assistant Director-General and  
Regional Representative for Asia and the Pacific  
Food and Agriculture Organization of the United Nations



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## Abbreviations and acronyms

ANZFSA	Australia-New Zealand Food Safety Authority
BPS/NAS	<i>Biro Pusat Statistik</i> /National Agency for Statistics
cq	(casu quo) in that case
CFSE	Certificate of Food Safety Extension
DFI	District Food Inspector
DFIC	Directorate of Food Inspection and Certification
DG	Directorate General
FPC	food product certification
FSA	Food Stars Award
FSEW	food safety extension worker
GAP	Good Agricultural Practice(s)
GCP	Good Catering Practices
GDP	Good Distribution Practices
GFPP	Good Fresh Product Practices
GMP	Good Manufacturing Practices
GRP	Good Retail Practices
GIO	government investigation officials
HACCP	Hazard Analysis and Critical Control Point System
IEC	International Electrotechnical Commission
IFSS	Integrated Food Safety System
ISO	International Organization for Standardization
KAN/NAC	<i>Komite Akreditasi Nasional</i> /National Accreditation Committee
MD	<i>Makanan Dalam Negeri</i> (domestic food product)
ML	<i>Makanan Luar Negeri</i> (imported food product)
MoA	Ministry of Agriculture
MoF&MA	Ministry of Fisheries and Marine Affairs
MoH	Ministry of Health
MoI	Ministry of Industry
MoIA	Ministry of Internal Affairs
MoT	Ministry of Trade
MoU	memorandum of understanding
NFI	National Food Inspector
NSBI	National Standardization Body of Indonesia
NSW	National Single Window
NADFC	National Agency for Drug and Food Control
NQCLDF	National Quality Control Laboratory for Drug and Food
PIC	person in charge
P-IRT	<i>Produk Industri Rumah Tangga</i> (Number for SSI Food Product)
PPE	personal protective equipment
SIFPC	Small Industry Food Production Certificate
SNI/INS	<i>Standar Nasional Indonesia</i> /Indonesian National Standard
SOP	standard operating procedure
SSFI	small-scale food industry
SSI	small-scale industry
USFDA	United States Food and Drug Administration
WHO	World Health Organization



## Preamble

Maintaining a safe and nutritious food supply is an essential prerequisite to achieving food security, good nutrition and safeguarding the general health of populations. Food inspection plays an important role in this by making sure food meets the required standard and by preventing the adulteration of food and commercial fraud with respect to the sale of food, especially in terms of mislabelling of food products. Improvement of the national food control systems in general and food inspection in particular, including harmonization of total inspection systems, have become priorities in ASEAN countries in order to enhance the overall food safety situation of the region.

The project “Enhancing food safety by strengthening food inspection systems in ASEAN countries” (GCP/RAS/222/JPN) was funded by the Japanese government and was started in 2007. The objective of this project was to enhance food safety by strengthening food inspection systems in ASEAN countries covering domestically produced food, food import control and food export control. As part of the project a number of capacity-building activities such as regional workshops and training courses and national training courses in various aspects of food inspection were organized. In addition, case studies and guidance documents related to food inspection were prepared.

The project has contributed primarily to strengthening food inspection systems, including risk-based inspection and to facilitating recognition of and compliance with international food safety standards and guidelines with special reference to food inspection and certification. This should lead to improved food safety conditions in ASEAN countries, enhanced public health protection from food-borne diseases and facilitation of food trade by increasing competitiveness in the international market.

A series of four case studies to assess the various aspects of the food inspection systems in Indonesia, Malaysia, Thailand and Viet Nam were prepared. The needs for capacity building in food inspection systems and the factors associated with implementing successful inspection systems in the countries concerned have been identified.

The case studies have examined the existing capacity and performance of the food inspection systems according to circumstances and needs in the selected ASEAN countries where they were prepared. The assessments have covered systems of inspection and certification for selected aspects of either product-wise (processed foods, fruits/vegetables) or process-wise (food service) inspection systems for foods domestically produced, imported and exported. Because of the fact that the ASEAN countries are very different from one another, the following two approaches were used as a framework: 1) a ‘needs assessment approach’ with the purpose of identifying capacity building needs; and 2) a ‘lessons learned approach’ with the purpose of identifying successful factors in implementing food inspection system or certification schemes.

The case studies conducted were:

1. Indonesia: The inspection and certification system for GMP for processed foods.
2. Malaysia: The SALM inspection and certification scheme.
3. Thailand: The group inspection and certification system for small farmers.
4. Viet Nam: The inspection system for the food service sector, including street food, restaurants and canteens.

The following general outline was followed for each of the case studies with appropriate modifications to suit the requirements of the subject of each individual case study:

- i) Mission and strategy: mandates, functions, responsibilities of the various agencies involved in food inspection and enforcement.
- ii) Laws or regulations that provide rules and procedures for food inspection and enforcement, organizational charts of the agencies involved in food inspection and enforcement.
- iii) Operational principles and processes for food inspection and certification, consistency of inspection and certification activities by different agencies, planning, implementation and monitoring of inspection activities, compliance policies and certification.
- iv) Human resources: availability of human resources for food inspection and certification, technical and managerial skills training.
- v) Financial resources such as budget for food inspection activities.
- vi) Information resources such as systems for the collection, reporting and analysis of information related to food inspection. These may include a national database of food premises categorizing premises according to risk and including food inspection records.
- vii) External linkages and interdependencies, including linkages and cooperation between food inspectorates and other concerned stakeholders.
- viii) SWOT analysis of the food inspection system and recommendations for capacity building activities in the national food inspection systems.

The case studies were presented and discussed in the first regional workshop “Modern principles for food inspection and certification” held in Jakarta, Indonesia from 1 to 3 April 2008 in order to identify capacity building needs and priorities for follow-up assistance such as training courses and guidance in food inspection. Some of the case studies were revised to bring them up-to-date taking into account the latest developments in countries of the region. The case studies could be used by other ASEAN countries with appropriate modifications for setting up similar food safety inspection and certification systems or as training material.

## **Executive summary**

The food control mandate in Indonesia along the food chain from farm to table has been distributed among various related institutions as per the Government Regulation Number 28/2004 on food safety, quality and nutrition. Specifically, the National Agency for Drug and Food Control (NADFC) is responsible for ensuring that food processing establishments, in particular medium- and large-scale industries, carry out their processing practices according to the requirements of Good Manufacturing Practices (GMP). In the case of small-scale food industries (SSFI), provincial and district governments are given the responsibility to control product quality and safety. The inspection and certification system to monitor the application of GMP in these two categories has been prepared by NADFC. Until now, the results of inspections of GMP application are used by NADFC to issue a product registration number. Although GMP certification for industries in Indonesia is, in general, still voluntary, it is compulsory for food industries to implement these requirements. Some of the unique features of the integrated food safety system in Indonesia include: various technical guidelines; the need for small industry food production certification; the deployment of food safety extension workers; and the Food Stars Award for food safety.

The inspection and certification systems for the application of GMP in food processing establishments need to be supported by better infrastructure, which includes appropriate inspection tools, competent inspection officials, and strong testing laboratory capacity. This Indonesian case study identified some internal factors (strengths and weaknesses) and external factors (opportunities and threats) that influence the food inspection and certification system in Indonesia and formulated recommendations for the improvement of the system, including the capacity building needed.

# Case study 1: Inspection and certification systems for Good Manufacturing Practices (GMP) for processed foods in Indonesia

## 1. Introduction

Food industries in Indonesia may be classified into three categories, large-, medium- and small-scale food industries (SSFI). The large-scale food industries are those that have 100 or more employees, the medium-scale food industries have 20 to 99 employees whereas the SSFIs include food businesses that operate in residences (home food industries) and use manual or semi-automatic food processing equipment. The National Agency for Statistics/*Bino Pusat Statistiki* (BPS 2006) reported there were more than one million food industries in Indonesia, which included large-, medium- and small-scale industries. There were 4 723 medium- and large-scale food industries or about 23 percent from the industry total in Indonesia, which contribute added value of 58 954 billion rupiah (1 Indonesian rupiah = 0.000118 US dollars or 1 USD = 8 454.55522 IDR) equal to 15 percent of industry added value total in Indonesia. About one million food industries in Indonesia are categorized as small-scale food industries (SSFI). Food products of SSFI have been distributed for many years, not only locally but also nationally. It is obvious that this business activity contributes to the development of the country's economic strength. Some positive aspects of small-scale Industry (SSI) food products are that they are able to absorb and utilize local resources, are labour intensive, and some products that have been available for generations have made the location from which they originate famous.

Food safety is a major concern not only for consumers and food producers but for governments as well. Therefore, the Government of Indonesia has given a specific mandate to the National Agency for Drug and Food Control (NADFC) to control food safety and reduce the risk of hazardous substances. According to the Government Regulation (GR) No. 28/2004 on Food Safety, Quality, and Nutrition, the major part of the responsibility in food safety lies with the NADFC, whereas the authority for food safety control along the entire food chain from farm to table is shared by several ministries and district governments.

The current food safety control measures adopted by NADFC cover the following activities: (i) registration of processed foods, including food additives, from medium- and large-scale industries or imported products based on food safety assessment (pre-market control); (ii) review and development of food safety standards; (iii) inspection of food products, food processing establishments and food distributors/retailers (post-market control); (iv) food safety surveillance and extension service; and (v) control of products and hazardous substances, in particular to reduce the risk of hazardous substances.

More than 36 000 processed foods are registered with NADFC and nearly 20 percent of these are imported products. Whereas these products went through food safety assessment prior to marketing, unregistered products that are from small-scale and household food processing industries mainly enter the food market without any food safety assessment. Post-market control and inspection of food products, food processing industries and food distributors/retailers as well as of ready-to-eat foods, is done mainly by the 30 NADFC regional offices, accompanied by the district food inspectors for SSFI. The number of food products sampled and tested routinely

increased significantly from 5 300 in 2001 to more than 23 000 in 2006, whereas the proportion of tested products that failed decreased from 26 percent in 2001 to about 15 percent in 2006 (NADFC, 2007a).

Food control activities are necessary to maintain the safety of the food supply. It is one of the core public health functions, that has become more important with recent events in the region, particularly the emergence of significant threats to food safety. The dominant approach to food control is through the assessment and control of the risks of food-borne diseases and other food safety issues. Although the main interest in food control relates to the domestic population, by virtue of increasing international travel and trade, food safety is increasingly a global issue, e.g. there is now a risk that contaminated food from one country will cause significant health effects in other parts of the world. Thus, improved food safety in line with international standards is important for protecting the health of the domestic population (by preventing the import of foods containing contaminants) as well as in facilitating the participation of the Indonesian food industry in regional and global trade.

## **2. Objectives, scope and methodology of the case study**

### **2.1 Objectives**

The objectives of the case study are to provide a situational analysis of the inspection and certification systems for GMP for processed foods in Indonesia and to identify success factors and lessons learned that can be used for improvement and also for use by other ASEAN countries in setting up similar inspection and certification systems for GMP for processed foods.

### **2.2 Scope of study**

To meet the requirements of this case study, the scope has been defined to cover:

- i) the food inspection system, concept, overview and legal basis for GMP for processed foods in large-, medium- and small-scale food industries in Indonesia;
- ii) the infrastructure available, including the institutional arrangements and organizational set-up to implement the scheme;
- iii) the internal and external factors that influence the scheme;
- iv) recommendations to enhance capacity building; and
- v) the features unique to Indonesia, namely the Integrated Food Safety System including the Food Stars Award.

The result of the study is intended to provide guidance for the food control authorities in Indonesia and other ASEAN countries in strengthening food safety programmes, especially to conduct food inspection and certification.

### **2.3 Methodology**

The review of the national food safety inspection and certification was done by interviewing key persons and by collecting and analysing relevant documentation, especially that available from the National Agency for Drug and Food Control (NADFC). Documents related to food safety predominated.



### **3. Inspection and certification systems for Good Manufacturing Practices (GMP) in Indonesia**

#### **3.1 Integrated Food Safety System (IFSS) in Indonesia**

There are three major constraints faced by NADFC in controlling food safety in the whole country. These are: (1) the large diversity of foods to be controlled – foods available for consumers in the market may be sold in the form of fresh products or manufactured foods, and ready to eat foods such as foods sold in restaurants or provided by catering industries; (2) the large diversity of food producers and traders – the business scale of food producers range from small-scale, medium-scale to large-scale food industries and foods may be sold by small-scale traders in traditional markets or sold by medium- and large-scale traders in self-service shopping centres; and (3) the wide geographical coverage of food control activities.

These constraints give NADFC a central role in control, but this cannot be carried out successfully unless the control capacity is strengthened and the inspection activities are supported by key stakeholders, including related ministries and district governments (NADFC 2003). Therefore, the Government of Indonesia initiated the Integrated Food Safety System (IFSS) in 2003 as a new way of working to improve food safety in Indonesia and formally launched it in 2004. The system provides a logical framework to strengthen the national food safety programme. It combines skills and experience of government, industry, academia, and consumers to synergistically address the emerging challenges influencing food safety.

The IFSS was developed based on FAO/WHO “Guidelines for strengthening national food control systems” which ensures the safety of foods from farm to table. Indonesian key stakeholders and their food safety responsibilities were mapped against the FAO/WHO model. Three functional stakeholder groups (networks), namely the Food Intelligence Network based on risk assessment, the Food Control Network based on risk management and the Food Promotion Network based on risk communication were identified and organized to reflect risk analysis principles. The networks enable communication and coordination between stakeholders, provide greater knowledge sharing and build food safety awareness at local, regional and national levels.

The Food Control Network is a joint partnership among professional people from a range of agencies such as those dealing with administration (policy, food legislation and coordination of services), inspection and analysis within the food control system. The Network coordinates activities concerning the review of food safety legislation, the professional development for food inspectors, and the development of analytical methods to support food legislation.

The introduction of IFSS facilitates the enforcement of food-related laws and regulations by a range of government institutions that have responsibility for food control. Therefore, the Government of Indonesia implements an integrated intersectoral approach to food safety control in Indonesia to build strong cooperation between the various ministries (Ministry of Agriculture, Ministry of Health, Ministry of Industry, Ministry of Trade, Ministry of Internal Affairs, Ministry of Fisheries and Marine Affairs, NADFC), local governments, and the private sector including producers, distributors, retailers, and caterers.



### **3.2 GMP for processed foods**

Food safety and quality for public consumption is assured by implementation of comprehensive food control activities. There are two methods of food control: (1) preventive control is the first priority and aims to improve food producers' common practices in providing safe foods by raising their awareness; and (2) law enforcement is implemented when violation of the law and government regulations occurs.

Broadly speaking, efforts to ensure food safety are usually formulated as operating procedures and good practices along the food chain. The common practices are GMP – a combination of manufacturing and quality control procedures aimed at ensuring that products are consistently manufactured to the required specifications. They are the basis of the production and preparation of safe food. The practices were developed on the basis of the United States Food and Drug Administration's (USFDA) regulations proposed 30 years ago. USFDA considered these the minimum requirement in processed food manufacturing. Processed foods are foods or beverages that are processed in a certain manner or method with or without food additives.

GMP describes the methods, equipment, facilities and control required for production. Some requirements of GMP are: (1) facilities and equipment to be properly designed, maintained and cleaned; (2) standard operating procedures (SOPs) to be written and approved; (3) an independent quality unit such as a quality assurance unit; and (4) well-trained personnel and management. In detail, the practices also cover aspects of building and facilities, production and processing, equipment, maximum allowance of contamination and follow-up action, water quality, limits for environmental substances, and documentation of recall procedures.

The safety of processed foods for public consumption is the responsibility of NADFC. An integrated inspection and certification system for GMP implementation by food industries has been developed to ensure food product safety. The differences of character and properties between medium-, large- and small-scale processed foods make the policy-maker establish specific regulations and policies on inspection and certification for each kind of food industry and its products.

### **3.3 Overview of food inspection system in Indonesia**

The food inspection system is a series of activities that consist of the inspection of production and distribution facilities, sampling, analysis and follow-up actions according to the regulations. The result of the inspection is useful to determine whether the industry complies with GMP in the food processing unit and to provide input, direction and guidance for the plant management to make corrections and improve the conditions with respect to rules and regulations, including those related to conditions for product registration.

The objective of the inspection system is to evaluate compliance with the good practices requirement in food production, storage, processing facility and their control. Inspection also ensures that the industry complies with food quality and safety regulations in order to reduce the risk to consumers of consuming substandard food products, products which have undergone quality change, or contaminated products. Therefore, it will minimize consumers' exposure to harmful food products or low quality products. Food inspection is directed towards the following objectives:

- i) to evaluate the system, procedures and controls applied to food manufacturing with the purpose of finding the weaknesses and the loopholes in the manufacturing process;
- ii) to detect the presence of errors, either real or potential, in the food manufacturing process to ensure that the manufacturing process is implemented on the basis of GMP; and
- iii) to report the findings in an inspection report that is used to determine the follow up needed so that the manufacturer can implement corrective actions to improve its performance, especially in terms of increasing product quality.

The classification of food inspection in Indonesia is based on its function and targets to be achieved as described in the following paragraphs.

### **3.3.1 Routine inspection**

Routine inspection implies complete inspection of all aspects of GMP and registration conditions. The inspection covers the inspection of distribution facilities to measure compliance with the regulatory framework, labelling, quality and safety of food products, including their shelf life. The assessment of food products during the inspection is carried out with reference to the compulsory Indonesian National Standards (SNI/INS). It considers the history of food safety, high risk foods, foods that have high consumption, and product distribution. Food sampling and laboratory analysis are also part of routine inspection. The evaluation is made based on findings during inspection such as those not fully meeting the GMP requirements. Therefore they require correction or improvement action by the respective manufacturers. The targets of routine inspection are:

- a. new manufacturing plant that has just been built;
- b. plant whose owner is applying for a production license or product certification (or permission renewal);
- c. plant in which it is intended to add a new production line, either for the existing product or a new product, to significantly modify a product processing method, and/or to carry out changes in the main personnel, buildings and facilities, equipment, etc.;
- d. plant with an unsatisfactory record of GMP implementation; and
- e. plant which has not been inspected for three to five years.

A food manufacturing plant is considered to be in a controlled state if it meets conditions as set up under GMP as well as all registration conditions in the entire system of the manufacture. A manufacturing plant in a controlled state has a high level of reliability to produce products that meet the required quality, identities and purity. A manufacturing plant is considered to be in an uncontrolled state if any one part of its system does not meet the requirements of GMP. Such a plant has doubtful reliability to produce products that comply with requirements of quality, identities and purity as a result of that inappropriate system.

### **3.3.2 Concise inspection**

Concise inspection is dedicated to plants that have implemented satisfactory GMP consistently. The inspection is focused on certain aspects of GMP, which were selected as performance indicators plus any changes that have taken place since the previous inspection. Any evidence of breach of GMP conditions in this concise inspection indicates the need for a more comprehensive inspection or a complete inspection.

### **3.3.3 Follow-up inspection**

Follow-up inspection is needed to monitor an improvement or a corrective action by a manufacturer, and it is carried out approximately six weeks to six months after initial inspection, depending on the nature of the findings and the improvement work carried out. This inspection is focused on the relevant GMP which has not been implemented satisfactorily.

### **3.3.4 Special inspection**

Special cases in relation to non-compliance in the food chain could occur anytime and often are unpredictable. The emerging special cases could be the result of routine inspection or analysis, consumer complaints, mass media news releases, detention of particular food product in another country, food-borne disease outbreak, etc. The cases include inspection and/or examination results of facilities and/or food products that deviate from the regulations. Since human health is affected, they need immediate handling and reporting.

Occasionally, direct special inspection of a plant is needed if there is a claim made against a food product or an incidence of a food product returned because of a problem of product quality. This inspection is focused on one food product, one group of food product or a specific processing step such as mixing, sterilization, or labelling on the product package. The special inspection is also required in the case of:

- a. inspection of a product manufacturing process as a prerequisite for achieving export certificate or marketing license for the product; and
- b. intention to achieve – or to investigate – special information on a process or a special activity and to suggest appropriate product regulation.

### **3.3.5 Ways of conducting inspections**

NADFC has a responsibility to ensure compliance of the GMP for processed foods through the inspection system, especially in the case of medium-large industries. The inspection is conducted in two ways:

#### *a. Pre-market evaluation of food products*

This is implemented before distribution of the food product to the market when the food producer intends to obtain a product registration number or necessary certification. NADFC should ensure that the food was produced by an eligible manufacturer. The inspector (auditor) inspects (audits) all the requirements of GMP provisions. Only food that is produced under GMP compliance is permitted to be distributed to the market.

#### *b. Post-market vigilance*

It is implemented after distribution of food products to the market. It includes inspection of production and distribution facilities (either routine or special inspections), product sampling and laboratory testing, investigation, and law enforcement.

### **3.3.6 Guidelines for inspection**

Complete guidance documents should be available for implementation of food inspection and certification systems. There are some operational guidelines that have been developed for inspection of processed foods in Indonesia (table 1).

**Table 1. List of guidelines for food inspection of processed foods**

No.	Title
1	Technical guidelines for GMP
2	Technical guidelines for GDP
3	Guidelines for follow-up of food inspection
4	Technical guidelines for food recall
5	Technical guidelines for routine food sampling
6	Technical guidelines for school children's food sampling
7	Guidelines for GMP inspection of several food products (19 products)

Ideally, guidelines for GMP inspection and certification must be available for every product in each food category. In Indonesia, there are 16 food categories according to the NADFC Decree No. HK 00.05.52.4040/2006 on Food Category. The Food Category is useful for controlling food importation and exportation vis à vis Indonesian territories; establishment of provisions on food additives, contaminants, or food quality requirements based on respective food categories; guidelines of food quality and safety assessment, extension, inspection and certification; and guidelines for industries in food production and distribution. A list of guidelines available for GMP based on food category is given in table 2. An example of guidelines for GMP inspection on a specific food product (pasteurized milk) is given in annex 1.

**Table 2. List of guidelines for GMP based on food category**

No.	Food category	Guidelines availability
1	Dairy products and analogues	Guideline for GMP inspection of dairy products <sup>a</sup>
2	Fats, oils and fat emulsion	
3	Edible ices, including sherbet and sorbet	
4	Fruits and vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweed, and nuts and seeds	
5	Confectionery	Guideline for GMP inspection of confectionery products <sup>a</sup>
6	Cereals and cereal products, derived from cereal grains, from roots and tubers, pulses and legumes, excluding bakery products of food category 07.0	Guideline for GMP inspection of instant noodles <sup>a</sup> Guideline for GMP inspection of bakery products <sup>b</sup> Guideline for GMP Inspection of fresh noodles <sup>b</sup> Guideline for GMP inspection of crackers <sup>b</sup>
7	Bakery products	Guideline for GMP inspection of bakery products and biscuits <sup>a</sup>
8	Meat and meat products, including poultry and game	Guideline for GMP inspection of meat and meat product <sup>a</sup> Guideline for GMP inspection of meat balls <sup>b</sup>
9	Fish and fish products, including molluscs, crustaceans, echinoderms, amphibians, reptiles	
10	Eggs and egg products	
11	Sweeteners, including honey	
12	Salt, spices, soup, sauces, salads, protein products	Guideline for GMP inspection of packaged seasoning <sup>a</sup> Guideline for GMP inspection of bottled sauces <sup>a</sup> Guideline for GMP inspection of sauces <sup>b</sup>

**Table 2. (continued)**

No.	Food category	Guidelines availability
13	Foodstuffs intended for particular nutritional uses	Guideline for GMP inspection of baby food <sup>a</sup>
14	Beverages, excluding dairy products	Guideline for GMP inspection of syrup <sup>a</sup> Guideline for GMP inspection of soft drinks and shelf drinking water <sup>a</sup> Guideline for GMP inspection of soft drinks <sup>b</sup>
15	Ready to eat savouries	Guideline for GMP inspection of food extrusion products <sup>a</sup>
16	Food composite (excluded no. 1-15)	
		Guideline for GMP inspection of aseptic packaging food <sup>a,*</sup>
		Guideline for low acid canned food industry <sup>a,*</sup>

<sup>a</sup> Prepared by DG of Drug and Food Control, Ministry of Health for inspection of medium-large food industries. Before NADFC became an autonomous agency in 2000 that reports directly to the President, it was previously known as the Directorate General for Drug and Food Control (DG-DFC) under the Ministry of Health.

<sup>b</sup> Prepared by MoI for inspection of small-scale food industries.

\* Category of the product depends on the contents of the package.

Inspection on GMP for the small-scale food industry (SSFI), as well as certification of its production, is the district government's responsibility. The links between the various parties in the SSFI inspection system are shown in annex 2. The control of SSFI lies with the regional government authority, whereas the supervision of the regional government in food control is the responsibility of NADFC. A number of formal agreements (MoUs) on inspection and production certification of SSFI have been signed between provincial and district governments with NADFC. The agreements stipulate that the local government will allocate some budget to cover all inspection and certification activities for products of SSFI.

Inspection should be carried out when the manufacturing facilities are in operation so that the inspector can obtain more realistic findings and best results. Inspection records should be linked to the requirements of GMP or other official requirements, including those set by the respective company itself. However, the inspection should be regarded as an opportunity to suggest and to motivate the manufacturer to fulfil GMP requirements and improve the drawbacks that have been identified. The assessment criteria of food inspection are classified in table 3.

**Table 3. Assessment quality criteria in food inspection system**

Grade	Quality	Description
3	Very good	Perfect implementation or more than required.
2	Satisfactory	Minimum requirements are met by the system.
1	Not satisfactory	System does not meet minimum requirements and it is not implemented accordingly.
0	Bad	System is not implemented as required or wrongly implemented so as potentially to have a bad impact on product quality or breaches of GMP requirements.
N/A	Not available	System is not available in the field or the system has not been inspected.

After the inspection of production facilities and infrastructure related to production/distribution lines and/or food safety assessment, any breaches or deviations identified in accordance with the existing regulations should be followed up. Follow-up actions can be in the form of either administrative or criminal sanctions (annex 3). The administrative sanctions can be local supervision, the issue of a warning, the recall of food products from the market, and the cancellation of the registration number, up to a temporary halt in production. Criminal sanctions can be in the form of criminal punishment or a fine on the basis of a court decision, after the matter has been investigated by a general investigator (police) or by government investigation officials (GIO) of NADFC.

### **3.4 Overview of food certification system in Indonesia**

Food quality certification refers to a series of activities for issuing certificates for food that has met the established quality requirements. NADFC provides food certification for medium- and large-scale food industries. These include obligatory certification such as for food registration [of both domestic (MD) and imported (ML) products] and for food importation. Besides the obligatory certification, voluntary certification is recommended for food products for food exportation, for implementing hygiene-sanitation measures in domestic food production, and for implementing GMP and Hazard Analysis and Critical Control Point (HACCP) system in the food industry. Industry can obtain a HACCP certificate from the HACCP certification bodies such as Bogor Agricultural University and from other private certification bodies.

#### **3.4.1 Certification for medium- and large-scale food industries**

Mandatory certification for processed food industries in Indonesia is explained in the Minister of Health Decree No. 382/MENKES/PER/VI/1989 on Food Registration and in the technical requirements of the registration process based on NADFC's Decree No. HK 00.05.1.2569 on Criteria and Methods of Food Registration. Actually, GMP certification for the food industry in Indonesia is voluntary, but fulfillment of GMP requirement for industry is compulsory. However, there are some food products for which GMP, importation, or exportation (depending on the request of importing country) certification is obligatory. Food products that have to compulsorily meet the Indonesian National Standard (INS/SNI) must obtain GMP certification (see annex 4). At present, obligatory certificates have been issued for 38 industries.

Any food imported into Indonesian territories for distribution must comply with the provisions of the prevailing legislation in the fields of food safety, quality and nutrition as well as the provisions of any effective legislation. Therefore, the food must be accompanied by documents certifying the safety, quality, and/or nutritional value by the authorized agency in the country of origin. The documents include health certificate/free sale and certificate of analysis (valid for maximum period of six months). There are also certain certificates for some specific food products that should be available, such as certificate of 3-MCPD (3-monochloro 1, 2-propanediol) for hydrolyzed vegetable protein (HVP) and isolated soy protein; a phytosanitary certificate for agriculture products; a freedom from radiation certificate for milk products from Europe; certificate of non genetically modified organism for soybean, corn, tomatoes, potatoes, and their products; certificate of origin for meat products; SNI certificate; and halal certificate. The procedural scheme to obtain a recommended certificate for food importation is provided in annex 5.

Competition in the global food trade is severe. Therefore, although certification of GMP and HACCP is voluntary, food producers take very seriously their products' compliance with the



food safety provisions. They have realized that food products distributed both in domestic or global markets, must comply with the requirements of product safety, nutrition, and quality. Environment-friendly food manufacturing also has added value. Hence, NADFC provides producers with a service to obtain the recommended certificates for food exportation and hygiene-sanitation measures. The recommended exportation certificate includes a recommendation/letter of food analysis and quality assurance from NADFC as the authorized body. The complete procedure to obtain recommendation of food exportation is given in annex 6. NADFC also provides a service for certification related to hygiene-sanitation measures to improve implementation of safety and quality assurance in domestic food production. The detailed procedure is given in annex 7.

### **3.4.2 Certification for small-scale food industry**

The small-scale food industry (SSFI) is the largest food provider in Indonesia. However, its capacity to produce safe and quality food is still limited. Many of the small-scale food industries do not use sophisticated technology in the food product manufacturing process. Therefore, the Government of Indonesia has taken steps to improve the SSFI's ability to produce safe and quality food for the population. NADFC developed a national food safety programme for SSFI in 2003. This food safety programme includes establishment of regulations, training, inspection, and certification. The regional government is responsible for SSFI control and supervision and for the certification. The certification procedures for SSFI are explained in NADFC Decree No. HK 00.05.5.1640/2003 on Procedure Guideline for Production Certification for SSFI. The system of working relationships for Certification for Food Production in SSFI is described in annex 8. The Small Industry Food Production Certificate (SIFPC) is given for only certain products and excludes:

- meat, fish, poultry and their products which require processing and/or frozen storage
- milk and milk products
- canned foods
- baby foods
- alcoholic beverages
- shelf drinking water
- other foods required to meet Indonesian National Standards (INS/SNI)
- other foods determined by NADFC.

A SIFPC will only be issued for SSFI once it has completed certain requirements. The SSFI submits an application to obtain SIFPC to the District Health Office. Then the owner and/or the person in charge (PIC) of SSFI should join a two-day food safety training programme with regard to food production, conducted by the Health Office. The trainers for the training are officers who have Food Safety Extension Worker (FSEW) certificates from NADFC cq Regional Offices of NADFC. The standard curriculum of the training is basic knowledge of food safety for SSFI, such as good food production; possible hazards in food; hygiene and sanitation for SSFI; food regulations; storage and packaging of SSI food products; business development of SSFI including business ethics. The training curriculum was developed by NADFC and is continuously reviewed and improved in line with SSFI's needs. Some supplementary topics of the existing training materials that have been developed include: packaging for SSI food products; labelling of SSI food products; estimation of shelf life of SSI food products. The trained participants who pass the training (with minimum grade of 60) will be awarded a Certificate of Food Safety Extension (CFSE). An SSFI must have at least one person who holds the CFSE.

The next step after the training is completed is inspection of the SSFI production facility by an official who holds a District Food Inspector (DFI) Certificate, issued by NADFC cq Regional Offices of NADFC. The facility inspection is conducted in accordance with NADFC Decree No. HK 00.05.5.1641 dated 30 April 2003 on Guideline of Production Facility Inspection in SSFI. If the production facility has met the standard, namely with “satisfactory” marks, then the District Health Office will issue the SIFPC for the respective SSFI. One certificate is issued for one kind of food product of SSFI. Each SSFI food product has a registration number (No. P-IRT) which must be written on the product label. The SSFI that has obtained the SIFPC/P-IRT number will be monitored by the District Health Office at least once a year. However, the SIFPC can be cancelled by the Health Office under the following circumstances:

1. the owner or the PIC of SSFI breaks the food regulation;
2. the name and address of the owner or the PIC of SSFI do not match with that written in the SIFPC – any change of ownership or the PIC of SSFI should be reported to the Health Office; and
3. the food product is proven to be hazardous or harmful to human health.

### **3.5 Food Stars Award for food safety**

The Food Stars Award (FSA) for food safety is one of the main programmes in IFSS. This is a voluntary awards system to encourage food businesses to train staff and work towards implementing HACCP-based food safety programmes. NADFC developed the programme in cooperation with related institutions of the government and academia (Ministry of Health, Ministry of Industry, Ministry of Agriculture, Bogor Agricultural University) and a consultant from the Government of Australia.

The star system introduces three levels of award that provide a step-by-step approach to food safety from the farm to the consumer. The one star award provides basic food safety training to everyone in the business, the two star award is aligned with Codex principles of food hygiene and helps businesses develop good food safety practices, and the three star award introduces HACCP principles. Receipt of the three star award by a food company means that it is well-placed to implement an internationally accredited quality system.

Food stars provide accessible, appropriate and affordable food safety education to all sectors of the food supply. FSA materials have been developed for the processed food, food service and fruit and vegetables sectors. Standards must be maintained or the award is rescinded. The food star system enables industry to be recognized for its good practices – and encourages them to go beyond the minimum standards required by legislation. The implementation of the food safety star award scheme is a motivation for businesses to comply with hygiene-sanitation measures, GMP and HACCP. FSA auditors monitor businesses to make sure the required standards are complied with. The number of FSA auditors in NADFC and its regional offices are as follows: 645 food auditors for one FSA, 33 food auditors for two FSA and 12 food auditors for three FSA. The Food Stars Award has been implemented in 29 provinces. In 2007, the one star awards were awarded to 584 food businesses in 27 provinces, whereas the two and three star awards were awarded to 31 food businesses in ten provinces and seven businesses in four provinces, respectively (NADFC 2007 b).



#### **4. Legislative basis and its enforcement for inspection and certification systems for GMP for processed foods**

The legislation on food control systems is important to ensure the comprehensive implementation of the inspection and certification systems. Therefore, the Indonesian Government has established relevant Acts, Government Regulations and Ministerial Decrees. Implementation of the regulations will ensure safe, quality, and nutritious foods for all. The body of legislation which has been established in the area of food is given in annex 9 and includes the Law of the Republic of Indonesia No. 23/1992 concerning health, Article 21. This mentions that food safety efforts are necessary to protect the public from food that does not meet the required standard and/or health requirement. The Law of the Republic of Indonesia No. 7/1996 concerning food is a specific law regulating food matters in Indonesia. The law consists of 65 articles that cover food safety, food quality and nutrition, food labelling and advertising, food export and import, legal responsibility of the food industry, national resilience in food, participation of the community, monitoring and enforcement, and criminal provisions.

The Government of Indonesia considers it important to establish the Law concerning food because food is a basic human need and fulfilling that need is a fundamental right of all Indonesian citizens. Consumption of good food plays an essential role in the growth, maintenance, and improvement of people's health. The Law should ensure sufficient availability of safe, nutritious and good quality food as a main condition that must be met to provide protection of the health and welfare of the people, ensure a responsible food trading system and can play a larger role in increasing the prosperity of the nation.

The objectives can be reached by implementation of mandatory requirements concerning food production, distribution and consumption that are regulated by the Food Act. For example, Chapter II of the Food Law regulates food safety and describes good practices along the food chain and includes food sanitation, food additives, food irradiation, food packaging.

Government Regulation No. 28/2004 on Food Safety, Quality, and Nutrition was established to implement the provisions of Law No. 7/1996 on Food. The Regulation has 54 articles and an explanation on food safety, food quality and nutrition, food export and import, control and supervision, and community participation. Detailed responsibility of related institutions in food safety, quality and nutrition in Indonesia based on Regulation No. 28 is given in annex 10.

According to Article 2 of the regulation, any person who is responsible for administering the activities along the food chain shall meet the sanitation requirements in compliance with the prevailing legislation. The Minister of Health shall further regulate the sanitation requirements that include facilities and/or infrastructure, activity implementation, and personnel.

All sectors have the responsibility to develop or implement good practice guidelines to ensure food safety from farm to table. Food safety requirements, standards and other provisions should be met in order to prevent food from possible hazards as a result of biological and chemical contamination as well as other objects that may disturb, impair, and endanger human health. According to Government Regulation No. 28/2008 Chapter II Article 3, sanitation requirements throughout the food chain shall be met by applying good practice guidelines that include (a) Good Agricultural Practices (GAP), (b) Good Fresh Product Practices (GFPP), (c) Good Manufacturing Practices (GMP), (d) Good Distribution Practices (GDP), (e) Good Retail Practices (GRP), (f) good ready to serve food production practices/Good Catering Practices

(GCP). The food industry is responsible for the quality and the safety of its products. Production may be monitored through, for example, certification programmes, process control schemes or programmes based on Hazard Analysis and Critical Control Point (HACCP) system.

In the context of this case study, the discussion of the regulations will be focused on GMP matters. Good food manufacturing practices are specially regulated in Article 6 of Government Regulation No. 28/2004. Guidelines for good processed food manufacturing practices shall be the production practices that comply with food safety aspects such as preventing hazards and contamination; preventing pathogenic microorganisms and reducing the number of microorganisms; and controlling the process, for example by selecting the raw materials, using food additives, following appropriate processing, packaging, storage, and transportation practices. GMP shall be set forth by the Minister of Industry or the Minister of Fisheries and Marine Affairs in accordance with their respective duties and authority. GMP for certain processed foods shall be set forth by the Head of NADFC. Certain processed foods, namely those designated for certain high risk groups such as babies, pregnant or lactating mothers, sufferers of certain diseases and similar food have potentially great impacts on their health, thus certain and more specific methods need to be undertaken in the production process.

Actually, general GMPs have been initiated in Indonesia in the Regulations of the Minister of Health No. 329/MENKES/PER/XII/76 on Food Production and Distribution of Food. Then, more specific GMP were formally made mandatory for the food industry based on the Regulations of the Minister of Health No. 23/MENKES/SK/1978 on GMP. The Regulations covered regulation of 14 aspects in food production that were intended for medium- and large-scale food industries. The regulations have been established since 1978, however there have been only 19 guidelines for certain food products. Ideally, GMP guidelines should be established for every specific food product according to its food category (table 2).

Any processed foods, of medium- to large-scale food industries' products, either produced domestically or imported into Indonesian territories should meet all safety, quality and nutrition requirements. Hence, they should obtain a registration approval letter prior to distribution. The food that requires the letter shall be determined by the Head of NADFC through food safety, quality and nutrition evaluation in accordance with the criteria and procedures (Article 42 of GR No. 28/2004).

The food products of SSFI should also possess a small industry food production certificate (SIFPC). The certificate is issued by the District (Regency/Municipality) Government. The guideline for issuing the certificate is set forth by the Head of NADFC (Article 43 of GR No. 28/2004). The government understands that SSFI might have difficulties in complying with the normal GMP because their capacity is still limited. Therefore, the Government of Indonesia has established some special provisions for the small-scale food industries. These are the GMP Guidelines for SSFI (Anonymous 2003a), Guideline of Production Certification Procedure for SSFI (Anonymous 2003b), and Guideline for Production Facility Inspection in SSFI (Anonymous, 2003c).

When the processed food has been distributed in the market, NADFC is authorized to control the food by taking samples of food and testing them (Article 45 of GR No. 28/2004). If there are any allegations of violating the law in the field of processed food, NADFC is authorized to conduct an investigation.

The President of the Republic of Indonesia's Instruction of No. 2/1991 mandates some ministers to improve guidance and control the production and distribution of processed foods. They are the Coordinating Minister for Public Welfare, the Minister of Internal Affairs, the Minister of Health, the Minister of Industry, the Minister of Agriculture, the Minister of Trade, the Minister of Religion, and the provincial governors. Indonesia is an archipelago comprising over 17 000 islands divided into a number of provinces. Thus food control in Indonesia needs to be implemented in local areas that are under the responsibility of a provincial governor and local governments with supervision and guidance from the central government.

## **5. Organization and structure of the inspection and certification systems for GMP for processed foods**

Advances in technology have brought fast and significant changes to the food industry. The consumption of food products tends to increase as incomes increase and reflects general consumption behaviour. But people do not always have the ability to select good products or to use the products in a rational and safe way. Aggressive product promotion forces consumers to become less rational in their consumption behaviour. An effective and efficient food control system is necessary to protect consumers from being deceived and to deal with potential health issues. Therefore, the Government of Indonesia established the National Agency of Drug and Food Control (NADFC) to implement an effective and efficient drug and food control system capable of detecting, preventing and controlling products that may pose a threat to public health.

An integrated food inspection system should be developed so the responsibility can be shared between NADFC (including its regional offices) and the provincial/district governments. However, NADFC is not the only responsible institution for food control in Indonesia. There are also some ministries that have responsibility to control food from farm to table. The responsibilities of each institution in the food control system are presented in annex 11.

The responsibility of NADFC in controlling food safety is reflected in its organizational structure, which shows the presence of one deputy chairman dealing with food safety and hazardous substance control. The vision is that it should be a credible and accountable agency for controlling food safety and hazardous substances for the protection of public health. NADFC's goals are to ensure that foods distributed to the public are fit and safe for human consumption and to carry out an effective and efficient control in ensuring that the public is protected from the risks associated with the use of hazardous substances in foods. The organization structure of the Deputy for Food Safety and Hazardous Substance Control (also known as Deputy 3) is shown in annex 12a. Food control responsibility of NADFC is supported by 30 regional offices throughout Indonesia.

Inspection and certification are core activities of food control. Therefore, there is a Directorate for Food Inspection and Certification under the organizational structure of Deputy 3 (annex 12b). The main duties of the Directorate are preparation of policies, development of guidelines, standards, criteria, and procedures, and implementation, control, technical guidance, and evaluation of food inspection and certification. The Sub Directorate for Food Certification is responsible for the food certification system, not only certification of production facilities, but also of the products. The food industry can receive certification only at the NADFC office. The Sub Directorate for Inspection of Food Production and Distribution is responsible for implementation of the inspection system both for food production and food distribution. Food production must comply with GMP and food distribution must comply with GDP.

The inspection activities are conducted by the National Food Inspectors (NFIs) in NADFC and in its regional offices. One of the main activities of the NFI is to take care of the registered processed foods. The NFI in Indonesia are coordinated by the Sub Directorate of Inspection of Food Production and Distribution. The results of inspection activities in regional offices' catchments area must be reported to the Directorate for Food Inspection and Certification. The Directorate is responsible for collecting the food inspection results and regularly monitoring the food inspector's competency and capacity.

Besides the NFI of NADFC, there are also the District Food Inspectors (DFIs) under the authority of the local government. The Directorate of Food Safety Surveillance and Extension-NADFC developed the National Programme of Food Safety for SSFI in order to improve the small-scale and ready-to-eat food industries' awareness of producing safe food and protecting the public from unsafe food products. The inspection of the products is under the authority of the regional governments. Therefore, the regional governments are responsible for providing the local/district food inspectors.

## **6. Availability of human resources and their capacities to carry out inspection services for GMP for processed foods**

Competent human resources in the food inspection services have an important role to play in protecting people from harmful food products. As authority for food control in Indonesia lies with NADFC, the agency is obliged to develop and strengthen its capacity to carry out inspection activities. However, the NADFC cannot work alone as some food control activities, especially for food products of SSFI, are the regional governments' responsibility. Therefore, food control in Indonesia is implemented through coordination among NADFC, its regional offices and regional governments.

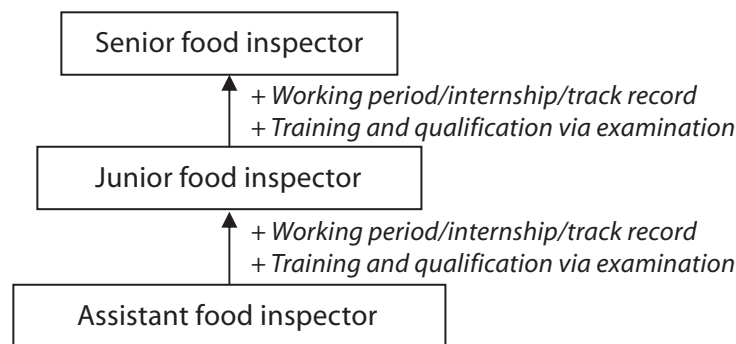
A food inspector is an officer who is legally and formally authorized to conduct food inspection along the food chain. Food inspectors have various duties mandated by government regulations. They must be ready whenever duty calls, not only routine duties but also incidental duties as well. Therefore, ideally a food inspector must be eligible to do the tasks, such as be in good physical and psychological conditions; have adequate knowledge, skill and competency for conducting inspection activities; and be equipped with needed inspection equipment.

The food inspector should inspect food production premises including storage facilities, restaurants, food services, retail facilities and markets to assess whether they have complied with national sanitation and hygiene requirements and GMP principles. The inspectors are obliged to examine whether the food product is fit to be distributed in the market. Therefore, the food inspectors should conduct sampling for analysis to ensure that the food meets the official standard. The sampling should be carried out routinely or at a specific time when there is necessary or when there are any food safety incidents. Sometimes, food inspection is also conducted to investigate consumer complaints and identify any food safety problems. The food inspector is authorized to do routine inspection and food recall of harmful food products, and to investigate food-borne disease outbreaks. However, the food inspector also has the responsibility to give guidance to producers and consumers as well as provide information about food safety including food handling, processing and serving.

NADFC has two kinds of food inspectors. They are National Food Inspectors (NFIs) and District Food Inspectors (DFIs). NFI are attached to NADFC and its regional offices mainly; whereas DFI

may be attached to NADFC, its regional offices and to district government offices. NFI usually routinely inspects processed foods that are registered products (these are often the products of medium- to large-scale food industries), whereas DFI inspects SSFI and its products. However, both food inspectors face some challenges in their inspection tasks. They must inspect various kinds of foods, covering a vast geographical area, and often under complex and complicated conditions. Therefore, they should be well prepared to handle any kind of food inspection task and condition.

NADFC, in cooperation with Bogor Agricultural University, has classified NFIs on the basis of their level of competency. The university also provides certification programmes for food inspectors and helps officers' maintain their competencies. The classification system takes into account the level of hazard for human health associated with food products, the degree of sophistication of the industry, the authority and responsibility of the inspectors to handle violations or cases of food-borne disease outbreaks. The three levels of NFI are assistant food inspector, junior food inspector, and senior food inspector (figure 1).



**Figure 1. Classification of national food inspectors**

There are 15 operational competencies that should be possessed by a food inspector to ensure he/she can carry out the required food control tasks (annex 13). The competencies include those related to:

1. applying basic principles of food science and technology;
2. examining and controlling food procedures and practices of various food products;
3. checking the suitability of food in accordance with the regulations;
4. inspecting whether good sanitation and hygiene practices have been applied in the food chain;
5. carrying out sampling for analysis;
6. tracing back and determining the cause of food safety problems in accordance with the procedure;
7. communicating well to solve problem;
8. processing data and interpreting information during the inspection activities;
9. designing a HACCP plan and its support system for implementation in the food industry;
10. giving guidance and advice on food safety matters; and
11. evaluating the implementation principles of the quality management system and food safety management in the food industry.



The officer should learn and understand all the training material in order to achieve the required competencies (NADFC 2005, 2007c). The curriculum used for food inspector training is given in annex 14. Detailed scope of work and job description of each NFI level is presented in annex 15.

The NADFC food inspector is like the enforcement body of NADFC in conjunction with the implementation of government legislation. Inspection mainly functions to ensure that a food manufacturer obeys the regulations consistently, especially the existing requirements of GMP and the compulsory registration from NADFC. On the other hand the food inspector is also expected to act as:

1. a developer or consultant for the manufacturer to implement the appropriate GMP;
2. an informant on the recent technology and the relevant regulations related to foods manufacturing;
3. a bridge which connects the manufacturers and NADFC, especially to determine manufacturers' state of operations from time to time.

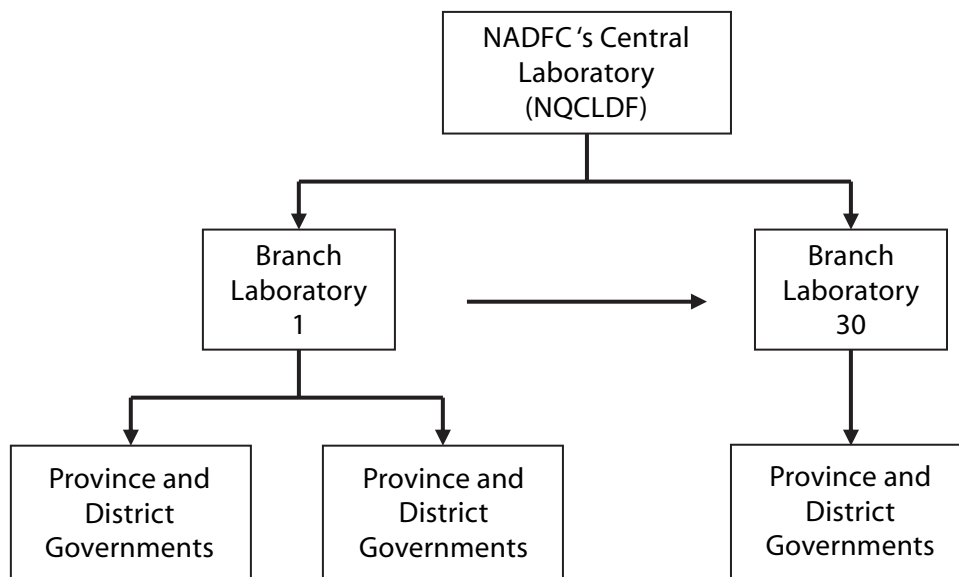
The main task of an inspector in doing his job on a manufacturer's premises is to record findings on the standards used by the manufacturer with respect to the production process and the quality of its product. However, the food inspector's activities are not only limited to collecting findings related to mistakes made, inconsistent SOP or any failure of implementation, but also providing information on the required technology to increase production system performance and quality control in the manufacturer's unit. The inspector has a certain amount of freedom in what he/she does but has to be careful not go against government policy and not disclose official secrets.

At present, NADFC has 257 General Food Inspectors, 197 NFI and 1 775 DFI. NFI and DFI are inspectors who have been trained to a specific level of competency (annex 16). General food inspectors are officers who have been designated by the Head of NADFC as functional officials of the Pharmacy and Food Inspector. They become food inspectors by virtue of receiving general training rather than the specialized training received by NFI.

Ideally, Indonesia should have 500 persons to inspect almost 5 000 medium- and large-scale food industries (ratio 1:10), and about 5 000 persons to inspect one million small-scale food industries (ratio 1:200). The required number of DFI is smaller than NFI because the inspection carried out by DFI (SSFI) is not as complicated as the medium- and large-scale industries. Therefore, the existing number of food inspectors is not sufficient to cover the needs of Indonesia. Furthermore, NFI of NADFC often inspects not only food products but also pharmaceutical products, which dilutes their attention and focus on food inspection. This condition is even worse when DFI has not been made fully functional by the local government as this makes the food control duties of NFI heavier. The constraints of food control at local level are an inadequate number of personnel dealing with food safety in the provincial and district governments; high turnover of trained personnel in the district government organization; and poor accessibility to Internet communication in the district area that may influence the speed of online reporting.

## 7. The relationship between the inspection service for GMP for processed foods and food laboratories

Laboratory analysis is an essential and integral part of inspection activities. To provide these services, the NADFC operates a laboratory network consisting of 31 analytical laboratories geographically dispersed throughout the country (figure 2). The network is hierarchically organized with a referral (central) laboratory in NADFC-Jakarta and 30 provincial laboratories. The network is staffed by 1 045 analysts and support staff, 153 in the central Jakarta laboratory and 892 in the 26 provincial laboratories. Meanwhile, another four provincial laboratories are being constructed this year.



**Figure 2. Organizational structure of NADFC laboratories in collaboration with provincial and district governments**

The laboratories provide analyses in the following broad areas: pharmaceuticals, narcotics, traditional drugs, cosmetics and hazardous products, foods and microbiology. The central laboratory, the National Quality Control Laboratory for Drug and Food (NQCLDF), is located in Jakarta at the NADFC complex. The functions of the laboratory include:

- acts as a reference laboratory for the provincial laboratories;
- standardizes and conducts methods development;
- acts as a training centre for the provincial laboratories;
- establishes reference standards and standard reference materials (SRMs) for the provincial laboratories and the other laboratories in Indonesia;
- provides instrument and glassware calibration services to the laboratory network;
- provides proficiency samples and evaluates the performance of the provincial laboratories; and
- provides analytical services to NADFC in the areas of toxicology/pharmacology (animal) testing and vaccine testing.

NQCLDF implements ISO/IEC 17025-1999 to ensure the quality of test data and to provide a managerial tool to ensure the quality of the results. The principles of implementation of ISO 17025 are ensuring the quality, reliability and integrity of analysis, reporting verifiable conclusions and data traceability. In the implementation stage, NQCLDF develops quality guidelines, SOP, work instruction and chart form/sheet. In the development of new methods, validation of the method has been carried out by NQCLDF. Only valid methods are permitted to be distributed to provincial laboratories.

Calibration and maintenance programmes are carried out regularly. To standardize methods, techniques, and personnel skills, a proficiency test is done at least once a year for NQCLDF as well as for branch laboratories in all provinces. NQCLDF collaborates with other national and international laboratories to do proficiency tests such as with the National Accreditation Committee (KAN), World Health Organization (WHO), and Australia-New Zealand Food Safety Authority (ANZFS).

As a regulatory body, NQCLDF should have the capability to analyze all parameters necessary for processed food regulation. Food safety regulations have changed following new developments in science and technology and are based on risk assessment. The emerging food hazards also need to be handled. Personnel and instruments of NQCLDF and branch laboratories should be improved to meet global challenges and keep abreast of new developments. Improvement of analytical methodologies and establishment of appropriate sampling methodologies required for the food industry are also essential.

Every year, NADFC establishes a food sampling policy for some food products taking into account the existing condition in each region. The sampling priority includes sampling series and routine sampling. Major food products to be sampled are SSFI products. The sample is sent to the laboratory to be analyzed for certain parameters such as microbiology parameters, food additives, misuse of hazardous substances and other contaminants. Concerning the GMP inspection, the processed food sample is sent to the laboratory for analysis, if necessary. Regarding the various parameters and the number of samples, NQCLDF collaborates with other laboratories such as the Regional Health Laboratory, the Agro Industry Institute Laboratory of the Ministry of Industry or private laboratories (table 4).

**Table 4. Matrix of laboratory capacity for processed food analysis**

No.	Name of laboratory	Type of processed foods		
		Domestic food product (MD)	Imported food product (ML)	Food product of SSFI
1	NQCLDF	√	√	
2	Laboratory of NADFC regional offices	√	√	√
3	Laboratory of Agro Industry Institute and other relevant government laboratories at central level	√	√	
4	Laboratory of District Fisheries Office			√
5	Laboratory of District Husbandry Office			√
6	Laboratory of District Agricultural Office			√
7	University Laboratory			√
8	Accredited private laboratories	√	√	√



## **8. Information system and database for the inspection and certification systems for GMP for processed foods**

GMP inspection data are sent by all regional NADFC offices to the Directorate for Food Inspection and Certification in the head office once a month. The data are sent in the form of electronic mail and a hard copy version. The information system of routine reports is called SIE (*Sistem Informasi Eksekutif/Executive Information System*). The software has been used for sometime, but it still needs to be improved. The lack of a proper operational system affects the use of the system and the reporting of the regional offices to the NADFC. The obtained data are used as the basis of the next food inspection and to determine the food safety status in a region. However, the data processing still needs to be improved so that the results can be more useful for carrying out the inspection and certification services based on risk assessment.

Since 2007, certification for food product exportation and importation has been implemented by the National Single Window (NSW) System. It is an information system shared by the Directorate General of Customs, NADFC, and other related institutions and is intended to accelerate the process of exportation and importation certification and to improve the validity and accuracy of export-import data. The NSW system opens the opportunity for: (1) single submission of data and information; (2) single and synchronous processing of data and information; and (3) single decision-making for customs release and clearance of cargoes. There is also an NSW portal that facilitates the information connectivity between DG of Customs – Ministry of Finance; NADFC; DG of Foreign Trade – Ministry of Trade; Plant Quarantine Agency; Fisheries Quarantine Agency; the port; exporter and importer.

## **9. Availability of equipment for the inspection and certification systems for GMP for processed foods**

Food inspectors use various equipment and tools to carry out food inspection tasks. Some of the equipment is personal protective equipment (PPE), such as gloves and coat. Besides the PPE, food inspectors should also be equipped with analyses kits (i.e. rapid test kit, contamination test kit, etc.) and special tools (i.e. inspection kit and sampling kit). The food inspector must be able to operate the tools for inspection. The equipment and tools for inspection activities should always be ready to use and in good condition. Maintenance of such equipment and tools is necessary so that the food inspector is successful in his duties. The equipment and tools is expected to be complete, handy, practical and user-friendly to facilitate the officer in food inspection. The required equipment for food inspection is shown in table 5.

**Table 5. List of equipment for food inspection**

No.	Instrument	Availability		Note
		Ideal	Minimum	
1	Official vehicle	No	Yes	Limited, public transportation
2	Cool box	Yes	Yes	
3	Calibrated scale	Yes	Yes	
4	Calibrated thermometer	No	Yes	Limited quality (for broad scale temperature)
5	Mobile phone	No	Yes	Private's goods
6	Sterile plastic bag/jars	Yes	Yes	
7	Sterile packed knives, forks, spoons	Yes	Yes	
8	Torch	Yes	Yes	
9	Protective equipment: eye protection (safety glasses), hearing protection in noisy areas	No	No	Manufacturer's goods
10	Protective clothing: safety shoes, hard hats in hard hats designated areas, appropriate gloves	No	Yes	Limited quantity and quality
11	Respiratory protection	No	No	Manufacturer's goods
12	Notebook computer with: a. ready to fill up list b. all laws concerning food safety c. all relevant information	No	Yes	In conventional form (paper sheets and pencil)

## 10. Costs involved in the inspection and certification systems for GMP for processed foods

The inspection cost is fully funded by the Government of Indonesia. The NFI who will audit a food industry establishment has to obtain an instruction letter from the Director for Inspection and Certification. The expenses such as for transportation, logistics and daily allowance are covered by the government budget. For GMP certification, the size of fee depends on the location of the industry (the greater the distance, the higher the fee) and the industry scale/classification. The industry should cover the expenses of two auditors during the audit for GMP certification. The GMP certification fee for SSFI depends on the local government. The GMP certification process requires collection of fees for the services provided to the industries, which is considered as a weakness of the system. Table 6 shows some fees for the certification service in NADFC, based on Government Regulation No. 17/2001 on Tariffs of Non Tax State Revenues Compulsory in NADFC.

**Table 6. Costs for certification services in NADFC**

No.	Kind of service	Fee (IDR)
1.	Certification of export product (health certificate/free sale)	50 000/item
2.	Certification of import product	50 000/item
3.	Certification of hygiene-sanitation (health certificate)	50 000/item
4.	Certification of GMP – Large-scale food industry – Medium-scale food industry – Small-scale food industry	10 000 000/product form 5 000 000/product form 1 000 000/product form

## 11. SWOT analysis of the current inspection and certification systems for GMP for processed foods

Some internal factors (strengths and weakness) and external factors (opportunities and threats) of the current inspection and certification system for processed foods in Indonesia are identified in table 7.

**Table 7. SWOT analysis on the GMP of current inspection system**

<p><b>INTERNAL FACTORS</b></p> <p><b>EXTERNAL FACTORS</b></p>	<p><b>Strengths</b></p> <ol style="list-style-type: none"> <li>1. Availability of food safety laws, regulations and enforcement rules</li> <li>2. Availability of integrated food safety system since 2004</li> <li>3. Coordination and communication between NADFC with regional/district government in place</li> <li>4. Availability of training system for NFI and DFI</li> <li>5. Accredited laboratories for all the NADFC regional offices</li> <li>6. Availability of GMP audit protocol</li> </ol>	<p><b>Weaknesses</b></p> <ol style="list-style-type: none"> <li>1. Inadequate knowledge of food producer in food legislation</li> <li>2. Inadequate budget allocated for inspection and certification in some provinces/district areas</li> <li>3. Inadequate number of competent DFI in district government</li> <li>4. Inadequate facilities for food inspectors to do their job</li> <li>5. Limited risk assessment based sampling framework</li> <li>6. Limited updated GMP inspection and certification guidelines</li> </ol>
<p><b>Opportunities</b></p> <ol style="list-style-type: none"> <li>1. Penetration of processed foods into regional and global markets</li> <li>2. Development of food industry in district areas</li> <li>3. Mutual recognition arrangement in inspection and certification system with other ASEAN Member States</li> </ol>	<p><b>SO Strategy*</b></p> <ol style="list-style-type: none"> <li>1. Increasing promotion of processed foods and socialization of food regulation through websites or other means</li> <li>2. Enhancing the quality and safety of processed foods in district areas</li> <li>3. Increasing contact/communication with other ASEAN Member States in the field of food inspection and certification systems</li> </ol>	<p><b>WO Strategy**</b></p> <ol style="list-style-type: none"> <li>1. Updating the GMP inspection and certification guidelines</li> <li>2. Increasing the number of competent food inspectors particularly the district government resources</li> </ol>
<p><b>Threats</b></p> <ol style="list-style-type: none"> <li>1. Wide coverage area of food inspection and certification on large diversity of processed foods</li> <li>2. Large number of SSFI to be inspected</li> <li>3. Tight competition in global trade</li> </ol>	<p><b>ST Strategy***</b></p> <ol style="list-style-type: none"> <li>1. Improving inspection and certification system</li> <li>2. Strengthening coordination and cooperation in inspection activities between NADFC and district governments</li> </ol>	<p><b>WT Strategy****</b></p> <ol style="list-style-type: none"> <li>1. Empowering IFSS to improve the food control capacity in the district areas</li> <li>2. Improving facilities for food inspection activities</li> </ol>

\*SO Strategy – Strengths and opportunities strategy,

\*\*WO Strategy – Weaknesses and opportunities strategy

\*\*\*ST Strategy – Strengths and threats strategy

\*\*\*\*WT Strategy – Weaknesses and threats strategy

## **12. Recommendations for capacity-building activities in the inspection and certification systems for GMP for processed foods**

1. The wide food safety control area and large food diversity to be controlled are the main constraints faced by NADFC in enhancing the level of food safety in Indonesia. Therefore, the NADFC food control capacity should be increased by strengthening the food control network in all provincial and district governments. Strengthening the food control network with ASEAN Member States is another good approach to solving the above mentioned constraints.
2. Having observed various food inspection and certification systems from developed countries, including those that have been developed by Codex Committee for Food Import Certificate System (CCFICS), it is recommended to update and complete the following guidelines: (a) GMP inspection and certification, (b) food sampling, and (c) SOPs for a better GMP inspection and certification system in Indonesia.
3. Having analyzed the strengths, weaknesses, opportunities and threats (SWOT) of the GMP inspection and certification system in Indonesia, it is recommended to:
  - a. increase the number and competency of food inspectors through (i) training programmes either nationally, regionally or globally, and (ii) an internship or food inspector exchange programme among ASEAN Member States.
  - b. improve infrastructure and facilities for food inspection and certification, such as: (i) food inspection kit containing various required inspection tools; (ii) food testing laboratory required to analyze various major food quality and safety measures; and (iii) information technology needed to improve data processing and dissemination.
4. Indonesia is willing to share its experiences in developing competency-based training programmes for food inspectors. In addition, it also would like to share its experience in applying the Food Stars Award in improving the application of GMP in food processing establishments. Arrangements should be made so that this sharing can take place.

## **Bibliography and references**

- Anonymous. 2003a. Head of NADFC Decree No. HK 00.05.5.1639/2003 on Guideline of GMP for SSFI. Jakarta, Indonesia.
- Anonymous. 2003b. Head of NADFC Decree No. HK 00.05.5.1640/2003 on Guideline of Production Certification Procedures for SSFI. Jakarta, Indonesia.
- Anonymous. 2003c. Head of NADFC Decree No. HK 00.05.5.1641/2003 on Guideline of Production Facility Inspection in SSFI. Jakarta, Indonesia.
- BPS. 2006. Manufacturing statistics 2001-2005. Jakarta. Indonesia.
- GOI. 2004. Government Regulation No. 28/2004 on Food safety, quality, and nutrition. Jakarta, Indonesia.
- Ministry of Health. 1996. Technical guideline for inspection of dairy products. Jakarta. Indonesia.
- NADFC. 2003. Food control handbook (Indonesian). Directorate for Food Inspection and Certification. Jakarta. Indonesia.

- NADFC. 2005. General inspection training modules of drug and food for NADFC. (Indonesian). Directorate for Food Inspection and Certification. Jakarta. Indonesia.
- NADFC. 2006. Indonesia food safety directory (Indonesian). Directorate for Food Safety Surveillance and Extension. Jakarta. Indonesia.
- NADFC. 2007a. The 2006 annual report (Indonesian). National Agency for Drug and Food Control. Jakarta. Indonesia.
- NADFC. 2007b. The 2006 annual report (Indonesian). Directorate for Food Safety Surveillance and Extension. Jakarta. Indonesia.
- NADFC. 2007c. Module of training programme for junior food inspector (Indonesian). Directorate for Food Inspection and Certification. Jakarta. Indonesia.

## **Guidelines for GMP inspection of dairy products: pasteurized milk products (Ministry of Health, 1996)**

### **A. Introduction**

The document contains guidelines for officers carrying out inspections of pasteurized milk industry facilities. The officer collects primary data by direct inspection of the industry facility and secondary data from the results of the laboratory analysis of ingredients and end products. Dairy products are susceptible to alteration because of chemical, microbial, and physical factors. Milk is a very variable biological fluid. The various dairy products have different risk qualities depending on the manufacturing conditions of each product. Therefore, a food inspector should have a good understanding of the requirements of product quality and the manufacturing process. The inspector must pay attention to personal hygiene so as not to contaminate the product being inspected.

### **B. Scope**

#### **1. Definition**

##### **a) Fresh milk**

Fresh milk is a fluid secreted by the female of a healthy bovine, obtained by good milking practices, without any addition or reduction of any component and without heating.

##### **b) Pasteurized milk**

Pasteurized milk is milk processed via minimal heating without any significant alteration of colour, aroma, flavour, nutrition and it is safe to be consumed.

#### **2. Kind of products**

##### **a) Fresh milk**

Milk cooling must be done before the further processing of fresh milk to become a dairy product such as pasteurized milk. The cooling is applied until the milk temperature reaches 4°C. This is done to prohibit microorganism growth in the milk, and therefore the milk can be stable without deterioration because of microorganism activity that might decrease end-product quality.

##### **b) Pasteurized milk**

###### **(i) Plain pasteurized milk**

Plain pasteurized milk is milk that has been cooled, pasteurized and has no ingredient added.

###### **(ii) Various flavoured sweetened pasteurized milk**

This kind of sweetened milk is made of pasteurized milk by adding sugar and certain flavours. The flavours could be chocolate, mocca, vanilla, strawberry, etc.

**c) Pasteurized cream milk**

Cream milk comes from pasteurized milk that has been separated into the cream and the milk by using a separator. The cream fat content is 35 to 40 percent. Then, the cream milk is filtered and re-pasteurized in a batch at a temperature of about 80-90°C for 15 seconds.

**d) Pasteurized skimmed milk (known as skim milk in the US)**

Separation of milk and cream produces low fat milk which is called skimmed milk (non-fat pasteurization). The process for making it is basically similar to the cream milk process. The skimmed milk products are pasteurized at a temperature of about 80-90°C for 15 seconds.

**3. Product packaging**

The outer part of the pasteurized milk package is carton paper or plastic.

**C. Processing technology of pasteurized milk**

Step of process	Requiring special attention in inspection
1. Mixing/standardization	1a Does the ingredient comply with the provisioned requirements? 1b Does the ingredient weighing meet the existing provisioned requirements? 1c Does the food additive weighing meet the existing provisioned requirements? 1d Does the fat standardization apply in accordance with the existing provisioned requirements?
2. Filtering	2a Is the filtering implemented in hygienic and sanitized conditions?
3. Homogenization	3a Is the homogenization process implemented automatically? 3b Is homogenization implemented in hygienic and clean conditions, free of contamination? 3c Does the milk fat not separate after the homogenization is completed?
4. Pasteurization	4a Is the pasteurization process conducted at an appropriate temperature and time? (Write: the temperature used: ..... The duration of pasteurization: .....) 4b Is water used as heater in pasteurization? If no, the material used is.....
5. Cooling	5a Is the cooling implemented in two steps, i.e. by using warm water and ice/cold water? 5b Is the cooling conducted until the product reaches less than 5°C? 5c Is there any contact between the cooler water with milk?
6. Filling and packaging	6a Is there any contact between the employee's hands with end product? 6b Is there any leakage?

## **D. Implementation of production facility inspection**

### **1. Preliminary inspection**

The food inspector should conduct a preliminary inspection in order to prepare for the complete inspection to be carried out thoroughly. The preliminary inspection could be a short general inspection of the whole production facility, including storeroom, processing room, distribution division, etc. Preliminary inspection assists the food inspector to prepare the inspection strategy in order not to miss anything during the complete inspection. In the preliminary inspection, the officer should identify the things that require a more careful and detailed inspection.

When the preliminary inspection is completed, the food inspector will arrange the schedule to inspect the cleaning of the production facility. During the inspection, either the preliminary or the next inspection, the food inspector should be accompanied by the person in charge of the production facility.

### **2. Next (continuation) inspection**

There are 20 groups that should have attention in the inspection:

Group A.	Management
Group B.	Sanitation of the environment: physical
Group C.	Sanitation of the environment: waste facilities
Group D.	Sanitation of the environment: pests control facilities
Group E.	Factory: general condition
*Group F.	Factory: processing room
Group G.	Factory facility
Group H.	Factory facility: garbage treatment
Group I.	Factory: cleaning
*Group J.	Factory: pest/insect
*Group K.	Equipment
*Group L.	Water supply
*Group M.	Personal hygiene
Group N.	Non refrigerated warehouse
Group O.	Refrigerated warehouse
Group P.	Storage of product packages
Group Q.	Supervision
Group R.	Raw material and end product
Group S.	Result of bacteria swab test
Group T.	Control action

The groups with asterisk (\*) are included in the main groups. There is a form for Inspection of Production Facility (Form A) that lists the items/elements that should be assessed in the inspection. Besides using the form, it is suggested that the inspector take notes of things found during the inspection that might be relevant and important for the assessment.



## E. Instruction to complete the inspection form

### 1. General information

This part consists of information about the inspection purpose and general information about the inspected industry:

- 1) Write the number and year of the inspection, number of instruction letter to conduct the inspection, and choose the aim of the inspection (routine/registration/license/follow-up case).
- 2) Write the complete name and address of the company, including postal code, telephone and fax numbers (if available).
- 3) Write the name of the food industry owner or management and telephone number.
- 4) Complete the requested information on building age, manufacturer classification (large/medium/small), number of employees, brand name of the product, and product registration status (MD or P-IRT).

### 2. Inspection assessment

#### a) Determination of grade for each element

A grade for each element is given in code of B (*Baik* – good, score: 81-100), C (*Cukup* – fair, score: 51-80), K (*Kurang* – poor, score: <50), and T (*Tidak diperlukan* – not available). Grades B, C, and K are determined according to each element's criteria and filled in the left column of each element. The assessment quality is based on compliance with the standards. Example of the criteria of respective elements:

#### **Group L. water supply**

##### 1. Water source:

- B: Water source is free from contamination, environmental sanitation is good, including handling to its saving place and quality is checked periodically
- C: Water source is free from contamination, but there is no periodic check
- K: Water source does not comply with the above requirements.

##### 2. Water processing (treatment)

- B: There is water treatment so as to fulfil the drinking water condition
- C: There is no water treatment, however the water fulfils the drinking water condition
- K: There is no water treatment and the water does not fulfil the drinking water condition.

#### b) Determination of grade for each group

Each group has its respective assessment. The result is filled in the box in below the right side of the group. The grade of each group is the average of the group elements' scores.

#### c) Total evaluation

Totally, the factory obtains the grade:

**B (*Baik* – good):** if five main groups (Group F. processing room, Group J. pest/insect, Group K. equipment, Group L. water supply, and Group M. personal hygiene) have grade B and a maximum of six other groups have grade K (*Kurang* – poor)

**C (*Cukup* – fair):** if four main groups are B and only three other groups are K.

**K (*Kurang* – poor):** if two or three main groups are B and many other groups are K.

## LAPORAN PEMERIKSAAN UMUM SARANA PRODUKSI MAKANAN

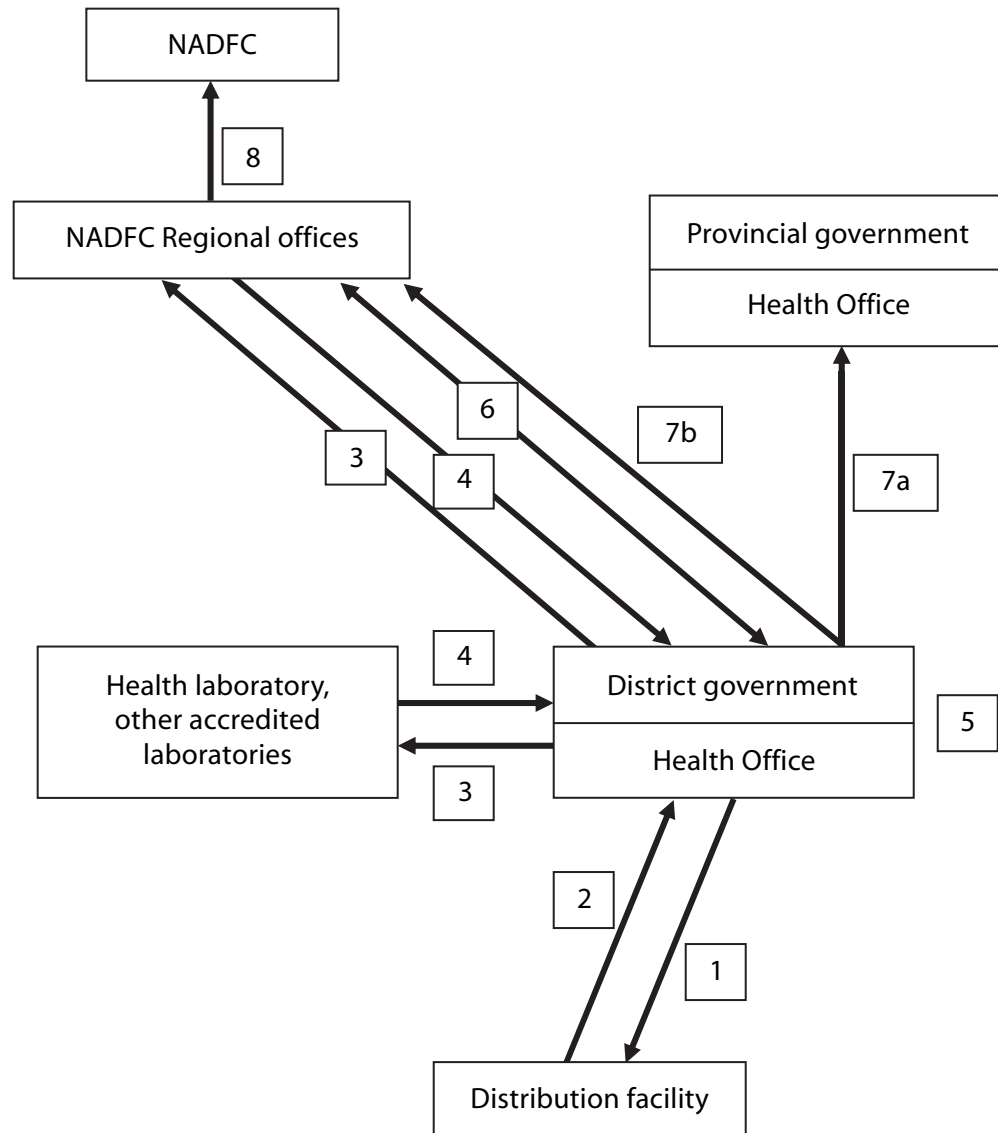
NO. URUT / TAHUN :

Dasar pemeriksaan :		No. Surat :	
Tujuan pemeriksaan : Rutin / Registrasi / Perizinan / Tindak Lanjut / Kasus			
NAMA DAN ALAMAT PERUSAHAAN / TELP. :		NAMA PEMILIK / PIMPINAN / TELP. :	
Jenis Perusahaan :		Izin :	
UMUR :	GOLONGAN :	JUMLAH :	NAMA MAKANAN :
BANGUNAN	PABRIK	KARYAWAN	TERDAFTAR (MD) : SEMUA / SEBAGIAN/TIDAK
TH.			NO SP : .....
Kode : B : BAIK		C : CUKUP	K : KURANG BAIK T : TIDAK DIPERLUKAN
<b>GRUP A – PIMPINAN</b>		<b>GRUP H – Pabrik – Pembuangan sampah</b>	
1	Pandangan terhadap metode pengawasan modern	1	Pembuangan sampah padat
2	Kerjasama dengan pengawas <input type="checkbox"/>	2	Pembuangan sampah cair
<b>GRUP B – Sanitasi Lingkungan : Fisik</b>		3	Saluran pembuangan
1	Semak	4	Tempat sampah <input type="checkbox"/>
2	Sampah	<b>GRUP I – Pabrik – Pembersihan</b>	
3	Tempat sampah	1	Frekuensi
4	Bangunan untuk perlengkapan	2	Efektifitas
5	Tempat pemeliharaan hewan	3	Penggunaan detergen / desinfektan
6	Cemaran lain : bau, asap, debu, barang-barang tidak berguna <input type="checkbox"/>	4	Fasilitas pembersih <input type="checkbox"/>
<b>GRUP C – Sanitasi Lingkungan : Pembuangan / Limbah</b>		<b>*GRUP J – Pabrik – Binatang perusak / serangga</b>	
1	Saluran air hujan	1	Tikus
2	Kotoran Manusia	2	Binatang pengerat lain
3	Pembuangan sampah padat	3	Lalat
4	Pembuangan sampah <input type="checkbox"/>	4	Serangga lain
<b>GRUP D – Sanitasi Lingkungan : Infestasi</b>		5	Binatang peliharaan
1	Binatang pengerat	6	Penggunaan pestisida dan fungisida <input type="checkbox"/>
2	Serangga <input type="checkbox"/>	<b>*GRUP K – Peralatan</b>	
<b>GRUP E – Pabrik – Umum</b>		1	Sanitasi
1	Konstruksi	2	Kecukupan
2	Pencegahan binatang pengerat	3	Desain
3	Pencegahan Serangga	4	Peralatan dan bahan-bahan tidak terpakai untuk makanan
4	Memadai sesuai keperluan	5	Desinfektan peralatan yang kontak langsung dengan makanan <input type="checkbox"/>
5	Pemeliharaan	<b>GRUP L – Suplai air</b>	
6	Keteraturan	1	Sumber air
7	Kasa <input type="checkbox"/>	2	Pengolahan air <input type="checkbox"/>
<b>*GRUP F – Pabrik – Ruang Pengolahan</b>		<b>*GRUP M – Higiene perorangan</b>	
1	Kebersihan lantai	1	Petunjuk tentang hygiene
2	Konstruksi lantai	2	Pencucian tangan
3	Kebersihan dinding	3	Perilaku karyawan (meludah)
4	Konstruksi dinding	4	Masker
5	Kebersihan langit-langit	5	Sumber-sumber infeksi
6	Konstruksi langit-langit <input type="checkbox"/>	6	Pakaian dan topi
<b>GRUP G – Fasilitas Pabrik</b>		7	Cara-cara hygiene <input type="checkbox"/>
1	Fasilitas cuci untuk karyawan	<b>GRUP N – Gudang tidak dingin</b>	
2	Toilet	1	Kebersihan dan keteraturan
3	Penerangan	2	Serangan binatang pengerat
4	Ventilasi	3	Serangan serangga <input type="checkbox"/>
5	PPPK <input type="checkbox"/>	<b>GRUP O – Gudang dingin</b>	
<b>PENGEMASAN DAN PELABELAN :</b>		<b>GRUP P – Penyimpanan kemasan produk</b>	
PENILAIAN TERDAHULU	PENILAIAN SAAT INI	JUMLAH KUNJUNGAN	1
			2
			3
			4
			5
			6
			7
			8
			9
			10
			11
			12
<b>TINDAKAN YANG DILAKUKAN :</b>			
			7
			8
			9
			10
			11
			12
KETERANGAN : (diisikan kesimpulan dan saran / tindak lanjut)			
DAERAH TINGKAT I	TANGGAL	PEMILIK SARANA	PEMERIKSA
DAERAH TINGKAT II			

BPOM :

FORM :

### The links between various parties in the small-scale food industry (SSFI) inspection system



1. The district government instructs the District Food Inspector (DFI) to inspect the distribution facilities such as stores, supermarkets, stalls, markets.
2. The DFI inspects the SSFI products and samples them based on priority sampling provision.
3. The DFI makes a note based on the findings of the inspection and sends the sample to NADFC regional office or the Ministry of Health laboratory or other accredited laboratories to be analysed with respect to food safety parameters that have become priority sampling provision.
4. After the sample analysis, the analysis result is sent to the District Health Office.

5. The DFI receives the results of the analysis and recommends follow up action on those findings that are unsatisfactory. The follow-up recommendations could be to issue a warning, product recall, or the SFI closure, depending on the level of violation.
6. When data filing is necessary for further investigation, e.g. for a court, the District Health Office contacts the NADFC regional office to designate a civil servant investigator to verify the findings and their follow-up.
- 7a. The District Health Office informs the result of the follow-up to the provincial government.
- 7b. A copy of the results of the follow-up is also sent to the local NADFC regional office.
8. The NADFC regional office reports the result of any follow-up action to NADFC (cq the Director for Food Inspection and Certification and sends a copy to the Director for Food Safety Surveillance and Extension).

## Guidelines for following up the results of food inspection

### A. Improper environmental sanitation or that which does not comply with the regulations

#### 1. Medium- large-scale food industry (producing products with MD number)

- a. Directorate of Food Inspection and Certification (DFIC) writes a letter to the producer containing the following:
  - Instruction to improve and correct facilities and infrastructure as directed by GMP with a time limit of 2 (two) months from the issuance date of the letter (postmark).
  - Producer reports the results of improvement to DFIC at the latest 1 (one) month after the due date of improvement.
- b. National Food Inspector:
  - should audit the food industry (FI)
  - should guide the FI to improve the facilities and infrastructure
  - reports the results of the improvement required.
- c. When the due date is passed but the industry has not made any improvement or neglected the first warning, DFIC sends the second warning letter to the producer.
- d. After the second warning, if the due date passes without accomplishment, DFIC writes a strong warning to the producer.
- e. If there is still no accomplishment after 1 (one) month since the issuance of the strong warning, the NADFC gives an administrative sanction and/or criminal sanction in accordance with the regulation. The sanction(s) is (are) announced to the public.

#### 2. Small-scale food industry (SSFI)

NADFC Regional Office coordinates with the regency/municipal government to follow-up the breach/deviation found as follows:

- a. Sending a letter to producer, with copy to Head of Local NADFC Regional Office and Head of Local Health Office, containing:
  - Instruction to carry out improvement and correction on production facilities/ infrastructure in accordance with the GMP for SSFI within 6 (six) months.
  - The producer should report the results of any correction to NADFC and regional NADFC Regional Office at the latest 1 (one) month after the due date of improvement is over.
- b. NFI inspects the SSFI's facility.
- c. If there is still violation during the second inspection after a time limit of 6 (six) months, then the Local NADFC Regional office coordinates with the District Health Office to do further supervision for the next three months.
- d. If there is still violation during the third inspection after three months, then the Local NADFC Regional Office proposes to the District Health Office to withdraw the *SP/P-IRT* number.

- e. Based on the above report, the DFIC:
  - files the data and evaluates the report
  - coordinates with the Directorate of Food Safety Surveillance and Extension to determine further steps.

## **B. Food products that do not comply with the regulation**

### **1. Food products that do not meet food safety requirements**

Breaches of food safety include the use of food additives exceeding the maximum threshold limit, prohibited chemicals in foods, foods which are contaminated by either chemical, microbial or physical hazards, and expired food products.

#### **(i) For products having an MD/ML registration number**

- a. Deputy of Food Safety and Hazardous Substances Control, cq Directorate of Food Inspection and Certification sends a letter to the producer/importer mentioning:
  - i. Instruction to recall the product from market distribution immediately, with the time limit of 2 (two) months at the latest, starting from the issuance of the instruction letter (postmark).
  - ii. The recalled products have to be destroyed and witnessed by an official from NADFC Regional Office, and if it is necessary to be accompanied by the related institution in the area. An official report of the destruction of the products should be written.
  - iii. Report the recall implementation by filling the Recall Form and sending it to the NADFC cq DFIC of after 1 (one) month at the latest.

The copies of the letter are endorsed by the Local NADFC Regional Office, the related institutions and the Head of other NADFC Regional Offices and sent:

- i. all over Indonesia – if the product has MD number or is manufactured by a large food industry and assumed to be distributed all over Indonesia;
  - ii. to several provinces, if the product is assumed to be distributed in some provinces around the manufacturer's location.
- b. National Food Inspector must:
  - i. carry out control and monitoring after issuing the instruction of product recall by the NADFC cq DFIC to the producer;
  - ii. implement the instruction on behalf of the NADFC cq DFIC to secure the product and witness the products destruction process;
  - iii. report the results of carrying out the above activity in accordance with point B.1(i) a above after the due date of the instruction.
- c. If the report from the producer/importer has not been received within 1 (one) month, then the NADFC writes a second letter to the producer/importer to request the report within 1 (one) month with the threat to withdraw the MD number and to prosecute in court.
- d. If the report is still not received within 1 (one) month, then administrative sanctions can be introduced, namely withdraw the MD number, and prosecute in court.

**(ii) For products produced by SSFI**

**(ii.1) If the product is produced in an area outside of the reporter's NADFC Regional Office's catchment area**

a. NADFC Regional Office of the reporter

This institution has to carry out the following steps:

- To secure the product in the market at the catchment area of NADFC regional office immediately.
- To report to the NADFC cq DFIC by using Non-compliance Requirements (NCR) Form as soon as possible.
- The secured product is destroyed by the owner witnessed by a local NADFC Regional Office official. The official report of this event should be prepared.
- To report the product destruction to the NADFC cq DFIC along with the action record. A copy of the report is also endorsed by the Head of NADFC Regional Office where the SSFI is located.

b. DFIC

The DFIC sends a letter to the NADFC Regional Office where the producer is located containing:

- Instruction to the producer to recall and destroy the product witnessed by Local NADFC Regional Office official and related institutions. The official report of this event should be prepared.
- A request to the Local NADFC Regional Office to report the product's recall and destruction to the NADFC cq DFIC.

**(ii.2) If the product is produced in the catchment area of the NADFC Regional Office of the reporter**

a. The Regional/Local NADFC of the reporter

- secures the product and instructs the producer to recall the product from the market promptly;
- prepares the official report after the secured product is destroyed and witnessed by Local NADFC Regional Office officials;
- reports the result of product recall and destruction to the NADFC cq DFIC, and the report is accompanied by the record.

The report is also endorsed by the Head of the Local Health Office.

**2. Food products that do not comply with regulations on label, halal logo, food quality and food nutrition**

In this case breaches include product with NCR label, attaching halal logo without permission, label which does not match with registration, and the label contents that do not match the reality in terms of product quality and nutritional content.



**(i) For products with MD/ML registration number**

a. Directorate of Food Inspection and Certification (DFIC)

a.1 The Directorate must send a letter to the producer/importer, mentioning:

- Instruction to recall product with NCR label from the market within 1 (one) month for wrong-directing label and 2 (two) months for non-matching label.
- The label of the recalled product can be revised to match with the label specification in product registration.
- The non-matching label should be destroyed and witnessed by the National Food Inspector
- To report the result of product recall using Form M6\* and the implementation of label destruction to the NADFC, NADFC Regional Office accompanied by the destruction record at the latest 3 (three) months from the issuance of the letter.

The letter should also be sent to the Head of NADFC Regional Offices and the Head of the reporting NADFC Regional Office.

- The Head of NADFC Regional Offices in several provinces, if the product is assumed to be distributed to the nearby provinces.
- Related institutions in special cases, for instance when collaboration with other sectors is necessary or if the company does not respond and help is required from the respective institutions.

a.2 To write a letter (on behalf of the Deputy for the NADFC) to the Head of NADFC Regional Office mentioning:

- securing the products by means of sealing the breaching label stock;
- securing temporarily by means of sealing the respective product until the product's label is corrected;
- monitoring the implementation of the instruction as mentioned above;
- monitoring at the producer site;
- reporting the result of the implementation to the Local NADFC Regional Office and the Province Health Office.

b. The Province Health Office conducts control and monitoring of the implementation of the instruction directed to the producer and NADFC Regional Office.

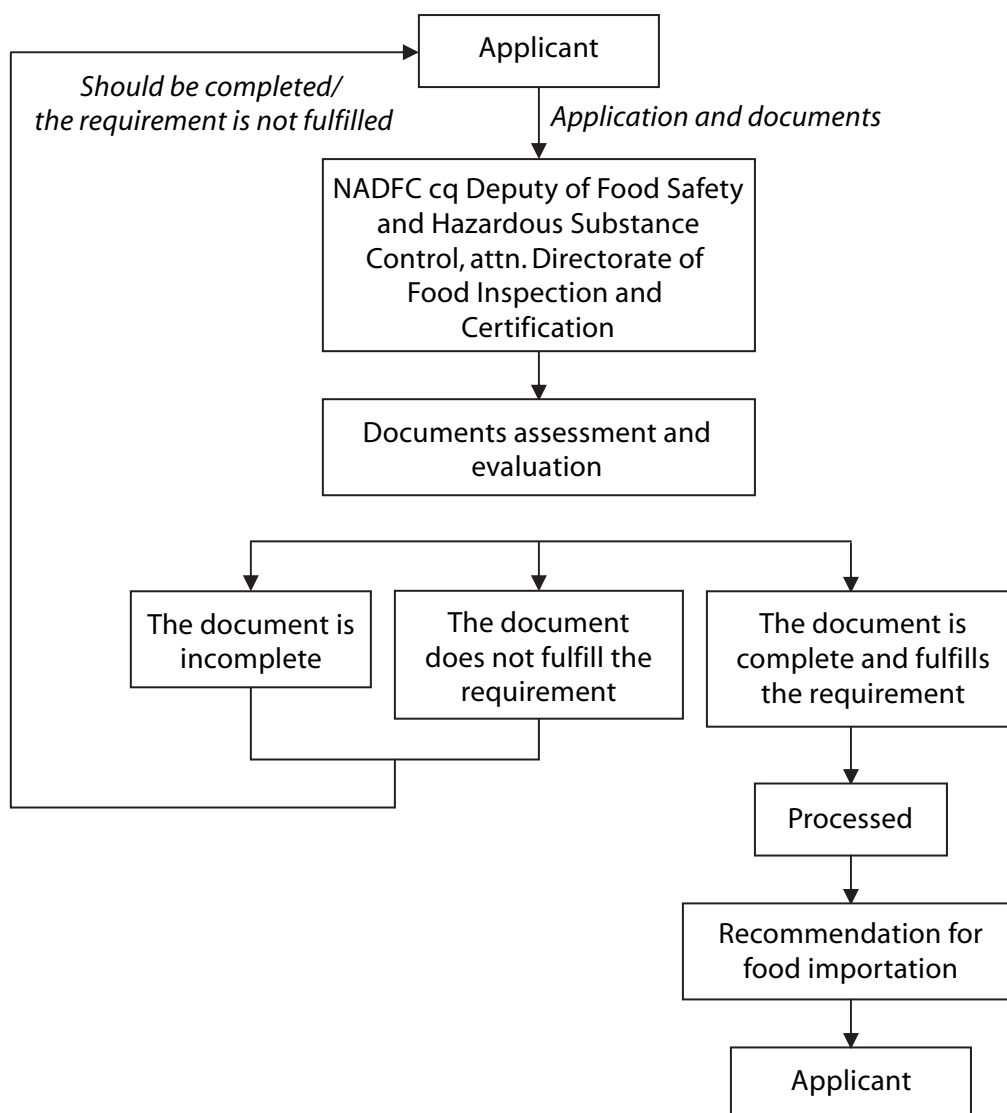
c. Local NADFC Regional Office carries out the task of NADFC as follows:

- controlling and monitoring the implementation of the product recall by the producer as NADFC instruction;
- securing by means of sealing the breaching label stock;
- secure temporarily by means of sealing the respective product until the product's label is corrected;
- witnessing the breaching label destruction;
- monitoring the implementation of the above instruction; and
- observing the label in stock (if the producer requests an extension of time to use the remaining labels).

**List of compulsory Indonesian national standards –  
Standar Nasional Indonesia (SNI) for processed foods**

No.	Number of SNI	Title of SNI
<b>The obligatory SNI established by the Ministry of Agriculture</b>		
1	SNI 01-2713-1992	Fish chips
2	SNI 01-2714-1992	Shrimp chips
3	SNI 01-2730-1992	Bottled fish oil
4	SNI 01-3548-1994	Canned sardines in tomato sauce
5	SNI 01-3917-1995	Canned shrimp
6	SNI 01-3918-1995	Canned edible snail
7	SNI 01-3919-1995	Canned shells
8	SNI 01-4106-1996	Milkfish presto
9	SNI 01-4225-1996	Canned crab with sterilization process
<b>The obligatory SNI established by Ministry of Industry</b>		
10	SNI 01-3553-1996	Packaged drinking water
11	SNI 01-3556-2000	Iodized table salt
12	SNI 01-3556-2000	Flour for food

## Application procedure to obtain a recommendation for food importation



**General purpose:** to protect the public from imported food that does not meet quality and safety requirements through the control system in the form of issuing a recommendation.

**Specific purpose:** to assess documents related to food importation, aimed at issuing a product quality and safety recommendation.

### Procedure:

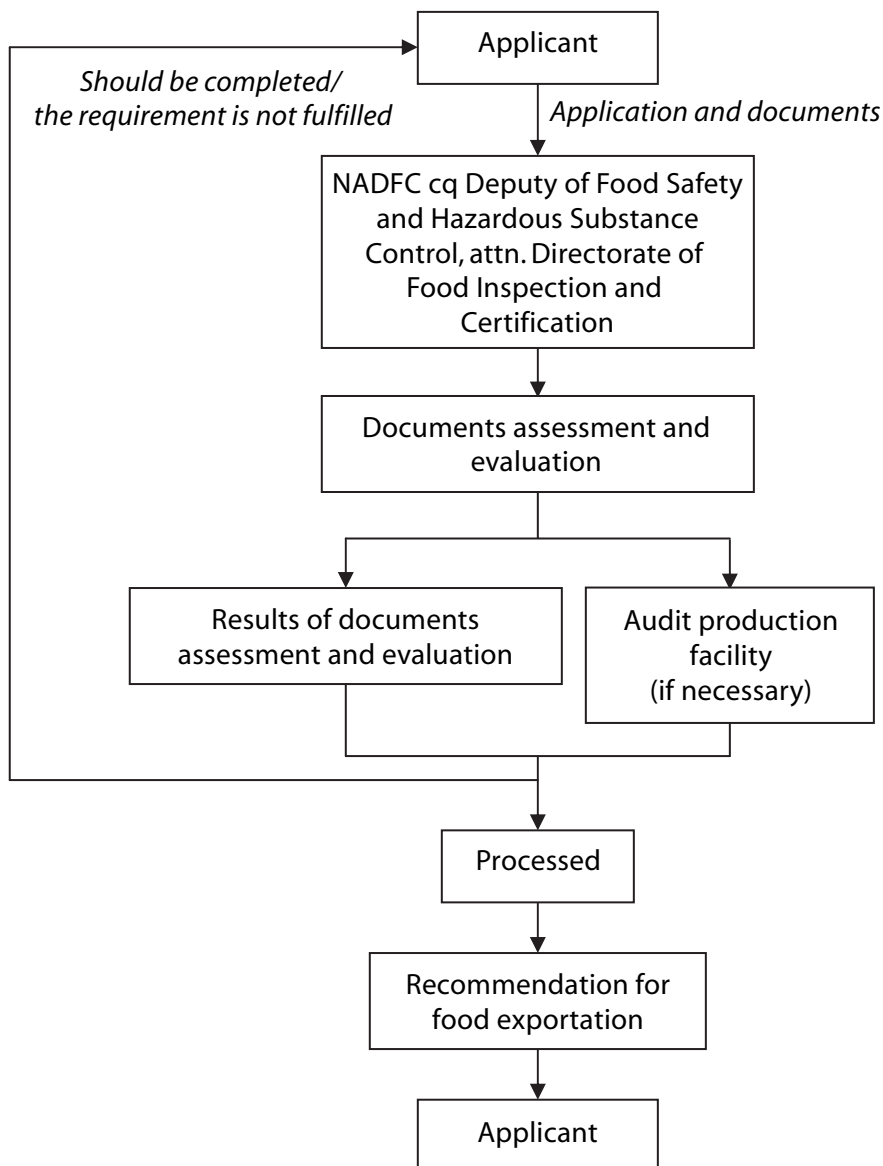
1. Applicant proposes application to obtain Recommendation for Food Importation to Director for Food Inspection and Certification, which contains:
  - Name and address of importer
  - Kind of food product and brand name
  - Packaging

- Volume of importation
- The country of origin
- Name and address of supplier company
- *Makanan luar negeri* or imported food product (ML) number (if the product is ML product)
- Number and date of invoice
- Number and date of the bill of lading (BL).

The application should be enclosed by:

- Letter of declaration on the intended use of imported products, with postage of Rp 6.000
  - Photocopy of registration number (for ML product)
  - Product specification which contains:
    - a. description/composition/ingredients
    - b. physical characteristics
    - c. chemical characteristics
    - d. microbiological characteristics
    - e. packaging
    - f. instructions for use
    - g. storage, shelf life.
  - Certificates:
    - a. Health certificate/free sale from authorized agency.
    - b. Certificate of analysis, enclosed for every import in maximum period of 6 (six) months.
    - c. Products of hydrolated vegetable protein (HVP), isolated soy protein and soy sauce must enclose analysis result of 3 MCPD (3 monochloro 1, 2 propanediol) residue.
  - Phytosanitary certificate of for agricultural products.
  - Certificate of freedom from radiation for milk products from Europe.
  - Certificate of non genetically modified organism (GMO) for products made from soy, corn, tomato, potato, and their processed products.
  - Certificate of origin for meat and its products (gelatine, collagen, skin)
  - Certificate of SNI for packaged drinking water, salt, flour.
  - Halal certificate if the product put the halal logo on its label.
  - Other supporting documents, such as order document from importer, invoice, BL, air waybill (AWB), bank ID known as a RIB, letter of credit (LC).
  - Certificate of analysis, includes contaminant analysis which is enclosed
    - a. as order document from buyer, invoice, BL, AWB, RIB, LC
2. The completed application is returned to NADFC cq Directorate for Food Inspection and Certification, Sub Directorate for Food Certification.
  3. The completeness of the application document is assessed. If the document is complete, it will be further processed. The incomplete document is returned to the applicant to be completed.

### Application procedure to obtain a recommendation for food exportation



**General purpose:** to improve and accelerate Indonesia's food exports, by supporting food producers to ensure that their products are safe, which is stated in the recommendation.

**Specific purpose:** to assess documents of food exportation and to audit the production facility if necessary, so as to issue the product quality and safety recommendation.

**Procedure:**

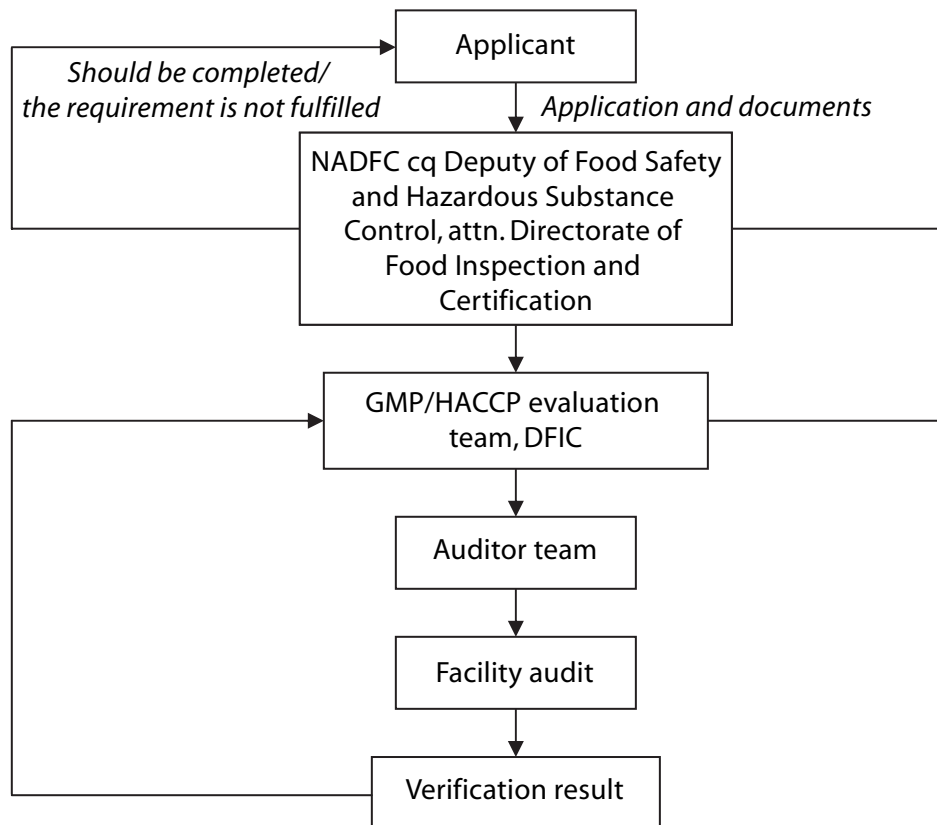
1. Applicant proposes application to obtain Recommendation for Food Exportation to Director for Food Inspection and Certification, which contains:
  - Name and address of importer

- Kind of food product and brand name
- Packaging
- Volume of exportation
- Destination country of exportation
- Name and address of producer/manufacture
- *Makanan dalam negeri* or domestic food product (MD) number (if the product has MD registration number)

The application should be enclosed with:

- Photocopy of MD registration number (if the special export product has different label design from the registered one, the exporter should make a declaration letter with Rp 6.000 postage which declares that the label of the special product for export has changed from the one registered and the only purpose is for export).
  - Letter of cooperation agreement between producer and exporter, if the product is not exported by the producer.
  - Certificate of analysis, includes contaminant analysis which is enclosed for every export in maximum time of 6 (six) months.
  - For the product which has not been registered yet, the product specification should be provided and contains:
    - a. description/composition/ingredients
    - b. physical characteristics
    - c. chemical characteristics
    - d. microbiological characteristics
    - e. packaging
    - f. instructions for use
    - g. storage, shelf life and method of storage
    - h. result of production facility inspection from NADFC Regional Office
    - i. example of product (1 product)
    - j. other supporting documents, such as order document from buyer, invoice, BL, AWB, RIB, LC
2. The completed application is returned to NADFC cq Directorate of Food Inspection and Certification, Sub Directorate of Food Certification.
  3. The completeness of the application document is assessed. If the document is complete, it will be further processed. The incomplete document is returned to the applicant to be completed.
  4. The applicant should pay the recommendation fee/tariff via an appointed bank.

### Application procedure to obtain a recommendation for hygiene-sanitation implementation



**General purpose:** to accelerate implementation of quality and safety assurance of domestic food product to improve food product added value.

**Specific purpose:** to support domestic food producers to compete in global trade market through implementation of quality and safety system in the form of issuing a certificate/recommendation.

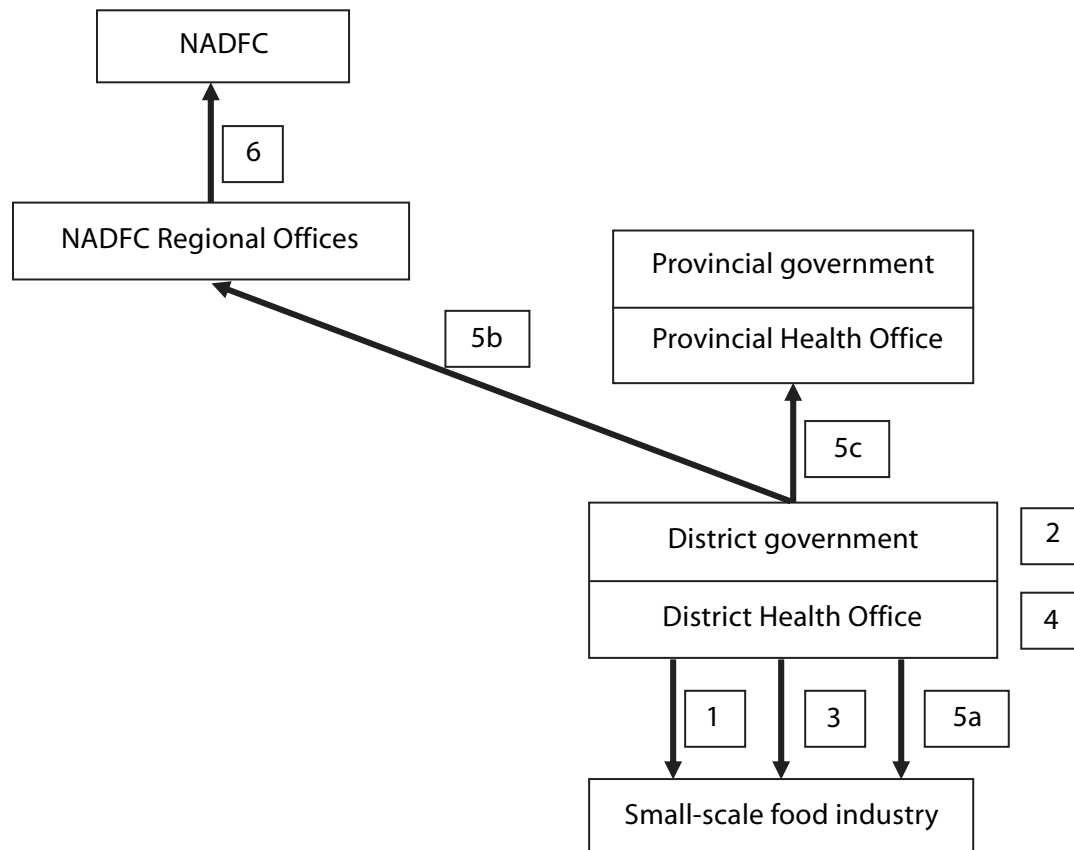
**Procedure:**

1. Applicant proposes application to obtain Recommendation for Hygiene-Sanitation Implementation to Director for Food Inspection and Certification. The application is enclosed with:
  - Quality guide document, which contains a complete explanation about standard operating procedure (SOP) to assure food product quality and safety.
  - Scheme of food production process and its explanation.
  - Map of factory location.
  - The factory layout.
  - Declaration that the factory is not being established or renovated.
  - Other supporting documents.



2. The completed application is returned to NADFC cq Directorate for Food Inspection and Certification, Sub Directorate for Food Certification.
3. The completeness of the application document is assessed. If the document is complete, it will be further processed. The incomplete document is returned to the applicant to be completed.
4. Auditor team and the industry make schedule of production facility audit. The auditor team is designated by Director for Food Inspection and Certification in an official letter.
5. Audit fee and facility are covered and provided by the applicant as follows:
  - Fee for travel by plane (return) for two auditors.
  - Airport – factory transfer. If the factory is located in Jakarta, Bogor, Tangerang, or Bekasi (Jabotabek), the auditor is flown in and delivered to NADFC office.
  - Auditor lunch.
  - Accommodation.
  - Daily allowance.
6. The auditor team is obliged to write an audit report and explain the findings and their argumentation to the auditee. Auditee/factory's representative is given opportunity to comment, ask for explanation or further question the findings.
7. The findings/audit report is discussed in a meeting in NADFC to determine the follow-up.
8. The audit result which has been discussed by the evaluation team is summarized to be followed up by a few possibilities as follows:
  - If the audit result meets the requirements, a recommendation letter of hygiene-sanitation implementation will be issued. The letter is valid for 6 months or 1 year, depends on factory audit result.
  - If the audit result is not eligible for the issuance of the recommendation letter, an official information letter will be sent to the factory so that it can conduct correction/improvement actions needed.
  - If the factory has implemented correction, it must report the correction result immediately to Director for Food Inspection and Certification.
  - The evaluation team discusses the follow-up that should be taken, whether re-audit is necessary or not, depends on the action/improvement efforts. If the team decides it to be eligible to be given recommendation, then the recommendation letter is issued.
9. The applicant should pay the recommendation fee/tariff via appointed bank.

### Certification system for small industry food production



1. The District Health Office invites SSFI to join the food safety extension programme.
2. The District Health Office holds the food safety extension programme for SSFI.
3. The District Health Office audits the SSFI which has joined the extension programme.
4. The District Health Office issues Small Industry Food Production Certificate (SIFPC) by considering the food safety extension and audit of SSFI facility result.
- 5a. The issuance letter of SIFPC is sent to the SSFI.
- 5b. Copy of SIFPC to be sent to NADFC Regional Office.
- 5c. Copy of SIFPC to be sent to Provincial Health Office.
6. NADFC regional office reports the issuance of SIFPC to NADFC cq Directorate of Food Safety Surveillance and Extension-Deputy of Food Safety and Hazardous Substance Control.

**Note:** During the supervision period, the relevant NADFC regional office supervises implementation of food safety extension, audit of SSFI facility, and issuance letter of SIFPC.

## List of legislation concerning food in Indonesia

### A. National food policy

#### I. Law:

- 1) Law No. 23/1992 on Health.
- 2) Law No. 7/1996 on Food.
- 3) Law No. 8/1999 on Consumer Protection.
- 4) Law No. 22/1999 on Regional Government.

#### II. Government Regulation:

- 1) Government Regulation No. 102/2000 on Indonesian National Standardization.
- 2) Government Regulation No. 25/2000 on Government Authority and Provincial Authority as Autonomous Region.
- 3) Government Regulation No. 28/2004 on Food Safety, Quality and Nutrition.

#### III. President and Minister Decree:

- 1) President Decree No. 13/1997 on National Accreditation Committee (Voluntary for laboratory, certification agency and inspection agency).
- 2) President Decree No. 43/2001 on Organization and Task of Non Departmental Government Agency.
- 3) President Decree No. 62/2001 on Non Departmental Government Agency Position, Task, Function, Responsibility, Organization and Management.
- 4) President Instruction No. 8/1999 on National Action of Food and Nutrition Problem Response.
- 5) Coordinating Minister of Public Welfare No. 29/KEP/MENKO/KESRA/X/2002 on Guidelines for Increasing Coordinating Policy for Food Safety and Nutrition.

### B. GMP inspection and certification

- 1) President Instruction No. 2/1991 on Improvement of Supervision and Inspection on Processed Food Production and Distribution.
- 2) Minister of Health Regulation No. 329/MENKES/PER/XII/76 on Food Production and Distribution.
- 3) Minister of Health Decree No. 23/MENKES/SK/1978 on Guidelines of GMP for Food Industry.
- 4) Minister of Health Decree No. 00474/B/II/1987 on Compulsory to Enclose Health Certificate and Free Radiation Certificate for Imported Products.
- 5) Director General of Drug and Food Control Decree No. 02665/B/SK/VIII/91 on GMP for Children and Baby Foods.
- 6) Head of NADFC Decree No. HK 00.05.5.1639/2003 on Guideline for GMP of Small-Scale Food Industry.

- 7) Head of NADFC Decree No. HK 00.05.5.1640/2003 on Guideline for Certification of Food Production in Small-Scale Food Industry.
- 8) Head of NADFC Decree No. HK 00.05.5.1641/2003 on Guideline for GMP Audit of Small-Scale Food Industry.
- 9) Indonesian National Standard SNI 01-4852-1998. HACCP System and Implementation Guidelines. Adoption of CAC/RCP 1-1969, Rev. 3 (1997) – Recommended International Code of Practice – General Principles of Food Hygiene – Annex: Hazard Analysis and Critical Control Point (HACCP) System and Guidelines for Its Application.

### **C. Food labelling**

- 1) Government Regulation No. 69/1999 on Food Labelling and Advertisement.
- 2) Minister of Health Regulation No. 76/MENKES/PER/XII/1975 on Distribution and Characterization of Sweetened Condensed Milk.
- 3) Minister of Health Regulation No. 280/MENKES/PER/XI/76 on Food Distribution and Characterization of Foods Containing Pork Ingredients.
- 4) Minister of Health Regulation No. 79/MENKES/PER/III/1978 on Food Labelling and Advertising.
- 5) Minister of Health and Minister of Religion Decree No. 427/MEN.KES/SKB/VIII/1985, No. 68/1985 on Halal Requirement on Food Labelling.
- 6) Minister of Health Decree No. 82/Menkes/SK/I/1996 on Halal Logo on Food Label.
- 7) Director General of Drug and Food Control Decree No. 02240/B/SK/VII/91 on Guideline of Food Quality, Labelling and Advertising.
- 8) Head of NADFC Decree No. HK 00.05.5.1142/2003 on Reference of Dietary Allowance Percentage in Food Label.
- 9) Head of NADFC Decree No. HK 00.05.52.4321/2003 on General Guideline of Food Labelling.

### **D. Food additives**

- 1) Minister of Health Regulation No. 239/Menkes/Per/1985 on Certain Coloring Agent Stated as a Hazardous Substance.
- 2) Minister of Health Regulation No. 208/MENKES/PER/IV/1985 on Sweeteners.
- 3) Minister of Health Regulation No. 722/MENKES/PER/IX/88 on Food Additives.
- 4) Minister of Health Decree No. 238/MENKES/SK/VI/1979 on Certificate of Analysis for Food Additives Importation.
- 5) Minister of Health Decree No. 208/MENKES/PER/IV/1985 on Sweetener: Maximum Level of Sweeteners in Several Processed Foods.
- 6) Director General of Food and Drug Control Decree No. 02593/B/SK/VIII/91 on Regulation for Food Additives Producer.
- 7) Director General of Drug and Food Control Decree No. 02592/B/SK/VIII/91 on Food Additives Utilization.
- 8) Head of NADFC Decree No. HK 00.05.5.1.4547/2004 on Food Additives: Sweeteners in Food.

**E. Food contaminant**

- 1) Director General of Drug and Food Control Decree No. 03725/B/SK/VII/89 on Maximum Level of Heavy Metal Contamination in Food.
- 2) Director General of Drug and Food Control Decree No. 03726/B/SK/VII/89 on Maximum Level of Microbial Contamination in Food.
- 3) Head of NADFC Decree No. HK 00.05.5.14057/2004. on Maximum Level of Aflatoxin in Food.

**F. Others**

- 1) Government Regulation No. 17/2001 on Tariff of Non Taxed National Income in NADFC.
- 2) Minister of Health Regulation No. 330/MENKES/PER/XII/76 on Compulsory Food Registration.
- 3) Minister of Health Regulation No. 382/MENKES/PER/VI/1989 on Food Registration.
- 4) Minister of Health Decree No. 86/MENKES/PER/IV/77 on Alcoholic Beverages.
- 5) Director General of Drug and Food Control Decree No. 153/B/SK/1980 on Alcoholic Beverages Permission.
- 6) Minister of Health Decree No. 59/MENKES/PER/II/1982 on Distribution and Importation Prohibited for Alcoholic Beverages which are not registered with Minister of Health.
- 7) Minister of Health Decree No. 240//MENKES/PER/85 on Breast Milk Substitution.
- 8) Director General of Drug and Food Control Decree No. 02664/B/SK/VII/91 on Quality Requirement for Breast Milk Substitution.
- 9) Director General of Drug and Food Control Decree No. 02048/B/SK/VI/91 on Technical Guidelines for Minister of Health Decree RI No. 240//MENKES/PER/V/85 on Breast Milk Substitution Marketing.
- 10) Minister of Health Decree No. 180/MENKES/PER/1985 on Expired Food.
- 11) Director General of Drug and Food Control Decree No. 02591/B/SK/VIII/1991 on Changing Appendix of Minister of Health Decrees No. 180/MENKES/PER/IV/1985 on Expired Food.
- 12) Minister of Health Decree No. 165/MENKES/SK/II/86 on Requirement of Iodized Salt.
- 13) Director General of Drug and Food Control Decree No. 02942/B/SK/IX/1986 on Technical Guidelines on Quality Control of Iodized Salt in Distributor/Consumer Level: Iodized Salt Testing.
- 14) Minister of Health Decree 826/MENKES/PER/XII/87 on Irradiated Food.
- 15) Minister of Health Decree No. 00474/B/II/87 on Health Certificate and Free from Radiation for Imported Food.

### Mapping of institutional authority in the inspection and certification for GMP for processed foods based on GR 28/2004

Article	Par.	Content	Responsibility
6	2	Guidelines of GMP for processed food	MoI; MoF&MA
	3	Guidelines of GMP for certain processed food	NADFC
11	2	Regulation on food additives: prohibition from using anything as food additive that is declared prohibited	NADFC
12	2	Determination of the name and type of food additives that are allowed, the purposes of using and the maximum limit of using such materials according to food category	NADFC
13	2	The requirements and procedures for approval of the materials to be used as food additives	NADFC
14	3	GMF: the examination that deals with safety of GMF	Relevant Commission
	4	The requirement and procedure of GMF safety examination	Relevant Commission
	5	Determination of the raw materials, food additives and/or any other processing aid that obtained from any genetically modifying process and declared safe as food	NADFC
15	1	License for using nuclear energy of irradiation facilities in the activity or process of the food to be distributed	Nuclear Energy Controlling Board
	2	Determination of the irradiation food procedures for any irradiated foods to be distributed	NADFC
16	2	Determination of prohibited materials from use as food packaging	NADFC
17	2	Determination of permitted material as food packaging	NADFC
18	1	Examination and approval of other materials for food packaging	NADFC
	2	The requirement and procedures for approval of materials for food packaging	NADFC
19	2	The appropriate food packaging procedures	NADFC
21	2	Authority to require the application of standards or requirements in respect of the quality assurance system	– MoA; MoF&MA – MoF; MoI; MoH – NADFC
22	2	Determination of processed food that should be examined in laboratory prior to distribution	NADFC
24	1	The provisions for processed foods, which include: specify the prohibited material used in the production activity or process; set forth the permitted maximum contamination threshold, regulate the requirements for certain procedures and/or materials in the activity or process; and specify the prohibited materials to be used in producing the equipment	NADFC
25	3-6	Food poisoning	District Health Office
26	1-2	Investigate and address food-borne disease outbreaks	District governments Provincial government
28	1	Provisions on medical first aid for the victims, the taking of specimens, specimen examination, and reporting on the food poisoning outbreaks	MoH
	2	Procedures for taking food samples, laboratory testing and reporting on the cause(s) of poisoning	NADFC

Article	Par.	Content	Responsibility
29		Establishment of food quality standard, which is declared as the Indonesian National Standard (SNI/INS)	National Standardization Body of Indonesia (NSBI)
30	2	The compulsory imposition of SNI/INS, in coordination with the Head of National Standardization Body of Indonesia	– MoA; MoF&MA – MoI; NADFC
31		Provisions on food quality outside SNI/INS for a food that is highly risky	– MoA; MoF&MA – NADFC
32	2	Food Quality Certification: Set forth requirements and procedures for the quality of food that is highly risky	– MoA; MoF&MA – NADFC
37	2	The requirements for processed foods to be imported into Indonesian territories and distributed therein	NADFC
38	2	Food importation approval issuance to release imported products from customs	NADFC
40		Further requirement of food importation	– MoA; MoF&MA – MoT; NADFC
41	2	The requirements for food exported from Indonesia	– MoA; MoF&MA – NADFC
	4	Mutual acknowledgement with requirement on the appropriateness of evaluation to meet the requirements of the exportation destination country	– MoA; MoF&MA – NADFC; NSBI
42	2-6	Control of processed foods	NADFC
43	3	Issuance of small-scale food production certificate	District government
	4	Establishment of guideline for issuing small-scale food production certificate	NADFC
45	1-2	Control of food distribution	NADFC
	3b	Control function of processed food	MoF&MA; MoI; NADFC
	3c	Control on certain processed food	NADFC
	3d	Control on food processed by small-scale industry and ready to serve food	District government
46	2	Conduct investigation of violation of the law in the field of processed food	NADFC
	3	Conduct investigation of violation of the law in the field of food processed by small-scale food industry	District government
48	4	Instruction of processed food withdrawal and/or destruction	NADFC
	5	Establishment of food withdrawal and/or destruction guidelines	NADFC
50		Announcement of the testing and/or inspection results to the public	NADFC
51	2	Supervision of processed food producers	MoA; MoF&MA; MoI
	3	Supervision of certain processed food producers	NADFC
	4	Supervision of small-scale industry food producers	District government
	5	Supervision of regional government and people in the field of food control	NADFC



### Matrix of institutional responsibility in food control

Commodity Function	FRESH FOODS: animal, plant, marine and fishery products	READY TO EAT FOOD	PROCESSED FOOD; P-IRT/MD/ML
Standardization	MoA, MoF&MA, NADFC, NSBI	MoH, NADFC, NSBI	NSBI, NADFC
Pre-market evaluation/ product licensing	MoA MoF&MA	District government	NADFC District government
Post market surveillance/ product sampling & lab testing	MoA MoF&MA NADFC	NADFC/Regional NADFC DFI <sup>1</sup>	NADFC/Regional NADFC/NFI DFI <sup>2</sup>
Licensing of production facilities	MoA MoF&MA District government	District government	MoI District government
Licensing of distribution facilities	MoA MoF&MA District government	District government	MoI
GMP certification	MoA MoF&MA District government	MoH	MoI NADFC
GDP certification	MoA MoF&MA District government	MoH	NADFC MoT
Inspection of production facilities	MoA MoF&MA District Government	District government DFI	NADFC/Regional NADFC/NFI District government
Inspection of distribution facilities	MoA MoF&MA NADFC	District government DFI	NADFC/Regional NADFC DFI
Inspection of retailers	MoA MoF&MA District Government	DFI <sup>3</sup>	NADFC/Regional NADFC/NFI DFI <sup>4</sup>
Investigation	MoA, MoF&MA NADFC	NADFC/GIO	NADFC/GIO

**Note:**

MoA : Ministry of Agriculture

MoF&MA : Ministry of Fisheries and Marine Affairs

MoH : Ministry of Health

MoI : Ministry of Industry

MoT : Ministry of Trade

NADFC : National Agency for Drug and Food Control

NSBI : National Standardization Body of Indonesia

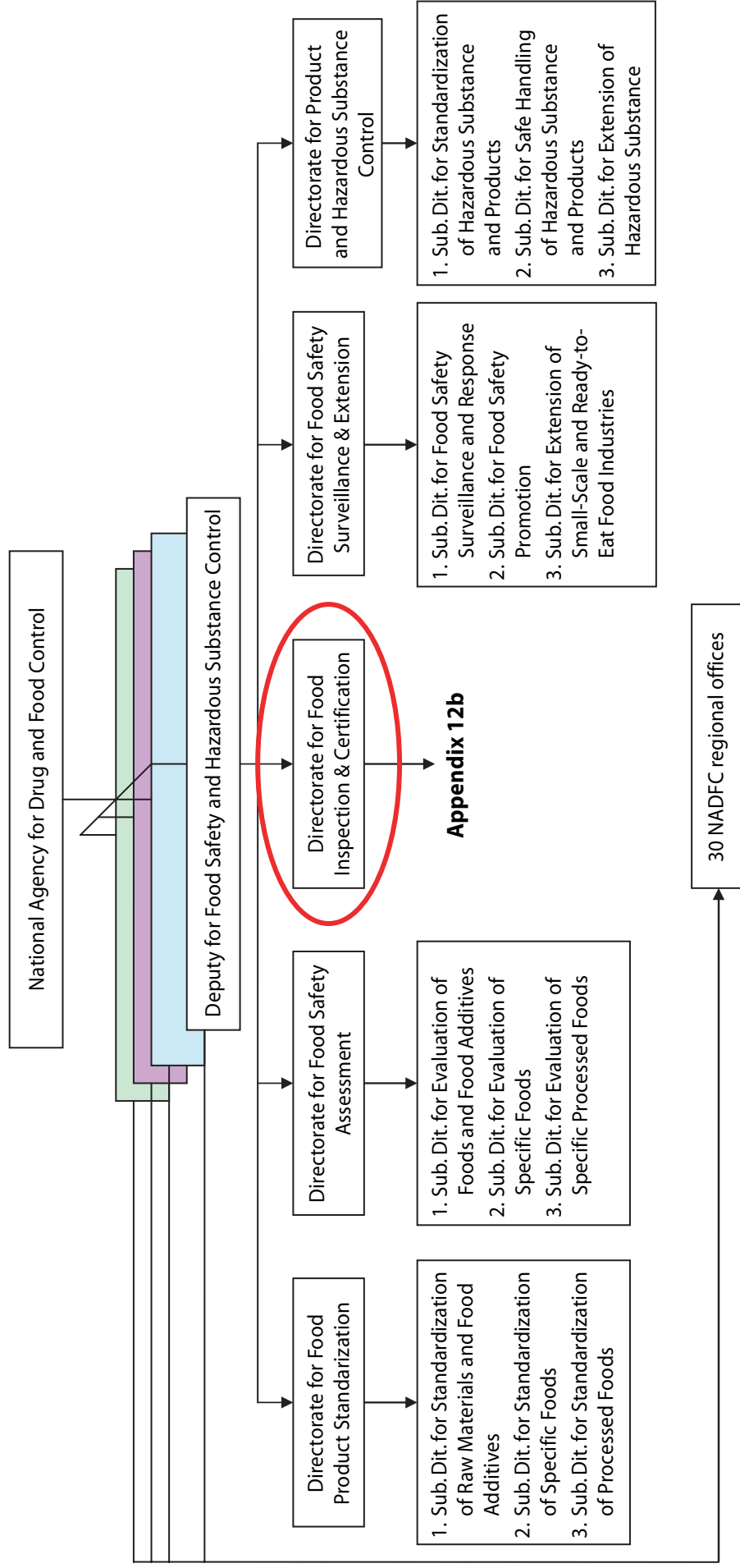
<sup>1</sup> NADFC carries out lab testing, district food inspectors carry out inspection and sampling.

<sup>2</sup> NADFC carries out inspection, sampling and lab testing, district food inspectors carry out inspection and sampling.

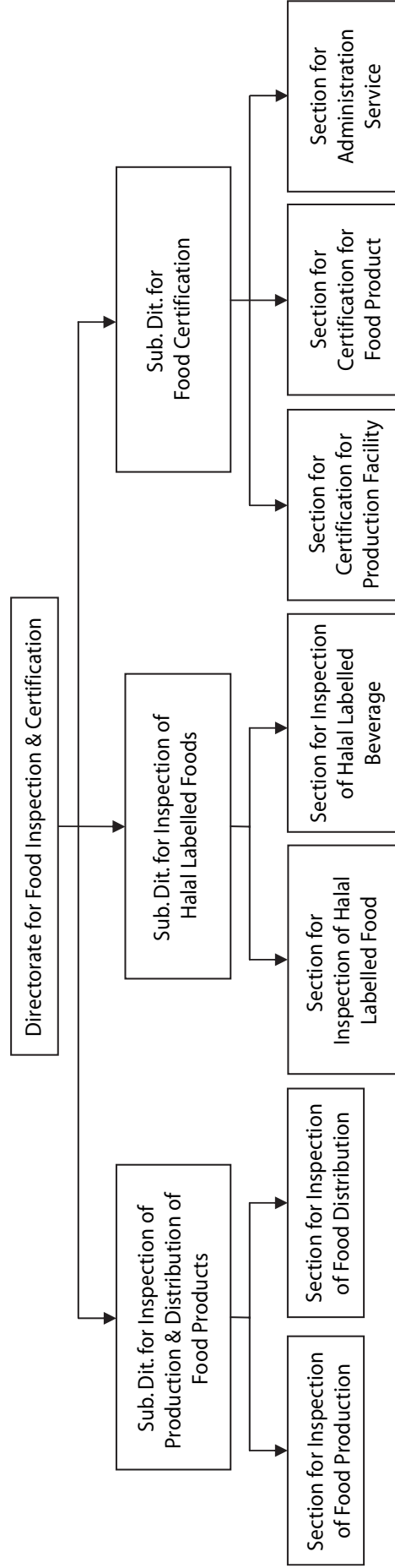
<sup>3</sup> District food inspectors carry out inspection for retailers of ready-to-eat food, such as restaurants, canteens, street food.

<sup>4</sup> District food inspectors carry out inspection under the supervision of NADFC.

Organizational structure of Department of Food Safety and Hazardous Substance Control, NADFC



**Organizational structure of Directorate for Food Inspection and Certification**



Competency requirements of National Food Inspector (NFI)

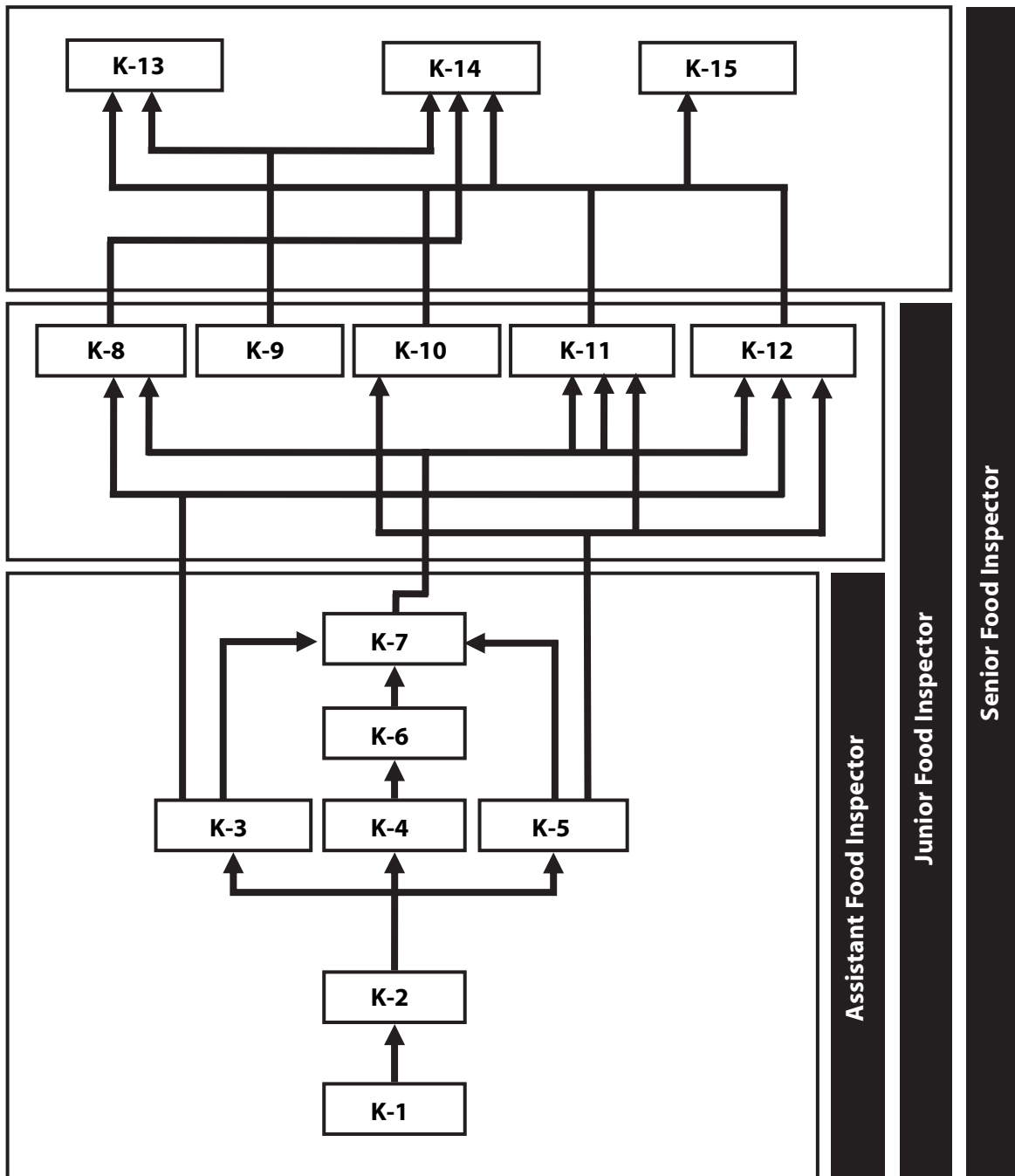


Figure 1. Diagram of competency tree of food inspector (from Bogor Agricultural University (IPB) team, 2007)

The 15 competencies of a National Food Inspector:

- K-1 Ability to use basic principles of food science and technology in food control process comprehensively.
- K-2 Ability to carry out examination and inspection of processing procedures for various food products from raw material to processed food to determine their correctness, and also able to use various kinds of equipment for examination of production, storage, distribution, and sales facilities.
- K-3 Ability to examine the fitness and appropriateness of food products with respect to the prevailing legislation.
- K-4 Ability to inspect and supervise good sanitation and hygiene practices in production, storage, and distribution facilities.
- K-5 Ability to take sample correctly for the purpose of analysis according to prevailing rules.
- K-6 Ability to trace and determine the cause of various food safety problems.
- K-7 Ability to communicate well.
- K-8 Ability to solve problems based on prevailing legislation, both national and international.
- K-9 Ability to process data and interpret gathered information.
- K-10 Ability to design HACCP plan and its supporting system for implementation in food industry.
- K-11 Ability to deliver guidance and extension of GMP and other related food safety topics, and able to inspect medium risk and high risk food industries.
- K-12 Ability to implement communication techniques in food industry examination and carry out the inspection effectively.
- K-13 Ability to trace and investigate the cause of food-borne diseases.
- K-14 Ability to examine and assess low acid food production and acidified food that is packaged in hermetic packaging, and evaluate whether the implementation of heat process has been applied correctly.
- K-15 Ability to evaluate whether the quality management system principles, Total Quality Management (TQM), and food safety management system in food industry have been applied.

## The curriculum used for food inspector training

No.	Subject	FSE	DFI	Classification of NFI			Requirement for NFI's competency	The prerequisite competency
				AFI	JFI	SFI		
1	Food safety control system	√	√					
2	Properties of food commodities	√	√					
3	Properties of livestock commodities		√					
4	Classification of food commodities based on risk		√					
5	Characteristic of food component			√	√		K-1	
6	Food microbiology	√	√	√	√		K-1	
7	Food pathogens		√					
8	Principle of nutrition science			√	√		K-1	
9	Basic statistics			√	√		K-1	
10	Principle of food processing and preservation	√	√					
11	Food processing technology		√					
12	Principle of food preservation			√	√		K-2	K-1
13	Principle of food processing I			√	√		K-2	K-1
14	Principles of food processing II			√	√		K-11	K-3, K-5, K-6, K-7
15	Food drying		√					
16	Food packaging, storage and labelling	√	√					
17	Principle of food packaging and storage			√	√		K-2	K-1
18	Guidelines for inspection small-scale food industry	√	√					
19	Method of inspection on food production facility I			√	√		K-2	K-1
20	Method of inspection on food production facility II			√	√		K-11	K-3, K-5, K-6, K-7
21	Food quality analysis		√	√	√		K-3	K-2
22	Food quality assurance system		√	√	√		K-15	K-9, K-10
23	Food regulation	√	√					
24	Food legislation I			√	√		K-3	K-2
25	Food legislation II			√	√		K-8	K-3, K-6
26	Food control management			√	√		K-3	K-2
27	Hygiene and sanitation	√	√	√	√		K-4	K-2

No.	Subject	FSE	DFI	Classification of NFI			Requirement for NFI's competency	The prerequisite competency
				AFI	JFI	SFI		
28	Good practices procedures in food chain	√	√					
29	Guideline and procedure of food production certification for small-scale food industry	√	√					
30	GMP for small-scale food industry	√	√					
31	GMP I			√	√	√	K-4	K-2
32	GMP II				√	√	K-11	K-3, K-5, K-6, K-7
33	Sampling technique		√	√	√	√	K-5	K-2
34	Food safety	√	√					
35	Food safety I			√	√	√	K-6	K-4
36	Food safety II				√	√	K-13	K-10
37	Principles of HACCP			√	√	√	K-6	K-4
38	Food safety control		√					
39	Food safety management			√	√	√	K-6	K-4
40	Principles of communication and extension	√						
41	Principles of communication			√	√	√	K-7	K-2, K-3, K-4, K-5, K-6
42	Technique of communication in inspection and supervision of food industry				√	√	K-12	K-7
43	Processing and managing food quality data				√	√	K-9	K-5
44	Implementation of HACCP in food industry				√	√	K-10	K-6
45	Investigation of food borne disease					√	K-13	K-10
46	Method of low acid and acidified food processing					√	K-14	K-8, K-9, K-10
47	Food additives	√						
48	Presentation technique	√						
49	Training management and evaluation	√						
50	Business development for small-scale food industry	√						
51	Quality planning, control and improvement		√					
52	Analysis tools for quality improvement		√					
53	Case study in quality improvement		√					
54	Seven tools in quality improvement programme		√					
55	Internship				√	√		

FSE = Food Safety Extension Officer      DFI = District Food Inspector      AFI = Assistant Food Inspector      JFI = Junior Food Inspector      SFI = Senior Food Inspector



## **Scope of work, responsibility and authority of National Food Inspector (NFI)**

### **1. Assistant Food Inspector**

This is the lowest level of National Food Inspector. An assistant food inspector (AFI) is authorized to examine and inspect very low risk or low risk products. He/she could assist the Junior Food Inspector in the examination and inspection of medium risk products. The assistant food inspector does not have authority to decide a determining problem, such as to determine the quality of a food industry or cause of food poisoning. In order to implement the task well, an assistant food inspector should have minimal competencies of K-1, K-2, K-3, K-4, K-5, K-6, and K-7 (see figure 1, annex 13).

### **2. Junior Food Inspector**

A junior food inspector (JFI) is responsible for the scope of work which is delegated to him/her and has authority to decide a determining problem, such as to determine the quality of food industry, include determining sanctions for violation of regulations or causing food poisoning. The JFI is authorized to examine food industries that manufacture medium risk products. A JFI could assist a Senior Food Inspector to examine and inspect high risk food products. In order to implement the task well, a JFI should have additional competencies besides the AFI's competencies. They are K-8, K-9, K-10, K-11, and K-12 (see figure 1, annex 13).

### **3. Senior Food Inspector**

Senior food inspector (SFI) is the highest level of National Food Inspector classification. Task and authority of SFI are:

- (1) inspection of food industry that manufactures high risk and very high risk products;
- (2) examination of food industry that is operated and controlled by automatic equipment and machine;
- (3) authorized to decide a determining action (such as production halt if there is any violation of regulations that endangers public health);
- (4) authorized to recommend sanctions on violation of regulations;
- (5) can determine cause of food poisoning;
- (6) can determine food industry quality.

In order to be able to do the task well, a SFI should have additional competencies besides the AFI's and JFI's competencies. They are K-13, K-14, and K-15 (see figure 1, annex 13).

### Distribution of food inspector resources in Indonesia

No.	Provinces	FSEW*	DFI*	AFI**	JFI**	GFI***
1	NADFC	27	12	16	1	36
2	Nangroe Aceh Darussalam	85	79	2	0	6
3	North Sumatera	169	85	7	3	16
4	West Sumatera	83	63	3	0	14
5	Riau	79	73	4	2	11
6	Riau Island	62	41	0	0	0
7	Bangka Belitung	34	16	0	0	0
8	Jambi	67	55	3	0	5
9	South Sumatera	47	15	2	0	8
10	Bengkulu	94	27	4	0	7
11	Lampung	12	9	2	0	11
12	Jakarta	29	61	10	1	11
13	Banten	24	24	0	0	0
14	West Java	132	161	10	4	16
15	Central Java	174	138	7	2	18
16	Yogyakarta	64	43	7	3	9
17	East Java	170	216	22	11	10
18	Bali	80	53	14	0	13
19	West Nusa Tenggara	51	28	3	1	4
20	East Nusa Tenggara	85	40	1	0	3
21	West Kalimantan	78	43	4	0	4
22	South Kalimantan	105	38	13	0	10
23	Central Kalimantan	20	57	6	0	2
24	East kalimantan	92	35	5	0	8
25	North Sulawesi	61	26	3	2	3
26	Central Sulawesi	74	47	3	2	4
27	West Sulawesi	154	83	0	0	0
28	South East Sulawesi	26	16	1	1	5
29	South Sulawesi	45	71	8	1	14
30	Gorontalo	14	6	0	0	0
31	Maluku	48	24	2	0	4
32	North Maluku	14	5	0	0	0
33	Papua	73	68	1	0	5
34	West Papua	20	17	0	0	0
<b>S U M :</b>		<b>2 392</b>	<b>1 775</b>	<b>163</b>	<b>34</b>	<b>257</b>

**Note:**

FSEW : Food Safety Extension Worker

DFI : District Food Inspector

AFI : Assistant Food Inspector

JFI : Junior Food Inspector

GFI : General Food Inspection

\* Data from Directorate for Food Safety Surveillance and Extension, by 2006 (NADFC 2006)

\*\* Data from Directorate for Food Inspection and Certification, by 2007 (NADFC 2007a)

\*\*\* Data from Human Resources Division-NADFC, by 2007.





**FAO Regional Office for Asia and the Pacific**

39 Phra Atit Road, Bangkok 10200, Thailand

Tel: (66 2) 697 4000 Fax: (66 2) 697 4445 E-mail: [FAO-RAP@fao.org](mailto:FAO-RAP@fao.org)

Website: <http://www.fao.org/asiapacific>