1. Introduction

Food integrity and authenticity discussion began at the 22\textsuperscript{nd} Session of the Codex Committee on Food Import and Export Inspection and Certification Systems (CCFICS22) in 2016 where the Delegation of the Islamic Republic of Iran described the difficulty for consumers to assess the authenticity of food and need for new methodologies and Codex guidelines to help authorities to address the dramatic increase in food fraud.

Many delegations expressed their support for new work to be carried out in this area as they had experienced various forms of food fraud, where the analytical methods for detection of the fraud by food authorities were either missing or not widely available.

CCFICS22 invited the Islamic Republic of Iran to develop a discussion paper on the potential for new work on this topic, with assistance from the Netherlands and Canada, including a review of existing CCFICS text for possible gaps to provide a basis for discussion on possible new work at CCFICS23, in 2017.

The discussion paper on food integrity and authenticity was discussed at CCFIC23. It was proposed to undertake a review of existing Codex texts with a view to obtaining a clear picture not only of gaps but also of how and to what extent food integrity and authenticity were already covered by Codex texts, focusing primarily on texts of CCFICS. Given that there was broad support in the Committee for the need to pursue further preliminary work in this area, the Committee agreed to establish an electronic working group (eWG), chaired by the Islamic Republic of Iran and co-chaired by Canada and the European Union, working in English only, with the following terms of reference:

a) clarify the definitions of food integrity, food authenticity, food fraud and economically motivated adulteration (EMA) and delineate the scope for the preliminary assessment of CCFICS texts;

b) based on those definitions, undertake a preliminary assessment of existing CCFICS texts to identify possible gaps and the impact, whether positive or negative, of those texts in mitigating potential problems; and

c) prepare a discussion paper presenting the findings of that assessment and any need for further work or potential new work.

This discussion paper aims to provide a basis for discussion on possible new work at CCFICS24.

\textsuperscript{1} The electronic working group comprised representatives of Argentina, Australia, Brazil, Canada, Dominican Republic, Ecuador, Egypt, European Union, France, Germany, Greece, Guatemala, India, Indonesia, Iran, Ireland, Jamaica, Japan, Kazakhstan, Korea (Republic of), Mexico, Netherlands, New Zealand, Norway, Peru, Singapore, Thailand, United Kingdom and USA and following institutions: COFEPRIS, FAO, FIVS, FDE, FIA, GOED, ICGA, ICBA, ICGM, IDF, IFVJA, IGMA, MSU, SGAE, SSAFE and USP.
2. Definitions

The discussion paper was developed through two rounds of engagement with the electronic working group members. The comments received on the first draft included additional suggestions for definitions of the four key terms: food integrity, food authenticity, food fraud, and economically motivated adulteration. This led to options for each term being included in the second paper for comment.

Generally, for those options where there was support, the level of support was equally distributed. In other words, no one definition was favoured over the rest. The chair and co-chairs noted, though, that the definitions the eWG members supported shared a number of common elements and these were identified for each term. The definitions proposed were developed based on these elements for:

- food integrity,
- food authenticity,
- food fraud, and
- economically motivated adulteration.

2.1 Food Integrity

The common elements identified from the feedback that are relevant for the definition of food integrity include:

- safety
- authenticity or identity
- meeting specifications or expected characteristics
- quality, including nutrition

Based on these, the following definition was developed:

*The status of a food product where it is authentic and not altered or modified with respect to expected characteristics including, safety, quality, and nutrition.*

2.2 Food Authenticity

The essential terms that characterized food authenticity, identified from the comments of the eWG members include:

- genuine
- undisputed origin, nature, identity
- claims
- expected properties

Based on these, the following definition was developed:

*Food authenticity is the quality of a food to be genuine and undisputed in its nature, origin, identity, and claims, and to meet expected properties.*

2.3 Food Fraud

The following were the common terms important to be part of a definition for food fraud:

- deliberate, intent
- deception
- misrepresentation
- financial gain, economic, advantage
- food, ingredients, and packaging

Based on these terms, the following definition was developed:

*Any deliberate action of businesses or individuals to deceive others in regards to the integrity of food to gain undue advantage. Types of food fraud include but not limited to: adulteration, substitution, dilution, tampering, simulation, counterfeiting, and misrepresentation.*
2.4 Economically Motivated Adulteration (EMA)

The following were the common terms important to be part of a definition for EMA:

- deliberate intentional
- addition
- substitution
- increasing the apparent quality or value
- reducing the cost of its production.

Based on these terms, the following definition was developed:

*Economically motivated adulteration is a subset of food fraud. It is the intentional substitution or addition of a substance in a product for the purpose of increasing the apparent value of the product or reducing the cost of its production, for economic gain.*

3. Scope for Preliminary Assessment of CCFICs Texts

The scope for the preliminary assessment of CCFICs texts includes all principles and guidelines developed by CCFICs. It aims to:

- assess the scope and applicability of each text in managing food integrity and authenticity
- identify the key food integrity and authenticity control requirements or guidance

The analysis of the documents is provided in order of greatest influence to least. The scope of the analysis is currently narrowed down to the CCFICS texts in line with the mandate of the eWG. However, in the future there could be a need for further request to other Codex Committees, such as CCFL and Codex commodity committees, to analyse Codex texts under their purview.

4. Preliminary Analysis of existing CCFICs texts

The following is a preliminary assessment of existing CCFICS texts intended to identify gaps and the impacts, both positive and negative, in mitigating potential problems caused by food fraud. It was developed based on the draft definitions that appear in this document.

**Principles and Guidelines for National Food Control Systems (CAC/GL 82-2013)**

This text is a fundamental piece of CCFICS guidance as it gives holistic guidance on the setting of national food control systems. Section 2 of CAC/GL 82-2013 indicates that the objective of a national food control system is to protect the health of consumers and ensure fair practices in the food trade. This means that the guidance covers food fraud.

Certain provisions of CAC/GL 82-2013 specifically refer to fraud:

- Paragraph 50, 2nd bullet point, recommends that “control programs should be based on risk and designed to take into account a number of factors including but not limited to risk of unfair practices in the food trade associated with different products, such as potential fraud or deception of consumers”.
- Paragraph 57, 1st bullet point, recommends that “compliance and enforcement programs should be designed to be proportionate to the degree of public health risk or potential fraud or deception of consumers”.
- Paragraph 81 recommends that “where a product or process is found not to be in conformity, the competent authority should take action to ensure that the operator remedies the situation. The resulting measures should take into account any repeated non-conformity of the same product or process to ensure that any action is proportionate: to the degree of public health risk, potential fraud or deception of consumers”.

**Principles for Food Import and Export Inspection and Certification (CAC/GL 20-1995)**

Food fraud risk reduction is covered by these principles as paragraph 5 recommends that “food inspection and certification systems should be used wherever appropriate to ensure that foods, and their production systems, meet requirements in order to protect consumers against foodborne hazards and deceptive marketing practices and to facilitate trade on the basis of accurate product description”.

Section on risk assessment (paragraphs 7 and 8) is limited to food safety and could be extended to fraud related risks. However, “risk assessment” within Codex refers to the assessment of risks related to food.
safety\textsuperscript{2}. Its extension to fraud related risks would require thorough consideration and would fall under the mandate of CCGP.

Section on certification validity (paragraph 19) recommends measures ensuring that certificates are authentic and accurate.


According to the scope (paragraph 1), these guidelines provide a framework for the development and operation of an import control system to protect consumers and facilitate fair practices in food trade while ensuring unjustified technical barriers to trade are not introduced. It can thus be concluded that the guidelines cover food fraud. However, the Appendix on "Principles and guidelines for imported food inspection based on risk" is limited to food safety risks.


The scope of these guidelines is not specifically defined. However, according to paragraph 1, the guidelines provide a framework for the development of import and export inspection and certification systems consistent with the *Principles for Food Import and Export Inspection and Certification* (CAC/GL 20-1995). As the parent text covers food fraud it can be concluded that also the guidelines extend to food fraud. This is confirmed by certain provisions which specifically refer to fraud:

- According to paragraph 34, "where an imported product is found not to be in conformity, the resulting measures should take into account the following criteria to ensure that any action is proportionate to the degree of public health risk, potential fraud or deception of consumers".
- According to paragraph 40, "communications facilities should be provided to ensure adequate compliance action and to address potential recalls. Consideration should be given to developing electronic information exchange systems, in particular to facilitate trade, protect consumer health, and to combat fraud".
- According to paragraph 45, "demand for certification should be justified by risk to health or risk of fraud or deception".
- According to paragraph 48, "certification procedures should include procedures to ensure the authenticity and validity of certificates at all the relevant stages and to prevent fraudulent certification".


These guidelines provide guidance to countries on the design, production, issuance and use of official certificates to attest that food presented for international trade has met the importing country requirements relating to food safety, and/or ensuring fair practices in the food trade. Prevention of fraud and document fraud in particular is obviously one of the key objectives in the issuance of official certificates and therefore this aspect is comprehensively covered in the guidelines:

- According to paragraph 21, 4\textsuperscript{th} indent, "the design and utilization of official certificates should minimize the potential for fraud".
- According to paragraph 22, 2\textsuperscript{nd} indent, "certificates should be designed so as to minimize the potential for fraud including use of a unique identification number, or other appropriate means to ensure security (for example, use of watermark paper or other security measures for paper certificates use of secure lines and systems for electronic certificates)".
- According to paragraph 24, "official certificates as issued, are ultimately the responsibility of government authorities, while recognizing that it is the food production sector that is fundamentally responsible for food safety and the prevention of fraud and deception as it relates to food in international trade".
- According to paragraph 25, 5\textsuperscript{th} indent, "the certifying body should have in place an effective system to minimize, to the extent practicable, the fraudulent use of official certificates".

\textsuperscript{2} Working Principles for Risk Analysis for Application in the framework of the Codex Alimentarius, Procedural Manual, 24\textsuperscript{th} Edition, p. 113
According to paragraph 39, a system for electronic certification should "assure integrity of the certification system during the exchange of electronic data to protect against fraud" (3rd indent) and "should include technical or procedural mechanisms to prevent the fraudulent reuse of electronic certificates" (5th indent).

- Principle H provides that competent authorities should take appropriate action to prevent the use of fraudulent certificates and should assist, as appropriate, in the timely investigation of such use. Paragraphs 45-48 provide guidance on the implementation of this principle:
  - 45. When a competent authority suspects on reasonable grounds that an official certificate may be fraudulent, because of deliberate misrepresentation or other criminal activity, it should immediately commence an investigation and involve the certifying body of the country from which the suspected fraudulent certificate is purported to have originated. Considerations should also be given to notify any third country that may have been implicated. Additionally, the competent authority should retain the associated consignment under its control, pending the outcome of the investigation.
  - 46. Certifying bodies in the countries from which the suspected fraudulent certificate is purported to have originated should cooperate fully with the investigation of the competent authority of the importing country. If the certificate is found to be fraudulent, every effort should be made by the competent authorities to identify those responsible so that appropriate action can be taken according to national/regional law.
  - 47. The product relating to fraudulent certificates should be considered to be in violation of the importing country’s requirements since the precise condition of the product is unknown. Destruction of the product is one of the measures that can be implemented since destruction is a strong deterrent to future fraudulent activity.
  - 48. Competent authorities in importing countries should maintain current records of certificates from certifying bodies in pertinent exporting countries, including, in relation to paper certificates, copies of official stamps and marks.

**Principles for Traceability/Product Tracing as a Tool within a Food Inspection and Certification System (CAC/GL 60-2006)**

Paragraph 2 of CAC/GL 60-2006 makes it clear that the scope of the text covers food fraud as it reads "recognizing the dual mandate of the Codex Alimentarius, traceability/product tracing is a tool that may be applied, when and as appropriate, within a food inspection and certification system in order to contribute to the protection of consumers against foodborne hazards and deceptive marketing practices and the facilitation of trade on the basis of accurate product description."

Paragraph 9 recognises that "traceability/product tracing is a tool that can contribute to the protection of consumers against deceptive marketing practices and facilitation of trade on the basis of accurate product description for example by reinforcing confidence in the authenticity of the product and the accuracy of information provided in products."

Paragraph 18 recommends that "in deciding whether and how to apply the traceability/product tracing tool, in the context of a food inspection and certification system the competent authority should take account of the assessed food safety risks and/or the characteristics of the potential deceptive marketing practices being addressed."

**Principles and Guidelines for the Exchange of Information between Importing and Exporting Countries to support the trade in food (CAC/GL 89-2016)**

According to paragraph 4.1, "information exchange is justified when the risks posed by the specific food product or group of products to food safety or fair practices in the food trade are such that an assessment of whether the relevant component(s) of the NFCS of the exporting country is appropriately managing the risks, is required and the assurance is not able to be attained by other means". Food fraud is thus covered by CAC/GL 89-2016.

**Principles and Guidelines for the Exchange of Information in Food Safety Emergency Situations (CAC/GL 19-1995)**

The scope of CAC/GL 19-1995 is limited to food safety emergencies. This means that incidents of food fraud which are not linked to food safety issues are not covered. Yet a number of provisions on areas such as communication, cooperation between authorities and information flows would be equally applicable to prevention and control of food fraud.
Guidelines for the Exchange of Information between Countries on Rejections of Imported Food (CAC/GL 25-1997)

According to the first paragraph of the section Introduction, the "guidelines provide the basis for structured information exchange on rejections of imported food where the reason for the rejection is related to food safety and fair practices in food trade". Food fraud is thus covered by CAC/GL 25-1997.

According to the first paragraph, 3rd indent, of the section General Considerations, "rejections may occur where the competent authority of the importing country has identified that the consignment does not comply with importing country requirements, which may include evidence of misrepresentation or consumer fraud".

In Annex I food adulteration is mentioned as an example of a reason to reject a consignment.


According to paragraph 3, CAC/GL 91-2017 covers the dual objective of the national food control systems, i.e. protecting the health of consumers and ensuring fair practices in the food trade. Food fraud is thus covered by CAC/GL 91-2017.


These guidelines provide practical guidance for governments desiring to enter into bilateral or multilateral equivalence agreements concerning food import and export inspection and certification systems. According to paragraph 5, an equivalence agreement covering control and certification systems may relate to any aspect of food safety or other relevant requirement for food. Thus food fraud related requirements can be covered in equivalence agreements. This is further confirmed by paragraph 12(d) which gives consumer fraud as an example of the scope of an equivalence agreement.


As the title tells, these guidelines only concern sanitary measures, i.e. measures on fraud prevention and control are not covered.

5. CONCLUSION

The main pieces of CCFICS texts cover prevention and control of food fraud in general terms as their scope extends to the dual mandate of Codex, i.e. protecting the health of consumers and ensuring fair practices in food trade. There are also certain provisions in different texts specifically addressing food fraud. In particular measures to prevent fraudulent certification are comprehensively covered in CAC/GL 38-2001 although this guidance is not necessarily directly linked to food fraud.

Nevertheless, there may be a need for CCFICS to initiate new work in this area, so as to provide guidance on how to assure the authenticity of food by minimizing vulnerability to fraud and mitigating the consequences of food fraud. Such guidance could include recommendations on specific features of control systems that are necessary to effectively protect against food fraud, such as:

a) A risk based approach to food fraud, including commodity specific risks. The text, Principles and Guidelines for National Food Control Systems (CAC/GL 82-2013), recommends that fraud related risks should be taken into account when designing control programmes. However, currently there is no specific guidance on what type of risks should be considered when targeting food fraud when designing and implementing food control systems. CCGP could also be invited to consider this topic;

b) Base food certification systems on objective evidence including production oversight and traceability records and reports of validated test methods for quality, safety and authenticity and supported risk intelligence to ensure food integrity;

c) Effective collection and dissemination of data and information for the production of relevant intelligence including systems for properly investigating and reporting suspicious cases and keeping track of operators' past records;

d) Effective links and information sharing between different authorities (e.g. food control authorities and judicial/investigative bodies while ensuring their independence) and central and local level authorities;

e) Effective administrative measures that are key to food fraud prevention.
f) Control systems should include an evaluation stage, to assess whether the system effectively controls the risk as part of a life-cycle approach for continuous improvement of the control system.

g) Networks with contact points across different countries to assist with cross border cases of food (or suspected food) fraud, exchange of information and spread knowledge/experience. Certain guidance in this area is available as regards rejected consignments in *Guidelines for the Exchange of Information between Countries on Rejections of Imported Food* (CAC/GL 25-1997). *Principles and Guidelines for the Exchange of Information in Food Safety Emergency Situations* (CAC/GL 19-1995) contains useful guidance on communication, cooperation between authorities in different countries and information flows but its scope limited to food safety emergencies. Cooperation to prevent fraudulent certification is covered by *Guidelines for Design, Production, Issuance and Use of Generic Official Certificates* (CAC/GL 38-2001);

h) Communication with stakeholders and general public. Again, *Principles and Guidelines for the Exchange of Information in Food Safety Emergency Situations* (CAC/GL 19-1995) provides guidance on this area but is limited to food safety emergencies. Care must be taken to ensure any information released to the public is specific and accurate; otherwise it could be detrimental to entire segments of commodities groups.

i) Further inclusion of food integrity and food authenticity requirements in existing CCFICS texts.

j) Definitions of relevant terms such as food fraud and food authenticity, as needed.

It is recommended that the Committee considers possible new work in these areas.