CODEX ALIMENTARIUS COMMISSION

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Food and Agriculture Organization of the United Nations

World Health Organization

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Agenda Item 8.1 **CX/FO 24/28/11**

JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX COMMITTEE ON FATS AND OILS

Twenty-Eighth Session

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DISCUSSION PAPER ON POSSIBLE WORK THAT CCFO COULD UNDERTAKE TO REDUCE TRANS-FATTY ACID INTAKE OR ELIMINATE PARTIALLY HYDROGENATED OILS: PROPOSED REVISIONS TO CODEX STANDARDS ON FATS AND OILS

(Prepared by Canada in collaboration with Egypt, European Union, India, Saudi Arabia, Uganda, the United States of America, and WHO)

BACKGROUND

1. The Codex Committee on Nutrition and Foods for Special Dietary Uses (CCNFSDU) has been engaged since its 35th session in work to support reducing trans-fatty acid (TFA) intake. To that end, Canada presented a discussion paper at CCNFSDU41 that identified risk management options for the reduction of TFA intake that fall within the mandate of Committees of the Codex Alimentarius Commission (see CX/NFSDU 19/41/7-REV). Risk management actions proposed for Codex Committee on Fats and Oils (CCFO) consideration included amending specific standards for fats and oils to support reducing TFA intake through a prohibition on partially hydrogenated oils (PHOs) or limits on TFA levels.

2. This matter was referred from CCNFSDU41 to CCFO27. CCFO27 agreed that a discussion paper to address the possible work that CCFO could undertake to reduce TFAs or eliminate PHOs would be prepared by Canada in collaboration with the European Union, Egypt, India, Saudi Arabia, Uganda, the United States of America, and WHO for consideration at CCFO28.

3. It was further noted that the 46th Session of the Codex Committee on Food Labelling (CCFL46) discussed possible new work on TFAs but had agreed not to proceed until the outcomes of discussions at CCFO were available.

ISSUES

4. Intake of TFAs is associated with increased risk of heart attacks and death from coronary heart disease (WHO, 2019)[1]. Trans-fatty acids come from either natural or industrial sources. Naturally occurring TFAs come from ruminants (cows and sheep). Industrially produced TFAs are formed during hydrogenation, an industrial process that results in PHOs. The WHO recommends limiting TFA intake from all sources to less than 1% of total energy for the great majority of the population. To that end, in 2018, WHO released REPLACE, a step-by-step guide for the elimination of industrially-produced TFAs from the global food supply by 2023. The two best-practice policies for TFA elimination are: 1) a mandatory national limit of 2 g of industrially produced TFAs per 100 g of total fat in all foods; and 2) a mandatory national ban on the production or use of PHOs as ingredients in all foods (WHO, 2018)[2].

5. Of the six CCFO fats and oils standards, two have limits on TFA levels. The *Standard for Olive oils and Olive pomace oils* (CXS 33-1981) specifies levels of TFAs permitted in virgin olive oils, olive oil, refined olive oil, olive-pomace oil and refined olive-pomace oil. The levels help limit the addition of refined oils to extra-virgin olive oil rather than address a public health concern. The levels are stated as a % of total fatty acids for C18:1 T and the sum of C18:2 T + C18:3 T. The *Standard for fish oils* (CXS 329-2017) specifies permitted isomers and applicable levels as % of total fatty acids in various named fish oil and fish liver oil categories. For example, the standard sets out two C18:1 fatty acids in these oils: C18:1 (n-9) oleic acid and C18:1 (n-7) vaccenic acid. Trans isomers are not identified in the fatty acid composition table. The four other standards – *Standard for Edible Fats and Oils Not Covered by Individual Standards* (CXS 19-

[1] WHO (World Health Organization) (2019). Draft guidelines on saturated fatty acid and trans-fatty acid intake for adults and children. Geneva: WHO. https://www.who.int/publications/i/item/9789240067233

[2] WHO, 2018. Replace Trans Fat. An Action Package to Eliminate Industrially-Produced Trans-Fatty Acids. https://www.who.int/docs/default-source/documents/replace-transfats/replace-action-package.pdf

1981), *Standard for Fat Spreads and Blended Spreads* (CXS 256-1999), *Standard for Named Vegetable Oils* (CXS 210-1999) and *Standard for Named Animal Fats* (CXS 211-1999) – do not identify specific fatty acid isomers in compositional requirements nor do they identify limits for TFA levels. Unlike olive oils and fish oils, it is more common for the fats and oils covered by the *Standard for Edible Fats and Oils Not Covered by Individual Standards* (CXS 19-1981) and the *Standard for Fat Spreads and Blended Spreads* (CXS 256-1999) to be partially hydrogenated and to contain TFAs. Furthermore, hydrogenation of animal fats such as lard can be used to obtain a product that is more shelf stable and has a longer shelf life.

RECOMMENDATIONS

6. It is recommended that the Committee amend the following standards to include a prohibition on PHO and limits on TFA levels:

    - *Standard for Edible Fats and Oils Not Covered by Individual Standards* (CXS 19-1981)
    - *Standard for Fat Spreads and Blended Spreads* (CXS 256-1999)
    - *Standard for Named Animal Fats* (CXS 211-1999)

7. The proposed list of standards does not include the *Standard for Named Vegetable Oils* (CXS 210-1999) where pure oils are described. Partial hydrogenation of such oils would move them outside the scope of the standard.

8. It is also recommended that CCFO make necessary revisions to ensure that the scope of the above prohibition and limits apply to fats and oil products used as ingredients in other food products.

9. This work may include introducing any necessary definitions in the standard, such as a definition for Partially Hydrogenated Oils (PHOs).

APPENDIX I

PROJECT DOCUMENT

PROPOSED REVISIONS TO CODEX STANDARDS ON FATS AND OILS TO REDUCE TRANS-FATTY ACID INTAKE

1. PURPOSE AND SCOPE OF THE NEW WORK

The objective of this proposal is to revise the following Codex Standards on fats and oils to include a prohibition on partially hydrogenated oils (PHO) and limits on industrially produced trans-fatty acid (TFA) levels:

- *Standard for Edible Fats and Oils Not Covered by Individual Standards* (CXS 19-1981)
- *Standard for Fat Spreads and Blended Spreads* (CXS 256-1999)
- *Standard for Named Animal Fats* (CXS 211-1999)

2. ITS RELEVANCE AND TIMELINESS

Virtual elimination of industrially produced trans-fatty acids (TFA) from the food supply was one of the priority targets identified in the 13th General Programme of Work of the World Health Organization (WHO) for 2019-2023. Increased intake of TFA (>1% of total energy intake) is associated with increased risk of coronary heart disease events and mortality. Globally, more than 500,000 deaths in 2010 were attributed to increased intake of TFA.

Codex has committed to revising Codex standards and related texts, as necessary, to ensure that they are consistent with and reflect current scientific knowledge and other relevant information.

Of the six Codex standards for fats and oils, two have limits on TFA levels: *Standard for olive oils and olive pomace oils* (CXS 33-1981) and *Standard for fish oils* (CXS 329-2017). The four other standards – *Standard for Named Vegetable Oils* (CXS 210-1999), *Standard for Named Animal Fats* (CXS 211-1999), *Standard for Edible Fats and Oils Not Covered by Individual Standards* (CXS 19-1981), *and Standard for Fat Spreads and Blended Spreads* (CXS 256-1999) – do not identify specific fatty acid isomers in their compositional requirements nor do they identify limits for TFA levels.

3. MAIN ASPECTS TO BE COVERED

Revise the following standards to:

a) include a prohibition on PHO and limits on TFA levels:
   - *Standard for Fat Spreads and Blended Spreads* (CXS 256-1999)
   - *Standard for Edible Fats and Oils Not Covered by Individual Standards* (CXS 19-1981)
   - *Standard for Named Animal Fats* (CXS 211-1999)

b) ensure that the scope of the above prohibition and limits, apply to fats and oil products used as ingredients in other food products, and

c) introduce as necessary any definitions in the standards, such as a definition for Partially Hydrogenated Oils (PHOs).

The proposed list of standards does not include the *Standard for Named Vegetable Oils* (CXS 210-1999) where pure oils are described. Partial hydrogenation of such oils would move them outside the scope of the standard.

4. ASSESSMENT AGAINST THE CRITERIA FOR THE ESTABLISHMENT OF NEW WORK PRIORITIES

General criteria:

Clear composition requirements for oils and fats related to TFA can provide:

- industry with a clear and consistent direction for product formulation; and
- consumers with healthier products to reduce their risk of coronary heart disease.

Criteria applicable to general subjects:

(a) *Diversification of national legislation and apparent resulting or potential impediments to international trade*

Greater global harmonization related to the TFA content of fat products would help reduce barriers to trade and minimize potential negative health impacts.

(b) *Scope and establishment of priorities between the various sections of the work*

Not applicable.

(c) *Work that has already been undertaken by other international organizations in this field and/or suggested by the relevant international intergovernmental body(ies).*

In May 2018, WHO called for the global elimination of industrially produced TFA by 2023, highlighting as a

priority target of the WHO's 13th General Programme of Work. The WHO REPLACE action framework was launched in 2018 and includes technical guidance and practical steps to help governments take relevant actions to eliminate industrially produced TFA from their national food supply. WHO also monitors countries' progress in implementing legislative and other measures to reduce and eliminate industrially produced TFA and has developed the TFA Country Score Card to track countries' performance on a continuous basis.

(d) *Amenability of the subject of the proposal to standardization*

Greater harmonization related to the TFA content of products would minimize potential negative health impacts and help reduce barriers to trade.

(e) *Consideration of the global magnitude of the problem*

Despite substantial progress, however, this leaves 5 billion people worldwide at risk from TFA's harmful health impacts. The report showed that the overwhelming majority of people living in low-income countries are not protected by such policies.

5. RELEVANCE TO THE CODEX STRATEGIC PLAN'S[3] GOALS AND OBJECTIVES

The proposed work is consistent with the Commission's mandate to develop standards, guidelines and other international recommendations to protect consumer health and to ensure fair food trade practices. Amending the named fats and oils standards to comprehensively address TFA will contribute to the achievement of Strategic Goals 1, 2, 3, and 4.

- **Goal 1: Address current, emerging and critical issues in a timely manner.**

Virtual elimination of industrially produced TFA from the food supply is one of the priority targets identified in the 13th General Programme of Work of the WHO in 2019-2023.

- **Goal 2: Develop standards based on science and Codex risk-analysis principles.**
  - Objective 2.1. Use scientific advice consistently, in line with Codex risk-analysis principles.

Implementing legislative or regulatory actions to limit or prohibit industrially produced TFA has been recognized as the most effective action to reduce TFA in the food supply.

- **Goal 3: Increase impact through the recognition and use of Codex standards.**
  - Objective 3.2: Support initiatives to enable the understanding and implementation/application of Codex standards
    - This work would enable better application of globally-aligned and scientifically-based TFA compositional requirements globally.
- **Goal 4: Facilitate the participation of all Codex Members through the standard setting process**
  - Objective 4.3: Reduce barriers to active participation by developing Countries.
    - Trans fat is a globally relevant issue, impacting both developed and developing countries.
    - Amending the CCFO standards to address the issue of TFA would enable all Codex Members and Observers to participate in the discussion.

6. RELATIONSHIP BETWEEN THIS PROPOSAL AND OTHER EXISTING CODEX DOCUMENTS

The proposal relates to the *Guidelines on Nutrition Labelling* (CXG 2-1985) which includes information on TFA declaration and the *General Standard for the Labelling of Prepackaged Foods* (CXS 1-1985) which refers to the term "hydrogenated" and "partially-hydrogenated" in item 4.2.3.1.

7. IDENTIFICATION OF ANY REQUIREMENT FOR AND AVAILABILITY OF EXPERT SCIENTIFIC ADVICE

No need for the expert scientific advice has been identified at this stage.

8. IDENTIFICATION OF ANY NEED FOR TECHNICAL INPUT TO THE GUIDELINE FROM EXTERNAL BODIES THAT CAN BE PLANNED

No need identified at this stage as the committee could consider using the values already established by the WHO.

9. PROPOSED TIMELINE FOR COMPLETION OF THE NEW WORK

The project document will be submitted for consideration ahead of the 28th session of CCFO, tentatively scheduled for February 19-23, 2024.

Subject to approval of the new work by the Codex Alimentarius Commission, it is expected that the CCFO will require 2 sessions to complete its work.

[3] For more information, please see the Codex Strategic Plan 2021-2025