

APPENDIX IX

**PROPOSAL FOR NEW WORK ON A CODE OF PRACTICE FOR THE PREVENTION AND REDUCTION OF CADMIUM
CONTAMINATION IN FOODS
PROJECT DOCUMENT
(For approval)**

1. Purpose and scope of the project

The purpose of the proposed new work is to develop a code of practice (CoP) to prevent or reduce cadmium contamination in foods. The scope of the work encompasses measures to prevent and reduce cadmium contamination during agricultural and aquacultural production and food processing, preparation, packaging, and transport.

2. Relevance and timeliness

The 73rd Meeting of the Joint FAO/WHO Expert Committee on Food Additives (JECFA73, 2011) conducted a re-evaluation of cadmium and established a provisional tolerable monthly intake (PTMI) of 25 µg/kg bw, reflecting the long half-life of cadmium in humans. Dietary exposure estimates indicated that cereals and cereal products, vegetables, seafood, and meat, including offal, were the major contributors to cadmium dietary exposure.

JECFA77 (2013) assessed dietary exposure to cadmium from cocoa and cocoa products following a request arising from the 6th Session of the Codex Committee on Contaminants in Foods (CCCF6, 2012). JECFA estimated total dietary cadmium exposure as 30-69% of the PTMI for adults and 96% for children aged 0.5-12 years. JECFA noted that these percentages were likely overestimates of total dietary cadmium exposure, as the estimates from the whole diet also included the contribution from cocoa and cocoa products.

JECFA91 (2021) conducted a new exposure assessment that included the contribution of cadmium from all food sources, in particular cocoa products. This assessment was based on more comprehensive occurrence data, including a wider geographical range of occurrence data in cocoa products. JECFA concluded that the major contributors to dietary cadmium exposure were cereals and cereal products, vegetables, and seafood, while the contribution of cocoa products to dietary cadmium exposure was minor (0.1-9.4%).

Between 2018 and 2022, CCCF adopted maximum levels (MLs) for cadmium in chocolate containing or declaring < 30%, ≥ 30% to < 50%, ≥ 50% to < 70%, and ≥ 70% total cocoa solids, and 100% cocoa powder, as well as the *Code of Practice for the Prevention and Reduction of Cadmium Contamination in Cocoa Beans*.

The new work aims to reduce exposures that may cause exceedance of the PTMI, through the development and implementation of a CoP that covers cadmium contamination in a range of foods in addition to cocoa beans.

Comments in response to a circular letter on the review of Codex standards for contaminants issued in 2022 (CL 2022/85-CF) suggested that a CoP should be considered prior to review/revision of current cadmium MLs as provided in a conference room document submitted to CCCF16 (2023) (CF16/CRD02).

3. Main aspects to be covered

This work will address practical measures, supported by scientific data, that prevent or reduce cadmium contamination.

Measures to be addressed may include agricultural techniques (e.g. fertilization, irrigation), source-directed measures (reduction of cadmium in agricultural soil and water), and food processing modifications (e.g. use of filtration aids in juices and washing techniques for seaweed). This work will also address consumer advice.

4. Assessment against the criteria for the establishment of work priorities**a) Consumer protection from the point of view of health and fraudulent practices.**

To protect consumers' health, exposures to cadmium should be reduced through best practices. A CoP to reduce cadmium will identify measures that can be taken to reduce exposures.

b) Diversification of national legislations and apparent resultant or potential impediments to international trade.

Development of a CoP is needed to ensure that information on recommended practices for preventing and reducing cadmium exposures is available to all member countries. It also will provide the means to enable exporters to ensure reduced cadmium levels and to assist in compliance with any current Codex MLs and those that may be established in the future.

c) Scope of work and establishment of priorities between the various sections of the work.

The CoP will provide measures to reduce cadmium in food, as it will address all aspects of food production from agricultural/aquacultural production to processing to packaging and transport and consumption.

d) Work already undertaken by other international organizations in this field.

Health-based guidance that address cadmium exposures have been developed for workplaces, for drinking water (e.g. WHO), and for ambient air quality (e.g., WHO). Country-specific guidances are also available.

5. Relevance to Codex Strategic Goals**Goal 1: Address current, emerging, and critical issues in a timely manner.**

Establishing a CoP for the prevention and reduction of cadmium contamination in foods will address the current need for guidance to ensure the health protection of consumers.

Goal 2: Develop standards based on science and Codex risk-analysis principles. This work will apply risk analysis principles in the development of a CoP by using scientific data and results from JECFA assessments to support the reduction of cadmium in foods.

Goal 3: Increase impact through the recognition and use of Codex standards. The proposed CoP ensures that information on recommended practices to prevent and reduce cadmium consists of current best practices and are available to all member countries.

Goal 4: Facilitate the participation of all Codex Members throughout the standard process. Developing a CoP through the Codex step process will make information on recommended practices to prevent and reduce cadmium available to all Codex members.

Goal 5: Enhance the work management systems and practices that support the efficient and effective achievement of all strategic plan goals. A CoP will help ensure development and implementation of effective and efficient work management systems and practices by providing basic guidance for countries and producers.

6. Information on the relationship between the proposal and other existing Codex documents. In 2022, Codex adopted the *Code of Practice for the Prevention and Reduction of Cadmium Contamination in Cocoa Beans* (CXC 81-2022). This CoP is specific to cocoa beans and does not provide information about other crops. In addition, the *Code of Practice Concerning Source Directed Measures to Reduce Contamination of Food with Chemicals* (CXC 49-2001) includes measures relating to cadmium.

Cadmium MLs have been established for a variety of foods in the GSCTFF (CXS 193-1995) (e.g. chocolate and cocoa products, vegetables, grains, seafood, salt) without a CoP being available.

7. Identification of any requirement for any availability of expert scientific advice

JECFA has already provided needed expert scientific advice (e.g. JECFA73, JECFA77, JECFA91).

8. Identification of any need for technical input to the standard from external bodies

Currently, there is no identified need for additional technical input from external bodies.

9. Timeline for completion of the new work

Work will commence following recommendation by CCCF and approval by the Codex Alimentarius Commission in 2024. Completion of work is expected by 2027.