

DISCUSSION PAPER

Managing Food Contact Materials (FCMs) Food Regulatory Practices and Role of Codex

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and Technology (IUFoST)*

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INTRODUCTION

Food Contact Materials (FCMs): A Codex Opportunity

- ❑ **Role of FCMs:** Packaging, equipment surfaces, inks, adhesives, and coatings are vital for safe, efficient, and sustainable food systems.
- ❑ **Current Challenges:** Oversight remains uneven globally; many countries face gaps in infrastructure, legal tools, and scientific capacity, especially for NIAS and recycled materials.
- ❑ **Codex Gap:** FCMs are indirectly referenced in hygiene texts; no cross-cutting framework or harmonized positive-lists.



INTRODUCTION

Food Contact Articles



Food Contact Materials (FCMs)

- Plastics
- Metals & Alloys
- Paperboard
- Glass
- Varnishes
- Coatings
- Adhesives
- Inks
-

Food Contact Chemicals (FCCs)

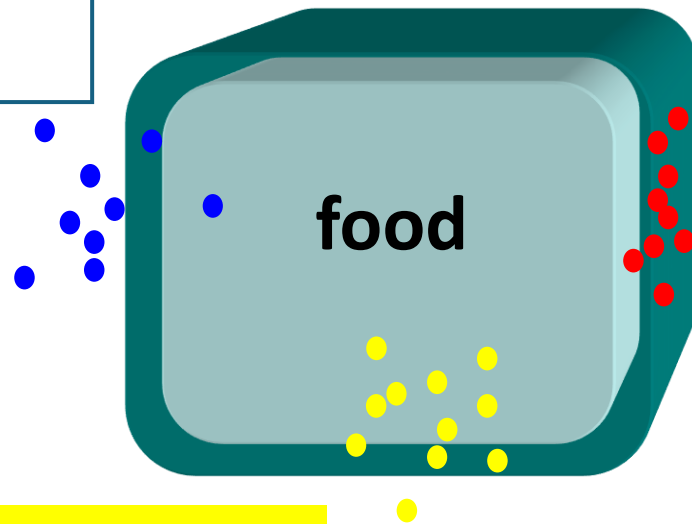
- Polymers
- Oligomers
- Residual Monomers
- Intentionally Added Substances (IAS)
 - Additives
 - Pigments
 - Starting Substances
 - Production Aids
- Non-Intentionally Added Substances (NIAS)
 - Impurities
 - Reaction and Degradation Products
- ...

PROBLEM STATEMENT

FCMs are not inert and interactions with food can impact **quality** and/or **safety**.

Permeation (N_2 , O_2 , CO_2)
Off-flavors, aroma
compounds, etc.

Migration (IAS
and NIAS)



Sorption (aroma
compounds, fats,
pigments, etc.)

More complexity!

- Recycled materials
- Active/intelligent packaging
- Multilayers

PROBLEM STATEMENT

- **Divergence** in definitions, pre-market oversight, migration testing requirements, and NIAS approaches → trade friction & uneven consumer protection.
- **Capacity gaps:** many regulators (esp. in emerging markets) lack expertise, validated methods, and access to consolidated positive lists.
- **CCASIA implications**
 - Wide heterogeneity in FCM oversight across the region
 - Limited accredited labs & harmonized methods
 - Growing dependence on imports of pre-packaged foods & packaging materials
 - Rising sustainability pressures (recycled content, circularity)

Relevance to Codex



Current Situation

- Codex hygiene texts and risk-analysis principles touch on packaging/FCMs but remain **high-level** for standardized assessment or decision-making.
- At **CAC46**, Members acknowledged this gap and initiated a **Circular Letter on recycled packaging** → recognition + first entry point for Codex engagement.

Opportunity for Codex

- Establish a **cross-cutting framework** for FCM safety, anchored in risk analysis.
- Promote **convergence of migration testing & documentation practices** (DoC, traceability, GMP)
- Create a **science-based reliance pathway** toward a harmonized list of “cleared applications” → reduce duplication, safeguard health, and facilitate trade.

REGIONAL AND INTERNATIONAL PAIN-POINTS

Lack of Definitions & Architecture

- No agreed distinctions between FCS, FCM, and final articles → inconsistent scope
- Divergent documentation & Declarations of Compliance (DoCs)
- Fragmented migration testing (time/temp/simulants) → non-comparable results
- Misaligned exposure assumptions → limits reliance & recognition

Non-Intentionally Added Substances (NIAS)

- Increasing challenge from impurities, breakdown products, and interactions
- No harmonized framework for screening, prioritization, or risk assessment
- Wide variation: case-by-case vs. default limits
- Capacity gaps in toxicology & analytics hinder science-based approaches

REGIONAL AND INTERNATIONAL PAIN-POINTS

Recycled Materials

- Growing use driven by circular economy
- Lacking global requirements for feedstock quality, process validation & decontamination efficiency
- No harmonized criteria linking recycling technologies to predictable safety outcomes → trade uncertainty

Capacity Limitations

- Limited accredited labs for migration & NIAS analysis, esp. in emerging markets
- Few training opportunities; technical guidance not widely accessible
- Weak reliance mechanisms → duplication of evaluations & delayed decisions

PROPOSED CODEX ACTION

Option A – Use Existing Committees

- Develop guidelines on FCM Risk Assessment & GMP (horizontal)
- Develop Code of Practice for Recycled Materials
- EWGs drawing expertise from CCFH/CCFA/CCCCF

Pros: Minimal structural change; leverages established processes

Cons: Diffuse ownership; limited technical depth; slower progress on “cleared lists”

PROPOSED CODEX ACTION

Option B – Ad hoc Task Force on FCMs (4 years)

Mandate:

- General Guidelines (definitions, safety objectives, documentation, GMP, NIAS)
- Guidance on Recycled Materials (feedstock/process criteria, verification)
- Framework + initial content for Harmonized List of Cleared Applications (plastics, adhesives/coatings)

Pros: Clear expertise locus; coherent package; strong visibility; capacity-building; faster pilot of cleared list

Cons: Requires Codex consensus & resources

PROPOSED CODEX ACTION

Option C – Phased Approach (Recommended)

2025:

- Discussion paper + Circular Letter mapping global/regional frameworks
- FAO/WHO expert meeting → tiered NIAS risk-assessment & test-method baseline

2027–2028:

- Launch Ad hoc Task Force to draft core texts
- Pilot harmonized list (plastics + adhesives/coatings) relying on trusted evaluations (e.g., EFSA, FDA, Health Canada), adjusted for Codex assumptions & documentation

2029:

- Deliverables for Commission adoption
- Transition to existing Codex structure (e.g., CCFA) for ongoing maintenance

[illegible]