✅ ISO 22000:2018 – Full Overview and Implementation Guide

🔷 What is ISO 22000:2018?

ISO 22000:2018 is an international standard that outlines the requirements for a **Food Safety Management System (FSMS)**. It aims to ensure the **safe production, handling, and delivery of food** across the entire food chain.

It integrates the **principles of HACCP (Hazard Analysis and Critical Control Points)** and **PRPs (Prerequisite Programs)** with a **process-based management system** aligned with the **High-Level Structure (HLS)** used in other ISO standards like ISO 9001.

🔷 Who Can Use ISO 22000?

Applicable to all organizations in the food chain, including:

- Agricultural producers (farmers)
- Food manufacturers and processors
- Retailers, wholesalers
- Caterers, restaurants, hotels
- Food transport and logistics companies
- Packaging and chemical suppliers (e.g., cleaning agents)
- Storage facilities and distributors

❖ Benefits of ISO 22000:2018

Benefit	Description
✅ Food Safety	Helps identify and control food safety hazards
✅ Customer Confidence	Builds trust with clients and regulatory bodies
✅ Legal Compliance	Ensures compliance with statutory and regulatory requirements
✅ Risk Management	Identifies both operational and strategic risks
✅ Process Improvement	Promotes continual improvement in food safety
✅ Global Recognition	Based on international consensus and best practices

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❖ Structure of ISO 22000:2018 (10 Clauses)

Follows the **Annex SL** High-Level Structure:

Clause	Title	Description
1	Scope	Defines the applicability of the FSMS
2	Normative References	References documents needed for interpretation
3	Terms and Definitions	Key terminology used in the standard
4	Context of the Organization	Understand internal/external issues, stakeholder needs
5	Leadership	Top management commitment, policy, roles, and responsibilities
6	Planning	Risk assessment, objectives, planning for change
7	Support	Resources, competence, awareness, communication, documentation
8	Operation	Planning, PRPs, HACCP, traceability, emergency preparedness

Clause	Title	Description
9	Performance Evaluation	Monitoring, measurement, audits, management review
10	Improvement	Nonconformities, corrective actions, continual improvement

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🔷 Core Concepts

1. PDCA Cycle (Plan-Do-Check-Act)

Used at both the **management system level** and the **operational level**.

- **Plan** – Establish objectives and processes
- **Do** – Implement processes
- **Check** – Monitor and measure processes and product
- **Act** – Take actions to continually improve performance

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2. Risk-Based Thinking

- **Strategic risks** (business and organizational context)
- **Operational risks** (food safety hazards via HACCP)

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3. Prerequisite Programs (PRPs)

Basic conditions to maintain a hygienic environment (e.g., sanitation, pest control, maintenance). PRPs can be based on ISO/TS 22002-x series.

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4. HACCP Principles Integrated

- Conduct hazard analysis
- Determine Critical Control Points (CCPs)
- Establish critical limits
- Monitor CCPs
- Establish corrective actions

- Verification procedures
- Documentation and record keeping

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5. Operational Prerequisite Programs (OPRPs)

Control measures that reduce the likelihood of food safety hazards — not critical enough to be CCPs but essential for food safety.

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6. Traceability & Recall

System to trace food products throughout production and distribution, and recall them if necessary.

🔷 Detailed Implementation Guide

✅ Step 1: Get Leadership Commitment

- Top management must lead and support the FSMS
- Assign a food safety team leader

✅ Step 2: Understand Organizational Context

- Analyze internal & external issues
- Identify interested parties (e.g., customers, regulators)

✅ Step 3: Conduct a Gap Analysis

- Compare current food safety practices with ISO 22000:2018 requirements

✅ Step 4: Define the Scope of the FSMS

- Identify boundaries, products, and processes covered

✅ Step 5: Establish Food Safety Policy and Objectives

- Ensure they align with strategic direction and customer expectations

✅ Step 6: Identify and Analyze Food Safety Hazards

- Perform hazard analysis (biological, chemical, physical)
- Establish CCPs and control measures

□ Step 7: Establish PRPs and OPRPs

- Implement sanitation, hygiene, pest control, etc.

□ Step 8: Create Documentation

- Food safety policy
- Hazard analysis documents
- Procedures and work instructions
- Monitoring and verification records

□ Step 9: Training and Awareness

- Train all employees on food safety roles and responsibilities

□ Step 10: Monitor, Audit, and Review

- Internal audits
- Corrective actions
- Management review meetings

□ Step 11: Certification Audit

- Choose an accredited certification body
- Undergo Stage 1 (document review) and Stage 2 (on-site audit)
- Address any nonconformities before certification is granted

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◈ Required Documentation (Examples)

Type	Examples
Policies	Food Safety Policy
Procedures	HACCP, traceability, recall
Records	Monitoring logs, training records, audit reports

Type	Examples
Manuals	FSMS Manual (optional but helpful)

◈ Key Differences from ISO 22000:2005

ISO 22000:2005	ISO 22000:2018
No High-Level Structure	Uses Annex SL HLS
Focus on food hazards only	Includes business risks and opportunities
No distinction between CCP/OPRP	Clear differentiation between CCPs and OPRPs
Basic communication clause	Structured and enhanced communication requirements
Less focus on context	New emphasis on organizational context and stakeholders

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□ Useful Tools and Techniques

- HACCP Templates and Logs
- SWOT/PESTLE Analysis
- Flowcharts of Food Processes
- Root Cause Analysis Tools (e.g., 5 Whys, Fishbone Diagram)
- Risk Matrix for PRPs, OPRPs, CCPs