

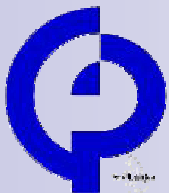
# Sound Chemicals Management and Cleaner Production:

## The role of NCPCs in Promoting Sound Chemicals Management

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# Presentation outline

- Cleaner Production (CP) & Chemicals Management (CM)
- What is Chemicals Management
- International Initiatives
- How CP can strengthen CM
- Role of NCPCs
- Chemicals Leasing as a Key Strategy in Chemicals Management





# Cleaner Production

- Cleaner Production is a **Continuous Process** of an Integrated **Preventive Environmental Strategy** applied to **Processes, Products** and **Services** to **Increase Efficiency and Reduce Risks** to Humans and the Environment

## For Processes:

Conserving raw materials and energy

**Eliminating toxic raw materials**

**Reducing the quantity and toxicity of all emissions and wastes** before they leave a process.

## For Products:

The strategy focuses on **reducing impacts along the entire life cycle of the product** from raw materials extraction to the ultimate disposal of the products.

## For Services:

Cleaner Production reduces **Environmental impact of the service provided over the entire life cycle** from system design and use to the entire consumption of resources required to provide the services.





# Chemicals Management

- Why: Chemicals are considered to cause Health Problems to Humans and hazardous to environment.
- Persistency of Hazardous Substances.
- Therefore reduction of potential risk from the use of chemicals to be reduced.
- Chemicals can and should be used for achieving Sustainable Development





# What is Chemicals Management

- Proper safeguards in all phases of chemical usage to prevent the risk of causing hazards and health impacts.
  - Manufacturing of chemicals
  - Selection & procurement
  - Storage & Transport
  - Handling
  - Use
  - Treatment/Disposal





# International Initiatives

- IRPTC (International Registry of Potentially Toxic Chemicals)-UNEP
- IPCS (International Program on Chemicals Safety)-WHO
- IFCS (Intergovernmental Forum on Chemicals Safety)
- IOMC (Inter-organizational Program for Sound Management of Chemicals)
- SAICM (Strategic Approach to International Chemicals Management)
- National programs on Chemicals management & safety (UNITAR)





# Multilateral Environmental Agreements on Chemicals safety

- Montreal Protocol
- Basel Convention
- Stockholm Convention
- Aarhus Convention & protocols
- Rotterdam Convention





# Programs on Sound Chemicals Management

- Expanding and accelerating international assessment of chemical risks
- Harmonization of classification and labeling of chemicals
- **Information exchange on toxic chemicals and chemical risks**
- **Establishment of risk reduction programs**
- **Strengthening of national capabilities and capacities for management of chemicals**
- Prevention of illegal international traffic in toxic and dangerous products







# Country Level Programs

- Preparation of Chemicals Profiles
  - Imports
  - Manufacturing/Blending
  - Consumers/Usage patterns
  - Regulations
  - Infrastructure
- Establishing necessary Infrastructure and Regulatory frameworks
  - R & D Institutes
  - Accredited Laboratories for Testing and Certification
  - Recycling and Recovery Plants
  - Treatment facilities and Final disposal sites
  - Development of new laws and regulations and enforcement of such



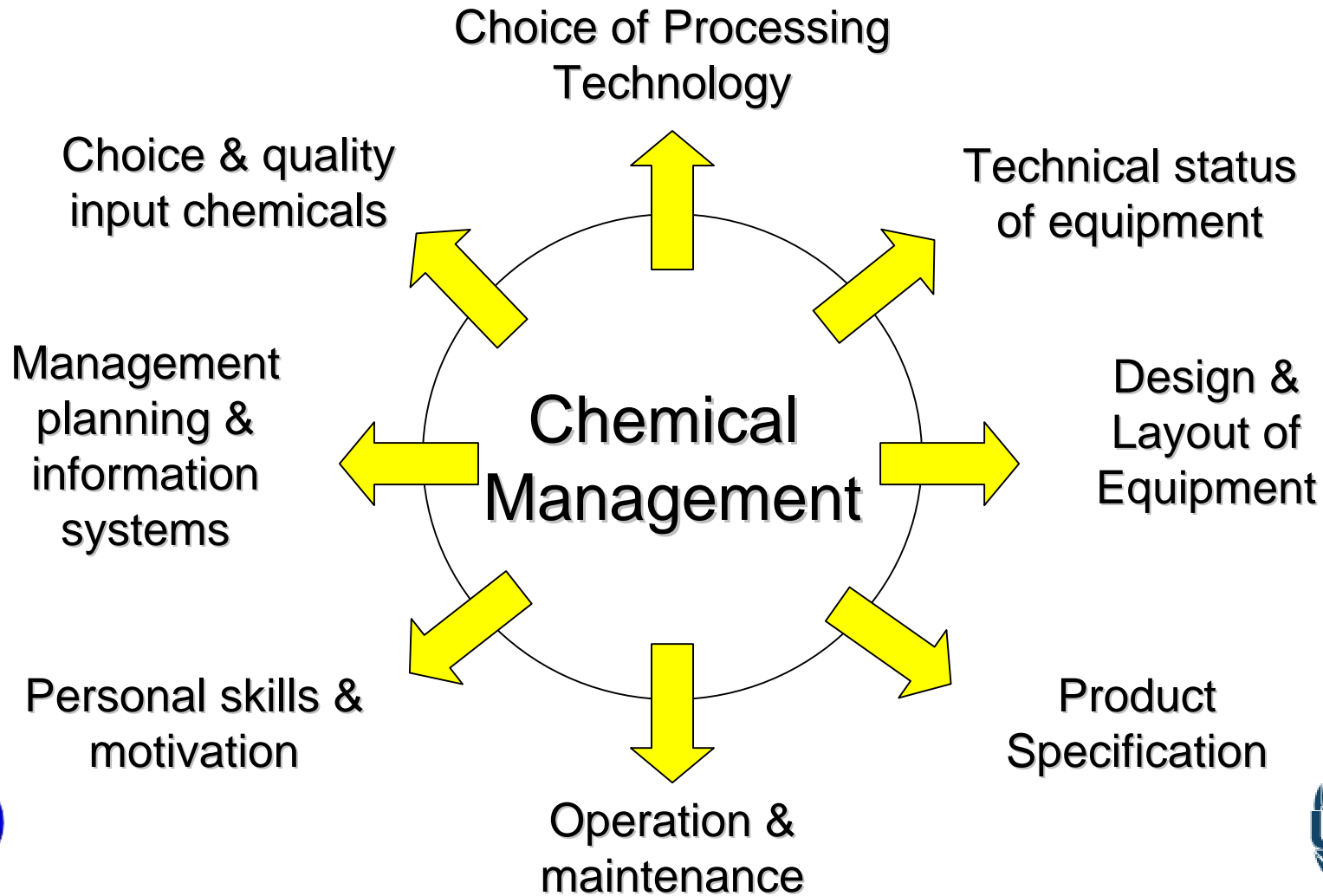


# Prevention

- Taking steps to avoid or minimize the consumption, chemical pollution, contamination, accidents and poisoning
- Emergency preparedness & response
- Substitution by non-chemical technologies



# Needed Intervention for Sound Chemicals Management at Enterprise Level





# CP Techniques for CM

- Input substitution
- Process control
- Technology change
- Change Plant & machinery
- Management Information
- Skills Development & Competence building





# Input Substitution

- Avoidance/Substitution
- Bio-degradable/non persistent
- Less Toxic Chemicals
- Reducing Consumption (volume, weight, concentration)
- Improved Formula/Modifying recipes
- Change in physical form





# Process Control

- Awareness
- Establish and Maintain Process Parameters
- Setting up instrumentation for monitoring parameters
- Optimizing the Process
- Changing the Process





# Technology Change

- Assisting in selecting Technology
- Incorporate reuse/recycling technology
- EST
- Managing Technology





# Change Plant & Machinery

- Handling, transporting and storage
- Processing
- Equipment for enhancing Safety
- Recovery/Recycling plants
- Effective treatment equipment







# Management Information

- MSDS
- Creating a record keeping culture
- Information at floor level
- Preparing Work Instructions
- Safety Information





# Skills Development & Competence Building

- Awareness
- Training & Retraining
- Demonstrations
- Study tours/Exchange
- Scenario development
- Role Play





## Role of NCPCs

- Capacity Building in industries/end-users
- Liaising with Suppliers
- Mediating in Technology Transfer
- Information Provider
- Adviser/facilitator
- Facilitate management of Life cycle by closing the loop
- Initiatives for Innovative strategies
- Advice on Policy changes and regulatory framework





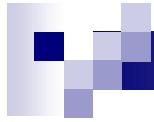
# Chemical Leasing

- A Strategic Approach to proactive chemicals management

*Leading to*

- Involvement of Suppliers
- Shared responsibility
- Innovation





Thank you

for a

New Beginning

