

**Case Studies prepared under  
the SINET Project  
UNIDO, WMC, Zoning Atlas**

**by**

**NetPEM Public Trust**

**Nagpur, India**



Network for Preventive Environmental Management (NetPEM) Public Trust

# UNIDO Cluster Model

Promoted by  
United Nations Industrial Development  
Organization (UNIDO)  
Year 1996



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# Key objectives

The specific objectives of this initiative were:

- Organization of the SSI clusters in India
- Assess their competitiveness
- Capacity development of the clusters
- Develop advisory services and institutions

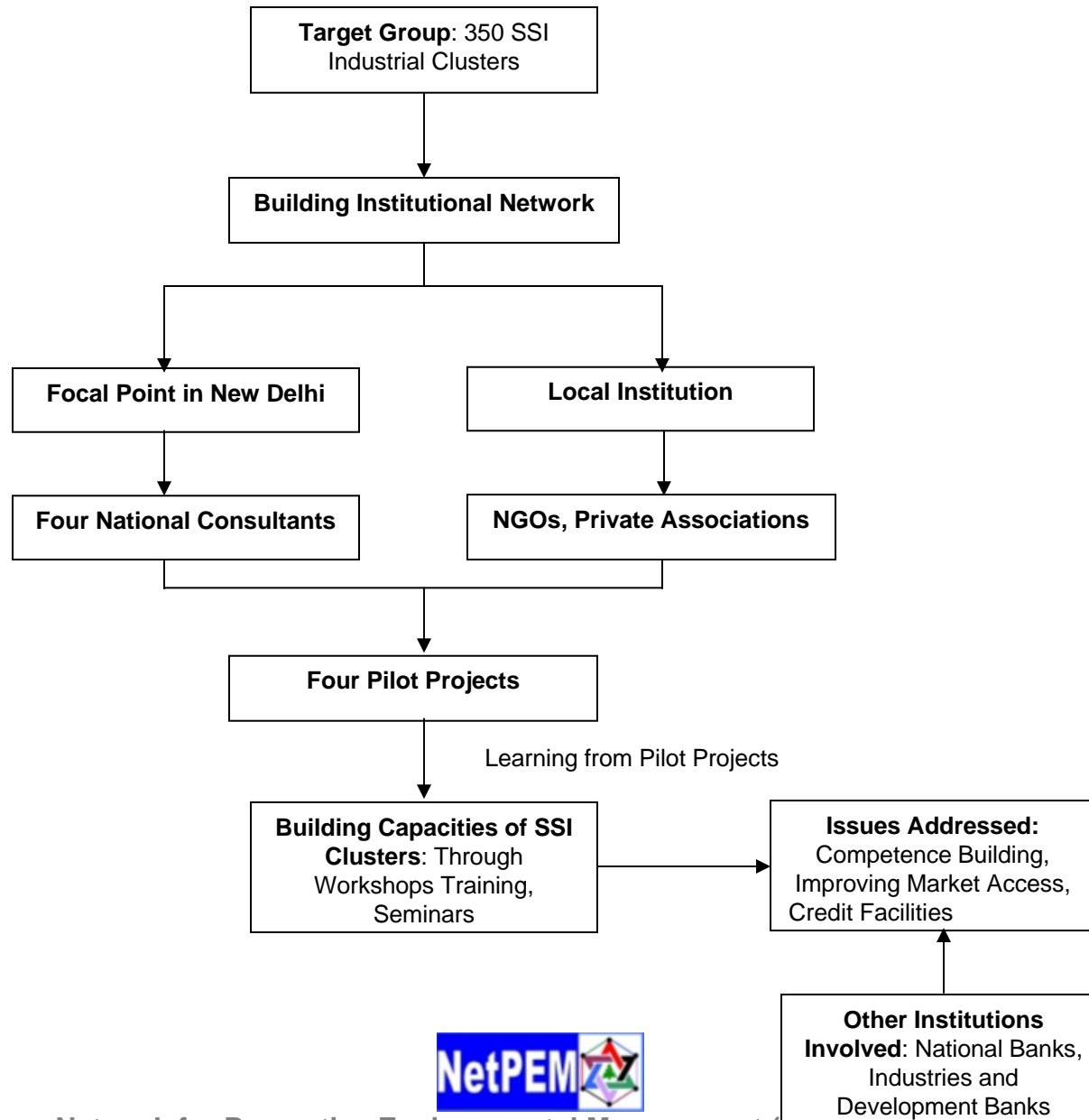


# Model implementation methodology

- The diagnostic phase
- The pilot phase
- The strategy and institution networking phase
- The self management phase



# Model implementation methodology



# Success Stories

- Around 1000 clusters initiatives under progress in India
- Assistance from Service providers and Business Developers
- Common testing laboratories set-up for the SME's
- Initiative to provide infrastructural requirements for the SSI launched



# Identified Barriers (varies from cluster to cluster)

- Lack of Institutional Support
- Technology
- Linkages to the market
- Access to designs (lack of designers)
- The lack of communication among the firms within each cluster
- Inadequate quality control capacity of the entrepreneurs;
- Inadequate access to credit.



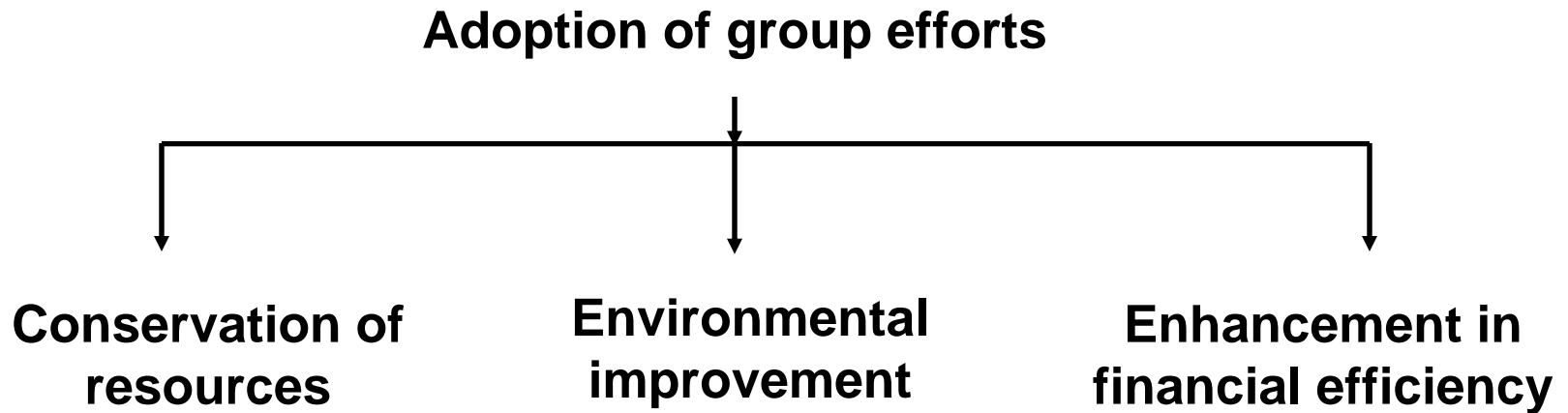
# Waste Minimization Circle (WMC)

Promoted by  
**Ministry of Environment & Forest (MoEF)  
& National Productivity Council (NPC)**  
Year 1992

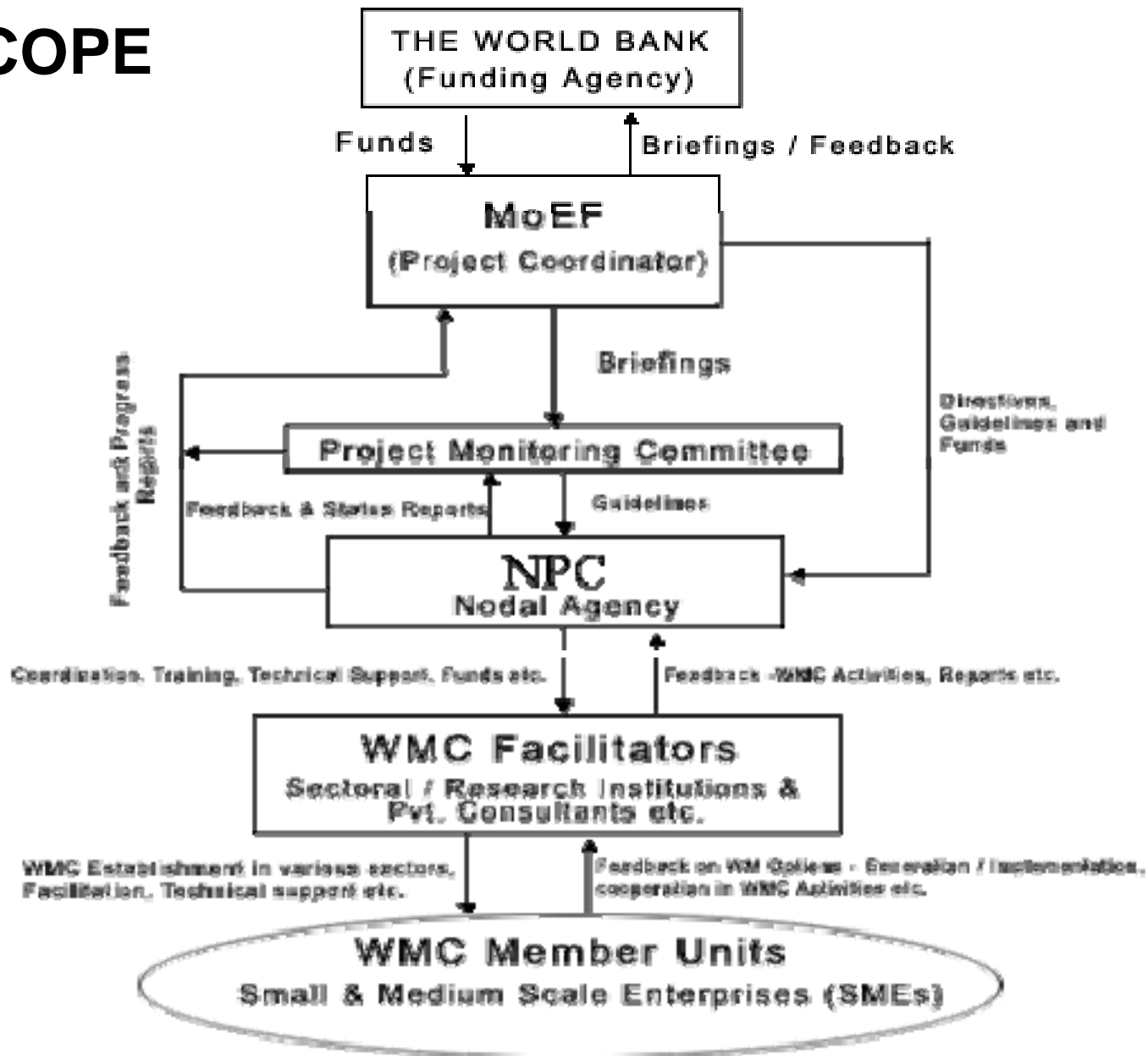


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# Objectives



# SCOPE



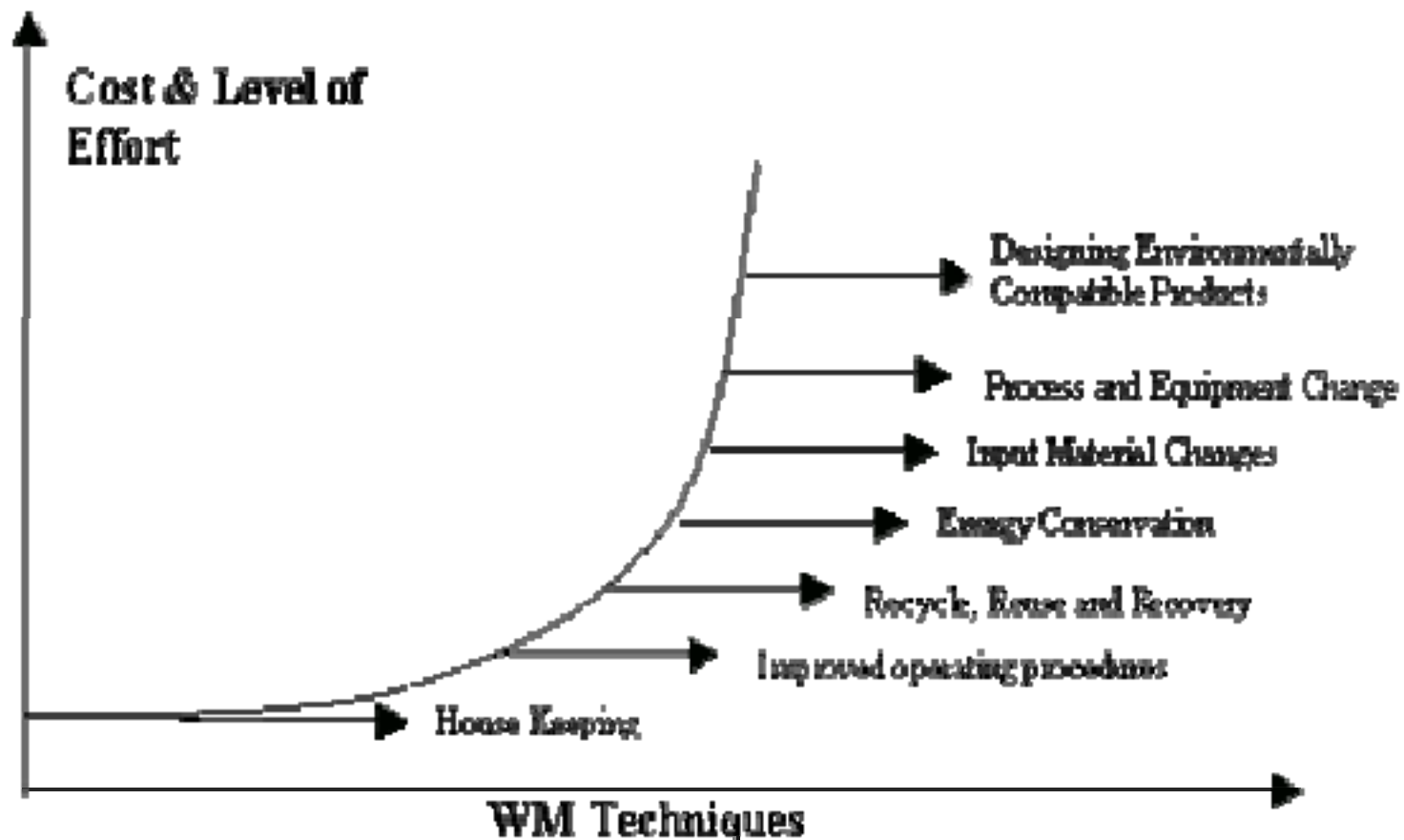
# METHODOLOGY

## Deming Cycle

- *Plan*
- *Do*
- *Check*
- *Act*



# WM Techniques, Cost and Level of Effort



# Success Stories

Experimental Phase – 15 WMCs successfully established

Phase II – 103 WMCs ( Total of 118 WMCs till 2006)

Multiplier Effect

Beneficiaries – 41 Sectors and about 600 SME's

Response very encouraging in Tamil Nadu & Gujarat

## Current Status

**MoEF to identify and set-up more WMCs in various sectors**



# Identified Barriers

- Resource Constraints
- Fear of Competition
- Intellectual Property Rights (IPR)
- Fear of losing monopoly
- Fear of misuse of information
- Fear of being exposed
- Skeptical about benefits of WMC
- "Not Me First" syndrome



# Zoning Atlas

Promoted by  
Central Pollution Control Board in collaboration  
with State Pollution Control Boards and GTZ  
(German Technical Cooperation)  
Year 1995



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# Zoning atlas for siting of industries

Zoning is a legalized and institutionalized form of land use management.

## Objectives

- To zone and classify the environment of a place
- To identify locations for siting of industries and
- To identify industries suitable to the identified sites.



# Types of Maps

- Maps describing the characteristics of a place
- Air pollution related maps
- Surface water related maps
- Groundwater (GW) related maps
- Maps depicting Unsuitable zones
- Maps of Alternate sites/zones



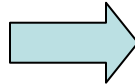
# Activities involved in preparing a Zoning Atlas

- Use of GIS software
- Collection of data, maps and information from secondary sources
- Preparation of base maps and various theme maps
- Survey of the district and monitoring of air, surface water and groundwater;
- Discussion with various government officials;
- Digitization of the maps;
- Presentation of the draft report and maps in front of state and district authorities;
- Preparation of the draft report;
- Review of the report, maps and recommendations by CPCB and
- Preparation of the final report.



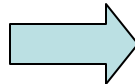
# A Tool for Decision Making

**THE GOVERNMENT**



Can develop policies and plan sustainable industrial development

**INDUSTRIALISTS**



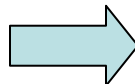
Both environmental and economic considerations can identify the most suitable industrial site

**REGULATORY AUTHORITIES**



Can plan better pollution control and monitoring programmes and speed up the sanctioning of industries

**THE PUBLIC**



Can participate in the decision making process on the type of industrial development in their neighborhood.



# Benefits of Zoning Atlas

- Helps achieve sustainable development
- Streamlining the decision-making process
- Provides a ready - reckoner for best suitable site and relevant environmental information
- Helps check additional pollution in the areas already over-stressed with pollution
- Ensures that pollution potential of an industry is made compatible with the local conditions of the site
- Helps in increasing awareness of the public on type of industries and nature of pollution anticipated in their neighborhood well in advance



# Limitations of Zoning Atlas

- Micro level details not considered due to scale
- Based on assumptions & available information
- Only environmental factors considered while zoning
- No authenticity of the boundaries of a particular region
- Provides only guidelines for establishment of industries
- Time consuming and costly exercise

